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The Environmental Assessment and Management (TEAM) Guide: New Hampshire Supplement

Carolyn O'Rourke and Patricia A. Kemme

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The Environmental Assessment and Management (TEAM) Guide: New Hampshire Supplement

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Abstract: Environmental assessments help determine compliance with current environmental regulations. The U.S. Air Force, U.S. Army, Defense Logistics Agency (DLA), and Corps of Engineers (Civil Works) have adopted environmental compliance programs that identify compliance problems before they are cited as violations by the U.S. Environmental Protection Agency.

Since 1984, the U.S. Army Construction Engineering Research Laboratory, in cooperation with numerous Department of Defense (DOD) components, has developed environmental compliance assessment checklist manuals. The Environmental Assessment and Management (TEAM) Guide was developed for use by all DOD components. Currently there are five participating DOD components: the Air Force, Air National Guard, Army, Civil Works, and DLA. These agencies have agreed to share the development and maintenance of this Guide.

The Guide combines Code of Federal Regulations and management practices into a series of checklists that show legal requirements and the specific operations or items to review. TEAM Guide is supplemented by DOD component-specific manuals detailing DOD component regulations and policies. The New Hampshire Supplement was developed to be used in conjunction with the TEAM Guide, using existing New Hampshire state environmental legislation and regulations as well as suggested management practices.

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FOREWORD

This is Special Report ERDC/CERL SR-06-4. The report is based on the information available on Enflex Federal and State Regulations as of March 2010.

The research was performed for AEC MIPR 0010005589, technical monitor Mark DItmore; ANG MIPR F9WFEV0028G001, technical monitor is Chuck Smith; AGB W45XMA00130245, technical monitor is Phil Dao; Army Reserve MIPR10CODCD201, technical monitor is Roc Tschirhart; Commerce MIPR 1301-09-SA00110, technical monitor is Greg Falzetta; USACE Fund account 96x3123, technical monitor is John Coho; DHS IAG HSHQDC-08-X-00456, technical monitor is Peter Wixted; DLA MIPR SP1001090, technical monitor is Pam Hillis; USPS MOA-05-CERL-01, technical monitor is Sharon Marsh; and, State Department IAG F3NF369350G002, technical monitor is Janice Smith.

The research was performed by the Business Processes Branch (CN-B), Installations Division (CN), of the U.S. Army Construction Engineering Research Laboratory (CERL). The CERL Principal Investigator is Carolyn O'Rourke. The CERL Researcher is Patricia Kemme. Ms. Michelle Hanson is Branch Chief, CN-B, and Mr. John Bandy is Division Chief, CN. Dr. Ilker Adiguzel is Director of CERL.

CERL is an element of the U.S. Army Engineer Research and Development Center (ERDC), U.S. Army Corps of Engineers. The Director of ERDC is Dr. James R. Houston, and the Commander is COL Gary Johnson.

NOTICE

This manual is intended as general guidance for personnel at Federal facilities. It is not, nor is it intended to be, a complete treatise on environmental laws and regulations. Neither the U.S. Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information contained herein. For any specific questions about, or interpretations of, the legal references herein, consult appropriate legal counsel.

Comment Form

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SECTION 1

AIR EMISSIONS MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Air Emissions Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Abatement* - either to reduce in amount and intensity, or to cease (New Hampshire Code of Administrative Rules (NHCAR) Env-A 101).

- *Acid Rain Affected Source* - a source that includes one or more acid rain affected units (NHCAR Env-A 101).

- *Acid Rain Compliance Option* - one of the methods of compliance used by an acid rain affected unit as described in a compliance plan submitted and approved in accordance with Env-A 406 Acid Deposition Program or Title IV Acid Deposition Control of the Act (NHCAR Env-A 101).

- *Acid Rain Permit* - the portion of a Title V operating permit, including any permit revisions, which specified to the owner, operator or designated representative of the acid rain affected source or the acid rain affected unit, the requirements applicable to such affected source or to each such affected unit at such an affected source, pursuant to Env-A 406 Acid Deposition Program or Title IV Acid Deposition Control of the Act (NHCAR Env-A 101).

- *Activity* - an endeavor initiated by or carried out by any person (NHCAR Env-A 101).

- *Actual VOC Emissions* - the total nonexempt VOCs actually emitted by a source, process or device in a specified time period (NHCAR Env-A 1204.03).

- *Actual VOC Emission Rate* - the mass of non exempt VOCs actually emitted by a source, process or device per unit throughput, where said throughput is usually stated in terms of either solvent usage or other quantifiable production variable (NHCAR Env-A 1204.03).

- *Add-On Control* - a device or process used to collect, remove, convert or destroy gaseous NO_x pollutants resulting from the combustion of fuel or waste before these pollutants are released into the ambient air (NHCAR Env-A 1211.02) [Revised March 2009].

- *Add-On Controls* - equipment or techniques, such as incineration, which is used to collect, remove, and/or destroy organic vapors from a gas stream before the vapors are released into the ambient air (NHCAR Env-A 1204.03).

- *Adhesion Promoter* - a coating applied to a plastic substrate to facilitate the adhesion of subsequent coatings (NHCAR Env-A 1204.03) [Added March 2004].

- *Administrative Permit Amendment* - the following (NHCAR Env-A 101):
    1. a permit revision that:
        a. correct typographical errors
        b. identifies a change in the name, address or phone number of any person identified in the permit, or provides a similar minor administrative change at the source
        c. requires more frequent monitoring or reporting by the permittee

d. allows for a change in ownership or operational control of a source where the permitting authority determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the permitting authority"

2. a permit change made in either an initial temporary permit or an extended temporary permit which meets the requirements of 40 CFR Sections 70.6, 70.7, and 70.8.

- *Administrator* - either of the following depending on the purpose for its use (NHCAR Env-A 101) [Revised April 1998]:
  1. For the purpose of Env-A 3300 and references to 40 CFR 60 therein, " administrator" means the commissioner or administrator of the United States Environmental Protection Agency or his authorized representative.
  2. For the purpose of all other chapters within Env-A, "administrator" means the administrator of the United States Environmental Protection Agency.

- *Adverse Environmental Effect* - any significant and widespread adverse effect, which may reasonably be anticipated to wildlife, aquatic life or other natural resources including adverse impacts on populations of endangered or threatened species or significant degradations of environmental quality over broad areas (NHCAR Env-A 101).

- *Aerosols* - a system of particles suspended in gas that upon collection tend to coalesce and create uniform homogenous films upon the surfaces of the collecting media (NHCAR Env-A 101).

- *Affected Source* - any stationary source, the construction, installation, operation, and modification of which is subject to Title V, Clean Air Act, 42 U.S.C. 7401 et. seq., as amended (NHCAR Env-A 101).

- *Affected States* - all states, including Connecticut, Main, Massachusetts, New York, Rhode Island, and Vermont, which meet at least one of the following criteria as listed in the definition of "affected states" in 40 CFR 70.2, namely "all states (NHCAR Env-A 101):
  1. whose air quality may be affected and that are contiguous to the State of New Hampshire in which a Part 70 (Title V operating) permit, permit modification or permit renewal is being proposed
  2. that are within 50 mi of the permitted source".

- *Affected Unit* – as defines in section 402 of the act, namely a unit that is subject to emission reduction requirements or limitations under this Title [Title IV] (NHCAR Env-A 101) [Revised March 2006].

- *Agricultural Waste* - vegetative agricultural materials such as nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds, and other vegetative waste materials generated as a result of agricultural operations (40 CFR 60.2875) [Added March 2003].

- *Air Contaminant* - "air contaminant" as defined in RSA 125-C:2,II, and RSA 125-I:2,I, namely "soot, cinders, ashes, dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof" (NHCAR Env-A 101) [Added April 1998].

- *Air Curtain Incinerator* - an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.) (40 CFR 60.2875) [Added March 2003].

- *Air Pollutant* - soot, cinders, ashes, any dust, fume, gas, mist (other than water), odor, toxic or radioactive material, particulate matter, or any combination thereof including aerosols (NHCAR Env-A 101).

- *Air Pollution* - as defined in RSA 125-C:2,III, namely the presence in the outdoor atmosphere of one or more contaminants or any combination thereof in sufficient quantities and of such characteristics and duration as are or are likely to be injurious to public welfare, to the health of human, plant, or animal life, or cause damage to property or create a disagreeable or unnatural odor or obscure visibility or which unreasonably interfere with the enjoyment of life and property (NHCAR Env-A 101) [Revised March 2006].

- *Air Pollution Control Equipment* - any apparatus or process used in the control of air pollution as a result of rules, or any process which controls air pollution but is not vital to normal productions operations (NHCAR Env-A 101).

- *Air Toxic* - as defined in RSA 125-I:2,II, namely " air contaminants designated by the commissioner of the department of environmental services from the organic compounds and metals listed by the United States Environmental Protection Agency in the Code of Federal Regulations, Title 40, Part 261, Subparts C and D and Table 4 of 450/5-86-O11a and subsequent updates (NHCAR Env-A 101) [Added March 2006].

- *Air Quality Control Regions* - geographical regions established by the states for purposes of developing and carrying out implementation plans for air pollution control (NHCAR Env-A 101).

- *Alcohol Substitute* - any non-alcohol additive that contains VOCs and is used in the fountain solution (NHCAR Env-A 1204.37) [Added March 2004].

- *Allowable Emissions* - the emission rate of a device or source calculated using the maximum rated capacity of the device or source, or, if applicable, federally enforceable limits which restrict the emission rate, operating rate, hours of operation, or any combination thereof, and the most stringent of the following (NHCAR Env-A 101):
  1. any applicable standard set forth in 40 CFR Part 60 [New Source Performance Standards] or 40 CFR Part 61 [National Emission Standards for Hazardous Air Pollutants]
  2. any applicable New Hampshire state implementation plan emission limitations, including a limitation with a future compliance date
  3. any emission rate specified as a condition of a federally enforceable permit issued by the Division or EPA, including those with a future compliance date, or a federally enforceable emissions reductions credit certificate issued pursuant to an EPA-approved economic incentive program ("EIP").

- *Allowance* - an authorization by EPA to emit up to one ton of SO_2 during or after a specified calendar yr pursuant to the Title IV Acid Deposition Control of the Act, or the regulations promulgated thereunder (NHCAR Env-A 101).

- *Alternative Control Technology (ACT)* - a technology identified by the EPA for stationary sources emitting more than 25 tons/yr of VOCs or NO_x (NHCAR Env-A 101).

- *Ambient Air* - the unconfined atmosphere that envelopes the earth (NHCAR Env-A 101).

- *Ambient Air Limit* - as defined in RSA 125-I:2, IV, namely "the standard designated pursuant to RSA 125-I:4 that establishes the maximum allowable concentration of emissions of a specific regulated toxic air pollutant at or beyond the compliance boundary (NHCAR Env-A 101) [Added March 2006].

- *Ambient Air Quality Standard* - any standard that establishes the maximum allowable concentration of a specific pollutant in the ambient air of a region or subregion as established by the Commissioner or administrator (NHCAR Env-A 101).

- *Amendment* - a revision in the written contents of a permit, including but not limited to changes in emission limitations, applicable requirements, and operational characteristics. This term includes "administrative permit amendment", "minor permit amendment", and "significant permit amendment" (NHCAR Env-A 101).

- *Annual* - a time period from January 1 of a calendar year through December 31 of the same year (NHCAR Env-A 101) [Added March 2006].

- *Annual Emissions* - as defined by RSA 125-D:2, namely "the sulfur dioxide emissions from a major source in tons during any calendar year" (NHCAR Env-A 101) [Added April 1998; Revised March 2003].

- *Appliance* - any device containing and using Class I or Class II substances as listed in Section 602 Listing of Class I and Class II Substances of the Act (NHCAR Env-A 101).

- *Applicable Requirement* - all of the following as they apply to emissions units in a Part 70 [Title V] source (including requirements that have been promulgated or approved by EPA through rulemaking at the time of issuance [of the permit] but have future-effective compliance dates) (NHCAR Env-A 101):
  1. any standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA for New Hampshire through rulemaking under Title I [Programs and Activities] of the Act that implements the relevant requirements of the Act, including any revisions to that plan promulgated in Part 52 of this Chapter
  2. any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under Title I [Programs and Activities], including Parts C [Prevention of Significant Deterioration] or D [Plan Requirements for Nonattainment Areas], of the Act
  3. any standard or other requirement under Section 111 [New Source Performance Standards] of the Act, including Section 111(d)
  4. any standard or other requirement under Section 112 [Hazardous Air Pollutants] of the Act, including any requirement concerning accident prevention under Section 112(r)(7) of the Act
  5. any standard or other requirement of the acid rain program under Title IV [Acid Deposition Control] of the Act, or the regulations promulgated thereunder
  6. any requirements established pursuant to Section 504(b) [Monitoring and Analysis] or Section 114(a)(3) [Inspections, Monitoring and Entry] of the Act
  7. any standard or other requirement governing solid waste incineration, under Section 129 [Solid Waste Combustion] of the Act
  8. any standard or other requirement for consumer and commercial products, under Section 183(e) [Control of Emissions from Certain Sources] of the Act
  9. any standard or other requirement for tank vessels under Section 183(f) [Tank Vessel Standards] of the Act
  10. any standard or other requirement of the program to control air pollution from outer continental shelf sources, under Section 328 [Air Pollution from Outer Continental Shelf Activities] of the Act
  11. any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI [Stratospheric Ozone Protection] of the Act, unless the administrator has determined that such requirements need not be contained in a Title V [operating] permit
  12. any national ambient air quality standard or increment or visibility requirement under Part C [Prevention of Significant Deterioration] of Title I of the Act, but only as it would apply to temporary sources permitted pursuant to Section 504(e) [Permit Requirements and Condition for Temporary Sources] of the Act.

- *Applicant* - a person who requests a permit or other form of license (NHCAR Env-A 101).

- *Application Area* - the area within a facility where the coating is applied by spraying, dipping or flowcoating techniques (NHCAR Env-A 1204.12).

- *Area Source* - a two-dimensional, horizontal source from which air emissions are being released at a relatively uniform rate from every part of its surface (NHCAR Env-A 101).

- *Arithmetic Mean* - the sum of N (number) factors divided by N (NHCAR Env-A 101).

- *As Applied* - the VOC and solids content, including any diluent solvents, of the material that is actually used for coating the substrate (NHCAR Env-A 1204.03) [Added March 2004].

- *Asphalt* - a dark-brown to black cementitious solid, semisolid, or liquid, which is predominately comprised of various mixtures of hydrocarbons, including bitumens, crude petroleum, or tars, which occur naturally or which are obtained as residues from refining petroleum (NHCAR Env-A 1204.03) [Added March 2004].

- *Asphalt Cement* - asphalt that is refined to meet specifications for paving and industrial purposes (NHCAR Env-A 1204.03) [Added March 2004].

- *ASTM* - the American Society for Testing and Materials (NHCAR Env-A 101).

- *Automotive* - that which pertains to roadway vehicles with enclosed driver/passenger compartments, including automobiles, trucks, buses, vans, and limousines (NHCAR Env-A 1204.03) [Added March 2004].

- *Auxiliary Fuel* - natural gas, liquified petroleum gas, fuel oil, or diesel fuel (40 CFR 60.2875) [Added March 2003].

- *Auxiliary Fuel* - fuel, other than waste materials, used in an incinerator or resource recovery facility to attain temperatures sufficiently high enough to dry and ignite waste materials, to maintain ignition, or to drive the complete combustion of combustible solids, vapors and/or gaseous substances (NHCAR Env-A 1211.02) [Revised March 2009].

- *Average Annual Emissions* - "average annual emissions" as defined by RSA 125-D:2, namely "the total sulfur dioxide emissions in tons per calendar yr averaged over any consecutive four yr period from a specified group of sources" (NHCAR Env-A 101) [Revised April 1998].

- *Average Emission Rate* - "average emission rate" as defined by RSA 125-D:2 namely "the weighted average on a BTU input basis of the emission rates of a major source, all major sources under a single ownership, or some other specified group of major sources during any calendar year" (NHCAR Env-A 101) [Citation Revised April 1998; Citation Revised March 2008].

- *Bag Leak Detection System* - an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings (40 CFR 60.2875) [Added March 2003].

- *Basecoat* - a coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials and is usually topcoated for protection (NHCAR Env-A 1204.03) [Added March 2004].

- *Baseline Average Emission Rate* - baseline average emission rate as defined by RSA 125-D:2, namely the weighted average on a Btu input basis of the emission rates of a specified group of major sources over the period 1979 through 1982 (NHCAR Env-A 101) [Citation Revised April 1998].

- *Baseline Emissions* - baseline emissions as defined by RSA 125-D:2, namely the total SO_2 emissions in tons per calendar yr averaged over the period 1979 through 1982 from all major sources (NHCAR Env-A 101) [Citation Revised April 1998].

- *Best Available Control Technology (BACT)* - an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under Act which would be emitted from any proposed major stationary source or major modification which the administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60

and 61. If the administrator determines that technological or economic limitations on the application of measurement methodology to a particular emission unit would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results (NHCAR Env-A 101).

- *Blanket* - the intermediary surface referred to in the definition of offset lithography in Env-A 1204.03(NHCAR Env-A 1204.37) [Added March 2004].

- *Blended Fuel* - any fuel containing a mixture of 2 or more fuels which, as combined, does not exceed the applicable pollutant content specified in Env-A 1600 (NHCAR Env-A101) [Added March 2006].

- *British Thermal Unit (Btu)* - the quantity of heat required to raise the temperature of 1 lb of water at or near 39.2 degrees F by 1 degree F. A Btu equals 251.98 calories (NHCAR Env-A 101).

- *Brush* - tree tops, limbs, saplings, and tree cuttings, including attached leaves, which are 5 inches in diameter or less (NHCAR Env-A 1001.03) [Added March 2009].

- *Bubble* - a technique of aggregating certain emissions so as to impose controls that are more stringent than RACT-level on certain emitting units at a particular source, while simultaneously imposing controls that are less stringent than RACT-level on other emitting units, including the option of no controls on such units (NHCAR Env-A 1204.03).

- *Bubble Concept* - an activity in which two or more sources, processes or process equipment exchange increases of emissions for compensating reductions of emissions, resulting in equivalent or reduced emissions as compared to the emissions that would result if the applicable emission standards or limits were applied separately to each source, process or process equipment (NHCAR Env-A 101).

- *Calendar Quarter* - three consecutive months (nonoverlapping) beginning on: January 1, April 1, July 1, or October 1 (40 CFR 60.2875) [Added March 2003].

- *Calendar Year* - 365 consecutive days starting on January 1 and ending on December 31 (40 CFR 60.2875) [Added March 2003].

- *Calorie* - the quantity of heat required to raise the temperature of 1 g of water at or near 4 degrees C by 1 degree C (NHCAR Env-A 101).

- *Campfire Wood* - any section of a tree trunk, limb, or branch cut or split specifically for use in a campfire (NHCAR Env-A 1001.03) [Added March 2009].

- *Capture and Control System* - a system to capture and convey VOC emissions released from VOC-emitting devices to add-on control equipment that destroys, recovers, or otherwise removes VOC, to permanently reduce the emission of VOC to the air (NHCAR Env-A 1204.03).

- *Carbon Monoxide (CO)* - a colorless, odorless, toxic gas which is produced by incomplete burning of carbon containing substances (NHCAR Env-A 101).

- *Cement, Ready Mix Concrete, and Cement Block Source* - any source engaged in the manufacturing or handling of bulk cement, ready mix cement, or cement blocks (NHCAR Env-A 101).

- *Certificate of Representation* - as used in the definition of "designated representative" in this Part, means the completed and signed submission required pursuant to Title IV Acid Deposition Control of the Act and which certifies the appointment of a designated representative authorized to represent the owner or operator of an acid

rain affected source or an acid rain affected unit with regard to the requirements of Title IV Acid Deposition Control (NHCAR Env-A 101).

- *Chemical Abstract Service (CAS)* - the service of the American Chemical Society that is used to identify all existing chemicals through the use of unique numbers (NHCAR Env-A 101).

- *Chemotherapeutic Waste* - waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells (40 CFR 60.2875) [Added March 2003].

- *Class A Major Source* - a major source with a maximum total heat input capacity of 1000 MMBTU per h or more (NHCAR Env-A 101) [Added April 1998].

- *Class B Major Source* - a major source with a maximum total heat input capacity of less than 1000 MMBTU per h (NHCAR Env-A 101) [Added April 1998].

- *Classifiable Process or Device* - any process or device that emits NO_x and is included in one of the categories listed in Env-A 1211.01(b) through (l), but is not subject to the requirements of Env-A 1211.03 through 1211.12 because such process or device falls below the applicability threshold (NHCAR Env-A 1211.02) [Revised March 2003).

- *Clean Air Act* - the Clean Air Act, as amended, 42 U.S.C. 7401, et. seq. (NHCAR Env-A 101).

- *Clean Lumber* - wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote (40 CFR 60.2875) [Added March 2003].

- *Cleaning of Fires* - the adjusting of a combustion process to improve and optimize operation of the device. This includes the adjustment of the flame using visual and process information (NHCAR Env-A 101) [Added April 1998].

- *Cleaning Solution* - any liquid used to remove ink and debris from the surfaces of the printing press and its parts (NHCAR Env-A 1204.37) [Added March 2004].

- *Cleaning Solvent* - those volatile organic compounds used in the liquid or vapor form for the removal of soils from fibrous, nonfibrous, woven, nonwoven, metallic, and nonmetallic articles, materials or surfaces (NHCAR Env-A 101).

- *Clear Coat* - a coating that is transparent, and uses the surface to which it is applied as a reflectant base or undertone color (NHCAR Env-A 1204.03) [Revised March 2004].

- *Coal* - all solid fuels classified an anthracite, bituminous, lignite, or subbituminous according to the ASTM Standard Specification for Classification of Coals by Rank, ASTM D 388-77, coal refuse, and petroleum coke. The term includes coal-derived synthetic fuels, including but not limited to, solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures (NHCAR Env-A 1211.02) [Revised March 2009].

- *Coating* - a protective, decorative or functional film applied in a thin layer to a surface or impregnated into a substrate. This term includes but is not limited to paints, varnishes, sealants, adhesives, inks, maskants, and temporary protective coatings such as lacquers or enamels and films applied to paper, plastics or foil (NHCAR Env-A 1204.03).

- *Coating Line* - a series of one or more apparatus or operations which include a coating applicator, any associated drying area, flashoff area or oven wherein a surface coating is applied, dried or cured (NHCAR Env-A 1204.03) [Revised March 2004].

- *Cogeneration Facility* - a facility that generates steam for the purpose of supplying heat or energy to a manufacturing process in the host facility, and power for sale to an electric utility (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *COH* - the coefficient of haze (NHCAR Env-A 101).

- *Coke* - a fused, cellular, porous structure that remains after free moisture and the major portion of the volatile materials have been distilled from bituminous coal and other carbonaceous material by the application of heat in the absence of air or in the presence of a limited supply of air (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Cold Cleaning* - the batch process of degreasing metal surfaces by spraying, brushing, flushing or immersion in a cold VOL solvent. Wipe cleaning is not included in this definition (NHCAR Env-A 1204.03).

- *Cold VOL Solvent* - a VOL solvent maintained below its boiling point during use in solvent metal cleaning (NHCAR Env-A 1204.03).

- *Color Coat* - a coating that is pigmented to impart a desired color to a product (NHCAR Env-A 1204.03) [Added March 2004].

- *Combined Cycle Combustion Turbine* - any stationary gas or oil-fired turbine which recovers heat from the turbine exhaust gases to heat water or generate steam (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Combustible Domestic Waste* - combustible waste such as, but not limited to, household trash, packaging materials, plastics, coated or laminated papers, rubber, painted wood, coated or treated cardboard, oily rags, and animal, vegetable and kitchen waste. The term does not include untreated wood, leaves, brush, or paper products generated at a residence (NHCAR Env-A 1001.03) [Added March 2009].

- *Combustion Device* - any device, including incinerators, boilers, turbines and engines, as well as asphalt plant dryers and miscellaneous combustion sources, that discharge air pollutants into the ambient air as a result of a combustion process (NHCAR Env-A101) [Added March 2006].

- *Combustion Products* - the particulate and gaseous pollutants created by the oxidation or burning of any material (NHCAR Env-A 101).

- *Commenced* - that the owner or operator has obtained all necessary preconstruction approvals or permits required by Federal, state, or local air pollution emissions and air quality laws or regulations and either has:
  1. begun, or caused to begin, a continuous program of physical onsite construction of the facility
  2. entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed within a reasonable time (NHCAR Env-A 101).

- *Commercial and Industrial Waste* - solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility (40 CFR 60.2875) [Added March 2003].

- *Commercial and Industrial Solid Waste Incineration (CISWI) Unit* - any combustion device that combusts commercial and industrial waste, as defined in this subpart. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel feed system, grate system, flue gas system, and bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas: (40 CFR 60.2875) [Added March 2003].

1. The combustion unit flue gas system, which ends immediately after the last combustion chamber.
2. The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

- *Commercial Fuel* - solid, liquid, or gaseous fuel normally produced or manufactured, and sold for the purpose of creating useful heat or mechanical energy (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Commissioner* - the Commissioner of the state of New Hampshire Department of Environmental Services (NHCAR Env-A 101).

- *Compliant Coating* - a coating material that meets the applicable VOC RACT emission rate standard in Env-A 1204.09 through Env-A 1204.17 (NHCAR Env-A 1204.03).

- *Condensate* - any VOL, separated from the gas or vapor phase that condenses due to changes in temperature and/or pressure and remains liquid at standard conditions (NHCAR Env-A 1204.03).

- *Conforming Fuel* - any fuel having a pollutant content limit which is less than or equal to the applicable pollutant content limit for that particular fuel (NHCAR Env-A 101) [Added April 1998].

- *Consignment* - a shipment of liquid fuel 420,000 gallons and larger or a shipment of coal 8,000 tons and larger (NHCAR Env-A101) [Added March 2006].

- *Construction* - as defined in section 402 of the Act, namely "fabrication, erection, or installation of an affected unit." In addition, pursuant to section 169(2)(C), "when used in connection with any source or facility [The definition of the term], includes the modification (as defined in section 111(a) [of the Act]) of any source or facility." (NHCAR Env-A 101) [Revised March 2006].

- *Construction and Demolition Debris* - non-putrescible waste building materials and rubble which is solid waste resulting from the construction, remodeling, repair or demolition of structures or roads. The term includes, but is not limited to, bricks, concrete and other masonry materials, wood, wall coverings, plaster, dry wall, plumbing, fixtures, non-asbestos insulation or roofing shingles, asphaltic pavement, glass, plastics that are not sealed in a manner that conceals other wastes, and electrical wiring and components, incidental to any of the above and containing no hazardous liquid or metals. The term does not include asbestos waste, garbage, corrugated container board, electrical fixtures containing hazardous liquids such as fluorescent light ballasts or transformers, furniture, appliances, tires, drums and containers, and fuel tanks (NHCAR Env-A 1001.03) [Added March 2009].

- *Contained Gaseous Material* - gases that are in a container when that container is combusted (40 CFR 60.2875) [Added March 2003].

- *Continuous Emission Monitoring System (CEMS)* - the equipment as required by Section 412 [Monitoring, Reporting, and Recordkeeping], used to sample, analyze, measure, and provide on a continuous basis a permanent record of emissions and flow (expressed in lb per million British thermal unit, lb per h) or such other form as the administrator may prescribe by regulations under Section 412) (NHCAR Env-A 101).

- *Control* - the application of equipment or methods designed to achieve the reductions of emissions necessary for attainment and maintenance of ambient air quality standards (NHCAR Env-A 101).

- *Control Technique Guideline (CTG)* - a technology assessment prepared and published by the administrator under Section 108 [of the Act] which is used as guidance for advising states of controls to be required to establish BACT in nonattainment areas (NHCAR Env-A 101).

- *Conventional Air Spray* - a spray coating method in which the coating is atomized by mixing it with compressed air at an air pressure greater than 10 lb/psi gauge at the point of atomization (NHCAR Env-A 1204.03).

- *Conveyorized Degreasing* - the continuous process of cleaning and removing soils and/or grease from metal surfaces by operating a conveyor system with either cold or vaporized VOL solvents (NHCAR Env-A 1204.03).

- *Crude Oil* -crude oil as defined in ASTM D 4175-92, namely "a naturally occurring hydrocarbon mixture, generally in liquid state, which may also include compounds of sulfur, nitrogen, oxygen, metals, and other elements (NHCAR Env-A101) [Added March 2006].

- *Cyclonic Barrel Burner* - a combustion device for waste materials that is attached to a 55 gallon, open-head drum. The device consists of a lid, which fits onto and encloses the drum, and a blower that forces combustion air into the drum in a cyclonic manner to enhance the mixing of waste material and air (40 CFR 60.2875) [Added March 2003].

- *Cyclone Firing* - a fuel-firing process using one or more horizontal cylinders to burn fuel under conditions of high rates of heat release, low rates of heat absorption by the cylinder walls, with centrifugal action imparted to the fuel particles by air entering the cylinder. The combustion gases exiting from the cylinders turn 90 degrees to go up through the boiler. The horizontal cylinders are attached to the bottom of the furnace with one or more of the cylinders arranged on one furnace wall or on 2 opposed furnace walls (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Dampening System* - equipment used to deliver the fountain solution to the lithographic plate (NHCAR Env-A 1204.37) [Added March 2004].

- *Deem Complete* - to find that an application contains the information and application forms required by the Division in order to be reviewed as an application for a particular permit. It does not mean that the information so provided is correct, relevant, or entire, or that the Director will not require additional information in order to make a final determination as to the issuance of said permit (NHCAR Env-A 101).

- *De Minimis Emission Level* - an uncontrolled emission rate that is in compliance with an associated ambient air limit (NHCAR Env-A 101) [Added March 2006].

- *Demolition* - the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operation or the intentional burning of any facility (NHCAR Env-A101) [Added March 2006].

- *Designated Representative* - any of the following (NHCAR Env-A 101):
  1. "responsible individual" as defined in this Part
  2. "designated representative" as defined in Section 402(26) of the Act, namely "a responsible person or official authorized by the owner or operator of a unit to represent the owner or operator in matters pertaining to the holding, transfer, or disposition of allowances allocated to a unit, and the submission of and compliance with permits, permit applications, and compliance plans for the unit"
  3. in matters pertaining to the requirements of Title IV Acid Deposition Control, a person who is authorized by the owner or operator of an acid rain affected source, or all acid rain affected units at such an affected source, as those terms are defined by Federal law, as evidenced by a certificate of representation, to represent or legally bind the owner or operator in matters of Federal law, including but not limited to the following:
     a. the holding, transfer or disposition of allowances allocated to an acid rain affected unit
     b. the submission of, or compliance with permits, permit applications, compliance plans, emission monitoring plans, continuous emissions monitor (CEM) and continuous opacity monitor (COM) certification notifications CEM and COM certification and applications, quarterly monitoring and emission reports, and annual compliance certifications.

- *Deviation* - any instance in which an affected source subject to this subpart, or an owner or operator of such a source: (40 CFR 60.2875) [Added March 2003].

1. Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation, operating limit, or operator qualification and accessibility requirements;
2. Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
3. Fails to meet any emission limitation, operating limit, or operator qualification and accessibility requirement in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

- *Device* - (NHCAR Env-A 101) [Revised April 1998]:
  1. "device which contributes to air pollution" as defined in RSA 125-C:2,VI, namely "any burner, furnace, machine, equipment or article, which in the opinion of the Director of the Division of Air Resources contributes or may contribute to the pollution of the air," or
  2. "device" as defined in RSA 125-I:2,IX, namely "any burner, furnace, machine, equipment, or article which emits a regulated toxic air pollutant or air contaminant into the ambient air."

- *Diesel Engine* - any engine using diesel oil as a fuel and having a compression ignition (NHCAR Env-A 101).

- *Director* - the Director of the state of New Hampshire Department of Environmental Services, Air Resources Division (NHCAR Env-A 101).

- *Discard* - for purposes of this subpart and 40 CFR part 60, subpart DDDD, only, burned in an incineration unit without energy recovery (40 CFR 60.2875) [Added March 2003].

- *Division* - the Air Resources Division of the state of New Hampshire Department of Environmental Services (NHCAR Env-A 101).

- *Dioxins/furans* - tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans. (40 CFR 60.2875) [Added March 2003].

- *Draft Permit* - the version of a Title V operating permit available for purposes of public notice and affected state review (NHCAR Env-A 101).

- *Drum Reclamation Unit* - a unit that burns residues out of drums (e.g., 55 gallon drums) so that the drums can be reused (40 CFR 60.2875) [Added March 2003].

- *Dry Bottom* - the boiler has a furnace bottom temperature below the ash melting point, and the bottom ash is removed as a solid (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Effects Factor* - a multiplier used to adjust particulate matter emission standards based on the relative toxicity of an element or compound (NHCAR Env-A 101) [Revised April 1998].

- *Electrostatic Prep Coating* - a coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a prime coating, a topcoat, or other coating by a spray that uses electrically charged particles, and which is clearly identified as an electrostatic prep coat on its accompanying material safety data sheet (NHCAR Env-A 1204.03) [Added March 2004].

- *Emergency Motor Vehicle* - any motor vehicle used by personnel of a fire, police, ambulance, or other emergency response unit, or public utility emergency response unit, in the performance or maintenance of their duties to protect public health, safety and welfare. This term includes the following types of motor vehicles (NHCAR Env-A101) [Added March 2006]:
  1. Those under government control for the removal of snow;
  2. Those used for towing or servicing of other emergency motor vehicles; and
  3. Those used to respond to threats to public health, safety and welfare.

- *Emission* - a release of an air pollutant into the ambient air. As used in this definition, "air pollutants" are "air contaminants", and "ambient air" is "outdoor atmosphere", as those terms are used in the definition of "emission" pursuant to RSA 125-C:2,VIII (NHCAR Env-A 101).

- *Emission Allowable Under the Permit* - a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject (NHCAR Env-A 101).

- *Emission Inventory* - the source, process and process equipment inventory and emission reports required to be submitted annually to the Department for all sources of an air contaminant and, the source, process and emission data for stationary, area, and mobile sources upon which the Department evaluates air quality and prepares and periodically updates the state implementation plan (NHCAR Env-A 101).

- *Emission Limitation* - a requirement established by the state or the administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment work practice or operational standard promulgated under this Act. This term includes "emission standard" (NHCAR Env-A 101).

- *Emission Unit* - an individual piece of equipment from which any air pollutant is emitted to the ambient air, e.g., an individual boiler (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Emissions Unit* - any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Section 112(b) of the Act. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the Act (NHCAR Env-A 101).

- *Emulsified Asphalt* - an emulsion of asphalt cement and water which contains a small amount of an emulsifying agent, forming a heterogeneous, or normally immiscible, system in which the water forms the continuous phase of the emulsion, and minute globules of asphalt form the discontinuous phase (NHCAR Env-A 1204.03) [Added March 2004].

- *Energy Recovery* - the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating (40 CFR 60.2875) [Added March 2003].

- *EPA* - the United States Environmental Protection Agency (NHCAR Env-A 101).

- *Equivalent Substitute Control Technique* - a substitute control technique that results in VOC emission reductions or, for an associated test method, a level of accuracy equal to or greater than that achieved by the specified control techniques for the applicable VOC category (NHCAR Env-A 1204.03).

- *Excess Emissions* - an air emission rate which exceeds any applicable emission limitation (NHCAR Env-A101) [Added March 2006].

- *Exhaust and Ventilation System* - any system which removes and transports particulate matter, fumes, or any gaseous or gasborne products from their point of generation to the ambient air (NHCAR Env-A 101).

- *Exhaust Emission* - air pollutants emitted to the ambient air from any opening, downstream from the exhaust manifold of a motor vehicle engine (NHCAR Env-A 101).

- *Existing Large Municipal Waste Combustion Unit or Large MWC Unit* - a municipal waste combustor with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994(NOTE: the definitions in 40 CFR 60.51b shall apply to existing large MWC units) (NHCAR Env-A 3302.02) [Added March 2003; Citation Revised March 2009].

- *Existing Small Municipal Waste Combustion Unit or Small MWC Unit* - a municipal waste combustion unit with a combustion capacity of at least 35 tons per day of municipal solid waste but no more than 250 tons per day of municipal solid waste for which construction was commenced on or before August 30, 1999(NOTE: The definitions in 40 CFR 60.1940 shall apply to existing small MWC units.) (NHCAR Env-A 3302.02) [Added March 2003; Citation Revised March 2009].

- *Existing Source* - any stationary source other than a new source (NHCAR Env-A 101).

- *Expeditiously As Practicable* - the minimum amount of time granted to a source for the purposes of attaining compliance, as computed by the Division by considering the amount of time estimated for the source to undertake the requested or ordered engineering, design, ordering, contracting, installation, or startup of control equipment or process changes, for the source's special individual problems such as with the location and operation of such equipment or changes, and for the source's economic hardship issues (NHCAR Env-A 101).

- *Fabric Coating* - the coating of a textile substrate including, but not limited to, application by impregnation or saturation by the use of a knife, roll or rotogravure coater to impart properties that are not initially present, such as strength, stability, water or acid repellency, or appearance, The definition of fabric coating does not include fabric printing (NHCAR Env-A 1204.03) [Revised March 20004].

- *Fabric Filter* - an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse (40 CFR 60.2875) [Added March 2003].

- *Face Firing* - a furnace firing design in which the burners are mounted in an array on one or more vertical walls, including (NHCAR Env-A 1211.02) [Citation Revised March 2009]:
  1. opposed firing, where the burners are mounted on 2 opposite walls
  2. single-wall firing, where the burners are mounted on only one wall.

- *Facility* - either of the following depending on the purpose for its use (NHCAR Env-A 101) [Revised April 1998]:
  1. For the purpose of RSA 141-E, "facility" means any institutional, commercial, public, or private building or structure, work place or rental dwelling.
  2. For the purpose of RSA 125-I and RSA 125-C, "facility" means a stationary source.

- *Facility Operating Hour* - 45 min of facility operation during a calendar h (NHCAR Env-A 805.01).

- *Facility Operation* - one of the following (NHCAR Env-A 805.01):
  1. for steam generating unit facilities which are required by Part Env-A 805 to have a CEM installed, a time period during which any fuel is being combusted in the device
  2. for process manufacturing facilities, which are required by Part Env-A 805 to have a CEM installed, a time period during which any material is being processed through the manufacturing unit which contributes to the emissions monitored by the CEM system
  3. an alternative time period to items Env-A 805.01(1) and Env-A 805.01(2) provided that a facility submits technical justification to the Division showing that the proposed alternative facility operation time period includes all periods of significant air emissions and the Division accepts the justification.

- *Federally-Enforceable Document* - applies to the following (NHCAR Env-A 1204.03):
  1. a federally-approved Division rule as defined in 40 CFR 51
  2. a permit, license, or order issued by the Division pursuant to a federally-approved regulation
  3. a permit or order issued by the EPA
  4. a regulation promulgated by EPA and codified under 40 CFR 60 or 40 CFR 61.

- *Federal Fiscal Year* - the calendar yr beginning 1 October and ending 30 September (NHCAR Env-A 101).

- *Federal Implementation Plan* - a plan (or portion thereof) promulgated by the administrator to fill all or a portion of a gap or otherwise correct all or a portion of an inadequacy in a state implementation plan, and which

includes enforceable emission limitations or other control measures, means or techniques (including economic incentives, such as marketable permits or auctions of emissions allowances), and provides for attainment of the relevant national ambient air quality standard (NHCAR Env-A 101).

- *Federally Enforceable* - all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the state implementation plan, permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I including operating permits issued under an EPA approved program that is incorporated into the SIP and expressly requires adherence to any permit issued under such program (NHCAR Env-A 101).

- *Final Action* - the issuance or denial of the proposed permit by the Director (NHCAR Env-A 101).

- *Final Control Plan* - a written description of the air pollution control devices and process changes that will be used to comply with the emission limits and other requirements of this chapter (NHCAR Env-A 3302.02) [Added March 2003].

- *Final Permit* - the following (NHCAR Env-A 101.74):
  1. for the purposes of these rules, "final permit" as defined in 40 CFR 70.2, namely "the version of a Part 70 [Title V operating] permit issued by the permitting authority that has completed all review procedures required by Sections 70.7 and 70.8 of this Part"
  2. for the purposes of RSA 125-C:11,III, this term means a "state permit to operate."

- *Fire Department* - the legally constituted municipal or privately incorporated agency that provides services such as, but not limited to, fire suppression, fire prevention, rescue, hazardous materials, emergency medical care, fire investigation, and fire or building inspections in the state, county, municipality, organized fire district, or area (NHCAR Env-A 1003.03) [Added March 2004].

- *Flexographic Printing* - the application of ink in the form of characters, designs pictures or any combination thereof to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials (NHCAR Env-A 1204.03) [Revised March 2004].

- *Flue Gas* - the products of combustion that leaves a combustion device by way of a flue or stack (NHCAR Env-A 101).

- *Fly Ash* - any solid carried in the gas stream being emitted from a flue or stack (NHCAR Env-A 101).

- *Fountain Solution* - a mixture of water, volatile and non-volatile printing chemicals, and additives which maintains the quality of the printing plate and reduces the surface tension of the water so that it spreads easily across the printing surfaces (NHCAR Env-A 1204.37) [Added March 2004].

- *Freeboard Height* - (NHCAR Env-A 1204.03) [Added March 2004]
  1. For a cold cleaner, the distance from the liquid solvent level in the degreaser tank to the lip of the tank;
  2. For an open top vapor degreaser tank, the distance from the solvent vapor level in the tank during idling to the lip of the tank;
  3. For a conveyorized cold degreaser, the distance from the liquid solvent level to the bottom of the entrance or exit opening, whichever is lower; or
  4. For a conveyorized vapor degreaser, the distance from the vapor level to the bottom of the entrance or exit opening, whichever is lower.

- *Freeboard Ratio* - a ratio of the freeboard height to the smallest interior dimension, such as length or width, of a degreaser tank (NHCAR Env-A 1204.03) [Added March 2004].

- *Fuel* - any form of combustible matter such as solid, liquid, vaporous, or gaseous matter (NHCAR Env-A 101).

- *Fuel-Bound Nitrogen* - the nitrogen content, in weight fraction, of the fuel (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Fuel Burning Device* - any device engineered to burn fuel for the primary purpose of producing heat or power (NHCAR Env-A 101).

- *Fugitive Dust* - particulate matter which is uncontaminated by pollutants resulting from industrial activity including but not limited to emissions from haul roads, wind erosion of exposed surfaces and storage piles, and other removed, stored, transported, or redistributed activities (NHCAR Env-A 101) [Revised March 2004].

- *Fugitive Emissions* - emissions that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening (NHCAR Env-A 101).

- *Fumes* - very small particles resulting from chemical reactions or from the condensation of vapors produced in combustion, distillation or sublimation. The particles often are metals or metallic oxides. Their compositions may be different from those of the parent materials from which they originate (NHCAR Env-A 101).

- *Gas or Gaseous Fuel* - natural gas, or gaseous substances produced synthetically from coal or oil, or derived from the decomposition of organic matter, or derived as a byproduct of a manufacturing process, and which can be used to create useful heat and/or mechanical energy (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Gaseous Excess Emission* - applies to the following (NHCAR Env-A 805.01):
  1. an exceedance of the applicable emission limit for those gases listed in Env-A 805.01, CO, SO_2, NO_x, TRS, HCl, HC, O_2, CO_2 as measured by the CEM system and as averaged over any calendar day 24 h period
  2. an exceedance of the applicable Federal standard for those gases listed in Env-A 805.01, CO, SO_2, NO_x, TRS, HCl, HC, O_2, CO_2 as measured by the CEM system, and where the averaging time period in an applicable Federal standard is different than the 24 h averaging period
  3. an exceedance of the applicable emission limit, specified in the permit to operate issued by the Division, of the average gaseous emissions of those gases listed in Env-A 805.01, CO, SO_2, NO_x, TRS, HCl, HC, O_2, CO_2, as measured by the CEM system and as averaged over a time period that is different than the 24 h averaging period.

- *Gases* - formless fluids, which under standard conditions, occupy the space of an enclosure and which can be changed to a liquid or solid state only by the increase or decrease of pressure or temperature (NHCAR Env-A 101).

- *Gasoline* - any petroleum distillate or petroleum distillate alcohol blend having a Reid vapor pressure of 27.6 kPa (4 lb/psi) or greater that is used as a fuel for internal combustion engines (NHCAR Env-A 1204.03).

- *General Permit* - a Part 70 [Title V operating] permit that meets the requirements of 70.6(d) (NHCAR Env-A 101).

- *Geometric Mean* - the Nth (number) root of the product of N factors (NHCAR Env-A 101).

- *Grate Cleaning* - the process of performing on-line mechanical cleaning of a grate section of a boiler for the purpose of removing boiler ash and slag deposits (NHCAR Env-A 101) [Added April 1998].

- *Greenhouse Gas (GHG)* - namely but is not limited to such gases as carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, or sulfur hexafluoride (NHCAR Env-A 3803) [Added March 2002].

- *Gunstock Coating* - the surface coating of wooden components of firearms, which components are exposed to the environment and subject to functional handling by the end user (NHCAR Env-A 1204.03).

- *Hazardous Air Pollutant* - any air pollutant as listed in Section 112(b) of the Act (NHCAR Env-A 101).

- *Heat Release* - the amount of heat liberated by the complete combustion of a given unit of specific material from the inside volume of the furnace in which the combustion takes place, and expressed, as calories per second per cubic meter or British thermal units per h per cubic ft (NHCAR Env-A 101).

- *Heating Values* - the calories or Btus released by the combustion of a given unit of specific fuel or waste (NHCAR Env-A 101).

- *Heatset* - any operation where heat is required to set the printing ink (NHCAR Env-A 1204.37) [Added March 2004].

- *Heatset Dryer* - any device used in heatset web offset lithographic printing to heat the printed substrate and to promote the evaporation of ink oils (NHCAR Env-A 1204.37) [Added March 2004].

- *High Bake Coatings* - coatings with solids content of 70 percent or more by weight (NHCAR Env-A 1204.03) [Revised March 2004].

- *High Ozone Season* - the period from 1 June through 31 August of any given calendar yr (NHCAR Env-A 101.98) [Citation Revised March 2008].

- *Hot VOL Solvent* - a VOL solvent maintained above its boiling point during use in solvent metal cleaning (NHCAR Env-A 1204.03).

- *Hydrocarbons* - compounds whose molecules consist of atoms of carbon and hydrogen and which exist in the ambient air in gaseous state at standard conditions (NHCAR Env-A 101).

- *Incinerator* - a device engineered to burn or oxidize solid, semisolid, liquid, or gaseous waste for the primary purpose of volume reduction, disposal, or chemical destruction, leaving little or no combustible material. Such devices include, but are not limited to, heat recovery systems (NHCAR Env-A 101).

- *Indirect Source* - any facility, building, structure, or combination thereof, which causes or may cause mobile source activity that results in emissions of a pollutant for which there is a state and/or Federal standard, including but not limited to (NHCAR Env-A 101):
  1. highways and roads
  2. parking lots and garages
  3. shopping centers
  4. recreational centers
  5. amusement parks and sports stadiums
  6. airports
  7. municipal, commercial, industrial, or residential developments
  8. associated parking areas.

- *Interactive Source* - any stationary source, area source, or device which is: (NHCAR Env-A 101) [Added March 2006]:
  a. Located beyond the property boundaries of a source or device which is required to perform an air pollution dispersion modeling analysis; and
  b. Emits any of the same air pollutants, except for hazardous air pollutants or toxic air pollutants, as the source or device required to perform such analysis.

- *Internal Combustion Engine* - any engine in which power, produced by heat and/or pressure developed in the engine cylinders by burning a mixture of air and fuel, is subsequently converted to mechanical work by means of one or more pistons (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Issue* - to make a final conclusion or to bring about an outcome of something arrived at or to be given after approval of a requirement (NHCAR Env-A 101).

- *Knife Coating* - the application of a coating material to a substrate by means of drawing the substrate beneath a knife or other type of blade that spreads the coating evenly over the entire width of the substrate (NHCAR Env-A 1204.03).

- *Lead (Pb)* - a bluish-gray metallic chemical element (NHCAR Env-A 101).

- *Lean Burn Engine* - a stationary internal combustion engine in which the amount of O_2 in the engine exhaust gases is 1.0 percent or more, by weight, unless otherwise specified by the engine manufacturer (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Lease Custody Transfer* - the transfer of produced crude oil or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation (NHCAR Env-A 1204.03).

- *Limited At All Times* - that the VOC emissions from a source or device, as measured or calculated in accordance with the applicable methods and associated averaging times prescribed in Env-A 803, does not exceed the specified emission rate limit for the subject VOC category or subcategory during the RACT-applicable life of said source or device (NHCAR Env-A 1204.03).

- *Limited At All Times* - that the NO_x emissions of a source or device shall not exceed the prescribed NO_x emission limit over the averaging time specified in the applicable Section of this Part during the entire period of time that the source or device operates (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Lithography* - a planar printing process where the image and nonimage areas are chemically differentiated; and where the image area is oil receptive and the nonimage area is typically water receptive (NHCAR Env-A 1204.03).

- *Low Bake Coating* - a coating designed to cure at temperatures no higher than 90°C (194°F) (NHCAR Env-A 1204.03) [Added March 2004].

- *Low-level Radioactive Waste* - waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)) (40 CFR 60.2875) [Added March 2003].

- *Low-NO_x Emitting Process* - a process that results in NO_x emission reductions that constitutes NO_x RACT as approved by the Division and EPA pursuant to Env-A 1211.18 (NHCAR Env-A 1211.02) [Revised March 2009].

- *Low Solvent Coating* - coatings that contain less organic solvent than the conventional coatings used by the industry and which include waterborne, higher solids, electro deposition and powder coatings (NHCAR Env-A 1204.03) [Revised March 2004].

- *Low-VOC Emitting Process* - a process that results in VOC emission rate reductions equivalent to a RACT level add-on control system (NHCAR Env-A 1204.03).

- *Lowest Achievable Emission Rate (LAER)* - for any source, that rate of emissions which reflects one of the following (NHCAR Env-A 101):
    1. the most stringent emission limitation which is contained in the implementation plan of any states for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable

2. the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent.

- *Magnetic Wire Insulation Coating* - a coating in which an electrically insulated varnish or enamel is applied onto the surface of wire for use in electrical machinery (NHCAR Env-A 1204.03).

- *Major Source* - one of the following (NHCAR Env-A 101) [Revised March 2006]
  1. "affected source" means "acid rain affected source" as defined in this Part
  2. "major source" as defined by 40 CFR 70.2, namely "any stationary source (or group of stationary sources which are located on one or more contiguous or adjacent properties, and are under the common control of the same person (or persons under common control) belonging to a single major industrial grouping and that are described in paragraph (1), (2), (3) of this definition. For the purposes of defining "major source," a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same Major Group (i.e., all have the same two-digit code as described in the Standard Industrial Classification Manual, 1987.
     a. a major source under Section 112 [Hazardous Air Pollutants] of the Act, which is defined as:
        i. for pollutants other than radionuclides, any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, in the aggregate, 10 tons/yr (tpy) or more of any hazardous air pollutant which has been listed pursuant to Section 112(b) of the Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as the administrator may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control to determine whether such units or stations are major sources
        ii. for radionuclides, "major source" shall have the meaning specified by the administrator by rule.
     b. a major stationary source of air pollutants, as defined in Section 302 of the Act, that directly emits or has the potential to emit, 100 tpy or more of any air pollutant (including any major source of fugitive emissions of any such pollutant, as determined by rule by the administrator). The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of Section 302(j) of the Act, unless the source belongs to one of the following categories of stationary source:
        a. Coal cleaning plants (with thermal dryers);

        b. Kraft pulp mills;
        c. Portland cement plants;
        d. Primary zinc smelters;
        e. Iron and steel mills;
        f. Primary aluminum ore reduction plants;
        g. Primary copper smelters;
        h. Municipal incinerators capable of charging more than 250 tons of refuse per day;
        i. Hydrofluoric, sulfuric, or nitric acid plants;
        j. Petroleum refineries;
        k. Lime plants;
        l. Phosphate rock processing plants;
        m. Coke oven batteries;
        n. Sulfur recovery plants;
        o. Carbon black plants (furnace process);
        p. Primary lead smelters;
        q. Fuel conversion plants;
        r. Sintering plants;
        s. Secondary metal production;
        t. Chemical process plants;

u. Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
v. Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
w. Taconite ore processing plants;
x. Glass fiber processing plants;
y. Charcoal production plants;
z. Fossil-fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; or
aa. Any other stationary source category, which as of August 7, 1980 is being regulated under section 111 or 112 of the Act; c. a major stationary source as defined in Part D of Title I of the Act, including:

i. for ozone nonattainment areas, sources with the potential to emit 100 tpy or more volatile organic compounds or oxides of nitrogen in areas classified as "marginal" or "moderate", 50 tpy or more in areas classified as "serious", and 25 tpy or more in areas classified as "severe", and 10 tpy or more in areas classified as "extreme" except that the references in this paragraph to 100, 50, 25 and 10 tpy of NO_x shall not apply with respect to any source for which the administrator has made a finding, under Section 182 (f) (1) or (2) of the Act, that requirements under Section 182 (f) of the Act do not apply
ii. for ozone transport regions established pursuant to Section 184 of the Act, sources with the potential to emit 50 tpy or more of volatile organic compounds
iii. for CO nonattainment areas, that are classified as "serious", and in which stationary sources contribute significantly to CO levels as determined under rules issued by the administrator, sources with the potential to emit 50 tpy or more of CO
iv. for PM_{10} nonattainment areas classified as "serious", sources with the potential to emit 70 tpy or more of PM_{10}".

For purposes of (2)(C), above, the following statement paraphrases the requirements of (2), above:

1. any source with the potential to emit NO_x in the following counties and specific quantities:
   a. in Belknap, Carroll, Cheshire, Coos, Grafton, or Sullivan counties, 100 tpy or more
   b. in Hillsborough, Merrimack, Rockingham or Strafford counties, 50 tpy or more
2. any source with the potential to emit volatile organic compounds in the quantity of 50 tpy or more.

- *Malfunction* - as defined in 40 CFR 60.2, dated July 1, 1995, namely " any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions." (NHCAR Env-A 101 and 40 CFR 60.2875) [Added April 1998; Citation Revised March 2003; Revised March 2006].

- *Manufacturing Process* - any process directly related to the manufacturing of goods and/or supplies, both finished and intermediate, whose operations result in pollutant emissions to the ambient air from process or manufacturing equipment or machinery directly or through exhaust or ventilating systems, including elevated stacks (NHCAR Env-A 1211.02) factors (NHCAR Env-A 101) [Revised March2006; Citation Revised March 2009].

- *Maximum Achievable Control Technology (MACT)* - the technology required by amended Section 112 of the Act for major sources of listed hazardous air pollutants, reflecting the maximum degree of emissions reductions achievable, taking into account availability, cost and other factors (NHCAR Env-A 101).

- *Maximum Allowable Emission Rate* - the maximum amount of an air contaminant that may be emitted into the ambient air during a prescribed interval of time (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Maximum Heat Input Rate* - the maximum steady state fuel firing rate, in Btus/h of gross heat input, of fuel burning equipment as determined in the design rating of the equipment manufacturer and the characteristics of the fuel-burning devices (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Maximum Total Heat Input Capacity* - maximum total heat input capacity as defined by RSA 125-D:2, namely the designed gross heat input capacity of a major source in million British thermal units per h (NHCAR Env-A 101) [Citation Revised April 1998].

- *Medium Curing Cutback Asphalt* - a material which meets the specifications of the American Association of State Highway and Transportation Officials (AASHTO) designation M82-75 (1993)(NHCAR Env-A 1204.42) [Added March 2004].

- *Metal Degreasing* - the removal of grease, grease-bearing soils, or both from metal surfaces using liquid or vapor means (NHCAR Env-A 1204.03).

- *Metal Furniture Coating* - the surface coating of any furniture made of metal or any metal part which will be assembled with other metal, wood, fabric, plastic or glass parts to form a furniture piece (NHCAR Env-A 1204.03).

- *Minor Modification* - a nonsignificant physical or operational change to a source or device which does not necessitate minor permit amendment procedures (NHCAR Env-A 101).

- *Minor Permit Amendment* - change to a permit condition in a temporary permit or a state permit to operate issued to a source or device which does not: (NHCAR Env-A 101) [Added March 2006].
  1. Result in an increase in the amount of a specific air pollutant emitted by the source or device;
  2. Result in the emission of any additional air pollutant; or
  3. Necessitate the use of permit notice and hearing procedures.

- *Minor Permit Modification* - a revision to a title V operating permit which: (NHCAR Env-A 101) [Revised March 2006]
  1. Does not violate any applicable requirement;
  2. Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
  3. Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
  4. Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
     1. A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of title I;
     2. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
     3. Are not modifications under any provision of title I of the Act; and
     4. Are not required by the State program to be processed as a significant modification.

- *Miscellaneous Stationary Source* - that portion of a stationary source, as defined in Env-A 101.85, consisting of devices and processes that are (NHCAR Env-A 1211.02) [Revised March 2009]:
  1. unclassifiable
  2. classifiable.

- *Miscellaneous Stationary VOC Source* - any stationary source of VOCs which has at least one unclassifiable core process or device but which might also include any number of classifiable core processes or devices (NHCAR Env-A 1204.03) [Revised March 2004].

- *Mobile Source* - any source involving motor vehicular activity (NHCAR Env-A 101).

- *Modification* - (NHCAR Env-A 101) [Revised April 1998]:

1. For purposes of RSA 125-C, any physical or operational change in a stationary source or device which increases the amount of a specific air pollutant emitted by such source or device, or which results in the emission of any additional air pollutants, but does not include (NHCAR Env-A 101):
    a. routine maintenance, repair and replacement
    b. use of an alternative fuel or raw material by a stationary source, which the source was capable of using before 1 February 1973 unless prohibited by an enforceable permit condition
    c. use of an alternative fuel derived from municipal solid waste in a steam generating unit
    d. an increase in the hours of operation or in the production rate unless prohibited by an enforceable permit condition.
2. For purposes of RSA 125-I, "modification" means a "modification" as defined in RSA 125-I:2,X, namely "any physical or operational change in a stationary source or device which increases the amount of a specific regulated toxic air pollutant emitted by such source or device, or which results in the emission of any additional regulated toxic air pollutant."

- *Modification or Modified CISWI Unit* - a CISWI unit you have changed later than June 1, 2001 and that meets one of two criteria: (40 CFR 60.2875) [Added March 2003].
    1. The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.
    2. Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

- *Modified Control Techniques* - techniques for reducing VOC emissions to the atmosphere that is less stringent than the control techniques prescribed in the applicable Section of this Part (NHCAR Env-A 1204.03).

- *Modified Emission Rate Limits* - VOC RACT emission rate limits that are less stringent than the limits on actual emission rates prescribed in the applicable Section of this Part (NHCAR Env-A 1204.03).

- *Motor Vehicle* - an on-road vehicle powered by an internal combustion engine. This term includes motorcycles and emergency motor vehicles. For purposes of this definition, "on-road vehicle" means any vehicle which is authorized to operate on public roads (NHCAR Env-A 101) [Revised March 2006].

- *Multicategory Stationary VOC Source* - any stationary source of VOCs which, excluding noncore activities, has either (NHCAR Env-A 1204.03) [Revised March 2004]:
    1. at least 2 classifiable processes or devices in dissimilar VOC categories
    2. at least 1 classifiable process or devices and at least 1 unclassifiable process or device.

- *National Ambient Air Quality Standards (NAAQS)* - the maximum air pollutant levels set by EPA, which if attained, allow an adequate margin of safety to protect human health (NHCAR Env-A 101).

- *Natural Gas* - applies to the following (NHCAR Env-A 1211.02) [Citation Revised March 2009]:
    1. a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane
    2. liquid petroleum gas, as defined by the ASTM Standard Specification for Liquid Petroleum Gases, D1835-82.

- *New Source* - defined by the following:
    1. for purposes of New Source Performance Standards, Section 111(a)(2) of the Act, namely "any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this Section which will be applicable to such source"

2. for purposes of hazardous air Pollutants, Section 112 of the Act, namely "a stationary source the construction or reconstruction of which is commenced after the administrator first proposes regulations under this Section establishing an emission standard applicable to such source" (NHCAR Env-A 101).

- *New Source Performance Standards (NSPS)* - source specific standards set by the EPA for new sources or modified sources pursuant to Section 111 (a)(2) of the Act (NHCAR Env-A 101).

- *New Source Review (RSN)* - a program for reviewing major sources and modifications prior to construction in nonattainment or PSD areas (NHCAR Env-A 101).

- *Nitric Acid Production Unit* - any facility producing weak nitric acid, between 30 percent and 70 percent in strength, by either pressure or atmospheric pressure process (NHCAR Env-A 101).

- *Nitrogen Oxide (NO_x)* - a gaseous mixture of which the most significant components are nitric acid (NO) a colorless, poisonous gas obtained by oxidation of nitrogen or ammonia, and nitrogen dioxide (NO_2), a brownish to yellowish, poisonous gas (NHCAR Env-A 101).

- *Nonattainment Area* - an area which has been shown by monitored data or calculated by air quality modeling to exceed a New Hampshire or national ambient air quality standard for a specific pollutant (NHCAR Env-A 101).

- *Noncompliant Coating* - a coating material that exceeds the applicable VOC RACT emission rate standard in Env-A 1204.09 through Env-A 1204.17 (NHCAR Env-A 1204.03).

- *Non-conforming Fuel* - any fuel that has a pollutant content which exceeds the applicable pollutant content limit for that particular fuel (NHCAR Env-A 101) [Added April 1998].

- *Noncore Activities* - activities conducted at the source that are not directly related to the central manufacturing and/or business purpose of the source, including but not limited to (NHCAR Env-A 1204.03):
  1. use of office machines, including copying and duplication activities
  2. interior maintenance activities and the devices and supplies used therein, such as:
     a. janitorial and general building maintenance
     b. welding, gluing, and soldering related to building and machine maintenance
     c. painting and cleaning process devices, except:
        i. VOL metal degreasing operations subject to regulation under this Part
        ii. any process equipment cleaning or maintenance activity subject to regulation under this Part.
  3. exterior maintenance activities and the equipment and supplies used therein, such as repainting, roofing, and blasting, and general ground maintenance, including lawn care and noncommercial maintenance and operation of noncommercial laboratory and other activities to the extent that such activities are not directly related to the primary production process or commercial business activities normally conducted at the source.

- *Non-heatset* - any operation where the printing inks are set without the use of heat. This term includes ultraviolet-cured inks (NHCAR Env-A 1204.37) [Added March 2004].

- *Normalized Stoichiometric Ratio (NSR)* - the actual mole ratio of urea to NO_x divided by the theoretical stoichiometric ratio, which is 0.5 for the reaction between urea and NO_x (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Normally Closed Container* - a container that is closed unless an operator is actively engaged in activities such as emptying or filling the container (NHCAR Env-A 1204.03) [Added March 2004].

- *NO_x Control Technique* - a system, design modification, or use of equipment and technology to reduce NO_x emissions to the ambient air from NO_x-emitting devices or processes, including combustion modifications, low-NO_x burners, overfire air systems, low excess air systems, flue gas recirculation, natural gas reburn, burners out

of service, fuel switching, selective catalytic reduction, selective noncatalytic reduction, or other device or procedure approved pursuant to Env-A 1211.18 (NHCAR Env-A 1211.02) [Revised March 2009].

- *Nuisance* - anything which annoys or disturbs the free use of property, or which renders its ordinary use or physical occupation uncomfortable (NHCAR Env-A 101).

- *Off Permit Change* - a change that is not addressed or prohibited by a Title V operating permit (NHCAR Env-A 101).

- *Offset* - a printing process that transfers the ink film to an intermediary surface, which in turn transfers the ink film to a printing substrate (NHCAR Env-A 1204.03).

- *Opacity* - the degree to which emissions reduce the transmission of light and obscure the view of an object in the background (NHCAR Env-A 101).

- *Opacity Excess Emission* - applies to the following (NHCAR Env-A 805.01):
  1. an exceedance of opacity of the applicable opacity standard during an aggregate consecutive time period in excess of 6 min within a 60 min time period
  2. an exceedance of opacity of the applicable opacity standard, for devices equipped with automatic soot blowers during an aggregate time period in excess of 60 min within any 8 h period
  3. an exceedance of opacity of the applicable opacity standard, for incinerators, during an aggregate consecutive time period in excess of 3 min within a 60-min time period
  4. an exceedance of opacity during an aggregate consecutive time period in excess of 6 min within a 60-min time period where the opacity exceeds 20 percent and an exceedance of opacity during an aggregate consecutive time period in excess of 2 min within the same 6-min time period where the opacity exceeds 40 percent, for fuel burning devices installed after 13 May 1970 with gross heat input equal to or greater than 250 MBtu/h.

- Open Burning - the burning of any type of combustible material in the open, where the products of combustion are emitted directly into the atmosphere without passing through a stack (NHCAR Env-A 1001.03) [Added March 2009].

- *Open-Top Vapor Degreaser* - the batch process for degreasing metal surfaces by condensing hot VOL solvent vapor onto colder metal parts (NHCAR Env-A 1204.03).

- *Out of Control Periods* - applies to the following (NHCAR Env-A 805.01):
  1. for a CEM system measuring gaseous emissions:
     a. the time period beginning with the completion of the fifth consecutive day where the calibration drift (CD) exceeds 2 times the performance specification drift limit for 5 consecutive days and ending with the CD check after corrective action has occurred that results in the performance specification drift limits being met
     b. the time period beginning with the completion of a daily CD check preceding the daily CD check that results in the CD being greater than 4 times the performance specification and ending with the CD check after corrective action has occurred that results in the performance specification drift limits being met
     c. the time period beginning with the completion of a relative accuracy test audit (RATA), cylinder gas audit (CGA), or relative accuracy audit (RAA) as defined in 40 CFR Part 60, Appendix F where the CEM system fails the accuracy criteria established and ending with successful completion of the same audit where the CEM system meets the accuracy criteria established after corrective action has occurred
  2. for CEM system measuring opacity:
     a. the time period beginning with the completion of the fifth consecutive day where the CD exceeds 2 percent opacity, and ending with the CD check after corrective action has occurred that results in the performance specification drift limits being met

b. the time period beginning with the completion of a daily CD check preceding the daily CD check that results in the CD being greater than 5 percent opacity and ending with the CD check after corrective action has occurred that results in the performance specification drift limits being met
c. the time period beginning with the completion of a quarterly opacity audit where the CEM system fails the calibration error test as specified in 40 CFR Part 60, Appendix B, Specification 1 and ending with successful completion of the same audit where the CEM system passes the calibration error test established after corrective action has occurred.

- *Owner or Operator* - any person who owns, leases, operates, controls, or supervises a facility, building, structure, or installation which directly or indirectly result or may result in emissions if any air pollutant for which a national standard is in effect (NHCAR Env-A 101).

- *Oxides of Nitrogen (NO_x)* - all oxides of nitrogen, except nitrous oxide, as measured in accordance with test methods specified in Env-A 800 and approved by EPA (NHCAR Env-A 1211.02) [Revised March 2009].

- *Ozone (O_3)* - the most prevalent compound of those called photochemical oxidants and which result from a complex series of atmospheric reactions initiated by sunlight. When reactive organic substances and NO_x accumulate in the atmosphere and are exposed to the ultraviolet component of sunlight, the formation of ozone and other photochemical oxidants occurs (NHCAR Env-A 101).

- *Ozone Season* - the period between 1 May and 30 September, inclusive (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Paper Coating* - applies to the following (NHCAR Env-A 1204.03):
  1. coating of paper or pressure sensitive tape, regardless of substrate material, by means of:
     a. direct surface application
     b. impregnation or saturation by the use of roll, knife or rotogravure coating
  2. coating processes on a continuous roll of plastic film
  3. decorative coatings on metal foil.

- *Part Reclamation Unit* - a unit that burns coatings off parts (e.g., tools, equipment) so that the parts can be reconditioned and reused (40 CFR 60.2875) [Added March 2003].

- *Particulate Matter* - any material, except uncombined water, which is or has been suspended in air or other gases and which exists in a finely divided form as a liquid or solid at standard conditions (NHCAR Env-A 101).

- *Particulate Matter* - total particulate matter emitted from CISWI units as measured by Method 5 or Method 29 of appendix A of this part (40 CFR 60.2875) [Added March 2003].

- *Pathological Waste* - waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable) (40 CFR 60.2875) [Added March 2003].

- *Penetrating Prime Coat* - an application of low-viscosity liquid asphalt to an absorbent surface used to prepare an untreated base for an asphalt surface (NHCAR Env-A 1204.42) [Added March 2004].

- *Permit Deviation* - any occurrence that results in an excursion from any emission limitation, operating condition, or work practice standard as specified in either a title V permit, state permit to operate or temporary permit issued by the division. (NHCAR Env-A 101) [Added March 2005].

- *Permitting Authority* - the state of NH, Department of Environmental Services, Division of Air Resources (NHCAR Env-A 101).

- *Person* - any individual, partnership, firm or co-partnership, association, company, trust, corporation, Department, bureau, agency, private or municipal corporation, or any political subdivision of the state, the

Unites States, or political subdivisions or agencies thereof or any other entity recognized by law as subject to rights and duties (NHCAR Env-A 101 and Env-A 1003.03) [Revised March 2004].

- *Plant* - a stationary source (NHCAR Env-A 101).

- *Plastic Part Coating* - the surface coating of a component of an end-use product, which component is made from a substance that has been formed from resin through the application of pressure, heat, or both (NHCAR Env-A 1204.03) [Added March 2004].

- *PM_{10}* - particular matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by a reference method based on Appendix J of Part 50 of this Chapter [40] or by an equivalent method designated in accordance with Part 53 of this Chapter (NHCAR Env-A 101).

- *Pollution Control Equipment* - any device that treats, removes, restricts, or otherwise controls the release or discharge of regulated toxic air pollutants that is not vital to normal production operations (NHCAR Env-A 101) [Added April 1998]

- *Potential to Emit* - the maximum capacity of a stationary source to emit any pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the administrator. This term does not alter or affect the use of this term for any other purposes under the Act, or the term "capacity factor" as used in Title IV of the Act or the regulations promulgated thereunder (NHCAR Env-A 101).

- *Power Outage* - that normally available sources of electrical energy are unavailable due to circumstances beyond the control of the customers of the power suppliers (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Press* - a printing production assembly that can be made up of one or more units to produce a finished product (NHCAR Env-A 1204.37) [Added March 2004].

- *Prevention* - to meet or satisfy in advance (NHCAR Env-A 101).

- *Prevention of Significant Deterioration (PSD)* - the program under Title I that limits emissions increases in areas where NAAQS are already met (NHCAR Env-A 101).

- *Prime Coating* - the first of 2 or more films of coating applied to a substrate (NHCAR Env-A 1204.03).

- *Process* - (NHCAR Env-A 101) [Revised April 1998]:
  1. For the purposes of RSA 125-C, "process" means any operation which combines devices, equipment, raw materials, utilities, and manpower for the production of goods, services, energy, pollution control or other purposes; or
  2. For purposes of RSA 125-I, "process" means "process" as defined in RSA 125-I:2,XII, namely "any operation which combines devices, equipment, raw materials, utilities, and manpower for the production of goods, services, energy, pollution control or other purposes which emits a regulated toxic air pollutant into the ambient air."

- *Process, Manufacturing and Service-Based Industry* - any source whose operations involve emissions to the ambient air and which is engaged in either the manufacturing of gods and supplies, or the supplying of services (NHCAR Env-A 101) [Added April 1998].

- *Process Weight* - the total weight of all materials, including solid fuel charged, less the weights of uncombined water introduced into any source operation (NHCAR Env-A 101).

- *Process Weight Rate* - the smallest value obtained by computing either of the following (NHCAR Env-A 101):
  1. for a continuous or long-run, steady state source operation, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or part thereof
  2. for a cyclical or batch source operation, the total process weight for a period that covers a complete operation or any integral number of cycles, divided by the hours of actual process operation during such a period.

- *Proposed Permit* - the version of a Title V operating permit that the Division proposes to issue and submits to the EPA for its review (NHCAR Env-A 101).

- *Protocol* - a replicable and workable method to estimate the mass of emissions reductions (NHCAR Env-A 3803) [Added March 2002].

- *Publication Rotogravure Printing* - rotogravure printing upon paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, pamphlets, periodicals, direct mail advertisements, display advertisements, and other printed materials (NHCAR Env-A 1204.36) [Added March 2003].

- *Reasonable* - fair, proper, just, moderate, suitable under the circumstances (NHCAR Env-A 101).

- *Reasonable Further Progress* - such annual incremental reductions in emissions of the relevant air pollutant as are required by this Part or may reasonably be required by the administrator for the purpose of ensuring attainment of the applicable national ambient air quality standard by the applicable date (NHCAR Env-A 101).

- *Reasonably Available Control Technology (RACT)* - devices, systems process modifications, or other apparatus or techniques that are reasonably available taking into account (NHCAR Env-A 101):
  1. the necessity of imposing such controls in order to attain and maintain a national ambient air quality standard,
  2. the social, environmental and economic impact of such controls,
  3. alternative means of providing for attainment and maintenance of such standard.

- *Responsible Official* - responsible official as defined in 40 CFR 70.2 as in effect on July 1, 1993, namely, "one of the following: (NHCAR Env-A 101) [Added March 2006]
  1. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
     a. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter l980 dollars); or
     b. The delegation of authority to such representatives is approved in advance by the permitting authority;
  2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
  3. For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part [definition], a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or
  4. For affected sources:
     a. The designated representative in so far as actions, standards, requirements, or prohibitions under title IV of the Act or the regulations promulgated thereunder are concerned; and
     b. The designated representative for any other purposes under [40 CFR] part 70."

- *Rack Reclamation Unit* - a unit that burns the coatings off racks used to hold small items for application of a coating. The unit burns the coating overspray off the rack so the rack can be reused (40 CFR 60.2875) [Added March 2003].

- *Radio Frequency Interference (RFI) Shielding Coating* - a coating used in plastic business machine housing to attenuate radio frequency signals that would otherwise pass through the plastic housing (NHCAR Env-A 1204.03) [Added March 2004].

- *Reconstruction* - rebuilding a CISWI unit and meeting two criteria: (40 CFR 60.2875) [Added March 2003].
  1. The reconstruction begins on or after June 1, 2001.
  2. The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.

- *Records* - documents of organized and orderly information kept for the purpose of creating a permanent history of an action, result or event (NHCAR Env-A 101).

- *Reflexive Argent Coating* - a silver-colored coating that will reflect light (NHCAR Env-A 1204.03) [Added March 2004].

- *Refinishing* - the repainting of used equipment (NHCAR Env-A 1204.03).

- *Refrigerated Chiller* - a device which is mounted above the water jacket and primary condenser coils, consisting of secondary coils which carry a refrigerant to provide a chilled air blanket above the solvent vapor to reduce emissions from the degreaser bath (NHCAR Env-A 1204.03) [Added March 2004].

- *Refuse-Derived Fuel* - a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including two fuels: (40 CFR 60.2875) [Added March 2003].
  1. Low-density fluff refuse-derived fuel through densified refuse-derived fuel.
  2. Pelletized refuse-derived fuel.

- *Regenerative Cycle Combustion Turbine* - any stationary gas or oil-fired turbine which recovers heat from the turbine exhaust gases to preheat inlet combustion air to the turbine (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Regulated Air Pollutant* - as defined in 40 CFR 70.2, except paragraph (5) of such definition, which is paraphrased as 5. below. Namely, "regulated air pollutant" is any of the following: (NHCAR Env-A 101)
  1. Nitrogen oxides or any volatile organic compounds;
  2. Any pollutant for which a national ambient air quality standard has been promulgated;
  3. Any pollutant that is subject to any standard promulgated under section 111 [Standards of Performance for New Stationary Sources] of the Act;
  4. Any Class I or II substance subject to a standard promulgated or established under title VI [Stratospheric Ozone Protection] of the Act; or"
  5. Any pollutant listed in section 112(b) List of Hazardous Pollutants of the Act, or in a rule promulgated pursuant to section 112(r) Prevention of Accidental Releases of the Act.

- *Regulated Toxic Air Pollutant* - regulated toxic air pollutant" as defined in RSA 125-I:2,XIV, namely "any substance or compound emitted into the ambient air by a stationary source and designated a regulated toxic air pollutant pursuant to RSA 125-I:4," and includes any of the following: (NHCAR Env-A 101) [Added March 2006]
  1. Any substance or compound which is listed as a hazardous air pollutant pursuant to section 112(b) of the Clean Air Act, 42 U.S.C. 7412, as amended;

2. Any substance or compound for which there is a threshold limit value established by the American Conference of Governmental Industrial Hygienists;
3. Any substance or compound which has been added to the list of regulated toxic air pollutants pursuant to RSA 125-I:4,V and Env-A 1400.

- *Repowering* - the replacement or conversion of an existing emissions unit with a new or converted unit which results in lower emission rates of any air pollutant. This term also means the definition given pursuant to Section 402 of the Act, which generally means the replacement of an existing boiler with a technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of 15 November 1990 (NHCAR Env-A 101).

- *Research and Development Operation* - any operation whose exclusive purpose is to conduct a systematic investigation designed to create a new process or product, including investigations conducted under the close supervision of technically trained personnel and is not conducted to manufacture products for commercial sale (NHCAR Env-A 101).

- *Reserve* - a bank of allowances established by the EPA under Title IV Acid Deposition Control of the Act (NHCAR Env-A 101).

- *Residual Risk Standards* - new hazardous air pollutant standards under Section 112 of the Act which are to be set after a particular category of source has followed MACT standards for 8 to 9 yr (NHCAR Env-A 101).

- *Resist Coating* - a coating that is applied to a plastic part prior to metallic plating to prevent deposits of metal from forming on the part (NHCAR Env-A 1204.03) [Added March 2004].

- *Responsible Official* - one of the following (NHCAR Env-A 101):
  1. for a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
     a. the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars)
     b. the delegation of authority to such representatives is approved in advance by the permitting authority
  2. for a partnership or sole proprietorship: a general partner or the proprietor, respectively
  3. for a municipality, state, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this Part [definition], a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA)
  4. for affected sources:
     a. the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the Act or the regulations promulgated thereunder are concerned
     b. the designated representative for any other purposes under [40 CFR] Part 70."

- *Revoke* - to take away, annul or suspend a permit to operate or temporary permit issued by the Director is following a hearing the Director determines (NHCAR Env-A 101):
  1. that the permit holder has committed a violation of this Chapter or any rule, order or permit conditions in force and applicable
  2. that emission from the device to which the permit applies, alone or in conjunction with other sources of the same pollutants, presents an immediate danger to the public health.

- *Rich Burn Engine* - any stationary internal combustion engine that is not a lean burn engine (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Ringelmann Smoke Chart* - a chart published and described in the U.S. Department of Interior, Bureau of Mines, Information Circular 8333, and on which are illustrated graduated shades of grey to black for use in estimating the light obscuring capacity of smoke (NHCAR Env-A 101).

- *Roll Coating* - the application of a coating material to a substrate by means of hard rubber, elastomeric, or metal rolls (NHCAR Env-A 1204.03).

- *Roll Printing* - the application of words, designs, and pictures to a substrate usually by means of a series of rolls each with only partial coverage (NHCAR Env-A 1204.03) [Added March 2004].

- *Rotogravure Coating* - the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll, and the coating material is picked up in these recessed areas and is transferred to the substrate (NHCAR Env-A 1204.03) [Revised March 2003].

- *Rotogravure Printing* - the application of ink in the form of characters, designs, or pictures to a substrate by means of a roll printing technique in which the image area is recessed relative to the non-image area (NHCAR Env-A 1204.03) [Revised March 2004].

- *Salvaging or Reclaiming Operation* - any activity by which a used material is processed for reuse, including but not limited to reprocessing of used motor oils, metals, chemicals, shipping containers, drums, automobiles, automobile parts, and junk yard materials (NHCAR Env-A 1001.03) [Added March 2009].

- *Sand and Gravel Source*- any source where grinding, crushing, drying, mixing, conveying, sizing or blending of rock, sand or gravel products is conducted, and is comprised of all equipment and auxiliaries utilized in these functions (NHCAR Env-A 101) [Revised March 2006].

- *Schedule of Compliance* - a schedule of remedial measures including an enforceable sequence of actions, leading to compliance with applicable implementation plans, emissions standards, emission limitations, emission prohibitions, or other state or Federal requirement (NHCAR Env-A 101).

- *Sheet-fed* - any operation where paper is fed to the press in individual sheets(NHCAR Env-A 1204.37) [Added March 2004].

- *Shutdown* - the cessation of operation of any stationary source, area source, or device for any purpose (NHCAR Env-A 101) [Added April 1998].

- *Shutdown* - the period of time after all waste has been combusted in the primary chamber (40 CFR 60.2875) [Added March 2003].

- *Significant Modification* - any change in the physical or operational characteristics of a source or device and which does not qualify as a minor modification. In accordance with 40 CFR 70.7(e)(4), this includes but is not limited to, a nonminor change in existing monitoring permit terms or conditions or any relaxation of reporting or recordkeeping permit terms or conditions (NHCAR Env-A 101).

- *Significant Permit Amendment* - a revision to a permit that does not qualify as either an administrative permit amendment or a minor permit amendment (NHCAR Env-A 101).

- *Simple Cycle Combustion Turbine* - any stationary gas or oil-fired turbine that does not recover heat from the turbine exhaust gases to preheat the inlet combustion air to the turbine, heat water or generate steam (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Single Industrial Grouping* - a compilation where all pollutant emitting activities at a source or group of sources (NHCAR Env-A 101).

- *Smelter* - any source designed to separate a metal from its ore, or to produce scrap metal for secondary materials markets. "Smelter" includes concentrating, roasting, smelting, centering, condensing, and converting equipment and associated gas cleaning devices and other auxiliaries (NHCAR Env-A 101).

- *Smoke* - small gasborne particles resulting from incomplete combustion consisting predominantly, but not exclusively of carbon ash and other combustible materials (NHCAR Env-A 101).

- *Soft Coating* - any coating that provides a soft tactile feel similar to leather and a rich leather-like appearance when applied to plastic interior automotive parts and exterior business machine parts (NHCAR Env-A 1204.03) [Added March 2004].

- *Solid Waste* - any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014). For purposes of this subpart and subpart CCCC, only, solid waste does not include the waste burned in the fifteen types of units described in 60.2555 (40 CFR 60.2875) [Added March 2003].

- *Solvent* - those volatile organic compounds used in the liquid or vapor form for the removal of soils from fibrous, non-fibrous, woven, non-woven, metallic, and non-metallic articles, materials or surfaces (NHCAR Env-A 1204.03) [Added March 2007]

- *Solvent Metal Cleaning* - the process of degreasing metal using cold cleaning, open top vapor or conveyorized degreasing methods (NHCAR Env-A 1204.03).

- *Soot Blowing* - the activation of mechanical devices for on-line cleaning of gas-side soot, boiler ash and slag deposits to provide for optimum heat transfer and safe operation of the boiler (NHCAR Env-A 101) [Added April 1998].

- *Source* - any entity, building, structure, facility, installation, article, or thing that, in the opinion of the commissioner, emits or may emit a greenhouse gas (NHCAR Env-A 3803) [Added March 2002].

- *Specialty Coating* - a coating used for products required to meet nonstandard performance specifications. These include adhesion primers, resist coatings, soft coatings, reflective coatings, electrostatic prep coatings, headlamp lens coatings, ink pad printing coatings, stencil coatings, vacuum coatings, and gloss reducers (NHCAR Env-A 1204.03) [Revised March 2004].

- *Specified Control Technique* - the control techniques specified in the applicable Section of this Part for a particular RACT applicable, classifiable VOC source, process or device (NHCAR Env-A 1204.03).

- *Specified Emission Standard* - the emission standard specified in the applicable Section of this Part for a particular RACT applicable, classifiable VOC source, process or device (NHCAR Env-A 1204.03).

- *Specialty Instructor* - a person who possesses a specialized expertise in a particular subject area and who has met the requirements of these rules [Fire 400] to teach only in that particular area as a course coordinator (NHCAR Env-A 1003.03) [Added March 2004].

- *Sponsoring Fire Service Organization* : (NHCAR Env-A 1003.03) [Added March 2004].
  1. Fire department as defined in this section; or
  2. Any person who coordinates firefighter instruction and training activities.

- *Stack* - any chimney, flue, or duct arranged to discharge an emission to the ambient air (NHCAR Env-A 101).

- *Standard Conditions* - a temperature of 20 deg C or 68 deg F, and a pressure of 101.3 kPa or 29.92 in. of Hg (NHCAR Env-A 101 and 40 CFR 60.2875) [Revised March 2003].

- *Standard Ft^3* - 1 ft^3 of gas as 20 deg C or 68 deg F, and at a pressure of 101.3 kPa or 29.92 in. of Hg (NHCAR Env-A 101).

- *Standard M^3* - 1 m^3 of gas at 20 deg C or 68 deg F, and at a pressure of 101.3 kPa, or 29.92 in. of Hg (NHCAR Env-A 101).

- *Startup* - the setting in operation of any stationary source, area source or device (NHCAR Env-A 101) [Added April 1998].

- *Startup Period* - the period of time between the activation of the system and the first charge to the unit (40 CFR 60.2875) [Added March 2003].

- *State Certified Fire Instructor* - a person who has completed the requirements to hold such certification as approved by the New Hampshire fire standards and training commission (NHCAR Env-A 1003.03) [Added March 2004].

- *State Implementation Plan* - the plan required for the state of New Hampshire by the Act containing strategies, programs and rules to attain and maintain the national ambient air quality standards (NHCAR Env-A 101).

- *State Permit to Operate* - a permit that might contain conditions and which is issued prior to operation or modification of a stationary source, area source, or device (NHCAR Env-A 101) [Revised March 2006].

- *State Requirement* - a requirement of a statute or rule promulgated by the New Hampshire Air Resources Division, including but not limited to RSA 125-C, RSA 125-D, RSA 125-I, RSA 125-J, RSA 125-K, RSA 141-E, and the New Hampshire rules governing the control of air pollution, and which is not federally enforceable (NHCAR Env-A 101).

- *Stationary Combustion Turbine* - any simple cycle combustion turbine, regenerative cycle combustion turbine, or any combustion turbine portion of a combined cycle steam/electric generating system that is not self propelled, but which may be mounted on a vehicle for portability (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Stationary Internal Combustion Engine* - any internal combustion engine that operates as a stationary source, but which may be mounted on a vehicle for portability (NHCAR Env-A 1211.02) [Citation Revised March 2009].

- *Stationary Source* - either of the following depending on the purpose for its use (NHCAR Env-A 101) [Revised April 1998]:
  1. For purposes of RSA 125-C, "stationary source" means any building, structure, facility, or installation that emits or might emit any regulated air pollutant, or any air pollutant subject to regulation under the federal Clean Air Act, N.H. RSA 125-C, or the N.H. Administrative Rules Env-A 100 et seq.; or
  2. For purposes of RSA 125-I, "stationary source" means any "stationary source" as defined in RSA 125-I:2,XV, namely "any building, structure, facility, or installation that emits or might emit a regulated air pollutant or any air contaminant into the ambient air."

- *Steam Generating Unit* - any furnace, boiler, or other device used for combusting fuel for the purpose of producing steam by heat transfer (NHCAR Env-A 101) [Revised April 1998].

- *Steam Vent* - a point on steam generating equipment, a steam transport line, a condensate return system, or noncontact steam heat equipment, where steam may be released in the same condition as generated. "steam vent" excludes points of emission on process equipment or equipment heated by steam injection, including

steam educators, which could introduce a regulated air pollutant, a toxic air pollutant, or CO into the steam (NHCAR Env-A 101).

- *Stencil Coating* - a coating that is applied over a stencil to a plastic part at a thickness of not more than one mil. of coating solids, generally forming letters, numbers, or decorative designs (NHCAR Env-A 1204.03) [Added March 2004].

- *Sulfite Mill* - a place where a pulping process uses as a cooking liquor an acidic solution containing sulfuric acid and bisulfite of an alkaline base, such as calcium, sodium, ammonium or magnesium (NHCAR Env-A 101).

- *Sulfur Compound* - all organic or inorganic chemicals having an atom or atoms of sulfur in their chemical structure (NHCAR Env-A 101).

- *Sulfur Dioxide* - a colorless gas at standard conditions that has the molecular formula SO_2 (NHCAR Env-A 101).

- *Sulfuric Acid Production Unit* - any source producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides, mercaptans, or acid sludge. The term does not include sources where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the ambient air of SO_2 or other sulfur compounds (NHCAR Env-A 101).

- *Synthetic Minor Source* - a stationary source or area source which has chosen to limit its potential to emit by accepting federally enforceable permit conditions which restrict any of the following (NHCAR Env-A 101):
  1. hours of operation
  2. type or amount of material combusted, stored, or processed
  3. level of production.

- *Temporary Permit* - a permit which may contain conditions and/or emission limits which is issued prior to the commencement of construction or installation of any new or modified device for a period no longer than 18 mo (NHCAR Env-A 101).

- *Texture Coating* - a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating (NHCAR Env-A 1204.03) [Added March 2004].

- *Theoretical Potential NO(x) Emissions* - the calculated emissions of nitrogen oxides that would occur based on either of the following (NHCAR Env-A 101) [Added April 1998]:
  1. continuous operation of 8760 h per yr under maximum design conditions as defined in Env-A 1204
  2. hours of operation or design or process conditions, including operating rates that are limited by the conditions of a federally enforceable permit.

- *Tire* - any rubber or synthetic object which is solid, liquid, or gas-filled and upon which vehicles or machines can be or have been driven or moved (NHCAR Env-A 1001.03) [Added March 2009].

- *Title I Modification* - changes at a source that qualify as a modification under Section 111 New Source Performance Standards or Section 112(g) modifications involving Hazardous Air Pollutants, or as a significant permit modification under Part C Prevention of Significant Deterioration or Part D Plan Requirements for Nonattainment, in Title I of the Act (NHCAR Env-A 101).

- *Title V Operating Permit* - any permit or group of permits covering a Part 70 source that is issued, renewed, amended, or revised pursuant to this Part. This is a federally enforceable permit or group of permits for a particular source which is issued, renewed, amended, or revised by the Director pursuant to Title V of the Act and Env-A 600. For the purpose of these rules, this term shall include "permit to operate" as used in RSA 125-C:11, I-a (NHCAR Env-A 101).

- *Topcoat* - the final film or series of films of coating applied to a substrate in an operation consisting of two or more coats (NHCAR Env-A 1204.03).

- *Total Reduced Sulfur (TRS)* - the sum of the sulfur compounds; hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide, that are released during the kraft pulping operation and measured by EPA Reference Method 16 in Appendix A of 40 CFR Part 60 (NHCAR Env-A 101) [Revised March 2006].

- *Touch-up and Repair* - the application of finishing materials to cover minor imperfections (NHCAR Env-A 1204.03) [Added March 2004].

- *Tube* - any rubber or synthetic object used in conjunction with tires for the purpose of containing or having contained air within a tire cavity (NHCAR Env-A 1001.03) [Added March 2009].

- *Type 0 Waste* - a mixture of highly combustible waste such as paper, cardboard cartons, wood boxes, and combustible floor sweepings, from commercial and industrial activities, which has a heating value of at least 4718 calories per gram, 8500 BTUs per pound, as fired, and contains (NHCAR Env-A 101) [Added March 2006]:
  1. Up to 10 percent by weight of plastic bags, coated paper, laminated paper, treated corrugated cardboard, oily rags, and plastic or rubber scraps;
  2. Up to 10 percent moisture; and
  3. 5 percent incombustible solids by weight.

- *Type 1 Waste* - a mixture of combustible waste such as paper, cardboard cartons, wood scrap, foliage, and combustible floor sweepings, from domestic, commercial, and industrial activities, which has a heating value of at least 3608 calories per gram, 6500 BTUs per pound, as fired, and contains (NHCAR Env-A 101) [Added March 2006]:
  1. Up to 20 percent by weight of restaurant or cafeteria waste but little or no treated papers, plastic or rubber waste;
  2. Up to 25 percent moisture; and
  3. 10 percent incombustible solids by weight.

- *Type 2 Waste* - an approximately even mixture of domestic rubbish and garbage by weight, which has a heating value of at least 2386 calories per gram, 4300 BTUs per pound, as fired, and contains (NHCAR Env-A 101) [Added March 2006]:
  1. Up to 50 percent moisture; and
  2. 7 percent incombustible solids by weight.

- *Type 3 Waste* - animal and vegetable wastes from restaurants, cafeterias, hotels, hospitals, markets and like installations, which has a heating value of at least 1388 calories per gram, 2500 BTUs per pound, as fired, and contains (NHCAR Env-A 101) [Added March 2006]:
  1. Up to 70 percent moisture; and
  2. 5 percent incombustible solids by weight.

- *Type 4 Waste* - human and animal carcasses, organs and solid organic wastes from hospitals, laboratories, abattoirs, animal pounds, and similar sources, which has a heating value of at least 555 calories per gram, 1000 BTUs per pound, as fired, and contains (NHCAR Env-A 101) [Added March 2006]:
  1. Up to 85 percent moisture; and
  2. 5 percent incombustible solids by weight.

- *Type 5 Waste* - a gaseous, liquid, or semi-liquid by-product waste, such as tar, paints, solvents, sludge, and fumes from industrial operations (NHCAR Env-A 101) [Added March 2006].

- *Type 6 Waste* - a solid by-product waste, such as rubber, plastic, and wood waste, from industrial operations (NHCAR Env-A 101) [Added March 2006].

- *Type 7 Waste* - municipal sewage sludge waste, consisting of residue generated from the processing of raw sludge from a treatment plant (NHCAR Env-A 101) [Added March 2006].

- *Typical High Ozone Season Day* - daily operating conditions that are representative of the high ozone season (NHCAR Env-A 101) [Revised March 2008].

- *Uncontrolled Emission* - any emission of a regulated toxic air pollutant from a device or process at a stationary source that is not subject to treatment or removal by pollution control equipment prior to being emitted to the ambient air, or is emitted to the ambient air in amounts which have not been limited by conditions in an enforceable permit or document (NHCAR Env-A 101) [Added March 2004].

- *Unit* - the definition stated for "device" pursuant to this Part (NHCAR Env-A 101).

- *Unit* - the smallest complete component of a printing press which is capable of printing only one color (NHCAR Env-A 1204.37) [Added March 2004].

- *Untreated Wood* - any timber, board or sawn dimensional lumber which has not been treated, coated or preserved. This term does not include any manufactured building material, such as plywood or waferboard (NHCAR Env-A 1001.03) [Added March 2009].

- *Used Oil* - any oil that has been refined from crude oil which, through use or handling, has become unsuitable for its original purpose due to the presence of physical or chemical impurities or loss of original properties (NHCAR Env-A 101) [Added April 1998].

- *Utility Boiler* - a steam-generating unit that is constructed and operated for the purpose of supplying more than one-third of its potential electrical output capacity to any utility power distribution system for sale, except for stream electric boilers, as defined in Env-A 1211.02 (NHCAR Env-A 1211.02) [Revised March 2009].

- *Utility Unit* - a unit serving a generator (or that served a generator in 1985) in any state that produces electricity for sale (NHCAR Env-A 101).

- *Vacuum Metallizing* - a process whereby metal is vaporized and deposited on a substrate in a vacuum chamber (NHCAR Env-A 1204.03) [Added March 2004].

- *Vacuum Metallizing Coating* - a topcoat or basecoat that is used in the vacuum metalizing process (NHCAR Env-A 1204.03) [Added March 2004].

- *Valid Hour of CEM Emission Data* - one of the following (NHCAR Env-A 805.01):
    1. a minimum of 45 min collection of opacity or gaseous CEM concentration readings taken in a calendar h as specified in Env-A 805.03. Data collected while the CEM is out of control, as defined by Env-A 805.01, shall not be considered valid. This data collection shall occur during the times that the facility, on which the CEM is installed, is in operation
    2. for time-shared systems, 75 percent collection of gaseous CEM concentration readings of the total sampling time available for each emission point being monitored. Valid hours shall be determined for each emission point of the time-shared CEM system. Data collected while the CEM is out of control, as defined by Env-A 805.01, shall not be considered valid. This data collection shall occur during the times that the facility, on which the CEM is installed, is in operation.

- *Vehicle* - a vehicle powered by either a gasoline combustion or diesel engine (NHCAR Env-A 101).

- *Vinyl or Urethane Substrate Coating* - applying a decorative, protective, or functional coating or ink on vinyl or urethane substrates, including vinyl or urethane coated fabric (NHCAR Env-A 1204.03) [Added March 2004].

- *VOC Composite Pressure* - the sum of the pressures of the solvent compounds defined as VOCs (NHCAR Env-A 1204.37) [Added March 2004].

- *VOC-Emitting Device* - any equipment, building, or activity that results in the emission of VOCs, either through a duct or stack or as fugitive emissions (NHCAR Env-A 1204.03).

- *Volatile Organic Compound (VOC)* - any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates or carbides, and ammonium carbonate, which participates in atmospheric photochemical reactions and which is not listed in 40 CFR 51.100(s)(1) (NHCAR Env-A 101 and Env-A 1204.03) [Revised March 2004].

- *Volatile Organic Liquid (VOL)* - any organic liquid that is capable of emitting nonexempt VOC compounds into the atmosphere (NHCAR Env-A 1204.03).

- *Voluntary Emission Reduction (VER)* - a voluntary emission reduction of a greenhouse gas(es) generated over a discrete period of time, and measured in weight (NHCAR Env-A 3803) [Added March 2002].

- *Waste* - any matter consisting of garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control equipment and other discarded or abandoned material including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities (NHCAR Env-A 101) [Added March 2004].

- *Web* - a continuous roll of paper used as the printing substrate (NHCAR Env-A 1204.37) [Added March 2004].

- *Wet Bottom* - the boiler has a furnace bottom temperature above the ash melting point and the bottom ash is removed as a liquid (NHCAR Env-A 1211.02) [Revised March 2009].

- *Wet Scrubber* - an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases (40 CFR 60.2875) [Added March 2003].

- *Whole Tree Chip* - a piece of wood produced by chipping a whole tree, including wood, bark, tree tops, limbs and logging residue (NHCAR Env-A 101) [Added March 2006].

- *Wood Furniture Coating Operation* - the surface coating of products that belong to the same wood furniture industrial grouping which includes the following standard industrial classification (SIC) codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, and 2599 (NHCAR Env-A 1204.03).

- *Wood Waste* - untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste does not include: (40 CFR 60.2875) [Added March 2003].
  1. Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.
  2. Construction, renovation, or demolition wastes. Clean lumber.

- *Wood Waste Burner* - any device such as burners used to dispose of wood waste by burning, and which are commonly known as teepees, wigwams, truncated cones or silos (NHCAR Env-A 101) [Revised March 2006].

- *Working Days* - Monday through Friday and holidays which fall on any of the days Monday through Friday (NHCAR Env-A 101) [Added April 1998].

AIR EMISSIONS MANAGEMENT
GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	AE.2.1.NH.
State Specific	
Permits/ Notifications/ Exemptions	AE.6.1.NH. through AE.6.3.NH.
Management/Administrative	AE.7.1.NH. through AE.7.10.NH.
Operations	AE.8.1.NH. through AE.8.9.NH.
Emissions Limits	AE.9.1.NH. through AE.9.4.NH.
Fuel-Burning Equipment	AE.15.1.NH. through AE.15.4.NH.
Miscellaneous Incinerators	AE.25.1.NH. through AE.25.16.NH.
Existing Commercial and Industrial Solid Waste Incinerators	AE.26.1.NH. through AE.26.9.NH.
Medical Waste Incinerators	AE.30.1.NH.
Municipal Waste Combustor	AE.35.1.NH. through AE.35.15.NH.
Small Municipal Waste Combustors	AE.37.1.NH. through AE.37.7.NH.
Gasoline/Fuels	AE.55.1.NH. through AE.55.7.NH.
Printing Presses and Graphic Arts	AE.60.1.NH. through AE.60.3.NH.
Fugitive Emissions	AE.65.1.NH.
Toxic Emissions	AE.67.1.NH. and AE.67.2.NH.
Acid Production Units	[Deleted]
Coating Operations	AE.100.1.NH. through AE.100.13.NH.
Degreasing Operations	
General	AE.115.1.NH.
Cold Cleaning	AE.116.1.NH.
Vapor Cleaning	AE.117.1.NH. and AE.117.2.NH.
Reporting	AE.118.1.NH. and AE.118.2.NH.
Miscellaneous VOC Sources	AE.125.1.NH. through AE.125.9.NH.
Open Burning	AE.130.1.NH. through AE.130.7.NH.
Vehicle Emissions	AE.135.1.NH. and AE.135.2.NH.
Asphalt Paving Materials/Operations	AE.145.1.NH.
Other Emissions/Sources	AE.155.1.NH. through AE.155.3.NH.
Greenhouse Gas Emissions	
Reporting	AE.200.1.NH. and AE.200.2.NH.

GUIDANCE FOR APPENDIX USERS	
REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
1-1	Particulate Emission Rates and Effects Factors
1-2	[Deleted]
1-3	Sources Required to Apply for Temporary Permits
1-4	Sources Required to Apply for Title V Operating Permits
1-5	Stationary Sources Requiring CEM
1-6a	All Regulated Toxic Air Pollutants
1-6b	Fuel Types
1-7	Exempt CISWI Units
1-8	Emission Limits for CISWI Units
1-9	Operating Limits for Wet Scrubbers
1-10	Carbon Monoxide and Nitrogen Oxides Emission Limits for MWC
1-11	Emission Limits for Large MWC Units
1-12	Carbon Monoxide Emission Limits for Existing Small MWC Units
1-13	Emission Limits for All Small MWC Units
1-14	Criteria for Classification of Toxic Air Pollutants

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AE.2. **MISSING CHECKLIST ITEMS**	
AE.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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STATE-SPECIFIC REQUIREMENTS **AE.6.** **Permits / Notifications**	
AE.6.1.NH. Facilities must obtain permits for specific air emission sources (NHCAR Env-A 603.01 and 609.02(b)) [Revised March 2008].	Verify that the facility does not construct or install a new or modified stationary source, area source, or device as specified in Appendix 1-3, without either having received a temporary permit or a state permit to operate. Verify that the facility does not cause or allow the operation of a stationary source, area source or device which is required to hold a Title V operating permit (as specified in Appendix 1-4), without having received a Title V operating permit. (NOTE: Title V operating permits are also state permits to operate.)
AE.6.2.NH. Facilities must submit renewal applications at least 90 days prior to expiration of a state permit to operate (NHCAR Env-A 608.10).	Verify that the facility submits an application for permit renewal at least 90 days prior to the expiration date of an existing state permit to operate.
AE.6.3.NH. Facilities must submit applications for Title V operating permits according to a specific schedule (NHCAR Env-A 609.05(d), 609.06, and 610.01).	Verify that all Title V sources or devices in existence on 23 June 1995 submit a Title V operating permit application no later than 23 June 1996. Verify that all sources that becomes subject to the Title V program after 23 June 1995 submit a Title V operating permit application no later than 12 mo after the source becomes subject to the Title V program. Verify that each major source required to meet the requirements of section 112(g) of the CAAA, or to have a permit under the preconstruction review program approved as part of the New Hampshire SIP, submits a permit application to obtain a Title V operating permit or Title V operating permit revision within 12 mo of commencing operation. Verify that a permit revision is obtained when an existing Title V operating permit would prohibit construction or change in operation. Verify that any source that becomes subject to the provisions of section 112(j) of the CAAA submits a Title V operating permit application. Verify that applications for the renewal of a permit are submitted to the Director at

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	least 6 mo prior to the expiration date of the current Title V operating permit. (NOTE: An owner, operator or applicant may apply for coverage under a general permit in lieu of a source-specific Title V operating permit upon the commissioner's adoption of rules establishing criteria and procedures by which sources may qualify for a general permit.)

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STATE-SPECIFIC REQUIREMENTS **AE.7. Management/ Administrative**	
AE.7.1.NH. [Deleted March 2000].	(NOTE: Regulation revised).
AE.7.2.NH. Stationary sources with annual emissions of particulate matter or sulfur oxides greater than 100 tons must submit a preplanned abatement strategy (NHCAR Env-A 502.01 and 503.02).	Verify that facilities that are stationary sources having annual emissions greater than 100 tons of particulate matter or sulfur oxides submit a preplanned abatement strategy plan to the Division. (NOTE: If the abatement plan is not submitted or does not meet or exceed the requirements of this chapter, the Director of the Division will serve notice to such stationary sources that a strategy will be prepared by the Division without further consultation with the stationary source.) Verify that, upon notification by the Division that a forecast status has been issued by the Division, stationary sources with a preplanned abatement strategy: - inspect all devices to obtain best operation - prepare for curtailment of operation.
AE.7.3.NH. Stationary sources must have a detailed testing and monitoring plan (NHCAR Env-A 802.01, 802.04, and 802.06).	Verify that facilities with stationary sources have a detailed plan for testing and monitoring, agreed upon by the Division and the owner or operator, prior to the start of testing or monitoring. Verify that the plan identifies at a minimum: - process operating conditions during the test or monitoring - test or monitoring methods and procedures - test or monitoring equipment and sampling sites - monitoring frequency and duration. Verify that testing or monitoring to determine the quantity of emission or ambient concentration is undertaken by methods of measurement approved by the USEPA. (NOTE: On a case-by-case basis, the Division may designate alternative methods for noncriteria pollutants.) Verify that all data obtained from testing or monitoring is provided to the

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AE.7.4.NH. All air pollutant sources must comply with general recordkeeping requirements (NHCAR Env-A 902.01(a), Env-A 903.02, 903.03, and 903.04) [Revised March 2000; Revised March 2008].	Verify that sources keep required records on file for a minimum of 5 yr.
	
	Verify that operators of a combustion device maintain monthly records of fuel characteristics and utilization, including primary, secondary, tertiary and auxiliary fuels in accordance with the following (see Appendix 1-6b for fuels lists):
	
	- for applicable solid fuels, including coal:
	  - consumption
	  - fuel type
	  - ash content
	  - sulfur content as percent sulfur by weight of fuel
	  - BTU content per lb of fuel
	- for wood and bark including saw/sander dust:
	  - consumption
	  - fuel type
	- for applicable liquid fuels:
	  - consumption
	  - fuel type
	  - for crude oil, used oil, No. 5 oil and No. 6 oil, sulfur content as percent sulfur by weight of fuel
	  - for all other liquid fuels, documentation the at the fuel meets state sulfur limits
	- for applicable gaseous fuels:
	  - consumption
	  - fuel type
	  - for sulfur content
	  -sulfur content as percent sulfur by weight of fuel or in grains per 100 cubic ft of fuel
	  - documentation that the fuel source is from a utility pipeline
	  - documentation the fuel meets state sulfur limits
	- for municipal solid waste landfill gas:
	  - consumption
	  - sulfur content as percent sulfur by weight of fuel or in grains per 100 cubic ft of fuel
	  - BTU content per cubic ft of fuel
	- for waste types #1 - #7:
	  - consumption
	  - waste type.
	
	(NOTE: Sources operating one or more combustion devices sharing a common fuel will also record all operational data needed to estimate the distribution of the fuel combusted and emissions from each device.)
	
	Verify that for process operations, monthly records of raw material utilization are kept regarding the total quantities of all raw materials utilized in each process, sufficient to calculate emissions, verify applicability and compliance with all

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	emission limitations, or to verify production capacities and quantities. (NOTE: Sources operating one or more processes which emit air pollutants through more than one emission point will record all operational data needed to estimate the distribution of emissions from the devices.) Verify that a stationary source with an on-certified continuous emissions monitoring system (CEMS) that is required by the Department as a permit condition (that does not meet the requirements certified CEMS), maintains records in accordance with the following: - measurements of emissions as output on an instrument recorder if applicable, or as manually recorded on log sheets as part of a data collection procedure - number of hours of operation of the process or combustion device on which the continuous emissions monitor is located - number of hours of downtime of the continuous emissions monitoring system during the time period when the process or combustion device is in operation - frequency and results of calibrations performed.

AE.7.5.NH. Specific facilities must comply with NO_x recordkeeping and reporting requirements (NHCAR Env-A 905.01, 905.02, 905.03, 907.03) [Revised March 2000; Revised March 2006; Revised March 2008].	(NOTE: This checklist item applies to any stationary source, area source or device that have actual NO_x emission greater than or equal to 10 tpy.)
	
	Verify that a stationary source, area source, or device records the following information and maintain the records at the facility:
	
	- identification of each combustion device
	- operating schedule during the high ozone season for each combustion device identified, including:
	  - the typical hours of operation per day
	  - the typical days of operation per calendar month
	  - number of weeks of operation
	  - type and amount of fuel burned
	  - heat input rate in million BTUs per hour, for incinerators, in tons per h
	  - actual NO_x emissions from each combustion device identified for each calendar year, in tons, and a high ozone season day during that calendar year, in lb per day
	  - the emission factors and the origin of the emission factors used to calculate the NO_x emissions.
	
	Verify that any stationary source or device with add-on NO_x air pollution control equipment records and maintains the following information:
	
	- the air pollution control device identification number, type, model number, and manufacturer
	- installation date
	- unit(s) controlled
	- type and location of the capture system, capture efficiency percent, and method of determination

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	- information as to whether or not the air pollution control device is always in operation when the fuel burning device or incinerator it is serving is in operation
	- the destruction or removal efficiency of the add-on air pollution control equipment, including the following information:
	  - destruction or removal efficiency, in percent
	  - date tested
	  - the emission test results
	  - the method of determining destruction or removal efficiency, if not tested.
	
	Verify that a report is submitted annually by April 15 of the following calendar year, the data required pursuant to Env-A 903.06 (power generation data and actual NOx emission data).

AE.7.6.NH. [Deleted March 2000].	(NOTE: Regulation revised.)
AE.7.7.NH. [Deleted March 2000].	(NOTE: Regulation revised.)
AE.7.8.NH. Owners and operators of stationary sources, areas sources or devices that is subject to title V must meet specific requirements in the event of a permit deviation (NHCAR Env-A 911.03) [Added March 2006; Revised March 2008].	Verify that in the event of a permit deviation, the owner or operator of the affected device, process, or air pollution control equipment investigates and takes corrective action immediately upon discovery of the permit deviation to restore the affected device, process, or air pollution control equipment to within allowable permit levels. Verify that the following information is recorded in the event of a permit deviation: - the permit deviation - the probable cause of the permit deviation - the date of the occurrence - the duration - the specific device that contributed to the permit deviation - any corrective or preventative measures taken - the amount of any excess emission that occurred as a result of the permit deviation, if applicable.
AE.7.9.NH. Owners and operators of stationary sources, areas sources or	Verify that, if the permit deviation does not cause excess emissions, but continues for a period greater than 9 consecutive days, the source notifies the Department by

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devices that is subject to title V must meet reporting requirements in the event of a permit deviation (NHCAR Env-A 911.04) [Added March 2006; Revised March 2008].	telephone or fax on the tenth day of the permit deviation. (NOTE: When it is a Saturday, Sunday, or state or federal legal holiday, in which event, the Department must be notified on the next day which is not a Saturday, Sunday, or state or federal legal holiday, of the subsequent corrective actions to be taken.) Verify that, in the event of a permit deviation that causes excess emissions, the owner or operator of the affected device, process, or air pollution control equipment meets the following requirements: - notify the Department of the permit deviation and excess emissions by telephone or fax, within twenty-four (24) hours of discovery of the permit deviation, unless it is a Saturday, Sunday, or state or federal legal holiday, in which event, the Department is notified on the next day which is not a Saturday, Sunday, or state or federal legal holiday - submit a written report within 10 days of discovery of the permit deviation. (NOTE: The reporting requirement above applies to every owner or operator of a non-title V source that has been issued a state permit to operate, but no other provision of this part shall apply.) Verify that the written report includes include the following information: - facility name and address - name of the responsible official employed at the facility - facility telephone number - date(s) of the occurrence - time of the occurrence - description of the permit deviation - the probable cause of the permit deviation - corrective action taken to date - preventative measures taken to prevent future occurrences - date and time that the device, process, or air pollution control equipment returned to operation in compliance with an enforceable emission limitation, or operating condition - the specific device, process or air pollution control equipment that contributed to the permit deviation - the type and quantity of excess emissions emitted to the atmosphere due to the permit deviation - the calculation or estimation used to quantify the excess emissions. Verify that, in the event of a permit deviation caused by a failure to comply with the data availability requirements, the owner or operator of the source meets the following requirements: - notify the Department of the permit deviation by telephone or fax, within 10 days of discovery of the permit deviation - report the permit deviation to the Department, as part of the excess emissions report.

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AE.7.10.NH. All permit deviations must be summarized and reported semi-annually or annually (NHCAR Env-A 911.05) [Added March 2006; Revised March 2008].	Verify that, in accordance with 40 CFR Part 70.6(a)(3)(iii)(A), sources report to the Division, at a reporting frequency no less stringent than semi-annually, the following information: - summary of all permit deviations previously reported to the Division - a list of all permit deviations recorded (AE.7.10.NH.)

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STATE-SPECIFIC REQUIREMENTS **AE.8.** **Operations**	
AE.8.1.NH. [Deleted March 2008].	(NOTE: NHCAR Env-A 504.02 was repealed.)
AE.8.2.NH. [Deleted March 2008].	(NOTE: NHCAR Env-A 505.02 was repealed.)
AE.8.3.NH. [Deleted March 2008].	(NOTE: NHCAR Env-A 506.02 was repealed.)
AE.8.4.NH. Sources required to employ CEM must meet minimum specifications (NHCAR Env-A 805.03 and 805.07).	(NOTE: See Appendix 1-5 for a list of sources that require CEM.) Verify that CEM systems installed after 31 August 1989 meet the following minimum specifications: - the minimum specifications presented in 40 CFR Part 51, Appendix P 3.1 (Performance Specifications), 3.4.1 (Cycling Times for Opacity CEM), 3.5 (Monitor Location), 3.7 (Zero and Drift) and 3.8 (Span) - CEM systems for measuring gaseous emissions complete a minimum of 1 cycle of operation which includes sampling, analyzing, and data recording for each successive 5-min period (longer time periods must be approved by the Director) - gaseous CEM systems average and record the data for each 60-min period - all CEM systems, opacity and gaseous measuring included, have the capability of displaying instantaneous values of the appropriate output for use during audits - any CEM system used to measure excess opacity averages opacity over the time period appropriate to the device it is installed on. Verify that all stack volumetric flow measuring devices required to be installed after 1 January 1992 meet the following requirements: - all differential pressure flow monitors have an automatic blow-back purge system installed and, in wet stack emissions, have the capability for drainage of the sensing lines - the stack flow monitoring system has the capability for on-line manual transducer calibration and for a zero check

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	- the stack flow monitoring system is capable of displaying the individual parameters used in the stack flow calculation. Verify that each source with a CEM operates the CEM at all times during operation of the facility, except for periods of CEM breakdown, repairs, calibration checks, preventative maintenance, and zero/span adjustments.
AE.8.5.NH. CEM systems must include recorders (NHCAR Env-A 805.04).	(NOTE: See Appendix 1-5 for a list of sources that require CEM.) Verify that all CEM systems include strip or circular chart recorders to record instantaneous values of percent opacity and gaseous emission concentrations such as ppm or percentage. Verify that each strip chart or circular chart is stamped daily with time and date in order to allow for later data analysis. (NOTE: An alternate method of data recording may be approved by the Director.)
AE.8.6.NH. Performance specification testing for CEM systems installed after 31 August 1989 must be performed in accordance with specific requirements (NHCAR Env-A 805.05).	(NOTE: See Appendix 1-5 for a list of sources that require CEM.) Verify that performance specification testing for CEM systems are performed in accordance with the following regulations: - for those CEM systems monitoring opacity and gaseous emissions, performance specification requirements of 40 CFR 60, Appendix B apply - for those CEM systems utilizing a Continuous Emission Rate Monitoring (CERM) system, as defined in 40 CFR 60, Appendix B, Specification 6, the requirements of Specification 6 apply - for those CEM systems utilizing equipment for continuous measurement of effluent stream gas volumetric flow rate, as defined in 40 CFR 52, Appendix E, the requirements of Appendix E apply. Verify that all performance specification testing is performed within 180 days of the CEM equipment initial startup. Verify that a written report summarizing the results of the testing is submitted to the Division within 60 days of the completion of the test.
AE.8.7.NH. Excess emission reports must be submitted to the Division by each source with a CEM system (NHCAR Env-A 805.08(c)).	(NOTE: See Appendix 1-5 for a list of sources that require CEM.) Verify that all sources not subject to 40 CFR 60 that are required to have a CEM system provide the Division with emission reports for opacity excess emissions and gaseous excess emissions on a quarterly basis, or other time period as required

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	in a temporary permit or permit to operate issued by the Division. Verify that the report is filed with the Division within 30 days of the last date of the reporting period. Verify that these reports include at a minimum: - the magnitude of each excess emission - the date and time of commencement and completion of each time period of excess emission - the specific cause of the excess emission and the corrective action taken - the date and times of each period where the CEM was not operational, and the total percentage of time where the CEM was not operational - when no excess emissions have occurred or the CEM system has not been inoperative, repaired, or adjusted, such information is stated in the report - for gaseous measuring CEM systems, daily averages of the measurements made and emission rates calculated is reported whether or not excess emissions have occurred. (NOTE: If daily averages are not feasible, the facility must submit a written request to provide averages based on an alternative time period to the Division.)
AE.8.8.NH. CEM data must comply with averaging requirements (NHCAR Env-A 805.09).	(NOTE: See Appendix 1-5 for a list of sources that require CEM.) Verify that the facility collects the minimum number of hours of valid CEM data required for determining a valid averaging period as follows: - for a 3 h emission standard period, 2 h of valid data - for a 4 h standard emission standard period, 3 h of valid data - for a 8 h standard emission standard period, 6 h of valid data - for a 12 h standard emission standard period, 9 h of valid data - for a 24 h standard emission standard period, 16 h of valid data.
AE.8.9.NH. Facilities required to employ CEM systems must meet specific recordkeeping requirements (NHCAR Env-A 808.11 through 808.13) [Revised March 2008].	(NOTE: See Appendix 1-5 for a list of sources that require CEM.) Verify that, within 30 days of the end of each calendar quarter, an owner or operator of a source with a gaseous or opacity measuring CEM system submits an emission report to the division. Verify that the owner or operator of a source subject to 40 CFR 60 which is required to install, calibrate, operate, and maintain a CEM system, provides the following in the quarterly emission report: - the information specified in 40 CFR 60.7(c) and any applicable subpart of 40 CFR 60 - the daily averages of gaseous CEM measurements and calculated emission

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	rates - if the CEM system was inoperative, repaired, or adjusted during the reporting period, the following information: - the date and time of the beginning and ending of each period when the CEM was inoperative - the reason why the CEM was not operating - the corrective action taken - the percent data availability for each flow, diluent, or pollutant analyzer in the CEM system - for all "out of control periods", the following information: - the times beginning and ending the out of control period - the reason for the out of control period - the corrective action taken - the date and time beginning and ending each period when the source of emissions which the CEM system is monitoring was not operating - the span value of each analyzer in the CEM system and units of measurement for each instrument - when calibration gas is used, the following information: - the calibration gas concentration - if a gas bottle was changed during the quarter: Verify that the owner or operator of a source not subject to 40 CFR 60 which is required to install, calibrate, operate, and maintain a CEM system, provides the following in each quarterly emission report: - excess emission data recorded by the CEM system - if no excess emissions have occurred, a statement to that effect - for gaseous measuring CEM systems, the daily averages of the measurements made and emission rates calculated - a statement as to whether the CEM system was inoperative, repaired, or adjusted during the reporting period - if the CEM system was inoperative, repaired, or adjusted during the reporting period, the following information: - the date and time of the beginning and ending of each period when the CEM was inoperative - the reason why the CEM was not operating - the corrective action taken - the percent data availability for each flow, diluent, or pollutant analyzer in the CEM system - for all "out of control periods", the following information: - the times beginning and ending the out of control period - the reason for the out of control period - the corrective action taken - the date and time beginning and ending each period when the source of emissions which the CEM system is monitoring was not operating - the span value of each analyzer in the CEM system and units of measurement for each instrument - when calibration gas is used, the following information: - the calibration gas concentration - if a gas bottle was changed during the quarter:

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STATE-SPECIFIC REQUIREMENTS **AE.9.** **Emissions Limits**	
AE.9.1.NH. Any stationary source or device that is a source of particulate matter emissions discharged to the ambient air through a stack or exhaust and ventilation system must meet emission standards (NHCAR Env-A 2102.01, 2102.02, and 2102.03) [Revised March 2006].	(NOTE: Exhaust and ventilation system means any system that removes and transports particulate matter from the point of generation to the ambient air.) Verify that emissions of particulate matter at any source or device installed after 18 February 1972 and utilized at a process, manufacturing or service-based industry, do not exceed those emission standards specified for "New Devices" listed in Appendix 1-1. Verify that emissions of particulate matter at any source or device installed prior to or on 18 February 1972 and utilized at a process, manufacturing or service-based industry do not exceed those emission standards specified for " Existing Devices" listed in Appendix 1-1.
AE.9.2.NH. Visible emissions from any stationary source or device must meet specific requirements (NHCAR Env-A 2103.02) [Revised March 2006].	Verify that the visible emissions from any stationary source or device do not exceed an average of 20 percent opacity for any continuous 6-minute period, except for one period of 6 continuous minutes in any 60-minute period during startup, shutdown, or malfunction. (NOTE: Opacity shall be determined in accordance with Env-A 807.) (NOTE: Emissions from fuel burning equipment is subject to different standards; see section AE.15.NH.)
AE.9.3.NH. [Deleted March 2006].	(NOTE: NHCAR Env-A 2106 removed.)
AE.9.4.NH. Sulfur dioxide emissions for Class A and Class B sources must meet emission requirements (NHCAR Env-A 401.02, 402.01, 403.01, 403.02, 404.01, 404.02, 405.01, and 405.02) [Added March 2006].	(NOTE: These requirements apply to all sources that emitted 100 tons or more of SO2 per year on average during 1979 through 1982.) Verify that annual SO2 emissions from each Class A major source does not exceed 75 percent of such source's portion of the baseline emissions. Verify that annual SO2 emissions from each Class B major source does have an average emission rate not to exceed 1.6 pounds of SO2 per million BTU heat input, equivalent to no. 6 oil with 1.5 percent sulfur by weight, which is 75

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	percent of the baseline average emission rate for Class B major sources. Verify that, for each running 4-year period, the combined SO2 emissions from all class B major sources does not exceed 75 percent of their combined baseline SO2 emissions. (NOTE: The owner or operator of 2 or more sources under common ownership may combine the annual emissions of all such sources to demonstrate that the total annual emissions of such sources do not exceed 75 percent of their baseline emissions for Class A major sources.) (NOTE: The owner or operator of applicable sources under common ownership may average the emission rates of all such sources on a BTU heat input basis to demonstrate compliance with the average emission rate for Class B major sources. Verify that the owner or operator meets the reporting requirements specified in Env-A 907.02 (an annual report by April 15 of the following information of the information required in Env-A 903.3 (see AE.7.4.NH.). Verify that the owner or operator meets the recordkeeping requirements specified in Env-A 903.3 (see AE.7.4.NH.).

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AE.15. **FUEL-BURNING EQUIPMENT**	
AE.15.1.NH. Fuel burning devices must comply with visible emission standards (NHCAR Env-A 2001.02, 2002.01, and 2002.04) [Citation Revised March 2007].	(NOTE: This checklist applies to the owner or operator of any stationary fuel burning device that is a source of particulate matter or visible emissions.) 2001.02 Verify that there are no visible emissions from fuel burning devices installed on or prior to 13 May 1970 in excess of 40 percent (percent) for any continuous 6-minute period. Verify that there are no visible emissions from fuel burning devices installed after 13 May 1970 in excess of 20 percent opacity for any continuous 6-minute period. (NOTE: The following are exempt from visible emission standards: - emissions during the building of a new fire, cleaning of fires, or soot blowing, the shade or appearance of which may be in excess of 40 percent opacity, No. 2 on the Ringelmann Smoke Chart, for a period or periods aggregating no more than 6 min in any 60 min; those devices equipped with automatic soot blowers are permitted to be in excess of 40 percent opacity, for a period not to exceed 60 min in any 8 h period - for fuel burning devices installed after 13 May 1970 with gross heat input equal to or greater than 250 MBtu/h, visible emissions may be as great as 40 percent opacity, No. 2 on the Ringelmann Smoke Chart, for 2 min in any 1 h emissions.)
AE.15.2.NH. Fuel burning devices must comply with particulate emission standards (NHCAR Env-A 2002.06 through 2002. 08) [Citation Revised March 2007].	Verify that no person causes or allows emissions of particulate matter from fuel burning devices installed on or prior to 13 May 1970 in excess of the rates set forth in the following equations: - devices with gross heat input less than 10 MBtu/h, E = 0.60 - devices with gross heat input equal to or greater than 10 but less than 10,000 MBtu/h, E = 0.880 I [-0.166] - devices with gross heat input equal to or greater than 10,000 x MBtu/h, E = 0.19. Verify that no person causes or allows emissions of particulate matter from fuel burning devices installed after 13 May 1970 but before 1 January 1985 in excess of the rates set forth in the following equations: - devices with gross heat input less than 10 MBtu/h, E = 0.60 - devices with gross heat input equal to or greater than 10 but less than 250 MBtu/ h, E = 1.028 I [-0.234] or - devices with gross heat input equal to or greater than 250 MBtu/h, E = 0.10.

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	Verify that no person causes or allows emissions of particulate matter from fuel burning devices installed on or after 1 January 1985, in excess of the rates set forth in the following equations: - devices with gross heat input equal to or greater than 100 x 10^6 but less than 250 x MBtu/h, E = 0.15 - devices with gross heat input equal to or greater than 250 MBtu/h, E = 0.10. Where: E = Maximum Allowable Particulate Emission in lb per million British thermal units I = Maximum Gross Heat Input in million British thermal units per h.
AE.15.3.NH. Fuel burning equipment must comply with multiple and common stack requirements (NHCAR Env-A 2002.09) [Citation Revised March 2007].	Verify that when 2 or more fuel burning devices are connected to a common stack, the combined gross heat input of all devices connected to the stack is used to determine the allowable particulate emission from the stack. Verify that if a fuel burning device installed on or after 1 January 1985 is connected to a common stack which includes emissions from one or more existing fuel burning devices, the combination of devices connected to the stack are treated as a device installed on or after 1 January 1985 for the purposes of determining the allowable particulate emission from the stack. Verify that when one fuel-burning device is connected to 2 or more stacks, the allowable particulate emission does not exceed that allowable for the same device connected to one stack.
AE.15.4.NH. Continuous emission monitoring (CEM) systems must be approved prior to installation (NHCAR Env-A 2002.10) [Citation Revised March 2007].	Verify that when the Division requires the installation and operation of a CEM system on a fuel-burning device, the system is approved by the Division prior to installation.

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AE.25. **MISCELLANEOUS INCINERATORS**	
AE.25.1.NH. Incinerators must comply with regulations regarding visible emission and operation standards for incinerators (NHCAR Env-A 1902.01, 1902.02 and 1903.01) [Revised April 1998; Revised March 2007].	Verify that the average visible emissions of an incinerator do not exceed 20 percent opacity for any continuous 6 minute period in any 60 minute period. (NOTE: The requirements in this section apply to (NHCAR Env-A 1902.01): - an incinerator required to obtain a permit pursuant to Env-A 607.01, Env-A 608.01, or Env-A 609.01 - a wood waste burner.) (NOTE: These requirements do not apply to: - an incinerator combusting hazardous waste subject to 40 CFR 264, Subpart O, including all revisions and amendments through April 1, 1983 - an incinerator subject to 40 CFR 60, Subpart E - a municipal waste combustor subject to 40 CFR 60, Subpart Ea or 40 CFR 60, Subpart Eb - an incinerator combusting sewage sludge subject to 40 CFR 60, Subpart O.) (NOTE: The owner or operator of a municipal wood waste burner is exempt from other provisions of Env-A 1900 provided that the owner or operator complies with the visible and particulate matter emission limits as specified in Env-A 1903.01(a) and Env-A 1904.01 (i.e., AE.25.1.NH. and AE.25.2.NH.)) (NOTE: The owner or operator of the following types of incinerators is subject to the emissions limits for hydrogen chloride (see AE.25.5.NH.) but is exempt from all other provisions of this chapter: - a municipal waste combustor subject to 40 CFR 60, Subpart BBBB as incorporated in Env-A 3300 - a commercial and industrial solid waste incinerator subject to 40 CFR 60, Subpart DDDD as incorporated in Env-A 3400 - a hospital/medical/infectious waste incinerator subject to 40 CFR 60, Subpart Ec as incorporated in Env-A 3500.)
AE.25.2.NH. Incinerators must comply with specific emission standards (NHCAR Env-A 1904.01) [Revised April 1998; Revised March 2007].	(NOTE: See AE.25.1.NH. for applicability.) Verify that for an incinerator with an input capacity of less than or equal to 90.72 kilograms per hour (kg/hr) (200 pounds per hour (lb/hr)), the owner or operator shall not allow the incinerator to emit more than 0.675 grams per dry standard cubic meter (g/dscm) (0.3 grains per standard cubic foot (grains/scf)) of dry flue gas corrected to 12 percent of carbon dioxide (CO_2), without the contribution of CO_2 from auxiliary fuel in accordance with Env-A 802.02 Verify that for an incinerator with an input capacity of greater than 90.72 kg/hr (200 lb/hr), the owner or operator does not allow the incinerator to emit more than

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	0.45 g/dscm (0.2 grains/scf), of dry flue gas corrected to 12 percent CO_2, without the contribution of CO_2 from auxiliary fuel in accordance with Env-A 802.02. (NOTE: For an incinerator installed after August 17, 1971 with an input capacity of greater than or equal to 1,875 kg/hr (4,134 lb/hr), the incinerator will comply with the requirements of 40 CFR 60, Subpart E rather than the requirement specified above.)
AE.25.3.NH. [Deleted April 1998].	
AE.25.4.NH. Wood waste burners constructed, installed or substantially altered after 15 April 1970 must comply with specific emission standards (NHCAR Env-A 1904.02) [Revised April 1998; Revised March 2007].	(NOTE: See AE.25.1.NH. for applicability.) Verify that for wood waste burners, the owner or operator does not allow particulate matter to be discharged into the ambient air from any waste burner which exceeds 0.675 g/dscm, (0.3 grains/ ft^3), of dry flue gas corrected to 12 percent CO_2, without contribution of CO_2 from an auxiliary fuel in accordance with Env-A 802.02.
AE.25.5.NH. Incinerators must comply with hydrogen chloride emission standard (NHCAR Env-A 1905.01) [Revised April 1998; Revised March 2007].	(NOTE: See AE.25.1.NH. for applicability.) (NOTE: For installations completed on or after January 1, 1986, the owner or operator will comply with the HCl emission standard, if: - the incinerator module has a design throughput capacity of greater than or equal to 4,000 lb/hr (48 tons per day (tons/day)) - the incinerator facility consists of multiple modules, having an aggregate design throughput of greater than or equal to 8,333 lb/hr (100 tons/day), and - the incinerator burns Type 5 or 6 waste, regardless of size.) (NOTE: For installations completed prior to January 1, 1986, the owner or operator will comply with the HCl emission standards if: - the incinerator module has a design throughput capacity of greater than or equal to 4,000 lb/hr (48 tons/day), and - the incinerator facility consists of multiple modules, having an aggregate design throughput of greater than or equal to 12,500 lb/hr (150 tons/day).) Verify that incinerators comply with the following HCl emission standards, based on a 3-run stack test using a method approved by the Department: - an average emission level of 50 parts per million dry volume (ppm dv) at 7 percent oxygen (O_2), or - 90 percent HCl removal efficiency, whichever is less stringent.

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	(NOTE: The owner or operator of an incinerator burning solely type 7 waste is being exempt from these HCl emission standards .)
AE.25.6.NH. Incinerators must have the manufacturer's name plate installed in a conspicuous place on the incinerator (NHCAR Env-A 1906.01) [Citation Revised April 1998; Citation Revised March 2007].	(NOTE: See AE.25.1.NH. for applicability.) Verify that the model number, rated capacity, and the types of waste for which the device is designed are included on the name place. Verify that detailed instructions for the operation of each incinerator are posted in a conspicuous place near the device.
AE.25.7.NH. Incinerator operators must be trained (NHCAR Env-A 1906.02) [Citation Revised April 1998; Citation Revised March 2007].	(NOTE: See AE.25.1.NH. for applicability.) Verify that the owner has an operator, trained and competent in the operation of the incinerator, in charge of the stationary source.
AE.25.8.NH. [Moved March 2005].	(NOTE: Moved to AE.26.1.NH., March 2005.)
AE.25.9.NH. [Moved March 2005].	(NOTE: Moved to AE.26.2.NH., March 2005.)
AE.25.10.NH. [Moved March 2005].	(NOTE: Moved to AE.26.3.NH., March 2005.)
AE.25.11.NH. [Moved March 2005].	(NOTE: Moved to AE.26.4.NH., March 2005.)
AE.25.12.NH. [Moved March 2005].	(NOTE: Moved to AE.26.5.NH., March 2005.)

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AE.25.13.NH. [Moved March 2005].	(NOTE: Moved to AE.26.6.NH., March 2005.)
AE.25.14.NH. [Moved March 2005].	(NOTE: Moved to AE.26.7.NH., March 2005.)
AE.25.15.NH. [Moved March 2005].	(NOTE: Moved to AE.26.8.NH., March 2005.)
AE.25.16.NH. [Moved March 2005].	(NOTE: Moved to AE.26.9.NH., March 2005.)

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AE.26. **EXISTING COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATORS**	
AE.26.1.NH. Commercial and industrial solid waste incinerators (CISWI) must meet compliance schedules (NHCAR Env-A 3402.01, 3406.01, 3407.01, and 3411.01) [Added March 2003; Citation Revised March 2007].	(NOTE: Moved from AE.25.8.NH., March 2005.) (NOTE: These requirements apply to each commercial and industrial solid waste incineration (CISWI) unit, as defined in 40 CFR 60.2875, that commenced construction on or before 30 November 1999, and that is not exempt (see Appendix 1-7).) Verify that an application for a permit is filed no later than 1 December 2003. Verify that the CISWI unit complies by the earlier of: - 1 December 2005 - 3 years after the effective date of EPA's approval of the plan. Verify that no later than 180 days after EPA approval of the plan, the owner or operator of a CISWI unit submits to the Department either: - a closure agreement as set forth in 40 CFR 60.2615 - a schedule for compliance with all applicable standards and conditions. Verify that the waste management plan is submitted by the later of: - 1 December 2002 - 6 months after the effective date of EPA's approval of the plan. Verify that no later than 10 business days after the compliance date for each of the progress increments, a notification of achievement of the increments of progress as specified in 40 CFR 60.2585 and 60.2590 is submitted to the Department. Verify that, if the owner or operator of a CISWI unit fails to meet the progress increments, a notification (as specified in 40 CFR 60.2595) is submitted to the Department.
AE.26.2.NH. Commercial and industrial solid waste incinerators (CISWI) must meet emission limits (NHCAR Env-A 3403.01)	(NOTE: Moved from AE.25.9.NH., March 2005.) (NOTE: See applicability note in AE.26.1.NH.) Verify that the CISWI meets the emission limitations in Appendix 1-8 at all times

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[Added March 2003].	except during startup, shutdown, or malfunctions.
AE.26.3.NH. Commercial and industrial solid waste incinerators (CISWI) must have trained operators (NHCAR Env-A 3405.01) [Added March 2003; Revised March 2007].	(NOTE: Moved from AE.25.10.NH., March 2005.) (NOTE: See applicability note in AE.26.1.NH.) Verify that the operator of a CISWI unit obtains operator training through the state-approved program by the earlier of: - 1 December 2005 - 6 months after CISWI unit startup - 6 months after an employee assumes responsibility for operating the CISWI unit or for supervising the operation of the CISWI unit.
AE.26.4.NH. [Deleted March 2007].	(NOTE: Regulation revised and checklist item deleted; March 2007.)
AE.26.5.NH. Commercial and industrial solid waste incinerators (CISWI) must meet performance testing and compliance requirements (NHCAR Env-A 3408.01) [Added March 2003].	(NOTE: Moved from AE.25.12.NH., March 2005.) (NOTE: See applicability note in AE.26.1.NH.) Verify that the initial compliance requirements set forth in 40 CFR 60.2700 and 60.2705 are met. Verify that the initial and annual performance testing set forth in 40 CFR 60.2690 are met. Verify that the continuous compliance requirements set forth in 40 CFR 60.2710 are met. Verify that the annual compliance requirements procedure set forth in 40 CFR 60.2710, 60.2715, 60.2720, and 60.2725. Verify that the results of the performance testing and compliance requirements are used to demonstrate compliance with the emission limitations in Appendix 1-8.
AE.26.6.NH. Commercial and industrial solid waste incinerators (CISWI) must meet operating limits for air control devices (NHCAR Env-A 3408.02) [Added	(NOTE: Moved from AE.25.13.NH., March 2005.) (NOTE: See applicability note in AE.26.1.NH.) (NOTE: The owner or operator of a CISWI unit that is equipped with an air pollution control device shall comply with the operating parameters specified in

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March 2003].	40 CFR 60.2675 or 40 CFR 60.2680, as applicable.) Verify that, if a wet scrubber is used to comply with the emission limitations, the establish operating limits are met for 4 operating parameters (see Appendix 1-9) during the initial performance test. Verify that the operating limits are met during the initial performance test on the date the initial performance test is required or completed (whichever is earlier). (NOTE: If a fabric filter is used to comply with the emission limitations, you must operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the initiate corrective action takes longer than one hr., the alarm time will be counted as the actual amount of time taken by you to initiate corrective action.) (NOTE: If an air pollution control device is used other than a wet scrubber, or limit emissions in some other manner, to comply with the emission limitations under 60.2670, the Administrator must be petitioned for specific operating limits to be established during the initial performance test and continuously monitored thereafter. The initial performance test must not be done until after the petition has been approved by the Administrator.)
AE.26.7.NH. Commercial and industrial solid waste incinerators (CISWI) must meet monitoring requirements (NHCAR Env-A 3409.01) [Added March 2003].	(NOTE: Moved from AE.25.14.NH., March 2005.) (NOTE: See applicability note in AE.26.1.NH.) (NOTE: The owner or operator of a CISWI unit must comply with the monitoring requirements specified in 40 CFR 60.2730 and 60.2735.) Verify that, if a wet scrubber is used to comply with the emission limitation, operating devices (or methods) for monitoring are installed, calibrated (to manufacturers' specifications), and maintained, to determine compliance with the operating limits. Verify that, if a fabric filter is used to comply, a bag leak detection system is installed, calibrated, maintained, and continuously operated. Verify that, if something other than a wet scrubber is used to comply with the emission limitations, the equipment necessary to monitor is installed, calibrated (to the manufacturers' specifications), maintained, and operated. Verify that monitoring is conducted at all times the CISWI unit is operating (except for monitoring malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system).

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	(NOTE: Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements, including data averages and calculations will not be used be used for assessing compliance. Data from all other periods will be used for assessing compliance.)
AE.26.8.NH. Commercial and industrial solid waste incinerators (CISWI) must meet recordkeeping requirements (NHCAR Env-A 3410.01) [Added March 2003].	(NOTE: Moved from AE.25.15.NH., March 2005.) (NOTE: See applicability note in AE.26.1.NH.) (NOTE: The owner or operator of a CISWI unit shall comply with the recordkeeping requirements specified in 40 CFR 60.2740 and 60.2745.) Verify that required records are maintained for at least 5 years with the calendar date of each record. Verify that the following records are maintained: - the CISWI unit charge dates, times, weights, and hourly charge rates - liquor flow rate to the wet scrubber inlet every 15 minutes of operation, as applicable - pressure drop across the wet scrubber system every 15 minutes of operation or amperage to the wet scrubber every 15 minutes of operation, as applicable - liquor pH as introduced to the wet scrubber every 15 minutes of operation, as applicable - for affected CISWI units that establish operating limits for controls other than wet scrubbers, maintain data collected for all operating parameters used to determine compliance with the operating limits - if a fabric filter is used to comply with the emission limitations, record the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken - record the percent of operating time during each 6-month period that the alarm sounds. Verify that calendar dates and times are identified for the following: - when the monitoring systems used to monitor operating limits are inoperative, inactive, malfunctioning, or out of control (except for downtime associated with zero and span and other routine calibration checks) are identified - operating parameters not measured, the duration, reasons for not obtaining the data, and a description of corrective actions taken - durations of malfunctions, and a description of the malfunction and the corrective action taken - when data show a deviation from the operating limits or a deviation from other operating limits with a description of the deviations, reasons for such deviations, and a description of corrective actions taken.

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	Verify that the following are maintained: - results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable - a copy of the complete compliance test report including calculations - records showing the names of CISWI unit operators who have completed the required information review, including the date of the initial review and all subsequent annual reviews - records showing the names of the CISWI operators who have completed the operator training requirements, met the criteria for qualification, and maintained or renewed their qualification are maintained - training records include documentation of training, the dates of the initial and refresher training, and the dates of their qualification and all subsequent renewals of such qualifications - for each qualified operator, the phone and/or pager number at which they can be reached during operating hours - records of calibration of any monitoring devices - equipment vendor specifications and related operation and maintenance requirements for the incinerator, emission controls, and monitoring equipment - documentation required in AE.25.11.NH. - on a daily basis, a log of the quantity of waste burned and the types of waste burned (always required). Verify that all records are available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.
AE.26.9.NH. Commercial and industrial solid waste incinerators (CISWI) must meet reporting requirements (NHCAR Env-A 3410.02) [Added March 2003].	(NOTE: Moved from AE.25.16.NH., March 2005.) (NOTE: See applicability note in AE.26.1.NH.) (NOTE: The owner or operator of a CISWI unit shall comply with the reporting requirements specified in 40 CFR 60.2750, 60.2755, 60.2760, 60.2765, 60.2770, 60.2775, 60.2780, 60.2785, 60.2790, 60.2795, and 60.2800.) Verify that all performance test reports are signed by the facility manager. Verify that the following initial performance test information is submitted no later than 60 days following the initial performance test: - complete test report for the initial performance test results obtained under 60.2700, as applicable - values for the site-specific operating limits established in 60.2675 or 60.2680 - if a fabric filter is used to comply with the emission limitations,

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	documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by 60.2730(b). Verify that an annual report is submitted no later than 12 months following the initial performance test, and subsequent reports no more than 12 months following the previous report. (If the unit is subject to permitting requirements under title V of the Clean Air Act, you may be required by the permit to submit these reports more frequently.) Verify that deviations from the operating limits or the emission limitations are reported if any recorded 3-hour average parameter level is above the maximum operating limit or below the minimum operating limit, if the bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period, or if a performance test was conducted that deviated from any emission limitation. Verify that the deviation report is submitted by 1 August of that year for data collected during the first half of the calendar year (1 January to 30 June), and by 1 February of the following year for data you collected during the second half of the calendar year (1 July 1 to 31 December). Verify that, if all qualified operators are not accessible for 2 weeks or more, a notification of the deviation is submitted within 10 days that includes the 3 items below: - statement of what caused the deviation - description of what will be done to ensure that a qualified operator is accessible - date when you anticipate that a qualified operator will be available. Verify that a status report to the Administrator every 4 weeks that includes the following items: - description of what is done to ensure that a qualified operator is accessible - the date when a qualified operator will be accessible - request to continue operation of the CISWI unit. Verify that, if the unit was shut down by the Administrator, due to a failure to provide an accessible qualified operator the Administrator is notified that operation is resumed once a qualified operator is accessible. Verify that initial, annual, and deviation reports are submitted electronically or in paper format, postmarked on or before the submittal due dates. (NOTE: If the Administrator agrees, the semiannual or annual reporting dates can be changed.)

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AE.30. **MEDICAL WASTE INCINERATORS**	
AE.30.1.NH. Small, remote hospital/medical/infectious waste incinerators (HMIWIs) must meet state-specific emissions limits for mercury (NHCAR Env-A 3503.01 and 3505.01) [Added March 2000].	(NOTE: New Hampshire has adopted regulations to implement the Federal regulations of 40 CFR 60, Subpart Ce, Hospital/Medical/Infectious Waste Incinerators. The New Hampshire regulations are substantially identical to the Federal, except for the more stringent limit on mercury emissions for small, remote HMIWIs.) Verify that small, remote HMIWIs do not exceed the emission limit for mercury of 0.055 mg/dscm (0.024 grains per thousand dscf), measured on 7 percent oxygen, dry basis. (NOTE: "Small, remote HMIWI" has the same definition as the Federal, i.e., any small HMIWI which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than 2 000 lb/week of hospital waste and medical/infectious waste, where small is defined as: - an HMIWI whose maximum design waste burning capacity is less than or equal to 200 lb/hr - a continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 lb/hr, or - a batch HMIWI whose maximum charge rate is less than or equal to 1 600 lb/day.)

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AE.35. **MUNICIPAL WASTE COMBUSTORS**	
AE.35.1.NH. [Deleted March 2009].	
AE.35.2.NH. Large municipal waste combustors (MWC) must meet emission limits (NHCAR Env-A 3303.01) [Added March 2003; Revised March 2008].	(NOTE: See AE.35.1.NH. for applicability.) Verify that the carbon monoxide and nitrogen oxides limits for specific technologies in Appendix 1-10 are met. Verify that the emission limits for particulate matter, opacity, cadmium, lead, mercury, sulfur dioxide, hydrogen chloride, and total mass dioxins\furan in Appendix 1-11 are met. Verify that the fugitive ash emissions requirements applicable to each large MWC unit as specified in 40 CFR 60.55b are met.
AE.35.3.NH. Large municipal waste combustors (MWC) must operating requirements (NHCAR Env-A 3304.01) [Added March 2003; Revised March 2008].	Verify that the operating practices applicable to each large MWC unit as specified in 40 CFR 60.53b(b) and (c) are followed.
AE.35.4.NH. Large municipal waste combustors (MWC) must meet monitoring and testing requirements (NHCAR Env-A 3306.01) [Added March 2003; Revised March 2008].	(NOTE: See AE.35.1.NH. for applicability.) (NOTE: The compliance and performance testing requirements applicable to each large MWC unit shall be as specified in 40 CFR 60.58b, except as provided by 40 CFR 60.24(b)(2) and as amended in this checklist item. See 40 CFR 60.58b for procedures and test methods.) (NOTE: The alternative performance testing schedule for dioxins/furans specified in 40 CFR 60.58b(g)(5)(iii) will apply to large MWC plants where all performance tests for affected facilities over a 2-year period achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter, corrected to 7 percent oxygen.) Verify that if continuous emission monitors are used, they are installed, operated

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	and maintained (see AE.8.9.NH.).
AE.35.5.NH. Large municipal waste combustors (MWC) must monitor and testing requirements (NHCAR Env-A 3307.01) [Added March 2003; Revised March 2008].	(NOTE: See AE.35.1.NH. for applicability.) (NOTE: The reporting and recordkeeping requirements applicable to each large MWC unit are the same as specified in 40 CFR 60.59b, excluding the siting requirements under 40 CFR 60.59b(a), (b)(5) and (d)(11).) (NOTE: See AE.36.14.US., AE.36.15.US., and AE.36.16.US. for applicable reporting and recordkeeping requirements.) Verify that reporting and recordkeeping requirements are met.
AE.35.6.NH. All municipal waste combustors (MWC) must meet training requirements (NHCAR Env-A 3305.01) [Added March 2003; Revised March 2008].	(NOTE: Operator training for large and small MWC units must be obtained through a state program.) Verify that the following employees of a MWC unit complete the required operator training course: - chief facility operators - shift supervisors - control room operators. Verify that training courses are completed: - for new facilities, 6 months after the MWC unit at which the employee will work starts up - for existing facilities, 6 months after the employee transfers to or is hired to work at the MWC unit. (NOTE: If all certified operators must be temporarily offsite, the MWC unit owner or operator shall comply with the requirements of 40 CFR §60.54b(c) for a large MWC unit or 40 CFR §60.1685 for a small MWC unit.
AE.35.7.NH. [Deleted March 2008].	(NOTE: NHCAR Env-A 3305.03 was deleted.)
AE.35.8.NH. All municipal waste combustors (MWC) must meet plant-specific operator training and manual requirements (NHCAR Env-	Verify that the following employees of a MWC unit complete a plant-specific operator training course: - chief facility operators - shift supervisors

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A 3305. 02) [Added M arch 2003; Revised March 2008].	- control room operators - ash handlers - maintenance personnel - crane or load handlers. Verify that the owner or operator of a large or small MWC unit provides plant-specific training to the employees, in accordance with the following requirements: - for a large MWC, 40 CFR §60.54b(e), (f), and (g) - for a small MWC, the following: - 40 CFR §60.1660 - 40 CFR §60.1665 - 40 CFR §60.1670.
AE.35.9.NH. [Moved March 2005]	(NOTE: Moved to AE.37.1.NH., March 2005.)
AE.35.10.NH. [Moved March 2005]	(NOTE: Moved to AE.37.2.NH., March 2005.)
AE.35.11.NH. [Moved March 2005]	(NOTE: Moved to AE.37.3NH., March 2005.)
AE.35.12.NH. [Moved March 2005]	(NOTE: Moved to AE.37.4.NH., March 2005.)
AE.35.13.NH. [Moved March 2005]	(NOTE: Moved to AE.37.5.NH., March 2005.)
AE.35.14.NH. [Moved March 2005]	(NOTE: Moved to AE.37.6.NH., March 2005.)
AE.35.15.NH. [Moved March 2005]	(NOTE: Moved to AE.37.7.NH., March 2005.)

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AE.37. **SMALL MUNICIPAL WASTE COMBUSTORS**	
AE.37.1.NH. [Deleted March 2008]**.**	(NOTE: NHCAR Env-A 3308.02 was deleted.)
AE.37.2.NH. Small municipal waste combustors (MWC) must meet emission limits (NHCAR Env-A 3303.02) [Added March 2003; Revised March 2005].	(NOTE: Moved from AE.35.10.NH., March 2005.) (NOTE: See AE.37.1.NH. for applicability.) Verify that the small MWC meets the emission limits for carbon monoxide as specified in Appendix 1-12. Verify that the small MWC meets the emission limits as specified in Appendix 1-13.
AE.37.3.NH. Small municipal waste combustors (MWC) must meet operating requirements (NHCAR Env-A 3304.02 and 40 CFR 60.1690) [Added March 2003].	(NOTE: Moved from AE.35.11.NH., March 2005.) (NOTE: See AE.37.1.NH. for applicability.) (NOTE: The operating practices applicable to each small MWC unit are specified in 40 CFR 60.1690 and 60.1695.) Verify that the small MWC unit is not operated at loads greater than 110 percent of the maximum demonstrated load of the municipal waste combustion unit (4-hour block average). Verify that the small MWC unit is not operated so that the temperature at the inlet of the particulate matter control device exceeds 17°C above the maximum demonstrated temperature of the particulate matter control device (4-hour block average). Verify that, if the small MWC unit uses activated carbon to control dioxins/furans or mercury emissions, an 8-hour block average carbon feed rate is maintained at or above the highest average level established during the most recent dioxins/furans or mercury test. Verify that, if the small MWC unit uses activated carbon to control dioxins/furans or mercury emissions, total carbon usage is evaluated for each calendar quarter. (NOTE: The total amount of carbon purchased and delivered to the small MWC unit must be at or above the required quarterly usage of carbon. The operator may

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	choose to evaluate required quarterly carbon usage on a MWC unit basis for each individual municipal waste combustion unit. Calculate the required quarterly usage of carbon using equation 4 or 5 in 60.1935(f).) (NOTE: Small MWC units are exempt from limits on load level, temperature at the inlet of the particulate matter control device, and carbon feed rate during any of 5 situations: - during annual tests for dioxins/furans - during annual mercury tests (for carbon feed rate requirements only) - during the 2 weeks preceding the annual tests for dioxins/furans - during the 2 weeks preceding the annual mercury tests (for carbon feed rate requirements only) - Whenever the Administrator or delegated State authority permits you to do any of 5 activities: - evaluate system performance - test new technology or control technologies - perform diagnostic testing - perform other activities to improve the performance of your municipal waste combustion unit - perform other activities to advance the state of the art for emission controls for your municipal waste combustion unit.) (NOTE: The operating requirements apply at all times except during periods of municipal waste combustion unit startup, shutdown, or malfunction.) Verify that startup, shutdown, or malfunction does not last for longer than 3 hours.
AE.37.4.NH. Small municipal waste combustors (MWC) must meet stack test requirements (NHCAR Env-A 3306.02(a) and (d)) [Added March 2003].	(NOTE: Moved from AE.35.12.NH., March 2005.) (NOTE: See AE.37.1.NH. for applicability.) Verify that initial and annual stack testing are conducted at small MWC units to determine compliance for the following pollutants and parameters: - particulate matter - opacity - cadmium - lead - mercury - hydrogen chloride - dioxins/furans - fugitive ash. Verify that continuous emission monitoring data gathered at small MWC units are used to determine compliance with emissions limits as specified in Appendix 1-12 and 1-13 for the following pollutants: - sulfur dioxide

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	- carbon monoxide. (NOTE: Emission limits apply to small MWC units at all times except during periods of MWC unit startup, shutdown, or malfunction, as specified in 40 CFR §60.1710.)
AE.37.5.NH. [Deleted March 2008].	
AE.37.6.NH. [Deleted March 2008].	(NOTE: NHCAR Env-A 3307.02 adopts federal requirements for recordkeeping and reporting for small MWC units.)
AE.37.7.NH. [Deleted March 2008].	(NOTE: NHCAR Env-A 3307.02 adopts federal requirements for recordkeeping and reporting for small MWC units.)

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AE.55. **GASOLINE/FUELS**	
AE.55.1.NH. [Deleted March 2009].	(NOTE: NHCAR Env-A 1611, Fuel Specifications, was repealed.)
AE.55.2.NH. [Deleted March 2009].	(NOTE: NHCAR Env-A 1611, Fuel Specifications, was repealed.)
AE.55.3.NH. [Deleted March 2009].	(NOTE: NHCAR Env-A 1611, Fuel Specifications, was repealed.)
AE.55.4.NH. Fuels used in stationary sources or devices must meet specific requirements (NHCAR Env-A 1602.01, 1603.02, 1603.03, 1607.01, 1608.01, and 1609.01) [Added March 2003; Revised March 2007].	(NOTE: This applies to any person who causes or allows the use of the fuels specified in Part Env-A 1603 or who burns such fuels at a stationary source or device in the state. This chapter shall also apply to the suppliers of such fuels. See Appendix 1-6b for applicable fuels.) Verify that use of non-conforming fuel is prohibited unless, in the event of a fuel shortage, the director approves use. (NOTE: All major fuel companies, and such other independent companies that supply fuel for use or for sale or use within the state, will provide the department with a report of a laboratory analysis for each different consignment of fuel.)
AE.55.5.NH. Gaseous fuels used in stationary sources or devices must meet specific standards (NHCAR Env-A 1605.01) [Added March 2003].	(NOTE: See AE.55.4.NH. for applicability.) Verify that gaseous fuels contain no more than 15 grains of sulfur per 100 cubic ft of gas at standard temperature and pressure.
AE.55.6.NH. Coal used in stationary sources or devices must meet specific standards (NHCAR Env-A 1606.01) [Added March 2003].	(NOTE: See AE.55.4.NH. for applicability.) Verify that, for a coal-burning device placed in operation before 15 April 1970, coal meets both of the following requirements: - sulfur content of coal does not exceed 2.8 pounds per million BTU gross heat

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	content - sulfur content of coal does not exceed 2.0 pounds per million BTU gross heat content averaged over any consecutive 3-month period. Verify that, for a coal-burning device placed in operation on or after 15 April 1970, coal meets both of the following requirements: - sulfur content of coal does not exceed 1.5 pounds per million BTU gross heat content - sulfur content of coal does not exceed 1.0 pound per million BTU gross heat content, averaged over any consecutive 3-month period.
AE.55.7.NH. Liquid fuels used in stationary sources or devices must meet specific standards (NHCAR Env-A 1604.01) [Added March 2003].	(NOTE: See AE.55.4.NH. for applicability.) Verify that the sulfur content of No. 2 oil and JP-4 aviation fuel does not exceed 0.40 percent sulfur by weight. Verify that the sulfur content of No. 4 oil does not exceed 1.00 percent sulfur by weight. Verify that the sulfur content of No. 5 oil, No. 6 oil, and crude oil does not exceed the following limits: - in Coos county, 2.20 percent sulfur by weight - anywhere else in the state, 2.00 percent sulfur by weight. Verify that the sulfur content of aviation gasoline does not exceed 0.05 percent sulfur by weight. Verify that the sulfur content of kerosene-1 oil does not exceed 0.04 percent sulfur by weight. Verify that the sulfur content of kerosene-2 oil and Jet A, A-1, B and JP-8 aviation fuels does not exceed 0.30 percent sulfur by weight. Verify that the sulfur content of used oil does not exceed 2.00 percent sulfur by weight.

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AE.60. **PRINTING PRESSES AND GRAPHIC ARTS**	
AE.60.1.NH. Rotogravure and flexographic printing facilities must meet VOC emissions limits (NHCAR Env-A 1204.36) [Revised March 2003].	(NOTE: This checklist item applies to all sources whose rotogravure or flexographic printing operations have combined total potential emissions (TPEs) during any consecutive 12-month period after 31 December 1989 which equal or exceed 50 tons of VOCs.) Verify that each ink, as it is applied to the substrate, less water and non-volatile organic compounds, contains no more than 40 percent by volume of VOCs. Verify that the volatile fraction of each ink, as it is applied to the substrate, contains no more than 25 percent by volume of VOCs and at least 75 percent by volume of water and non-volatile organic compounds. Verify that, for packaging rotogravure and flexographic printing only, each ink, as it is applied to the substrate, has a VOC content that is less than or equal to 0.5 kg VOC/kg (0.5 lb VOC/lb) coating solids. Verify that a capture system is used in conjunction with the emission control system selected. Verify that the design and operation of a capture system provides for an overall reduction in VOC emissions from each printing press of: - at least 75 percent where a publication rotogravure process is employed - at least 65 percent where a packaging rotogravure process is employed - at least 60 percent where a flexographic printing process is employed. Verify that, if the owner/operator does not meet the above standards, either of the following is installed and operated: - a carbon adsorption system which reduces the rate of VOC emissions delivered from the capture system to the control equipment by at least 90 percent by weight over the adsorption cycle or 24 hours, whichever is less - incineration control equipment that reduces the rate of VOC emissions delivered from the capture system to the incineration inlet by at least 90 percent by weight. (NOTE: As an alternative to the applicable VOC limits and technological control standards above, whichever requirements are applicable, a rotogravure or flexographic printing operation meeting the applicability criteria may satisfy the requirements by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)

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AE.60.2.NH. Offset lithographic printing operations must comply with VOC emissions limits (NHCAR Env-A 1204.37) [Revised March 2003].	(NOTE: All sources whose offset lithographic printing operations have combined TPEs during any consecutive 12 mo period after 31 December 1989 which equal or exceed 50 tons of VOCs are subject to this checklist item.) Verify that cleaning solution, used for blanket and ink roller washes does not exceed the following VOC RACT limits: - nonexempt VOC content of 30.0 percent by weight, as applied - nonexempt VOC content of 0.9 kg/L (7.43 lb/gal) of cleaning solution, as applied, with a VOC composite partial pressure of 10 mmHg (0.19 psi) or less at 20 deg C (68 deg F). Verify that a=all cleaning materials and soiled towels used for manual cleaning are kept in closed containers. Verify that the VOC emissions from the dryer exhaust of heatset inks meet the following requirements: - are reduced by at least 90.0 percent, by weight, of total organics, less methane and ethane - does not exceed 20 ppm, by volume, prior to dilution. Verify that the fountain solution used in heatset web offset lithographic printing presses, is limited to one of the following: - nonexempt VOC content of 1.6 percent or less, by weight - nonexempt VOC content of 3.0 percent or less, be weight, if the fountain solution is refrigerated to a temperature below 60 deg F (16 deg C) - nonexempt VOC content of 5.0 percent or less, by weight, if the fountain solution contains no alcohol. Verify that the fountain solution used in sheet-fed offset lithographic facilities, is limited to either of the following: - nonexempt VOC content of 5.0 percent or less, by weight - nonexempt VOC content of 8.5 percent or less, by weight, if the fountain solution is refrigerated to a temperature below 60 deg F (16 deg C). Verify that the fountain solution used in nonheatset web-fed offset lithographic printing processes, including both newspaper and nonnewspaper facilities contains no alcohol and the concentration of total nonexempt VOCs does not exceed 5.0 percent, by weight, in the final solution. (NOTE: As an alternative to the applicable VOC limits and operational control standards specified, an offset lithographic operation meeting the applicability criteria may satisfy the requirements by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)
AE.60.3.NH. Printing	(NOTE: Printing operations are also subject to the general recordkeeping

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operations must comply with VOC recordkeeping requirements (NHCAR Env-A 904.03 and 904.04) [Citation Revised April 1998; Revised March 2000; Revised March 2008].	requirements for VOC sources (see AE.125.1.NH.). Verify that all printing operations record and maintain the following ink formulation and analytical data: - supplier - name and color - type - identification number - density described as lbs/gal - total volatile content described as weight percent - water content described as weight percent - exempt solvent content described as weight percent - VOC content described as weight percent - solids content described as volume percent - diluent name and identification number - diluent solvent density described as lbs/gal - diluent VOC content described as weight percent - diluent exempt solvent content described as weight percent - volume of diluent VOC described as gal - diluent/solvent ratio described as gal diluent solvent/gal coating. Verify that all printing operations record and maintain records of the number of gallons of each ink, including solvents and diluents, utilized during a typical high ozone season day for each surface coating or printing operation. Verify that all printing operations record and maintain records of process information for a typical high ozone season day including: - method of application - number of coats for coating operations - drying method, if applicable - substrate type and form. Verify that, for rotogravure, flexographic, and offset lithographic printing, the information is recorded on standard forms included in the Recordkeeping Guidance Document for Surface Coating Operations and the Graphic Arts Industry, EPA, July 1989. (NOTE: If a facility chooses to use alternate forms, those forms will contain the same data and information.)

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AE.65. **FUGITIVE EMISSIONS**	
AE.65.1.NH. Specific activities must employ precautions to control fugitive dust (NHCAR Env-A 1002.02 and 1002.04) [Citation Revised April 1998; Revised March 2004].	Verify that precautions to prevent, abate, and control fugitive dust are taken for the following activities: - commercial mining activities including the construction, maintenance or operation of a commercial mining or strip mining facility or part thereof - construction activities including construction, maintenance, operation, paving, sweeping, trenching, excavating, filling, or other activity associated with, but not limited to, the building of streets, roads, highways, parking lots, shopping centers, or housing developments - maintenance activities, including sweeping, vacuuming, or other activity involved with the upkeep of streets, roads, highways, parking lots, shopping centers, housing developments, or other centers of business or residential development, buildings, bridges, utilities, sewer lines, waterlines, or similar entities - clearing and demolition activities including the clearing and demolition of buildings, bridges and other structures maintenance of utilities, sewers, waterlines or similar activities - bulk hauling activities including the operation of bulk hauling activities and the transfer of material on public transportation routes - storage activities, including the unloading, redistribution, and maintenance of materials at a facility. Verify that any person engaged in any activity (except those noted below) that emits fugitive dust within the state takes precautions throughout the duration of the activity in order to prevent, abate, and control the emission of fugitive dust including, but not limited to, wetting, covering, shielding, or vacuuming. (NOTE: Env-A 1002.02 does not apply to the following: - application of traction enhancement materials including sand and de-icing chemicals including road salt, to public transportation routes - normal usage of gravel or dirt roads - resurfacing of existing highways where the removal of surplus sand is not necessary - agricultural industry or operations.)

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AE.67. **TOXIC EMISSIONS**	
AE.67.1.NH. Emissions of regulated toxic air pollutants must be in compliance with ambient air limits (NHCAR Env-A 1402.01 and 1405.01) [Revised March 2004; Revised March 2006; Revised March 2010].	Verify that compliance with the ambient air limits is determined for any device or process that emits a regulated toxic air pollutant (See Appendix 1-6a) using one of the following methods: - results of an air dispersion modeling analysis - de minimis emission level method - in-stack concentration method - adjusted in-stack concentration method, or - calculations, results, or analyses from an alternative method of compliance demonstration approved by the department. Verify that, upon request, the owner of a device or process that emits a regulated toxic air pollutant provides documentation of compliance with the ambient air limits to the Division. (NOTE: Any owner of a device or process is exempt for a particular regulated toxic air pollutant where the emissions of the pollutant are from or result from any of the following sources or activities: - normal agricultural operations - the application of pesticides regulated pursuant to RSA 430:28 through RSA 430:48 - emissions of RTAPs resulting from mobile sources; and - emissions of RTAPs resulting from the combustion of virgin petroleum products at stationary sources.) (NOTE: An owner or operator of a device or process is exempt from the requirements for a particular regulated toxic air pollutant where all of the following conditions are met: - the combustion of one or more of the following fuels: - coal - natural gas - propane - virgin petroleum products - ASTM specification biodiesel fuel blended at a maximum percentage of 20 percent with virgin petroleum fuel and burned in an external combustion device, or - biomass (defined as "organic material used as a fuel, not including wood derived from construction and demolition debris, as defined in RSA 149-M:4, IV-a; wood which has been chemically treated; or agricultural crops or aquatic plants or byproducts from such crops or plants, which have been used to rehabilitate a contaminated or brownfields site through a process known as 'phytoremediation'." The term also does not include any mixture containing the wood component of construction and demolition debris or any material or mixture

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	containing sewage sludge, industrial sludge, medical waste, hazardous waste, household or municipal waste, animal or human remains, animal or human waste, or radioactive waste) - a gasoline dispensing or storage facility or cargo truck - an exempt activity (as classified in Env-A 609.03) - a pneumatic transfer system for collecting sander dust which uses a baghouse that is operated and maintained in accordance with the manufacturer's specifications - non-metallic mineral processing plants - wastewater evaporators that do not process wastewater containing volatile organic compounds (VOCs) - waste oil heaters that meet the following criteria: - the sum of the gross heat input design ratings for all devices equals 500,000 Btu per hour or less - the sum of the fuel use rate for all devices equals 3.6 gallons per hour of fuel use or less - all devices burn 8,640 gallons per year or less of specification used oil - each exhaust stack has an inside diameter of 8 inches or less - each exhaust stack outlet is 20 feet or more above the ground - each exhaust stack is vertical and unobstructed - all devices are operated and maintained in accordance with manufacturer's specifications.)
AE.67.2.NH. Regulated toxic air pollutants emissions must have a permit or demonstrate compliance (NHCAR Env-A 1403.01 and 1406.01) [Revised March 2004; Revised March 2006; Revised March 2010].	(NOTE: See AE.67.1.NH. for applicability.) Verify that any device or process that emits a regulated toxic air pollutant has a temporary permit, state permit to operate or title V operating permit prior to operating. (NOTE: A permit is not required for any owner of a device or process who demonstrates compliance by one of the methods in Env-A 1405 (see AE.67.1.NH. above), nor for any device or process otherwise subject to this chapter for a particular regulated toxic air pollutant where all of the following conditions are met: - the actual emissions of the pollutant: - are less than the annual and 24-hour de minimis emission levels for that pollutant - are less than 50 percent of the annual and 24-hour ambient air limits for that pollutant using the adjusted in-stack concentration method, or - are less than 50 percent of the annual and 24-hour ambient air limits for that pollutant using the air dispersion modeling analysis method - emissions are not subject to treatment or removal by pollution control equipment prior to being emitted to the ambient air (except at facilities performing spray coating operations that demonstrate compliance with the spray booth filter provisions in §63.11173(e)(2)(i) of 40 CFR 63 subpart HHHHHH, "National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources") - documentation that emissions meet the criteria specified above is retained at

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	the site and made available to the department for inspection for as long as the exemption is claimed.) Verify that a demonstration of compliance consists of at least one of the following: - results of an air dispersion modeling analysis - de minimus emission level method - in-stack concentration method - adjusted in-stack concentration method - calculations, results or analyses from an approved alternative method of compliance. Verify that documentation for the demonstration of compliance is retained at the site, and is made available to the Department for inspection. (NOTE: The Department shall classify each regulated toxic air pollutant as a class I regulated toxic air pollutant, class II regulated toxic air pollutant, or class III regulated toxic air pollutant (see Appendix 1-14).)

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AE.80. **ACID PRODUCTION UNITS**	
AE.80.1.NH. [Deleted March 2007].	(NOTE: Regulations revised, checklist item deleted; March 2007.)

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AE.100. **COATING OPERATIONS**	
AE.100.1.NH. Metal can coating operations must meet limits for VOC emissions (NHCAR Env-A 1204.09).	(NOTE: All sources whose metal can coating operations have combined theoretical potential VOC emissions (TPEs) during any consecutive 12 mo period after 31 December 1989 which equal or exceed 10 tons of nonexempt VOCs are subject to the provisions of this checklist item.) Verify that metal can coating sources are limited at all times to the emission rates specified below: - for use in interior or exterior sheet base-coating or over-varnish, or a two-piece can exterior basecoat or over-varnish, 0.34 kg of VOC per liter of coating as applied (2.8 lb VOC/gal), excluding water and exempt compounds or, for sources implementing add-on controls or a bubble to achieve compliance, the solids-based emission rate - for use in a two-piece or three-piece can interior body spray coating, or a two-piece can exterior end spray or roll coating, 0.51 kg/L (4.2 lb VOC/gal) of coating, as applied, excluding water and exempt compounds - for use in three-piece can side-seam spray operations, 0.66 kg/L (5.5 lb VOC/gal) of coating, as applied, excluding water and exempt compounds - for use in end sealing compound operations, 0.44 kg/L (3.7 lb VOC/gal) of coating, as applied, excluding water and exempt compounds. (NOTE: As an alternative to the applicable emission rate limits, metal can coating operations can satisfy the requirements of this checklist item either by: - implementing add-on control techniques or a bubble and complying with the solids-based emission rate limits, or - meeting either a coatings-based or solids-based modified emission rate limit as approved by the Director and USEPA in accordance with RACT order provisions.)
AE.100.2.NH. Paper, fabric, film and foil coating operations must meet VOC emission limits (NHCAR Env-A 1204.10).	(NOTE: All sources whose paper, fabric, film and foil coating operations, including specialty printing, have combined TPEs during any consecutive 12 mo period after 31 December1989 which equal or exceed 10 tons of nonexempt VOCs are subject to the provisions of this checklist item.) (NOTE: Those processes applying a coating to vinyl or urethane coated fabric, or vinyl or urethane sheets are excluded from the provisions of this Section.) Verify that those processes applying a coating to any woven or nonwoven, fibrous or nonfibrous substrate, including paper, fabric, glass matting, plastic film, ribbon, and magnetic tapes are limited at all times to an emission rate of 0.35 kg/L (2.9 lb VOC/ gal) of coating, as applied, excluding water and exempt compounds.

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	(NOTE: As an alternative to the applicable emission rate limit specified above, paper, fabric, film and foil substrate coating operations may satisfy the requirements of this checklist item either by: - implementing add-on control techniques or a bubble and complying with the solids-based emission rate limit, or - meeting either a coatings-based or solids-based modified emission rate limit as approved by the Director and EPA in accordance with RACT order provisions.)
AE.100.3.NH. Metal furniture coating operations must meet VOC emissions limits (NHCAR Env-A 1204.12).	(NOTE: All sources whose metal furniture coating operations have combined TPEs during any consecutive 12 mo period after 31 December 1989 which equal or exceed 10 tons of nonexempt VOCs are subject to the provisions of this checklist item. This checklist item applies to the emissions from application areas, flash-off areas, and ovens of metal furniture coating lines involved in prime and topcoat or single coating operations.) Verify that those processes applying a coating onto metal furniture or parts of metal furniture, including but not limited to tables, benches, chairs, file cabinets, and waste baskets, are limited at all times to an emission rate of 0.36 kg/L (3.0 lb VOC/gal) of coating, as applied, excluding water and exempt compounds. (NOTE: As an alternative to the applicable emission rate limit, metal furniture coating operations meeting the applicability criteria may satisfy the requirements of this checklist item either by: - implementing add-on control techniques or a bubble and complying with the solids-based emission rate limit, or - meeting either a coatings-based or solids-based modified emission rate limit as approved by the Director and EPA in accordance with RACT order provisions.)
AE.100.4.NH. Surface operations must comply with VOC recordkeeping requirements (NHCAR Env-A 904.03 and 904.04) [Citation Revised April 1998; Revised March 2000].	(NOTE: Surface coating operations are also subject to the general recordkeeping requirements for VOC sources (see AE.125.1.NH.). Verify that all surface coating operations record and maintain the following coating formulation and analytical data: - supplier - name and color - type - identification number - density described as lbs/gal - total volatile content described as weight percent - water content described as weight percent - exempt solvent content described as weight percent - VOC content described as weight percent - solids content described as volume percent

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	- diluent name and identification number - diluent solvent density described as lbs/gal - diluent VOC content described as weight percent - diluent exempt solvent content described as weight percent - volume of diluent VOC described as gal - diluent/solvent ratio described as gal diluent solvent/gal coating. Verify that all surface coating operations record and maintain records of the number of gallons of each coating, including solvents and diluents, utilized during a typical high ozone season day for each surface coating or printing operation. Verify that all surface coating operations record and maintain records of process information for a typical high ozone season day including: - method of application - number of coats for coating operations - drying method, if applicable - substrate type and form. Verify that the information is recorded on standard forms included in the Recordkeeping Guidance Document for Surface Coating Operations and the Graphic Arts Industry, EPA, July 1988. (NOTE: If a facility chooses to use alternate forms, those forms will contain the same data and information.)
AE.100.5.NH. Coating of miscellaneous metal parts and products must meet VOC emissions limits (NHCAR Env-A 1204.15) [Added March 2003].	(NOTE: A source whose miscellaneous metal parts and products coating operations have combined TPEs during any consecutive 12-month period after 31 December 1989 that equal or exceed 10 tons of VOCs are subject to the provisions of this section. Processes applying a protective, decorative, or functional coating onto metal parts and products, such as tractors, fans, pumps, meters, doors frames, and shelves are covered in this section.) Verify that, for a coating that is a clear or transparent top coat, emissions are limited to 0.52 kg VOC/l (4.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for a coating that is air dried, emissions are limited to 0.42 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for a coating that is used in extreme environmental conditions, emissions are limited to 0.42 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for all other coatings, emissions are limited to 0.36 kg VOC/l (3.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. (NOTE: If more than one emission limitation applies to a specific coating, then

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	the least stringent emission limitation will apply.) Verify that VOC emissions from solvent washing are considered in the emission limitations unless the solvent is directed into containers that prevent evaporation into the atmosphere. (NOTE: As an alternative to the applicable emission rate limit specified above, a miscellaneous metal parts coating operation meeting the applicability criteria may satisfy the requirements of this section either by: - Implementing add-on control techniques or a bubble and complying with the solids-based emission rate limits calculated using the procedures of Env-A 1204.04(d) - Meeting either a coatings-based or solids-based modified emission rate limit as approved by the director and EPA in accordance with the RACT order provisions of Env-A 1204.05 and Env-A 1204.06 in the event that the source owner or operator demonstrates that the specified emission rate limits in (c) or (f)(1), above, cannot be met because of technological or economic reasons.)
AE.100.6.NH. Non-automotive non-specialty coating must meet VOC emissions limits (NHCAR Env-A 1204.20) [Added March 2003].	(NOTE: The processes applying a nonspecialty protective, decorative, or functional coating onto plastic substrates, except for automotive plastic components, are limited at all times to the VOC RACT emission rates specified here.) Verify that, for a prime coating, emissions are limited to 0.14 kg VOC/l (1.2 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for a nontexture color coating, emissions are limited to 0.28 kg VOC/l (2.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for a texture color coating, emissions are limited to 0.28 kg VOC/l (2.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for electromagnetic interference (EMI) and radio frequency interference (RFI) shielding, emissions are limited to 0.48 kg VOC/l (4.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.
AE.100.7.NH. [Deleted March 2004].	(NOTE: Env-A 1204.22 and Env-A 1204.23 have been combined in AE.100.8.NH.)
AE.100.8.NH. Plastic parts coating, touch-up and repair must meet control techniques	(NOTE: A source whose plastic parts coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 that equal or exceed 50 tons of VOCs is subject to the provisions of Env-A 1204.17 through

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and emission limits (NHCAR Env-A 1204.16, 1204.22, and 1204.23) [Added March 2003; Revised March 2004].	Env-A 1204.24, as applicable.)
	
	Verify that, for a plastic parts coating operation, except a touch-up and repair activity, one of the following control techniques is used:
	
	- high volume-low pressure (HVLP) spray
	- electrostatic spray
	- zinc-arc spray
	- air-assisted airless spray
	- airless spray
	- a flow coating technique.
	
	Verify that a touch-up and repair activity, excluding activities that employ only compliant coating materials and one or more of the application techniques listed above conform to the following requirements:
	
	- total VOC consumption associated with a touch-up and repair activity involving the use of conventional air spray does not exceed 5 gallons per day per facility and
	- the touch-up and repair activity does not exceed 10 gallons per day where the activity:
	  - involves the use of aerosol containers
	  - employs one or more non-compliant coating materials in conjunction with any of the application techniques listed above.

AE.100.9.NH. Coating plastic components of automotive exteriors must meet emission rates (NHCAR Env-A 1204.16 and 1204.18) [Added March 2004].	(NOTE: A source whose plastic parts coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 that equal or exceed 50 tons of VOCs is subject to the provisions of Env-A 1204.17 through Env-A 1204.24, as applicable.) Verify that processes applying a non-specialty protective, decorative, or functional coating onto plastic components of automotive exteriors are limited at all times to the VOC RACT emission rates specified below: - for a high bake flexible prime coating, 0.60 kg VOC/l (5.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a high bake nonflexible prime coating, 0.54 kg VOC/l (4.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a high bake color coating, 0.55 kg VOC/l (4.6 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a high bake clear coating, 0.52 kg VOC/l (4.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a low bake prime coating, 0.66 kg VOC/l (5.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a red or black low bake color coating, 0.67 kg VOC/l (5.6 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a low bake color coating, except for red or black colors, 0.61 kg VOC/l (5.1 lb VOC/gallon) of coating, as applied, excluding water and exempt

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	compounds - for a low bake clear coating, 0.54 kg VOC/l (4.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.
AE.100.10.NH. Specialty coatings onto plastic automotive components must meet emission rates (NHCAR Env-A 1204.16 and 1204.19) [Added March 2004].	(NOTE: A source whose plastic parts coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 that equal or exceed 50 tons of VOCs is subject to the provisions of Env-A 1204.17 through Env-A 1204.24, as applicable.) Verify that, for a black or reflective argent coating, soft specialty coating, air bag cover coating, vacuum metalizing basecoat, and texture coating, 0.66 kg VOC/l (5.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for a gloss reducer, vacuum metalizing topcoat, and texture topcoat, 0.77 kg VOC/l (6.4 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for a stencil coating, adhesion primer, ink pad printing coating, electrostatic prep coat, and resist coating, 0.82 kg VOC/l (6.8 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds. Verify that, for a coating of headlamp lenses, 0.89 kg VOC/l (7.4 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.
AE.100.11.NH. Non-automotive, non-specialty coatings onto plastic substrates must meet emission rates (NHCAR Env-A 1204.16 and 1204.20) [Added March 2004].	(NOTE: A source whose plastic parts coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 that equal or exceed 50 tons of VOCs is subject to the provisions of Env-A 1204.17 through Env-A 1204.24, as applicable.) Verify that processes applying a nonspecialty protective, decorative, or functional coating onto plastic substrates, except for automotive plastic components, are limited at all times to the VOC RACT emission rates specified below: - for a prime coating, 0.14 kg VOC/l (1.2 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a nontexture color coating, 0.28 kg VOC/l (2.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a texture color coating, 0.28 kg VOC/l (2.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a electromagnetic interference (EMI) and radio frequency interference (RFI) shielding, 0.48 kg VOC/l (4.0 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

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AE.100.12.NH. Non-automotive, specialty coatings onto plastic substrates must meet emission rates (NHCAR Env-A 1204.16 and 1204.21) [Added March 2004].	(NOTE: A source whose plastic parts coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 that equal or exceed 50 tons of VOCs is subject to the provisions of Env-A 1204.17 through Env-A 1204.24, as applicable.) Verify that processes applying a specialty protective, decorative, or functional coating onto plastic substrates, except for automotive plastic components, are limited at all times to the emission rates specified below, per specialty class: - for a soft coating, 0.52 kg VOC/l (4.3 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a plating resist, 0.71 kg VOC/l (5.9 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a plating sensitizer, 0.85 kg VOC/l (7.1 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.
AE.100.13.NH. Coating plastic components of automotive interiors must meet emission rates (NHCAR Env-A 1204.16 and 1204.17) [Added March 2005].	(NOTE: A source whose plastic parts coating operations have combined TPEs during any consecutive 12-month period after December 31, 1989 that equal or exceed 50 tons of VOCs is subject to the provisions of Env-A 1204.17 through Env-A 1204.24, as applicable.) Verify that processes applying a non-specialty protective, decorative, or functional coating onto plastic components of automotive interiors are limited at all times to the emission rates specified below: - for a high bake prime coating, 0.46 kg VOC/l (3.8 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a high bake color coating, 0.49 kg VOC/l (4.1 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a low bake prime coating, 0.42 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds - for a low bake color coating, 0.38 kg VOC/l (3.2 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds.

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DEGREASING OPERATIONS **AE.115.** **General** **AE.115.1.NH.** All open-top vapor and conveyorized volatile organic liquid (VOL) solvent metal cleaning operations and all solvent metal cold cleaning operations must retain specific records, (NHCAR Env-A 904.05) [Added March 2008].	(NOTE: This checklist item applies to all open-top vapor and conveyorized volatile organic liquid (VOL) solvent metal cleaning operations and to all solvent metal cold cleaning operations. These requirements are in addition toAE.125.1.NH.) Verify that the following information is recorded and maintained: - for vapor VOL solvent metal cleaning operations, the physical air/vapor interface sizes in square feet - the typical high ozone season day solvent throughput - the typical high ozone season day process rate - air pollution control equipment information - maintenance, inspection and test records.

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DEGREASING OPERATIONS **AE.116.** **Cold Cleaning**	

AE.116.1.NH. Solvent cold cleaning processes must use specific techniques, equipment, and operating practices to control VOC emissions (NHCAR Env-A 1204.43, 1204.44 and 1204.47) [Citation Revised March 2003; Revised March 2004; Revised March 2007].	(NOTE: A cold cleaning machine that has an operating capacity of one liter or less of VOC is exempt from these requirements).
	
	(NOTE: As an alternative to the control system options specified in Env-A 1204.44, Env-A 1204.45, or Env-A 1204.46, whichever is applicable, solvent metal cleaning operations may satisfy those requirements by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)
	
	Verify that control techniques include the following:
	
	- to prevent spillage, either:
	  - a freeboard height that gives a freeboard ratio greater than or equal to 0.75 unless the machine is equipped with a cover that is kept closed except when parts are being placed into or being removed from the machine
	  - a water cover at least 2.54 centimeter (cm) (1 inch (in)) deep, where the solvent is insoluble in and heavier than water
	- if a solvent spray is used, the spray nozzle is capable of delivering a cohesive fluid stream, rather than a fine, atomized or shower type spray
	- a permanent, legible, and conspicuous label, summarizing the operating requirements, affixed to each solvent container or other location where it can be easily seen by the operator.
	
	Verify that, if a solvent spray is used, the spray nozzle is:
	
	- capable of delivering a cohesive fluid stream, rather than a fine, atomized or shower type spray
	- operated at a pressure which does not exceed 10 psi
	- used only within the confines of the degreasing unit.
	
	Verify that the degreaser has a permanent, legible, conspicuous label, summarizing the operating requirements.
	
	Verify that waste solvent is stored only in covered containers.
	
	Verify that the degreaser cover is closed whenever parts in the cleaner are not being handled manually.
	
	Verify that cleaned parts are drained for at least 15 s or until dripping ceases, whichever is longer.

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	Verify that solvent leaks are repaired immediately or the degreaser is shut down. Verify that drafts across the top of each cold cleaning unit are minimized.

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DEGREASING OPERATIONS **AE.117.** **Vapor Cleaning**	

AE.117.1.NH. Open top vapor degreasers must use specific techniques, equipment, and operating practices to control VOC emissions (NHCAR Env-A 1204.43(b), 1204.45 and 1204.47) [Revised March 2003; Revised March 2007].	(NOTE: An open top vapor degreaser with an open top area less than 1.0 square meter (m^2) (10.8 square feet (ft^2)) is exempt from these requirements if the owner or operator uses appropriate work practices to reduce VOC emission and prevent solvent spillage including, but not limited to, keeping the cover closed on the machine at all times except when processing work loads through the degreaser and storing waste solvent in closed containers.)
	
	(NOTE: As an alternative to the control system options specified in Env-A 1204.44, Env-A 1204.45, or Env-A 1204.46, whichever is applicable, solvent metal cleaning operations may satisfy those requirements by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)
	
	Verify that open top vapor degreasers have a cover that can be opened and closed easily without disturbing the vapor zone.
	
	(NOTE: If the open top vapor degreaser is equipped with a lip exhaust, the cover must be located below the lip exhaust.)
	
	Verify that the open top vapor degreaser has equipment preventing heat input to the sump when the condenser coolant is not circulating or when the liquid solvent level drops down to the height of the sump heater coils.
	
	Verify that the open top vapor degreaser has equipment preventing spraying outside the vapor level.
	
	Verify that the open top vapor degreaser has equipment preventing that shuts off the sump heat if the upper vapor level rises above the height of the primary condenser.
	
	Verify that the open top vapor degreaser has at least one of the following major control techniques:
	
	- a powered or mechanically assisted cover if:
	  - the freeboard ratio is greater than or equal to 0.75, and
	  - the degreaser air/vapor interface opening is greater than 1 m^2 (10.8 ft^2)
	- an enclosed design, such as a cover or door which opens only when the dry part is actually entering or exiting the degreaser
	- a refrigerated chiller that is capable of maintaining the chilled air blanket temperature, measured at the centroid of the degreaser at the coldest point, at no more than 30 percent of the solvent's boiling point (degrees Fahrenheit), except for open top vapor degreasers with an air-vapor interface area less than 1 m^2 (10.8 ft^2)

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	- a carbon adsorption system (except for open top vapor degreasers with an air-vapor interface area less than 1 m^2 (10.8 ft^2). Verify that all carbon adsorption: - have ventilation greater than or equal to 15 m^3/min per m^2 (50 cfm/ft^2) of air/vapor area when cover is open - exhaust less than 25 ppm solvent averaged over one complete adsorption cycle or 24 h, whichever is less. Verify that the cover is kept closed at all times except when processing work loads through the degreaser. Verify that solvent carry-out is minimized by: - racking parts to allow full drainage - moving parts in and out of the degreaser at less than 3.3 m/min (11 ft/min) - degreasing the work load in the vapor zone at least 30 s or until condensation ceases, whichever is longer - tipping out any pools of solvent on the cleaned parts before removal - allowing parts to dry within the freeboard zone of the degreaser for at least 15 s or until visually dry, whichever is longer.
AE.117.2.NH. Conveyorized degreasers must be controlled using specific techniques, equipment, and operating practices (NHCAR Env-A 1204.46, and 1204.47) [Revised March 2003; Citation Revised March 2008].	(NOTE: As an alternative to the control system options specified in Env-A 1204.44, Env-A 1204.45, or Env-A 1204.46, whichever is applicable, solvent metal cleaning operations may satisfy those requirements by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.) (NOTE: A conveyorized degreaser with an air/solvent interface area less than 2.0 square meters (m2) (21.6 square feet (ft2)) is exempt from Env-A 1204.46(a)(control by a refrigerated chiller or a carbon adsorption system).) Verify that conveyorized degreasers are controlled by a refrigerated chiller or a carbon adsorption system. Verify that for all carbon adsorption systems: - ventilation is greater than or equal to 15 m3/min per m2 (50 cfm/ft2) of air/vapor interface area when down-time covers are open - exhausting is less than 25 ppm of solvent by volume averaged over the length of one complete adsorption cycle or 24 h, whichever is less. Verify that conveyorized degreasers have a drying tunnel, or another means to prevent cleaned parts from carrying out solvent liquid or vapor, such as a rotating or tumbling basket. Verify that the conveyorized degreaser has equipment preventing heat input to the sump when the liquid solvent level drops down to the height of the sump heater

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	coils or the condenser coolant is not circulating. Verify that the conveyorized degreaser has equipment preventing spraying outside the vapor level. Verify that the conveyorized degreaser has a vapor level control thermostat which shuts off the sump heat if the vapor level rises above the height of the primary condenser. Verify that entrances and exits silhouette work loads so that the average clearance between parts and the edge of the degreaser opening is either less than 10 cm (4 in.) or less than 10 percent of the width of the opening. Verify that covers are provided for closing off the entrance and exit during shutdown hours. Verify that exhaust ventilation does not exceed 20 m^3 per minute per square meter (65 ft^3 per square ft) of degreaser open area, unless necessary to meet OSHA requirements. Verify that drafts are minimized across the top of each degreasing unit such that whenever the cover is open, the unit is not exposed to drafts greater than 40 m/min, as measured between 1 and 2 m upwind and at the same elevation at the tank lip. Verify that carry-out emissions are minimized by: - racking parts for best drainage - maintaining vertical conveyor speed at less than 3.3 m/min (11 ft/min). Verify that the evaporation of waste solvent into the ambient air does not exceed 20 percent of the weight of the waste during the process of: - disposing of the waste solvent - transferring the waste solvent to another person. Verify that waste solvent is stored only in covered containers. Verify that solvent leaks are repaired immediately, or the degreaser shut down. Verify that water is not visibly detectable in the solvent exiting the water separator. Verify that down-time covers are: - placed over entrances and exits of conveyorized degreasers immediately after the conveyor and exhaust are shutdown - removed just before the conveyor and exhaust are started up.

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DEGREASING OPERATIONS **AE.118.** **Reporting**	
AE.118.1.NH. All solvent metal cleaning operations must meet specific recordkeeping requirements (NHCAR Env-A 904.05) [Citation Revised April 1998; Revised March 2000].	(NOTE: Solvent metal cleaning operations are also subject to the general recordkeeping requirements of AE.125.1.NH.) Verify that all open-top vapor and conveyorized volatile organic liquid (VOL) solvent metal cleaning operations and all solvent metal cold cleaning operations, record and maintain the following information: - for vapor VOL solvent metal cleaning operations, the physical air/vapor interface sizes in square ft - the typical high ozone season day solvent throughput - the typical high ozone season day process rate - air pollution control equipment information - maintenance, inspection and test records, including air pollution control equipment maintenance records, results of visual inspections, and the results of all tests.
AE.118.2.NH. [Deleted March 2000].	(NOTE: Regulation revised.)

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AE.125. **MISCELLANEOUS VOC OPERATIONS**	

AE.125.1.NH. Any source or device for which a permit is required must comply with VOC recordkeeping requirements (NHCAR Env-A 904.01, 904.02 and 904.04) [Revised March 2000; Revised March 2008].	(NOTE: These requirements apply to any stationary source, area source or device that has actual VOC emissions greater than or equal to 10 tons per year.)
	
	Verify that any stationary source, area source or device records and maintains, at the facility:
	
	- identification of each VOC-emitting process or device, except for processes or devices associated exclusively with non-core activities
	- the operating schedule during the high ozone season for each VOC-emitting process or device, including:
	  - the typical hours of operation per day
	  - the typical days of operation per calendar month
	- the following VOC emission data:
	  - actual calendar year VOC emissions, in tons, from each VOC-emitting process or device for each calendar year
	  - typical high ozone season day VOC emissions, in pounds per day, from each VAC emitting process or device
	  - the emission factors and the origin of the emission factors used to calculate the VOC emissions.
	
	Verify that, for surface coating operations and rotogravure, flexographic, and offset lithographic printing, the information is recorded on standard forms included in the Recordkeeping Guidance Document for Surface Coating Operations and the Graphic Arts Industry, EPA, July 1989.
	
	(NOTE: If a facility chooses to use alternate forms, those forms will contain the same data and information.)

AE.125.2.NH. Unclassifiable processes must report VOC emissions (NHCAR Env-A 904.03(d)) [Revised March 2000].	(NOTE: See AE.125.1.NH. for applicability.) Verify that, for all applicable unclassifiable processes other than unclassifiable coating or printing processes, maintain process information, including throughput data, in such form as to allow the division to determine actual and theoretical potential VOC emissions from each applicable device or process.
AE.125.3.NH. Facilities with add-on VOC control equipment must comply with additional recordkeeping	(NOTE: See AE.125.1.NH. for applicability.) Verify that any stationary source or device with add-on VOC control equipment

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requirements (NHCAR Env-A 904.07) [Revised March 2000].	records and maintains the following information:
	
	- the air pollution control device identification number, type, model number, and manufacturer
	- installation date
	- processes or devices controlled
	- the type and location of the capture system, capture efficiency percentage and method of determining capture efficiency
	- information as to whether or not the control device is always in operation when the processes or devices are in operation
	- the destruction or removal efficiency of the add-on air pollution control equipment, including:
	  - destruction or removal efficiency, in percent
	  - current primary and secondary equipment control information codes
	  - date tested
	  - the emission test results, if tested
	- for thermal incinerators, the design combustion temperature in degrees F
	- for catalytic incinerators:
	  - the design exhaust gas temperature in degrees F
	  - the design temperature rise across the catalyst bed in degrees F
	  - the anticipated frequency of catalyst change
	  - any actual catalyst changes
	- for a condenser:
	  - the design inlet temperature of the cooling medium
	  - the design exhaust gas temperature in degrees F
	- for a carbon adsorber:
	  - the design pressure drop across the adsorber
	  - the VOC concentration at breakthrough.

AE.125.4.NH. VOC sources must comply with specific reporting requirements (NHCAR Env-A 908.01, 908.02 and 908. 03) [Revised March 2000; Revised March 2008].	(NOTE: The checklist items in this section apply to any permitted stationary source, area source or device that has actual VOC emissions greater than or equal to 10 tons per year.) Verify that any stationary source or device subject to these requirements submits the following information to the director: - facility information, including source name, Standard Industrial Classification (SIC) code, physical address, and mailing address - identification of each VOC-emitting process or device operating at the source - operating schedule during the high ozone season for each VOC-emitting process or device, including hours of operation per calendar day, and days of operation per calendar week - total quantities of actual VOC emissions for the entire facility and for each process or device, including annual VOC emissions, in tons, typical high ozone season day VOC emissions (in lb/day). Verify that any stationary source, area source, or device having actual annual VOC emissions greater than or equal to 10 tons submits information by April 15

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	of the following calendar year. Verify that updated information is submitted to the division for each subsequent calendar yr in which actual emissions equal or exceed 10 tons.
AE.125.5.NH. [Deleted March 2000].	(NOTE: Regulation revised.)
AE.125.6.NH. [Deleted March 2000].	(NOTE: Regulation revised.)
AE.125.7.NH. Specific miscellaneous or multicategory stationary VOC sources may be required to control emissions (NHCAR Env-A 1204.48) [Added March 2003].	(NOTE: Any miscellaneous or multicategory stationary VOC source whose combined TPEs for all processes and devices equal or exceed 50 tons of VOC in any consecutive 12-month period at any time after December 31, 1989, shall be subject to Env-A 1204.49 and Env-A 1204.50 (see AE.125.8.NH. and AE.125.9.NH.)) Verify that all nonexempt sources are using a control option. (NOTE: The following processes and devices are exempt from the provisions of Env-A 1204.49 and Env-A 1204.50: - VOC-emitting processes and devices that are subject to regulation under 40 CFR 61 or 40 CFR 63, in accordance with Env-A 600, subject to the provisions of (c), below - VOC-emitting processes and devices that have been determined to be achieving Best Available Control Technology (BACT) for VOC or the Lowest Achievable Emission Rate (LAER) for VOC imposed in a enforceable permit or license that contains specific emission limitations, work practice standards, or both for all affected VOC-emitting processes and devices and which was issued pursuant to federally enforceable permitting rules - VOC-emitting processes and devices that have been determined to be achieving RACT pursuant to a federally enforceable rule or permit - Incomplete combustion, except where material is heated, burned, combusted, or otherwise chemically changed under oxygen-deficient conditions by design - VOC emissions from non-core activities listed in Env-A 1204.03(bp)(see Definitions) - VOC emissions from minor core activities having aggregate total actual VOC emissions of not more than 5 tons per year - Testing and research activities excluded under Env-A 1204.02(e).) (NOTE: VOC-emitting processes and devices, unless a prior extension of compliance as provided in 40 CFR 63, Subpart D, has been granted, will be

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	exempt from the provisions of Env-A 1204.49 and Env-A 1204.50 provided that the total VOC emissions to the atmosphere from such equipment are reduced, on a daily basis, to a percentage equal to or greater than the percentage of hazardous air pollutants, excluding particulate matter hazardous air pollutants, required to be reduced in the applicable subpart under 40 CFR 61 or 40 CFR 63.)
AE.125.8.NH. Specific miscellaneous or multicategory stationary VOC emissions must be controlled (NHCAR Env-A 1204.49) [Added March 2003].	Verify that VOC emissions from miscellaneous or multicategory stationary VOC sources are controlled by one of the following control options. (NOTE: Control option 1 consists of the installation and operation of capture and control systems that result in a facility-wide reduction in the actual uncontrolled VOC emission rate to the atmosphere, calculated on a daily basis, of at least 81 percent, as determined by dividing the difference between the facility-wide uncontrolled VOC emissions from non-exempt core devices and processes and the facility-wide emissions from all VOC-emitting devices and processes utilizing capture and control systems by the facility-wide uncontrolled VOC emissions.) (NOTE: Control option 2 consists of a program to reduce VOC use and emissions that is implemented such that the actual VOC emission rate does not exceed 20 percent of the actual VOC emission rate in calendar year 1990, or alternative year, below, calculated on either: - A mass of VOC per mass of solids basis if the affected VOC-emitting process(es) or device(s) applies surface coatings - A mass of VOC per unit of production basis.) (NOTE: Control option 3 will consist of: - Limiting the daily weighted average VOC emission rate from any unclassifiable coating process or device to 0.40 kg VOC/l (3.5 lb VOC/gallon) of coating, as applied, excluding water and exempt compounds, as calculated using the procedure described in Env-A 804.06 - Complying with the provisions of (1) or (2) above, or (4) or (5) below, where applicable, for the unclassifiable non-coating and classifiable components of the source.) (NOTE: Control option 4 will consist of: - Complying with the provision(s) in Env-A 1204.09 through Env-A 1204.47 for each classifiable component of a multicategory source, whichever provision(s) are relevant, irrespective of whether the component meets the relevant applicability criteria for the relevant classifiable category - Complying with the provisions of option (1), (2), or (3) or (5), where applicable, for the unclassifiable components of the source - Complying with the applicable provisions of Env-A 1204.09 through Env-A 1204.47, regardless of the option in this paragraph chosen by the source owner of operator, for all RACT-applicable classifiable components of the source.) (NOTE: Control option 5 consists of the implementation of a division and EPA-approvable plan, issued as a RACT order, pursuant to the provisions of Env-A

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	1204.05 and Env-A 1204.06.)

AE.125.9.NH. Miscellaneous or multicategory stationary VOC emission sources must meet documentation requirements (NHCAR Env-A 1204.50) [Added March 2003].	Verify that the following is submitted for any control option:
	
	- an inventory of all VOC-emitting processes or devices at the source
	- an inventory of all VOC-emitting processes or devices at the source not exempt under the applicable provisions of Env-A 1204.02
	- the maximum capacity of each affected VOC-emitting process or device to emit VOCs at the source not exempt under the applicable provisions of Env-A 1204.02
	- the daily average of actual VOCs emitted, based on solvent throughput or units of production, for each RACT-applicable VOC-emitting process or device at the source for the following time periods:
	  - calendar year 1990, or alternative calendar year or consecutive 12-month period
	  - the ozone season of calendar year 1990, or alternative calendar.
	
	Verify that the owner/operator of a source that adopts control option 1 submits to the Division a detailed description of the capture and control system proposed.
	
	Verify that the owner/operator of a source that adopts control option 2 submits the following to the Division:
	
	- calculation of the daily weighted average amount of VOCs emitted to the atmosphere each day during which the facility or VOC-emitting process or device operated, stated in terms of either:
	  - a mass of VOC emitted per quantity of solids basis
	  - a mass of VOC emitted on a per unit of production basis
	- calculation of the average amount of VOCs anticipated to be emitted to the atmosphere each day during which the VOC-emitting process(es) or device(s) operates upon implementation of control option 1, stated in terms of either:
	  - a mass of VOC emitted per quantity of solids basis
	  - a mass of VOC emitted on a per unit of production basis.
	
	Verify that the owner/operator of a source that adopts control option 3 submits to the Division a calculation of the daily weighted average amount of VOCs anticipated to be emitted to the atmosphere each day during which VOC-emitting processes or devices operate upon implementation of the control option.
	
	(NOTE: The daily weighted average VOC will be stated in terms of a mass of VOC emitted per quantity of liquid coating, as applied and calculated in accordance with the procedure described in Env-A 804.06.)
	
	Verify that the owner/operator of a source that adopts control option 5 submits to the Division documentation pursuant to the RACT order process (as specified in Env-A 1204.05(c) and (d)).

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
AE.130. **OPEN BURNING**	
AE.130.1.NH. Open burning must meet specific requirements (NHCAR Env-A 1001.04, 1001.05, and 1001.06) [Revised April 1998; Revised March 2004; Revised March 2009].	(NOTE: Open burning in any part of the state is permissible when the burning: - is conducted in accordance with all local ordinances - is authorized by an official having jurisdiction over open burning, whenever authorization is required - does not create a nuisance - includes only materials burned in conformance with this part.) Verify that only the following types of burning are conducted without authorization from the Division: - burning of untreated wood, campfire wood, brush or charcoal in a campfire, outdoor grill or outdoor fireplace for recreational purposes or for the preparation of food - on-premises burning for the purpose of frost prevention, or agricultural, forestry, or wildlife habitat improvement - burning of untreated wood, campfire wood, or brush in bonfires in conjunction with a holiday or festive celebration - on-site burning by the landowner of brush or leaves, provided the material originates on-site - on-site burning, by the owner of a private, single-family residence occupied by the owner, of untreated wood, provided the material originates on-site - burning by any city or town of brush - only until January 1, 2011, the incidental combustion, under the supervision of a solid waste facility operator, of the untreated wood component of construction and demolition debris at any municipal transfer station. (NOTE: Residential open burning of combustible domestic waste is absolutely prohibited.)
AE.130.2.NH. [Deleted March 2004].	(NOTE: Regulation revised.)
AE.130.3.NH. [Deleted March 2004].	(NOTE: Regulation revised.)
AE.130.4.NH. [Deleted March 2004].	(NOTE: Regulation revised.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
AE.130.5.NH. [Deleted April 1998].	
AE.130.6.NH. Live fire instruction training activities must meet specific requirements (NHCAR Env-A 1003.04 and 1003.05) [Revised March 2004].	Verify that, at least 10 days before an open burn for firefighter instruction and training purposes, the sponsoring fire service organization submits to the Department a Form ARD-1003, "Live Fire Instruction and Training Activities Notification". Verify that open burning by a sponsoring fire service organization of solid fuel, liquid fuel, a motor vehicle, or a structure is conducted in accordance with the following: - a state certified fire instructor or specialty instructor directly controls and supervises the firefighter instruction and training activities that involve open burning - the sponsoring fire service organization does not burn any debris from the demolition of a structure - for a structure, ensure that the owner of the structure disposes of ash resulting from firefighter instruction and training activities in accordance applicable solid and hazardous waste management requirements.
AE.130.7.NH. Specific items are prohibited from open burning activities (NHCAR Env-A 1001.07 through 1001.09) [Added March 2009].	Verify that no tires, tubes, or any portion thereof are burned in the ambient air at any place in the state for any reason. Verify that salvaging or reclaiming operations do not burn anything on-site in the ambient air and an incinerator is employed for all thermal salvaging or reclaiming. Verify that no construction and demolition debris, including the wood component thereof, are burned in the ambient air.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
AE.135. **VEHICLE EMISSIONS**	
AE.135.1.NH. Diesel engines and motor vehicles must emission, operating, and maintenance requirements (NHCAR Env-A 1101.03 through 1101.06) [Revised April 1998].	Verify that for engines manufactured before or during model year 1973, emissions do not exceed 70 percent opacity. Verify that for engines manufactured after model year 1973 and before model year 1991, emissions do not exceed 55 percent opacity. Verify that for engines manufactured after model year 1991, emissions do not exceed 40 percent opacity. Verify that no one alters or removes any emission control equipment or system, including the basic fuel system, which may limit or reduce the ability of that equipment or system to control emissions. Verify that all emission control equipment that is originally supplied on a diesel engine is maintained in place and in functional operating condition. Verify that emission control equipment is only replaced with equipment that meets or exceeds the specifications of the original equipment. Verify that when the temperature is above 0 deg C or 32 deg F, a diesel engine does not idle for more than 5 consecutive min. Verify that when the temperature is between -23 and 0 deg C, or -10 and 32 deg F, a diesel engine does not idle for more than 15 consecutive min. (NOTE: When the temperature is below -23 deg C or -10 deg F, and where no nuisance is created, a diesel engine is not subject to idling restrictions.) (NOTE: A diesel powered motor vehicle is exempt from the operational requirements: - when a diesel powered vehicle is forced to remain motionless because of traffic conditions over which the operator has no control - when a diesel powered motor vehicle is being used as an emergency motor vehicle - when a diesel engine is providing power takeoff for refrigeration, lift gate pumps or other auxiliary uses, or supplying heat or air conditioning necessary for passenger comfort in those vehicles intended for commercial passenger transportation - when a diesel powered motor vehicle is being operated by a mechanic for maintenance or diagnostic purposes, or - when a diesel powered motor vehicle is being operated solely to defrost a windshield.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
AE.135.2.NH. Gasoline engines and motor vehicles must emission, operating, and maintenance requirements (NHCAR Env-A 1101.07 through 1101.10) [Revised April 1998; Revised March 2004].	Verify that gasoline-powered motor vehicle do not emit visible emissions other than water vapor or steam, except during the initial starting of the engine. Verify that no one alters or removes any emission control equipment or system, including the basic fuel system, which may limit or reduce the ability of that equipment or system to control emissions. Verify that all emission control equipment that is originally supplied on a gasoline engine is maintained in place and in functional operating condition. Verify that emission control equipment is only replaced with equipment that meets or exceeds the specifications of the original equipment. Verify that when the temperature is above 0 deg C or 32 deg F, a gasoline engine does not idle for more than 5 consecutive min. Verify that when the temperature is between -23 and 0 deg C, or -10 and 32 deg F, a gasoline engine does not idle for more than 15 consecutive min. (NOTE: When the temperature is below -23 deg C or -10 deg F, and where no nuisance is created, a gasoline engine is not subject to idling restrictions.) (NOTE: A gasoline powered motor vehicle is exempt from the operational requirements: - when a gasoline powered motor vehicle is forced to remain motionless because of traffic conditions over which the operator has no control - when a gasoline powered motor vehicle is being used as an emergency motor vehicle - when a gasoline powered engine is providing power takeoff for refrigeration, lift gate pumps or other auxiliary uses, or supplying heat or air conditioning necessary for passenger comfort in those vehicles intended for commercial passenger transportation - when a gasoline powered motor vehicle is being operated by a mechanic for maintenance or diagnostic purposes, or - when a gasoline powered motor vehicle is being operated solely to defrost a windshield.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
AE.145. **ASPHALT PAVING MATERIALS/ OPERATIONS**	
AE.145.1.NH. Application of cutback and emulsified asphalt must comply with specific restrictions (NHCAR Env-A 1204.42) [Revised March 2003].	Verify that cutback asphalt is not used in the paving and maintenance of public roads and highways during the mo of June through September except: - the use of medium curing cutback asphalts solely as penetrating primecoat for aggregate bases prior to paving - the use of medium curing cutback asphalts for the manufacture of long-term storage or stockpiling of patching mixes used in pavement maintenance - the use of cutback asphalts for which the user can demonstrate that minimal emissions occur under conditions of normal use. (NOTE: For cutback asphalt users seeking application permits during the mo of June through September, an acceptable demonstration of minimal emissions is the submittal of distillation test data in accordance with ASTM Method D-402, Distillation of Cutback Asphalt Products, showing that less than 5 percent of the total solvent has evaporated up to and including 260 deg C (500 deg F). Verify that emulsified asphalt used in the paving and maintenance of public roads and highways contains no petroleum solvents except for these uses (and maximum solvent contents (MSCs)): - for use as seal coats, with an MSC 3 percent - for use as chip seals when dusty or dirty aggregate is used, with an MSC of 3 percent - for use as seal coats or chip seals when good particle coating is not attained with emulsions containing 3 percent or less solvent, by weight, when tested according to the American Society for Testing Materials (ASTM) D-244-89 "Standard Test Methods for Emulsified Asphalts", Coatability Test, Sections 52 through 57, by the NHDOT or an independently owned laboratory designated by the NHDOT, with an MSC of 5 percent - for use as mixing with open graded aggregate that is not well washed, with an MSC of 8 percent - for use as mixing with dense graded aggregate, with an MSC of 12 percent. (NOTE: As an alternative to the control techniques specified, above, whichever is applicable, a cutback and emulsified asphalt paving operation meeting the applicability criteria may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
AE.155. **OTHER EMISSIONS/SOURCES**	
AE.155.1.NH. [Moved March 2010].	(NOTE: Moved to AE.200.1.NH., March 2010, to accommodate consolidation of GHG-related checklist items.)
AE.155.2.NH. [Moved March 2010].	(NOTE: Moved to AE.200.2.NH., March 2010, to accommodate consolidation of GHG-related checklist items.)
AE.155.3.NH. Sand and gravel sources and cement, ready mix concrete, or cement block sources must meet requirements for visible emissions and opacity (NHCAR Env-A 2803.01, 2803.02, and 2804.01) [Added March 2006].	Verify that a sand and gravel source does not cause or allow visible fugitive emissions or visible stack emissions from the source to exceed an average of 20 percent opacity for any continuous 6-minute period at crushers, transfer points, and screens. Verify that a sand and gravel source does not operate unless it is equipped with a fugitive emission control system that is operated and maintained to control the emission of particulate matter. Verify that visible fugitive emissions or visible stack emissions from a cement, ready mix concrete, or cement block source does not exceed an average of 20 percent opacity for any continuous 6-minute period. (NOTE: Opacity shall be determined in accordance with Env-A 807.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
GREENHOUSE GAS EMISSIONS **AE.200.** **General**	
AE.200.1.NH. Facilities that emit greenhouse gases must adhere to VER registration requirements (NHCAR Env-A 3804.01 through 3804.06, and 3806) [Added March 2002; Added March 2010].	(NOTE: Moved from AE.155.1.NH., March 2010, to accommodate consolidation of GHG-related checklist items.) (NOTE: This checklist item applies to greenhouse gas emissions reductions registered by the following sources: - any business or other entity located in New Hampshire which reduces greenhouse gas emissions in the state - any business or other entity located in New Hampshire which reduces greenhouse gas emissions out of state - any person(s) as defined in Env-A 101.206, that reduces greenhouse gas emissions.) (NOTE: Emissions reductions achieved prior to 1 January 1991 are not eligible for registration under this checklist item.) Verify that the owner or operator of a source submits a completed form GHG-1 and GHG-2, or GHG-3 to register and certify GHG VERs. Verify that for initial registration of VERs, the owner or operator of a source completes the forms GHG-1 and GHG-2: - no later than 1 July 2003, for VERs achieved between 1991 and 1 July 2001 - no later than 180 days after the initial VER registration activity is completed for VERs achieved after 1 July 2001. Verify that for VERs achieved in a subsequent calendar yr that result from the registration activity, the owner or operator of a source completes a form GHG-3 and submits it to the department annually. Verify that the information is available for public inspection in accordance with RSA 91-A. Verify that all VERs are verified.
AE.200.2.NH. Facilities that emit greenhouse gases must adhere to VER recordkeeping requirements (NHCAR Env-A 3805) [Added March 2002;	(NOTE: Moved from AE.155.2.NH., March 2010, to accommodate consolidation of GHG-related checklist items.) Verify that the owner or operator of a source maintains records that document the quantification protocols used to calculate the GHG VERs including, but not

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
Added March 2010].	limited to: - hours of operation - heat input rates - quantities of all raw materials used in each process - fuel type - fuel consumption - energy usage - vehicle miles traveled - production data. Verify that the owner or operator of a source that transfers ownership of a VER transfers all records to the transferee at the time that ownership of a VER is transferred.

Appendix 1-1

Particulate Emission Rates and Effects Factors
(Source: NHCAR Env-A 2102.03 and 2102.04)
[Citation Revised April 1998; Revised March 2006]

Table 1: Particulate emissions limits

Process Weight Rate (tons/hr.)	Devices Installed after 18 Feb 1972 Emission Rate (lbs/ hr)	Devices Installed prior to or on 18 Feb 1972Emission Rate (lbs/ hr)
0.025	0.36	0.43
0.05	0.55	0.68
0.25	1.53	1.99
0.5	2.58	3.17
2.5	7.58	9.35
5	12.0	14.85
10	19.2	23.62
30	40.0	49.31
40	42.5	51.03
60	46.3	55.55
90	49.0	58.88
100	51.2	61.53
500	69.0	82.75
1000	77.6	93.11

"E" means the maximum allowable particulate matter emission rate in pounds per hour (lb/hr); and
"P" means the process weight rate in tons per hour (tons/hr).
For an "Existing Device" installed prior to or on February 18, 1972 with a process weight rate:
Up to 30 tons/hr, P shall be raised to the 0.67 power and multiplied by 5.05, as in the formula below:

E = 5.05 P0.67

In excess of 30 tons/hr, P shall be raised to the 0.11 power and multiplied by 66.0, and then 48 shall be subtracted from that result, as in the formula below:
E = 66.0 P0.11 - 48

For a "New Device" installed after February 18, 1972 with a process weight rate:

Up to 30 tons/hr, P shall be raised to the 0.67 power and multiplied by 4.10, as in the formula below:
E = 4.10 P0.67

In excess of 30 tons/hr, P shall be raised to the 0.11 power and multiplied by 55.0, and then 40 shall be subtracted from that result, as in the formula below:
E = 55.0 P0.11 - 40

Appendix 1-2

Specified Devices Requiring Permits
[Deleted March 2008]

(NOTE: NHCAR Env-A 603.02 and 608.01 were revised.)

Appendix 1-3

Sources Required to Apply for Temporary Permits
(Source: NHCAR Env-A 607.01)
[Revised January 1999; Revised March 2003; Revised March 2010]

The owner of a new or modified stationary source, area source or device specified below shall obtain a temporary permit in accordance with the provisions of this chapter prior to the construction or installation of the source or device if the source or device is any of the following:

(a) A device using natural gas, liquefied petroleum gas, #2 fuel oil, diesel fuel oil, or any combination thereof, with a design rating greater than or equal to 10,000,000 British thermal units (BTUs) per hour of gross heat input;

(b) A device using #4 fuel oil with a design rating greater than or equal to 4,000,000 BTUs per hour of gross heat input;

(c) A device using coal, wood, #6 fuel oil, used oil as defined in Env-A 101.209, or any combination thereof, with a design rating greater than or equal to 2,000,000 BTUs per hour of gross heat input;

(d) One or more internal combustion engines, excluding any unit with a design rating less than or equal to 150,000 BTUs per hour of gross heat input, at a source which either:

(1) Combusts liquid fuel oil for which the combined total design gross heat input for all such engines is greater than or equal to 1,500,000 BTUs per hour;
(2) Combusts natural gas or liquefied propane gas for which the combined total design gross heat input of all such engines is greater than or equal to 10,000,000 BTUs per hour; or
(3) Has the potential to emit any single regulated air pollutant in an amount greater than 25 tons per year;

(e) An incinerator using any combination of type 0, 1, 2, or 3 waste with a design rating greater than or equal to 1000 pounds per hour;

(f) An incinerator using any combination of type 4, 5, 6, and 7 waste with a design rating greater than or equal to 200 pounds per hour;

(g) A stationary source, area source, or device with total actual volatile organic compound (VOC) emissions greater than or equal to 10 tons per year;

(h) An aboveground, vertical, VOC storage tank with a capacity greater than or equal to 40,000 gallons and containing VOCs with a true vapor pressure greater than or equal to 1.52 pounds per square inch absolute (psia) at 60° F;

(i) A device for loading tank trucks with gasoline at a gasoline terminal with a throughput greater than or equal to 20,000 gallons per day;

(j) A woodworking device employing a pneumatic transfer system, which does not use a baghouse or filter for controlling dust emissions, for collecting any amount of sander dust at a total wood waste collection rate greater than or equal to 20 tons per year;

(k) Pneumatic dust transfer equipment used to convey materials, other than wood waste, into bins or silos, and not using a baghouse or filter for controlling dust;

(l) A fixed non-metallic mineral processing plant or coal crusher with a design throughput greater than or equal to 25 tons per hour;

(m) A portable non-metallic mineral processing plant or a coal crusher with a design throughput of greater than or equal to 150 tons per hour;

(n) A stationary source, area source, or device choosing to limit its potential to emit by accepting enforceable permit conditions that restrict its hours of operation, type or amount of material combusted, stored, or processed or level of production;

(o) A stationary source, area source, or device at which documented and repeated violations occur of any of the applicable opacity or emission limits found in Env-A 400 et seq.;

(p) A stationary source, area source, or device at which documented and repeated violations of any of the national ambient air quality standards (NAAQS) as found in Env-A 300 occur and the source is a significant contributor to the violation, where discovery of the violation(s) or contribution resulted from one of the following:

(1) A direct measurement using ambient air quality monitoring; or
(2) Calculations based on the technical procedures adopted pursuant to 40 CFR 51, Appendix W.

(q) A stationary source, area source, or device subject to the new source performance standards (NSPS) contained in 40 CFR 60, except a source or device that is subject only to recordkeeping requirements in the applicable NSPS;

(r) A stationary source, area source, or device subject to the national emission standards for hazardous air pollutants (NESHAP) contained in 40 CFR 61;

(s) A stationary source, area source, or device subject to rules governing prevention of significant deterioration (PSD) as contained in Env-A 619;

(t) A stationary source, area source, or device subject to rules governing non-attainment areas as contained in Env-A 618;

(u) A stationary source or area source operating as a treatment, storage, or disposal facility under Env-Wm 100 - 1000;

(v) A stationary source, area source, or device where a permit is required under the rules governing regulated toxic air pollutants pursuant to Env-A 1400;

(w) A stationary source, area source, or device where a permit is required by the maximum achievable control technology (MACT) standards for source categories as found in 40 CFR 63;

(x) A stationary source or device subject to the rules governing reasonably available control technology (RACT) as contained in Env-A 1200, except for any source whose solvent metal cleaning operations have combined actual emissions of less than 5 tons of VOCs per year;

(y) A stationary source, area source, or device determined by the department, based on modeling performed in accordance with 40 CFR 51, Appendix W, to have a significant impact on the air quality where a permit is required to ensure that ambient air quality standards are achieved and maintained;

(z) A source affected by or opting into the Acid Rain program under title IV of the Act;

(aa) A stationary source, area source, or device that is a major source of hazardous air pollutants subject to section 112(g) of the Act and 40 CFR 63;

(ab) A nitrogen oxides (NOx) budget source as defined in Env-A 3203.17;

(ac) An applicable nitrogen oxides (NOx)-emitting generation source pursuant to Env-A 3702; and

(ad) A carbon dioxide (CO2) budget source as defined in Env-A 4602.

Appendix 1-4

Sources Required to Apply for Title V Operating Permits

(Source: NHCAR Env-A 609.01, 609.03 and 609.04) [Revised March 2005]

NHCAR Env-A 609.01

For the operation of any stationary source, area source or device which is specified below, and which is not specifically exempt below, the owner or operator shall obtain a Title V operating permit in accordance with the provisions of this chapter:

(1) Any major source;
(2) Any source, including an area source as defined in Env-A 1306, subject to a standard, limitation, or other requirement under section 111 of the Act;
(3) Any source, including a area source as defined in Env-A 1306, subject to a standard or other requirement under section 112 of the Act, except that a source is not required to obtain a Title V operating permit solely because it is subject to regulations or requirements under section 112(r) of the Act;
(4) Any affected source as that term is defined in title IV of the Act; and
(5) Any source in a source category designated by the administrator pursuant to 40 CFR 70.3.

The following shall be exempt from the obligation to obtain a Title V operating permit:

(1) All sources and source categories that would be required to obtain a Title V operating permit solely because they are subject to 40 CFR 60, subpart AAA Standards of Performance for New Residential Wood Heaters; and
(2) All sources and source categories that would be required to obtain a Title V operating permit solely because they are subject to 40 CFR 61, subpart M National Emission Standard for Hazardous Air Pollutants for Asbestos, section 61.145 Standards for Demolition and Renovation.

The following shall be at least temporarily exempt from the obligation to obtain a Title V operating permit, as indicated:

(1) All sources listed in (a), above that are not major sources, affected sources as defined in title IV of the Act, or solid waste incineration units required to obtain a Title V operating permit pursuant to section 129(e) of the Act, until such time as the administrator completes a rulemaking to determine how the program should be structured for nonmajor sources and the appropriateness of any permanent exemptions in addition to those provided for in (c)(2), below; and
(2) All nonmajor sources subject to a standard or other requirement under either section 111 or section 112 of the act after July 21, 1992, until such time as the administrator determines not to exempt any or all such applicable sources from the requirement to obtain a Title V operating permit at the time that the new standard is promulgated.

NHCAR Env-A 609.03 Exempt Activities

A list of exempt activities shall not be included in an application for a Title V operating permit. An application, however, shall not omit information needed to determine the applicability of or to impose any applicable requirement or the requirement to obtain a Title V operating permit requirements.

The following activities shall be classified as exempt activities with respect to Title V operating permits:

(1) Open Burning activities conducted in accordance with Env-A 1000;
(2) Activities such as copying and duplication activities performed in an office, and use of typewriters, printers, blueprinting and pens;
(3) Interior maintenance activities, such as janitorial cleaning and the use of cleaning products and air fresheners other than the cleaning of any process equipment except as allowed under (17), below;
(4) The use of bathroom and locker room ventilation;
(5) The activities of maintenance limited to welding, gluing, painting of process equipment and soldering, but excluding VOC degreasing operations;
(6) First aid or emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation;

(7) Laundry operations, other than dry-cleaning, to service uniforms or clothing used at the facility;
(8) Architectural maintenance activities conducted to take care of the buildings and structures at the facility, including repainting, roofing and sandblasting, unless subject to an applicable requirement;
(9) Exterior maintenance activities conducted to take care of the grounds of the facility, including lawn care and pest controls;
(10) Food preparation, including barbecuing for service facility cafeterias and dining rooms, but excluding such activities which are connected to preparation of packaged food for offsite consumption;
(11) The use of portable space heaters which can be carried and relocated by an employee;
(12) The use of steam vents which do not emit any regulated pollutants, air toxics, CO, or HAPs;
(13) The venting of particulate emissions from processes equipped with removal equipment and which are vented inside the building;
(14) The use of laboratory ventilation hoods for educational, research and development facilities, excluding hoods used for any production or pilot processes unless otherwise regulated under Section 112 of the Act or Env-A 1300;
(15) The use of consumer products in a manner consistent with how the general public would use the product;
(16) The use of fire control equipment including maintenance and employee training;
(17) The characterization of waste sites and feasibility tests;
(18) The venting of emissions from mobile equipment and off-road equipment such as automobiles, forklifts, trucks and construction equipment, except for air conditioning systems regulated under section 609 of the Act; and
(19) The venting of emissions from cooling towers, evaporators or HVAC systems which do not emit regulated air pollutants, CO, air toxics or HAPs, except for devices subject to a MACT standard under National Emissions Standards for Hazardous Air Pollutants for source categories, 40 CFR 63, or devices subject to Title VI of the Act.

NHCAR Env-A 609.04 Insignificant Activities

A list of insignificant activities shall be included in an application for a Title V operating Emissions from activities identified as insignificant activities below shall be quantified

A device, source, or activity shall be classified as an insignificant activity if it:
(1) Is below any applicable threshold specified in Env-A 607.01; and
(2) Emits less than 1,000 lbs. per year of all regulated air pollutants in aggregate

Appendix 1-5

Stationary Sources Requiring CEM

(Source: NHCAR Env-A 805.02) [Revised April 1998]

The Division will require the installation, operation, maintenance, and quality assurance testing of a CEM system for a stationary source if any of the following listed conditions exist:

- A source is subject to the New Source of Performance Standards, 40 CFR Part 60, or National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61, which require the source to comply with a specified opacity or emission limit, and to install a specified CEM system;

- A source chooses to limit its potential to emit by accepting federally enforceable permit conditions which restrict its hours of operation, type or amount of material combusted, stored, or processed, or level of production, and continuous emission monitoring is determined by the Division to be necessary to ensure that these permit conditions are not violated;

- A source utilizes air pollution control equipment in order to maintain compliance with an opacity or emission limit and continuous emission monitoring is determined by the Division to be necessary in order to ensure that this limit is not exceeded and that the control equipment is performing correctly;

- A documented and repeated violation of any of the applicable opacity or emission limits found in the N.H. Administrative Rules Env-A 300 et seq.;

- A documented and repeated violation of any of the National Ambient Air Quality Standards (NAAQS) found in Env-A 300 occurs and the source is determined by the Division to be a major contributor to the violation. A violation of the NAAQS shall be determined through 1 of the following:
  - A direct measurement using ambient air quality monitoring; or
  - Calculation utilizing the technical procedures found in the NHARD POLICY AND PROCEDURE FOR AIR QUALITY IMPACT MODELING; or

- By following the procedures in the NHARD POLICY AND PROCEDURE FOR AIR QUALITY IMPACT MODELING, the Division determines that a source's emissions have a significant impact on air quality and continuous monitoring of emissions with a CEM system is necessary to ensure that the ambient air quality standards are achieved and maintained.

Stationary sources as specified in 40 CFR Part 51, Appendix P, Section 1.1, as amended on 51 FR 40675, November 7, 1986, but not including those exempted sources listed in Section 1.2 of Appendix P, shall install, calibrate, operate, and maintain a continuous emission monitoring system in accordance with all requirements set forth and referenced therein. In addition to the minimum data requirements set forth in 40 CFR Part 51, Appendix P, Sections 4 and 5, such subject stationary sources shall record and report the total process operating time of the equipment for each calendar quarter to the Director. The monitoring and recording required in Env-A 805.02 shall begin March 31, 1991.

Appendix 1-6a

All Regulated Toxic Air Pollutants
(Source: NHCAR Env-A 1450.01)
[Added January 1999; Revised March 2006]

(NOTE: The latest version of this table is available on-line at http://www.gencourt.state.nh.us/rules/env-a1400.html)

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
0-00-0	Aliphatic hydrocarbon gases: Alkane C1 - C4 (measured as butane){D}	III	35374	23582	278	101,545
0-00-0	Coal Dust (anthracite)	II	2.0	1.3	0.016	5.8
0-00-0	Coal Dust (bituminous)	II	4.5	3.0	0.036	13
0-00-0	Continuous Filament Glass Fiber (respirable)	II	{E}			
0-00-0	Continuous Filament Glass Fiber (inhalable)	II	70	17	0.55	202
0-00-0	Cotton	III	3.0	2.0	0.023	8.5
0-00-0	Fibrous Glass Dust	II	141	34	1.1	404
0-00-0	Flour Dust	III	21	5.0	0.17	60
0-00-0	Fluorides, as F	I	8.9	6.0	0.070	26
0-00-0	Glass Wool Fibers (length>5, diam.<3)	II	{E}			
0-00-0	Grain Dust (Oat, Wheat, Barley)	II	20	13	0.16	58
0-00-0	Iron Salts, soluble	III	42	9.9	0.33	120
0-00-0	Mineral Wool Fibers	II	141	34	1.1	404
0-00-0	Pentyl acetate (all isomers){F}	III	11096	2642	87	31852
0-00-0	Polytetraflouroethylene, decomp. products	II	{E}			
0-00-0	Refractory ceramic fibers	I	0.71	0.48	0.0056	2.0
0-00-0	Rock Wool Fibers (length>5 diameter<3)	II	{E}			
0-00-0	Rouge	II	50	34	0.40	144
0-00-0	Slag Wool Fibers (length>5,diam.<3)	II	{E}			
0-00-0	Soapstone (inhalable dust)	II	30	20	0.24	87
0-00-0	Soapstone (respirable dust)	II	15	10	0.12	43
0-00-0	Special Purpose Glass Fiber (length>5, diam.<3)	II	{E}			
0-00-0	Stearates	II	50	34	0.40	144
0-00-0	Vegetable Oil Mists	III	417	99	3.3	1196
0-00-0	Welding Fumes (not otherwise classified)	II	25	17	0.20	72
0-00-0	Wood Dust (Hard Woods) (See Env-A 1450.01(b))	I	3.6	2.4	0.028	10
0-00-0	Wood Dust (Soft Woods) (See Env-A 1450.01(b))	I	18	12	0.14	51
50-00-0	Formaldehyde	I	1.3	0.88	0.010	3.8

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
50-29-3	DDT	I	3.6	2.4	0.028	10
50-32-8	Benzo[a]pyrene	I	0.0050	0.0050	0.000039	0.014
50-78-2	Acetylsalicylic acid	I	25	12	0.20	72
51-28-5	2,4-Dinitrophenol	{E}				
51-79-6	Ethyl Carbamate (Urethane)	{E}				
52-68-6	Trichlorophon	I	3.6	2.4	0.028	10
53-96-3	2-Acetylaminofluorene	I	{E}			
54-11-5	Nicotine	I	1.8	1.2	0.014	5.1
55-38-9	Fenthion	I	0.71	0.48	0.0056	2.1
55-63-0	Nitroglycerin (NG)	I	1.6	1.1	0.013	4.7
56-23-5	Carbon tetrachloride	I	111	74	0.87	318
56-38-2	Parathion	I	0.18	0.12	0.0014	.51
56-55-3	Benz[a]anthracene	I	0.36	0.24	0.0028	1.0
56-81-5	Glycerin mist	I	36	24	0.28	103
57-12-5	Cyanide	I	18	12	0.14	51
57-14-7	1,1-Dimethylhydrazine	I	0.089	0.060	0.00070	0.26
57-24-9	Strychnine	I	0.54	0.36	0.0042	1.5
57-50-1	Sucrose	II	50	34	0.40	144
57-57-8	Propiolactone	I	7.5	3.6	0.059	22
57-74-9	Chlordane	I	1.8	0.70	0.014	5.1
58-89-9	Lindane	I	1.8	1.2	0.014	5.1
59-89-2	N-Nitrosomorpholine	{E}				
60-11-7	4-Dimethylaminoazobenzene	I	{E}			
60-29-7	Ethyl ether	I	4321	2881	34	12405
60-34-4	Methyl hydrazine	I	0.068	0.045	0.00053	0.19
60-35-5	Acetamide	{E}				
60-57-1	Dieldrin	I	0.89	0.60	0.0070	2.6
61-82-5	Amitrole	I	0.71	0.48	0.0056	2.0
62-53-3	Aniline	I	27	1.0	0.21	16
62-73-7	Dichlorvos	I	0.50	0.50	0.0039	1.4
62-74-8	Sodium fluoroacetate	I	0.18	0.12	0.0014	0.51
62-75-9	N-Nitrosodimethylamine	I	0.0010	0.0010	0.0000079	0.0029
63-25-2	Carbaryl	I	18	12	0.14	51
64-17-5	Ethanol	II	9457	6304	74	27147
64-18-6	Formic acid	II	66	32	0.52	190
64-19-7	Acetic Acid	II	126	84	1.0	362
64-67-5	Diethyl Sulfate	II	1.0	0.67	0.0079	2.9
67-56-1	Methanol	II	1318	879	10	3783
67-63-0	Isopropanol	I	1757	1171	14	5044
67-64-1	Acetone	I	4243	2829	33	12180
67-66-3	Chloroform	I	175	117	1.4	502
67-72-1	Hexachloroethane	I	35	23	0.27	99
68-11-1	Thioglycolic acid	I	19	9.0	0.15	55
68-12-2	Dimethylformamide	I	107	30	0.84	307
71-23-8	n-Propyl alcohol	II	3465	1650	27	9946
71-36-3	n-Butanol	II	305	204	2.4	857
71-43-2	Benzene	I	5.7	3.8	0.045	16
71-55-6	Methyl chloroform	I	6821	4548	54	19582
72-20-8	Endrin	I	0.36	0.24	0.0028	1.0
72-43-5	Methoxychlor	I	36	24	0.28	103
72-55-9	DDE (1,1-Dichloro-2,2-	I	0.10	0.10	0.00081	0.30

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
	Bis(P-Chlorophenyl))					
74-83-9	Methyl bromide	II	20	5.0	0.15	56
74-84-0	Ethane (see Aliphatic hydrocarbon gases)					
74-87-3	Methyl chloride	I	368	245	2.9	1056
74-88-4	Methyl iodide	II	60	40	0.47	173
74-89-5	Methylamine	II	45	21	0.35	129
74-90-8	Hydrogen cyanide	I	18	3.0	0.14	49
74-93-1	Methyl mercaptan	II	4.9	3.3	0.039	14
74-96-4	Ethyl bromide	II	111	74	0.87	318
74-97-5	Chlorobromomethane	II	5332	3555	42	15306
74-98-6	Propane (see Aliphatic hydrocarbon gases)					
74-99-7	Methyl acetylene	II	8249	5500	65	23681
74-99-7	Methyl acetylene-propadiene mixture	II	8249	5500	65	23681
75-00-3	Ethyl chloride	10000	10000	79	28706	
75-01-4	Vinyl chloride	I	9.3	6.2	0.073	27
75-02-5	Vinyl fluoride	I	6.8	4.5	0.053	19
75-05-8	Acetonitrile	I	120	60	0.94	344
75-07-0	Acetaldehyde	I	161	9.0	1.3	148
75-08-1	Ethyl mercaptan	II	9.2	4.4	0.072	26
75-09-2	Methylene Chloride	I	621	414	4.9	1783
	(Dichloromethane)					
75-12-7	Formamide	II	91	60	0.71	260
75-15-0	Carbon disulfide	I	700	700	5.5	2009
75-18-3	Dimethyl Sulfide	III	529	252	4.2	1519
75-21-8	Ethylene oxide	I	6.4	4.3	0.051	18
75-25-2	Bromoform	I	19	12	0.15	53
75-28-5	Isobutane (see Aliphatic hydrocarbon gases)					
75-34-3	1,1-Dichloroethane	II	2037	1358	16	5848
75-35-4	Vinylidene chloride	II	200	200	1.6	574
75-38-7	Vinylidene fluoride	III	54583	12996	429	156687
75-43-4	Dichlorofluoromethane	II	211	141	1.7	606
75-45-6	Chlorodifluoromethane	50000	50000	393	143531	
75-47-8	Iodoform	II	70	34	0.55	202
75-50-3	Trimethylamine	II	60	40	0.47	172
75-52-5	Nitromethane	III	744	496	5.9	2136
75-56-9	Propylene oxide	I	17	11	0.13	48
75-61-6	Difluorodibromomethane	III	17875	8512	141	51312
75-63-8	Trifluorobromomethane	III	90625	60417	713	260150
75-69-4	Trichlorofluoromethane	II	28270	18846	222	81153
75-71-8	Dichlorodifluoromethane	III	73661	49107	579	211453
75-74-1	Tetramethyl lead, as Pb	I	0.54	0.36	0.0042	1.5
75-86-5	Acetone cyanohydrin	I	18	12	0.14	52
75-99-0	2,2-dichloropropionic acid	III	74	50	0.58	212
76-03-9	Trichloroacetic acid	II	34	22	0.27	98
76-06-2	Chloropicrin	I	3.4	1.6	0.026	9.6
76-11-9	1,1,1,2-Tetrachloro-2,2-difluoroethane	II	20976	13984	165	60214

CAS Number	Description	Toxicity	24-Hr AAL	Annual AAL {B}	24-Hr De Minimus {C}	Annual De Minimus
		Class {A}	(µg/m[3])	(µg/m[3])	(lbs/day)	(lbs/year)
76-12-0	1,1,2,2-Tetrachloro-1,2-difluoroethane	II	20976	13984	165	60214
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	II	38581	25721	303	110753
76-14-2	Dichlorotetrafluoroethane	III	104018	69345	818	298597
76-15-3	Chloropentafluoroethane	III	263333	62698	2071	755931
76-22-2	Camphor, synthetic	II	85	40	0.66	243
76-44-8	Heptachlor	I	0.18	0.12	0.0014	0.51
77-47-4	Hexachlorocyclopentadiene (HCCPD)	II	0.55	0.20	0.0044	1.6
77-58-7	Dibutyltin Dilaurate (as Tin, organic cmpds)	I	0.36	0.24	0.0028	1.0
77-73-6	Dicyclopentadiene	I	96	64	0.76	276
77-78-1	Dimethyl sulfate	I	1.9	1.2	0.015	5.3
78-00-2	Tetraethyl lead, as Pb	I	0.36	0.24	0.0028	1.0
78-10-4	Ethyl silicate	III	1265	843	9.9	3631
78-30-8	Triorthocresyl phosphate	II	0.50	0.34	0.0040	1.4
78-34-2	Dioxathion	I	0.36	0.24	0.0028	1.0
78-59-1	Isophorone	II	141	94	1.1	404
78-78-4	Pentane	III	36875	17560	290	105854
78-83-1	Isobutyl alcohol	II	765	510	6.0	2195
78-87-5	Propylene dichloride	II	1745	4.0	14	66
78-89-7	2-Chloro-1-propanol	II	27	13	0.21	78
78-92-2	Sec-Butanol	II	2134	1016	17	6125
78-93-3	Methyl ethyl ketone (MEK)	5000	5000	39	14353	
78-94-4	Methyl vinyl ketone	I	2.3	1.4	0.018	6.6
78-95-5	Chloroacetone	I	15	9.0	0.12	44
79-00-5	1,1,2-Trichloroethane	II	277	184	2.2	794
79-01-6	Trichloroethylene	I	961	640	7.6	2759
79-06-1	Acrylamide	I	0.11	0.071	0.00084	0.31
79-09-4	Propionic acid	II	211	101	1.7	606
79-10-7	Acrylic acid	I	21	1.0	0.17	16
79-11-8	Chloroacetic Acid	{E}				
79-20-9	Methyl acetate	III	9018	6012	71	25887
79-24-3	Nitroethane	III	4568	3046	36	13114
79-27-6	Acetylene tetrabromide	II	70	47	0.55	201
79-34-5	1,1,2,2-Tetrachloroethane	I	25	16	0.19	71
79-41-4	Methacrylic acid	II	352	235	2.8	1011
79-44-7	Dimethyl carbamoyl chloride	I	{E}			
79-46-9	2-Nitropropane	I	129	20	1.0	328
80-51-3	P,p'-oxybis(benzenesulfonyl hydrazide)	III	4.2	0.99	0.033	12
80-56-8	Pinene (alpha)	II	558	372	4.4	1603
80-62-6	Methyl methacrylate	I	732	700	5.8	2101
81-81-2	Warfarin	I	0.36	0.24	0.0028	1.0
82-68-8	Pentachloronitrobenzene	I	1.8	1.2	0.014	5.1
83-26-1	Pindone	I	0.36	0.24	0.0028	1.0
83-79-4	Rotenone	I	18	12	0.14	51
84-66-2	Diethyl phthalate	II	25	17	0.20	72
84-74-2	Dibutyl phthalate	II	25	17	0.20	72
85-01-8	Phenanthrene (as coal tar	I	0.71	0.48	0.0056	2.1

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
	pitch volatile)					
85-42-7	Hexahydrophthalic anhydride	II	0.0025	0.0017	0.000020	0.0072
85-44-9	Phthalic anhydride	I	22	15	0.17	63
86-50-0	Azinphos-methyl	I	0.71	0.48	0.0056	2.1
86-88-4	ANTU	I	1.1	0.71	0.0084	3.1
87-68-3	Hexachlorobutadiene	I	1.1	0.50	0.0083	3.0
87-86-5	Pentachlorophenol	I	1.8	1.2	0.014	5.1
88-06-2	2,4,6-Trichlorophenol	I	3.0	3.0	0.024	8.6
88-12-0	N-Vinyl-2-pyrrolidone	II	3.4	2.3	0.027	10
88-72-2	Nitrotoluene	I	39	26	0.31	113
88-89-1	Picric acid	II	0.50	0.34	0.0040	1.4
89-72-5	o-sec-Butylphenol	II	218	104	1.7	627
90-04-0	o-Anisidine	II	2.5	1.7	0.020	7.2
91-08-7	2,6-Toluene Diisocyanate (as TDI)	I	0.13	0.086	0.0010	0.37
91-20-3	Naphthalene	I	186	3.0	1.5	49
91-22-5	Quinoline	I	0.0029	0.0029	0.000022	0.0082
91-59-8	B-Naphthlaminine	I	0.018	0.012	0.00014	0.052
91-94-1	3,3-Dichlorobenzidine	I	0.078	0.078	0.00061	0.22
92-52-4	Biphenyl	II	6.5	4.4	0.051	19
92-67-1	4-Aminodiphenyl	I	0.025	0.016	0.0019	0.071
92-84-2	Phenothiazine	II	35	17	0.28	101
92-87-5	Benzidine	I	0.0010	0.0010	0.0000079	0.0029
92-93-3	4-Nitro Diphenyl	I	{E}			
93-76-5	2,4,5-T	I	36	24	0.28	103
94-36-0	Benzoyl peroxide	II	25	17	0.20	72
94-75-7	2,4-D	I	36	24	0.28	103
95-13-6	Indene	III	714	476	5.6	2050
95-47-6	Xylene, o-isomers	I	1550	1033	12	4449
95-48-7	o-Cresol	II	111	74	0.87	318
95-49-8	o-Chlorotoluene	I	925	617	7.3	2655
95-50-1	o-Dichlorobenzene	I	536	357	4.2	1538
95-52-4	Biphenyl	II	6.5	4.4	0.051	19
95-53-4	o-Toluidine	I	31	21	0.25	90
95-54-5	o-Phenylenediamine	I	0.36	0.24	0.0028	1.0
95-63-6	1,2,4-Trimethylbenzene (as Trimethylbenzene)	II	619	412	4.9	1776
95-80-7	Toluene-2,4-Diamine	I	7.1	4.8	0.056	21
95-95-4	2,4,5-Trichlorophenol	{E}				
96-09-3	Styrene Oxide	{E}				
96-12-8	1,2-Dibromo-3-Chloropropane	I	0.20	0.20	0.0016	0.57
96-18-4	1,2,3-Trichloropropane	I	214	143	1.7	615
96-22-0	Diethyl ketone	II	4965	2364	39	14253
96-33-3	Methyl acrylate	II	35	23	0.28	101
96-45-7	Ethylene Thiourea	I	0.97	0.97	0.0076	2.8
97-77-8	Disulfiram	I	7.1	4.8	0.056	21
98-00-0	Furfuryl alcohol	II	282	134	2.2	809
98-01-1	Furfural	II	40	26	0.31	114
98-07-7	Benzotrichloride	I	0.0030	0.0030	0.000024	0.0086

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
98-51-1	p-tert-Butyl toluene	II	31	20	0.24	88
98-82-8	Cumene	II	1237	400	9.7	3552
98-83-9	Methyl styrene	II	1704	812	13	4892
98-86-2	Acetophenone (incl:benzene from gasoline)	II	246	164	1.9	706
98-88-4	Benzoyl chloride	II	14	9.4	0.11	40
98-95-3	Nitrobenzene	I	18	12	0.14	51
99-08-1	Nitrotoluene	I	39	26	0.31	113
99-65-0	Dinitrobenzene	I	3.6	2.4	0.028	10
99-99-0	Nitrotoluene	I	39	26	0.31	113
100-00-5	p-Nitrochlorobenzene	I	2.3	1.5	0.018	6.6
100-01-6	p-Nitroaniline	I	11	7.1	0.084	31
100-02-7	4-Nitrophenol	{E}				
100-21-0	Terephthalic acid	II	50	34	0.40	144
100-25-4	Dinitrobenzene	II	5.0	3.4	0.040	14
100-37-8	2-Diethylaminoethanol	II	48	32	0.38	139
100-40-3	4-Vinyl cyclohexene	II	2.2	1.5	0.017	6.4
100-41-4	Ethyl benzene	1000	1000	7.9	2871	
100-42-5	Styrene, monomer	I	1000	1000	7.9	2871
100-44-7	Benzyl chloride	I	19	12	0.15	55
100-61-8	N-methyl aniline	III	92	22	0.72	263
100-63-0	Phenylhydrazine	II	2.2	1.5	0.017	6.4
100-74-3	N-Ethylmorpholine	II	169	80	1.3	485
101-14-4	4,4-Methylene bis (2-chloroaniline)	I	0.39	0.26	0.0031	1.1
101-68-8	Methylene bisphenyl isocyanate	I	0.18	0.020	0.0014	0.33
101-77-9	4,4-Methylene dianiline	II	4.1	2.7	0.032	12
101-84-8	Phenyl ether	III	104	69	0.82	299
102-54-5	Dicyclopentadienyl iron	II	50	34	0.39	144
102-71-6	Triethanolamine	II	25	17	0.20	72
102-81-8	2-N-Dibutylaminoethanol	II	18	12	0.14	51
104-94-9	p-Anisidine	II	2.5	1.7	0.020	7.2
105-46-4	Sec-Butyl acetate	III	39583	9425	311	113629
105-60-2	Caprolactam	I	18	12	0.14	51
106-35-4	Ethyl butyl ketone	III	4875	2321	38	13994
106-42-3	Xylene, p-isomers	I	1550	1033	12	4449
106-44-5	p-Cresol	II	111	74	0.87	318
106-46-7	p-Dichlorobenzene	800	800	6.3	2297	
106-49-0	p-Toluidine	II	44	30	0.35	127
106-50-3	p-Phenylenediamine	II	0.50	0.34	0.0040	1.4
106-51-4	Quinone	I	1.6	1.0	0.012	4.5
106-87-6	Vinyl cyclohexene dioxide	I	2.0	1.4	0.016	5.8
106-88-7	1,2-Epoxybutane	20	20	0.16	57	
106-89-8	Epichlorohydrin	I	6.8	1.0	0.053	16
106-92-3	Allyl glycidyl ether	II	23	16	0.18	67
106-93-4	Ethylene dibromide	I	0.050	0.050	0.00039	0.14
106-97-8	Butane (see Aliphatic hydrocarbon gases)					
106-99-0	1,3 Butadiene	I	2	2	0.016	5.7
107-02-8	Acrolein	I	0.82	0.020	0.0064	0.33

CAS Number	Description	Toxicity	24-Hr AAL	Annual AAL {B}	24-Hr De Minimus {C}	Annual De Minimus
		Class {A}	(µg/m[3])	(µg/m[3])	(lbs/day)	(lbs/year)
107-05-1	Allyl chloride	I	11	1.0	0.087	16
107-06-2	Ethylene dichloride	I	143	95	1.1	410
107-07-3	Ethylene chlorohydrin	I	12	7.9	0.093	34
107-13-1	Acrylonitrile	I	15	2.0	0.12	33
107-15-3	Ethylenediamine	II	176	84	1.4	505
107-18-6	Allyl alcohol	I	4.3	2.9	0.034	12
107-19-7	Propargyl alcohol	I	8.2	5.5	0.065	24
107-20-0	Chloroacetaldehyde	II	16	11	0.13	46
107-21-1	Ethylene glycol	II	503	335	4.0	1444
107-22-2	Glyoxal	II	0.70	0.34	0.0055	2.0
107-30-2	Chloromethyl methyl ether	I	{E}			
107-31-3	Methyl formate	III	10250	2440	81	29424
107-41-5	Hexylene glycol	III	2017	1200	16	5789
107-49-3	TEPP	I	0.17	0.11	0.0013	0.48
107-66-4	Dibutyl phosphate	III	358	85	2.8	1028
107-87-9	Methyl propyl ketone	III	14688	6994	116	42162
107-98-2	Propylene glycol monomethyl ether	II	2000	2000	16	5741
108-01-0	N-Dimethylaminoethanol	II	91	60	0.71	260
108-03-2	1-Nitropropane	II	458	305	3.6	1314
108-05-4	Vinyl acetate	I	200	200	1.6	574
108-10-1	Methyl isobutyl ketone	I	3000	3000	24	8612
108-11-2	Methyl isobutyl carbinol	III	4333	1032	34	12439
108-18-9	Diisopropylamine	II	148	70	1.2	425
108-20-3	Isopropyl ether	III	21667	10317	170	62197
108-21-4	Isopropyl Acetate	III	8078	4147	68	24998
108-24-7	Acetic anhydride	II	148	70	1.2	425
108-31-6	Maleic anhydride	II	2.0	1.3	0.016	5.8
108-38-3	Xylene, m-isomers	I	1550	1033	12	4449
108-39-4	m-Cresol	II	111	74	0.87	318
108-44-1	m-Toluidine	II	44	30	0.35	127
108-45-2	m-Phenylenediamine	I	0.36	0.24	0.0028	1.0
108-46-3	Resorcinol	II	226	151	1.8	650
108-67-8	1,3,5-Trimethylbenzene (as Trimethylbenzene)	II	619	412	4.9	1776
108-83-8	Disobutyl ketone	III	3021	1438	24	8672
108-84-9	sec-Hexyl acetate	III	6146	2927	48	17642
108-87-2	Methylcyclohexane	III	23958	15972	188	68774
108-88-3	Toluene	I	671	400	5.3	1927
108-90-7	Chlorobenzene	II	231	154	1.8	664
108-91-8	Cyclohexylamine	I	146	98	1.2	420
108-93-0	Cyclohexanol	I	736	490	5.8	2112
108-94-1	Cyclohexanone	II	404	269	3.2	1159
108-95-2	Phenol	I	68	45	0.53	195
108-98-5	Phenyl mercaptan	I	1.6	1.1	0.013	4.6
109-59-1	Isopropoxyethanol	II	746	355	5.9	2143
109-60-4	n-Propyl acetate	III	17396	8284	137	49937
109-66-0	Pentane	III	36875	17560	290	105854
109-73-9	n-Butylamine	II	75	50	0.59	217
109-79-5	Butyl mercaptan	I	9.0	4.286	0.071	26
109-86-4	2-Methoxyethanol (EGME)	20	20	0.16	57	

CAS Number	Description	Toxicity	24-Hr AAL	Annual AAL {B}	24-Hr De Minimus {C}	Annual De Minimus
		Class {A}	(µg/m[3])	(µg/m[3])	(lbs/day)	(lbs/year)
109-87-5	Methylal	II	15644	10429	123	44908
109-89-7	Diethylamine	II	75	50	0.59	215
109-94-4	Ethyl formate	III	6312	3006	50	18121
109-99-9	Tetrahydrofuran	II	2968	1979	23	8519
110-12-3	Methyl isoamyl ketone	III	9750	2321	77	27989
110-19-0	Isobutyl acetate	III	14854	7073	117	42641
110-43-0	Methyl amyl ketone	III	4854	2312	38	13934
110-49-6	2-Methoxyethyl acetate	II	121	80	0.95	347
110-54-3	Hexane (n-Hexane)	II	885	200	7.0	2541
110-54-3	Hexane (Other isomers)	II	8853	200	70	3281
110-62-3	n-Valeraldehyde	II	1239	590	9.7	3558
110-80-5	2-Ethoxyethanol (EGEE)	200	200	1.6	574	
110-82-7	Cyclohexane	II	6000	6000	47	17224
110-83-8	Cyclohexene	II	5080	3387	40	14584
110-86-1	Pyridine	II	16	11	0.13	47
110-91-8	Morpholine	II	357	238	2.8	1025
111-15-9	2-Ethoxyethyl acetate (EGEEA)	I	96	64	0.76	277
111-30-8	Glutaraldehyde	I	0.71	0.48	0.0056	2.1
111-40-0	Diethylene triamine	I	21	10	0.17	60
111-42-2	Diethanolamine	I	10	4.8	0.079	29
111-44-4	Dichloroethyl ether	I	104	69	0.82	299
111-65-9	Octane	I	7000	3333	55	20094
111-69-3	Adiponitrile	I	44	21	0.35	126
111-76-2	2-butoxyethanol	I	13000	13000	102	37318
111-84-2	Nonane, all isomers	III	15625	10417	123	44854
112-07-2	2-Butoxyethyl Acetate	II	659	439	5.2	1892
112-55-0	Dodecyl mercaptan	I	3.0	2.0	0.023	8.5
114-26-1	Propoxur	I	1.8	1.2	0.014	5.1
115-29-7	Endosulfan	I	0.36	0.24	0.0028	1.0
115-77-5	Pentaerythritol	II	50	34	0.40	144
115-86-6	Triphenyl phosphate	III	45	30	0.35	128
115-90-2	Fensulfothion	I	0.36	0.24	0.0028	1.0
116-14-3	Tetrafluoroethylene	III	171	81	1.3	491
117-81-7	De-sec-octyl phthalate	I	18	12	0.14	52
118-52-5	1,3-Dichloro-5,5-dimethyl hydantoin	II	1.4	0.67	0.011	4.0
118-74-1	Hexachlorobenzene	I	0.0070	0.0050	0.000056	0.021
118-96-7	2,4,6-Trinitrotoluene	II	0.50	0.34	0.0040	1.4
119-90-4	3,3'-Dimethoxybenzidine	I	{E}			
119-93-7	o-Tolidine	I	0.071	0.048	0.00056	0.21
120-80-9	Catechol	II	116	77	0.91	332
120-82-1	1,2,4-Trichlorobenzene	II	186	124	1.5	534
121-14-2	2,4-Dinitrotoluene	I	0.051	0.051	0.00041	0.15
121-44-8	Triethylamine	II	21	7.0	0.17	60
121-45-9	Trimethyl phosphite	I	50	24	0.39	144
121-69-7	Dimethylaniline	II	126	84	0.99	362
121-75-5	Malathion	I	3.6	2.4	0.028	10
121-82-4	Cyclonite	I	1.8	1.2	0.014	5.1
122-39-4	Diphenylamine	II	50	34	0.39	144
122-60-1	Phenyl glycidyl ether (PGE)	I	2.1	1.4	0.017	6.2

CAS Number	Description	Toxicity	24-Hr AAL	Annual AAL {B}	24-Hr De Minimus {C}	Annual De Minimus
		Class {A}	(µg/m[3])	(µg/m[3])	(lbs/day)	(lbs/year)
122-66-7	1,2-Diphenylhydrazine	I	0.050	0.050	0.00039	0.14
123-19-3	Dipropyl ketone	III	4854	2312	38	13934
123-31-9	Hydroquinone	II	10	6.7	0.079	29
123-38-6	Propionaldehyde	II	239	159	1.9	686
123-42-2	Diacetone alcohol	II	1197	798	9.4	3436
123-51-3	Isoamyl alcohol	II	1816	1211	14	5213
123-73-9	Crotonaldehyde	I	3.1	2.0	0.024	8.8
123-86-4	n-Butyl acetate	II	3587	2391	28	10296
123-91-1	Dioxane	I	258	172	2.0	741
123-92-2	Isoamyl acetate (see pentyl acetate)					
124-04-9	Adipic acid	III	104	50	0.82	299
124-09-4	1,6-Hexanediamine	II	12	7.7	0.091	33
124-40-3	Dimethylamine	II	46	31	0.36	132
126-73-8	Tributyl phosphate	II	11	7.4	0.087	32
126-98-7	Methylacrylonitrile	I	9.6	6.4	0.076	28
126-99-8	*f*-Chloroprene	I	129	86	1.0	369
127-00-4	1-Chloro-2-propanol	II	28	13	0.21	78
127-18-4	Perchloroethylene	I	607	405	4.8	1743
127-19-5	N,N-Dimethylacetamide	I	129	86	1.0	369
127-91-3	Pinene (beta)	II	558	372	4.4	1603
128-37-0	Butylated hydroxytoluene (BHT)	II	10	6.7	0.079	29
129-00-0	Pyrene (as coal tar pitch volatiles)	I	0.71	0.48	0.0056	2.1
131-11-3	Dimethylphthalate	II	25	17	0.20	72
132-64-9	Dibenzofuran	{E}				
133-06-2	Captan	I	18	12	0.14	51
133-90-4	Chloramben	{E}				
134-32-7	A-Naphthylamine	II	{E}			
135-88-6	N-Phenyl-beta-naphthylamine	I	{E}			
136-78-7	Sesone	II	50	34	0.40	144
137-05-3	Methyl 2-cyanoacrylate	II	4.6	3.1	0.036	13
137-26-8	Thiram	I	3.6	2.4	0.028	10
138-22-7	n-Butyl lactate	III	625	298	4.9	1794
140-11-4	Benzyl acetate	II	307	205	2.4	881
140-88-5	Ethyl acrylate	I	71	48	0.56	205
141-32-2	n-butyl acrylate	I	52	25	0.41	149
141-43-5	Ethanolamine	I	27	18	0.21	77
141-66-2	Dicrotophos	I	0.18	0.12	0.0014	0.51
141-78-6	Ethyl acetate	II	10141	4829	80	29111
141-79-7	Mesityl oxide	II	302	201	2.4	866
142-64-3	Piperazine dihydrochloride	III	104	50	0.82	299
142-82-5	Heptane	II	8249	5500	65	23681
143-33-9	Sodium cyanide	I	18	12	0.14	51
144-62-7	Oxalic acid	II	5.0	3.4	0.040	14
148-01-6	Dinitolmide	II	35	17	0.28	100
149-57-5	2-Ethylhexanoic acid	I	18	12	0.14	51
150-76-5	4-Methoxyphenol	III	104	50	0.82	299
151-50-8	Potassium cyanide	I	18	12	0.14	51

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
151-56-4	Ethylenimine	I	3.1	2.1	0.025	9.0
151-67-7	Halothane	I	2020	962	16	5799
156-59-2	1,2-Dichloroethylene (cis)	III	16521	7867	130	47425
156-62-7	Calcium cyanamide	II	2.5	1.7	0.020	7.2
205-99-2	Benzo[b]fluoranthene	I	0.36	0.24	0.0028	1.0
218-01-9	Chrysene	I	0.36	0.24	0.0028	1.0
287-92-3	Cyclopentane	III	25595	17063	201	73474
298-00-0	Methyl parathion	I	0.71	0.48	0.0056	2.1
298-02-2	Phorate	I	0.18	0.12	0.0014	0.51
298-04-4	Disulfoton	I	0.18	0.12	0.0014	0.51
299-84-3	Ronnel	I	36	24	0.28	103
299-86-5	Crufomate	I	18	12	0.14	51
300-76-5	Naled	II	0.50	0.34	0.0040	1.4
302-01-2	Hydrazine	I	0.046	0.031	0.00037	0.13
309-00-2	Aldrin	I	0.89	0.60	0.0070	2.6
314-40-9	Bromacil	I	36	24	0.28	103
330-54-1	Diuron	I	36	24	0.28	103
333-41-5	Diazinon	I	0.36	0.24	0.0028	1.0
334-88-3	Diazomethane	I	1.2	0.81	0.0095	3.5
353-50-4	Carbonyl fluoride	I	27	13	0.21	78
382-21-8	Perfluoroisobutylene	I	0.29	0.20	0.0023	0.84
409-21-2	Silicon carbide: non-fibrous (inhalable fraction)	II	50	34	0.40	144
409-21-2	Silicon carbide: fibrous	I	0.36	0.24	0.0028	1.0
409-21-2	Silicon carbide: non-fibrous (respirable fraction)	II	15	10	0.12	43
420-04-2	Cyanamide	II	14	6.7	0.11	40
460-19-5	Cyanogen	II	106	70	0.83	303
463-51-4	Ketene	I	3.1	2.0	0.024	8.8
463-58-1	Carbonyl Sulfide	{E}				
463-82-1	Pentane	III	36875	17560	290	105854
479-45-8	Tetryl	II	7.5	5.0	0.059	22
504-29-0	2-Aminopyridine	I	6.8	4.5	0.053	19
506-64-9	Silver Cyanide (as hydrogen cyanide)	I	18	12	0.14	51
506-77-4	Cyanogen chloride	I	2.7	1.8	0.21	7.7
509-14-8	Tetranitromethane	I	0.14	0.095	0.0011	0.41
510-15-6	Chlorobenzilate	{E}				
528-29-0	Dinitrobenzene	II	5.0	3.4	0.040	14
532-27-4	Chloroacetophenone	I	1.1	0.030	0.0090	0.49
534-52-1	Dinitro-o-cresol	I	0.71	0.48	0.0056	2.0
540-59-0	1,2-Dichloroethylene	III	16521	7867	130	47425
540-84-1	2,2,4-Trimethylpentane	{E}				
540-88-5	tert-Butyl acetate	III	39583	9425	311	113629
541-85-5	Ethyl amyl ketone	III	2729	1300	21	7834
542-56-3	Isobutyl nitrite	II	24	14	0.19	68
542-75-6	1,3-Dichloropropene	I	20	20	0.16	57
542-88-1	Bis(Chloromethyl) ether	I	0.017	0.011	0.00013	0.049
542-92-7	Cyclopentadiene	II	1021	681	8.0	2931
546-93-0	Magnesite	III	149	99	1.2	427
552-30-7	Trimellitic anhydride	II	0.20	0.13	0.0016	0.58

CAS Number	Description	Toxicity	24-Hr AAL	Annual AAL {B}	24-Hr De Minimus {C}	Annual De Minimus
		Class {A}	(µg/m[3])	(µg/m[3])	(lbs/day)	(lbs/year)
556-52-5	Glycidol	I	30	15	0.24	86
557-05-1	Zinc Stearate	III	149	99	1.2	427
558-13-4	Carbon tetrabromide	III	21	14	0.16	60
563-12-2	Ethion	I	0.18	0.12	0.0014	0.51
563-80-4	Methyl isopropyl ketone	II	4965	2364	39	14252
583-60-8	o-Methylcyclohexanone	III	4771	2272	38	13695
584-84-9	Toluene-2,4-Diisocyanate	I	0.13	0.086	0.0010	0.37
591-78-6	Methyl n-butyl ketone	II	101	67	0.79	289
592-01-8	Calcium cyanide	I	18	12	0.14	51
592-41-6	1-Hexene	III	3669	1747	29	10532
593-60-2	Vinyl bromide	I	7.9	3.0	0.062	23
594-42-3	Perchloromethyl mercaptan	I	2.7	1.8	0.021	7.8
594-72-9	1,1-Dichloro-1-nitroethane	II	85	40	0.66	243
598-78-7	2-Chloropropionic acid	I	2.2	1.0	0.017	6.3
600-25-9	1-Chloro-1-nitropropane	II	70	34	0.55	202
603-34-9	Triphenyl amine	III	104	50	0.82	299
620-11-1	3-Amyl acetate (see pentyl acetate)					
624-41-9	1-Butanol, 2-methyl-, acetate (see pentyl acetate)					
624-83-9	Methyl isocyanate	I	0.24	0.11	0.0018	0.67
625-16-1	Tert-Amyl acetate (see pentyl acetate)					
626-17-5	m-Phthalodinitrile	II	25	17	0.20	72
626-38-0	Sec-Amyl acetate (see pentyl acetate)					
646-06-0	1,3-Dioxolane	II	427	203	3.4	1225
672-13-4	n-Propyl nitrate	III	1592	1062	13	4571
628-63-7	n-Amyl acetate (see pentyl acetate)					
628-96-6	Ethylene glycol dinitrate	II	4.4	1.0	0.034	13
637-92-3	Ethyl tert-butyl ether (ETBE)	II	147	70	1.2	422
638-21-1	Phenylphosphine	I	0.82	0.55	0.0065	2.4
680-31-9	Hexamethyl phosphoramide	II	{E}			
681-84-5	Methyl silicate	I	21	14	0.17	62
684-16-2	Hexafluoroacetone	I	2.4	1.6	0.019	7.0
684-93-5	N-Nitroso-N-Methylurea	{E}				
688-73-3	Tri-N-Butylstannane Hydride (as tin)	I	0.36	0.24	0.0028	1.0
764-41-0	1,4-Dichloro-2-butene	I	0.089	0.060	0.00070	0.26
768-52-5	N-Isopropylaniline	II	77	37	0.61	222
822-06-0	Hexamethylene diisocyanate	I	0.12	0.010	0.00096	0.16
872-50-4	Methylpyrrolidone	I	1429	952	11	4102
919-86-8	Demeton-S-methyl	I	0.18	0.12	0.0014	0.51
944-22-9	Fonofos	I	0.36	0.24	0.0028	1.0
994-05-8	Tert-Amyl methyl ether (TAME)	II	421	280	3.3	1207
999-61-1	2-Hydroxypropyl acrylate	I	14	6.7	0.11	40
1024-57-3	Heptachlor epoxide	I	0.18	0.12	0.0014	0.51
1120-71-4	Propane sultone	I	{E}			
1189-85-1	tert-Butyl chromate	III	1.7	0.99	0.013	4.8

CAS Number	Description	Toxicity	24-Hr AAL	Annual AAL {B}	24-Hr De Minimus {C}	Annual De Minimus
		Class {A}	(µg/m[3])	(µg/m[3])	(lbs/day)	(lbs/year)
1300-73-8	Xylidine (mixed isomers)	II	13	8.4	0.10	36
1302-74-5	Emery	III	149	99	1.2	427
1303-86-2	Boron oxide	III	149	99	1.2	427
1303-96-4	Borates, tetra, sodium salts, Anhydrous	I	3.6	2.4	0.028	10
1303-96-4	Borates, tetra, sodium salts, Decahydrate	II	25	17	0.20	72
1303-96-4	Borates, tetra, sodium salts, Pentahydrate	I	3.6	2.4	0.028	10
1304-28-5	Barium Oxide (as barium)	II	2.5	1.7	0.020	7.2
1304-56-9	Beryllium Oxide (as beryllium)	I	0.0071	0.0048	0.000056	0.021
1304-81-1	Bismuth Telluride, Se-doped	II	25	17	0.20	72
1304-82-1	Bismuth telluride	III	149	99	1.2	427
1305-62-0	Calcium hydroxide	III	104	50	0.82	299
1305-78-8	Calcium oxide	III	83	20	0.66	239
1306-19-0	Cadmium Oxide (as cadmium, respirable)	I	0.0070	0.0050	0.000056	0.021
1309-37-1	Iron Oxide	II	25	17	0.20	72
1309-37-1	Iron oxide dust & fume	II	25	17	0.20	72
1309-48-4	Magnesium oxide fume	III	208	99	1.6	598
1309-64-4	Antimony trioxide	I	1.8	0.20	0.014	3.3
1310-58-3	Potassium hydroxide	II	11	6.7	0.089	32
1310-73-2	Sodium Hydroxide	III	33	20	0.26	96
1313-13-9	Manganese Dioxide (as manganese)	II	1.0	0.67	0.0079	2.9
1313-99-0	Nickel Monoxide (as nickel, soluble cmpd)	I	0.36	0.24	0.0028	1.0
1314-06-3	Nickel Peroxide (as nickel, soluble cmpd)	I	0.36	0.24	0.0028	1.0
1314-13-2	Zinc oxide	II	50	34	0.40	144
1314-61-0	Tantalum, as Ta dust	III	74	50	0.59	214
1314-62-1	Vanadium pentoxide	I	0.18	0.12	0.0014	0.51
1314-80-3	Phosphorus pentasulfide	II	5.0	3.4	0.040	14
1317-36-8	Lead Monoxide (as lead)	I	0.18	0.12	0.0014	0.51
1317-39-1	Copper (I) Oxide (as copper, dust/mists)	I	3.6	2.4	0.028	10
1317-65-3	Calcium carbonate	III	149	99	1.2	427
1317-95-9	Tripoli	II	0.50	0.34	0.0040	1.4
1319-77-3	Cresol	II	111	74	0.87	318
1321-64-8	Pentachloronaphthalene	II	2.5	1.7	0.020	7.2
1321-65-9	Trichloronaphthalene	II	25	17	0.20	72
1321-74-0	Divinyl benzene	III	2208	526	17	6339
1330-20-7	Xylene	I	1550	1033	12	4449
1332-58-7	Kaolin	II	10	6.7	0.079	29
1333-82-0	Chromium (VI) Oxide (1:3) (as CrVI, insol.)	I	0.036	0.024	0.00028	0.10
1333-86-4	Carbon black	III	52	35	0.41	150
1335-87-1	Hexachloronaphthalene	III	3.0	2.0	0.023	8.5
1335-88-2	Tetrachloronaphthalene	II	10	6.7	0.079	29
1336-36-3	Polychlorinated Biphenyls	I	0.10	0.10	0.00079	0.29

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
	(Aroclors)					
1338-23-4	Methyl ethyl ketone peroxide	I	5.4	3.6	0.042	15
1344-28-1	Aluminum oxide	III	149	99	1.2	428
1344-95-2	Calcium silicate	III	417	99	3.3	1196
1395-21-7	Subtilisins (Proteolytic enzymes)	II	0.0010	0.0010	0.0000079	0.0029
1477-55-0	m-Xylene a,a'-diamine	III	1.7	0.99	0.013	4.8
1563-66-2	Carbofuran	I	0.36	0.24	0.0028	1.0
1582-09-8	Trifluraline	I	4.6	4.6	0.036	13
1634-04-4	Methyl-tert butyl ether	II	3000	3000	24	8612
1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-Dioxin	I	0.0010	0.0010	{E}	
1910-42-5	Paraquat Dichloride, respirable fraction	I	0.36	0.24	0.0028	1.0
1910-42-5	Paraquat Dichloride, total dust	I	1.8	1.2	0.014	5.1
1912-24-9	Atrazine	I	18	12	0.14	51
1918-02-1	Picloram	II	50	34	0.40	144
1929-82-4	Nitrapyrin	I	50	24	0.39	144
2039-87-4	o-Chlorostyrene	III	4211	2808	33	12089
2074-50-2	Paraquat Dimethyl Sulfate, resp. fraction	I	0.36	0.24	0.0028	1.0
2074-50-2	Paraquat Dimethyl Sulfate, total dust	I	1.8	1.2	0.014	5.1
2104-64-5	EPN	I	0.36	0.24	0.0028	1.0
2234-13-1	Octachloronaphthalene	III	1.5	0.99	0.012	4.3
2238-07-5	Diglycidyl ether (DGE)	I	1.9	1.3	0.015	5.4
2425-06-1	Captafol	I	0.36	0.24	0.0028	1.0
2426-08-6	n-Butyl glycidyl ether	I	475	317	3.7	1364
2451-62-9	1,3,5-Triglycidyl-s-triazinetrione	I	0.18	0.12	0.0014	0.51
2528-36-1	Dibutyl phenyl phosphate	II	18	12	0.14	51
2551-62-4	Sulfur hexafluoride	III	88839	59226	699	255024
2698-41-1	o-Chlorobenzylidene malononitrile	I	1.6	0.93	0.012	4.5
2699-79-8	Sulfuryl fluoride	I	75	50	0.59	215

CAS Number	Description	Toxicity Class {A}	24-Hr AAL (µg/m[3])	Annual AAL {B} (µg/m[3])	24-Hr De Minimus {C} (lbs/day)	Annual De Minimus (lbs/year)
2764-72-9	Diquat	I	1.8	1.2	0.014	5.1
2921-88-2	Chlorpyrifos	I	0.36	0.24	0.0028	1.0
2971-90-6	Clopidol	III	149	99	1.2	427
3033-62-3	Bis(2-dimethylaminoethyl)ether(DMAEE)	I	1.6	0.78	0.013	4.7
3333-52-6	Tetramethyl succinonitrile	I	10	6.7	0.079	29
3383-96-8	Temephos	II	50	34	0.40	144
3689-24-5	Sulfotep	I	0.71	0.48	0.0056	2.1
3825-26-1	Ammonium perfluorooctanoate	I	0.050	0.024	0.00039	0.14
4016-14-2	Isopropyl glycidyl ether (IGE)	II	1197	798	9.4	3497
4098-71-9	Isophorone diisocyanate	I	0.16	0.11	0.0013	0.46
4170-30-3	Crotonaldehyde	I	3.1	2.0	0.024	8.8
4685-14-7	Paraquat, respirable fraction	I	0.36	0.24	0.0028	1.0
4685-14-7	Paraquat, total dust	I	1.8	1.2	0.014	5.1
5124-30-1	Methylene (4-cyclohexylisocya	III	0.80	0.54	0.0063	2.3
5714-22-7	Sulfur pentafluoride	I	0.40	0.24	0.0031	1.1
6423-43-4	Propylene glycol dinitrate	II	1.7	1.1	0.013	4.9
6923-22-4	Monocrotophos	I	0.18	0.12	0.0014	0.51
7085-85-0	Ethyl cyanoacrylate	III	42	9.9	0.33	120
7429-90-5	Alkyls, as A1	II	10	6.7	0.079	29
7429-90-5	Aluminum (dust)	II	50	34	0.40	144
7429-90-5	Pyro Powders, as A1	II	25	17	0.20	72
7429-90-5	Soluable Salts, as A1	II	10	6.7	0.079	29
7429-90-5	Welding Fumes, as A1	II	25	17	0.20	72

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7439-92-1	Lead, elemental & inorgan cmpds.	I	0.18	0.12	0.0014	0.51
7439-96-5	Manganese, elemental & inorganic cmpds.	II	1.0	0.050	0.0079	0.82
7439-97-6	Mercury aryl cmpds.	I	0.36	0.30	0.0028	1.0
7439-97-6	Mercury, alkyl cmpds.	I	0.30	0.30	0.0024	0.86
7439-97-6	Mercury, inorganic forms incl. metallic	I	0.30	0.30	0.0024	0.86
7439-98-7	Molybdenum, as Mo; (metal and insoluble) inhalable	I	36	24	0.28	103
7439-98-7	Molybdenum, as Mo; (metal and insoluble) respirable	I	11	7.1	0.087	32
7439-98-7	Molybdenum, as Mo; (soluble cmpds.) respirable	I	1.8	1.2	0.014	5.2
7440-02-0	Nickel Sulfide Roasting (Fume + Dust)	I	3.6	2.4	0.028	10
7440-02-0	Nickel, insoluble cmpds., as Ni	I	3.6	2.4	0.028	10
7440-02-0	Nickel, metal	I	3.6	2.4	0.028	10
7440-02-0	Nickel, soluble cmpds., as Ni	I	0.36	0.24	0.0028	1.0
7440-06-4	Platinum, metal	II	5.0	3.4	0.040	14
7440-06-4	Platinum, soluble salts	II	0.010	0.0070	0.000079	0.029
7440-16-6	Rhodium, insoluble cmpds.	III	42	9.9	0.33	120
7440-16-6	Rhodium, metal	III	42	9.9	0.33	120
7440-16-6	Rhodium, soluble cmpds.	II	0.050	0.034	0.00040	0.14
7440-21-3	Silicon	III	149	99	1.2	427
7440-22-4	Silver, metal	II	0.50	0.34	0.0040	1.4
7440-22-4	Silver, soluble cmpds.	II	0.050	0.034	0.00040	0.14
7440-25-7	Tantalum, metal and oxide	III	74	50	0.59	214

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7440-28-0	Thallium, elemental and soluble cmpds.	I	0.36	0.24	0.0028	1.0
7440-31-5	Tin, metal	II	10	6.7	0.079	29
7440-31-5	Tin, organic cmpds.	I	0.36	0.24	0.0028	1.0
7440-31-5	Tin, oxide/inorg. cmpds. (not- SnH4, as Sn)	II	10	6.7	0.079	29
7440-33-7	Tungsten, insoluble cmpds.	I	18	12	0.14	51
7440-33-7	Tungsten, soluble cmpds.	I	5.0	2.4	0.039	14
7440-36-0	Antimony	I	1.8	1.2	0.014	5.1
7440-38-2	Arsenic	I	0.036	0.024	0.00028	0.10
7440-39-3	Barium	II	2.5	1.7	0.020	7.2
7440-41-7	Beryllium and cmpds (as Be)	I	0.0071	0.0048	0.000056	0.021
7440-43-9	Cadmium	I	0.036	0.024	0.00028	0.10
7440-47-3	Chromium, insoluble (CrVI compounds)	I	0.036	0.024	0.00028	0.10
7440-47-3	Chromium, metal (CrIII compounds)	I	1.8	1.2	0.014	5.1
7440-47-3	Chromium, water soluble (CrVI)	I	0.18	0.12	0.0014	0.51
7440-48-4	Cobalt, elemental & inorganic cmpds.	I	0.071	0.048	0.00056	0.21
7440-50-8	Copper, dusts and mists	I	3.6	2.4	0.028	10
7440-50-8	Copper, fume	I	0.71	0.48	0.0056	2.1
7440-58-6	Hafnium	III	7.4	5.0	0.059	21
7440-61-1	Uranium (natural) soluble & insoluble	I	0.71	0.48	0.0056	2.1
7440-65-5	Yttrium, metal & cmpds.	III	15	9.9	0.12	43
7440-66-6	Zinc (as zinc oxide dust)	II	50	34	0.40	144
7440-66-6	Zinc (as zinc oxide, fume)	II	25	17	0.20	72

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7440-67-7	Zirconium and cmpds.	III	74	50	0.59	214
7440-74-6	Indium	I	0.36	0.24	0.0028	1.0
7550-45-0	Titanium Tetrachloride	{E}				
7553-56-2	Iodine	I	3.6	2.4	0.028	10
7572-29-4	Dichloroacetylene	I	1.4	0.93	0.011	4.0
7580-67-8	Lithium hydride	III	0.52	0.25	0.0041	1.5
7616-94-6	Perchloryl fluoride	II	65	44	0.51	188
7631-86-9	Silica, Amorphous, Fumed	II	10	6.7	0.079	29
7631-90-5	Sodium bisulfite	II	25	17	0.20	72
7637-07-2	Boron trifluoride	I	11	6.7	0.088	32
7646-85-7	Zinc chloride fume	I	3.6	2.4	0.028	10
7647-01-0	Hydrogen chloride	I	20	20	0.084	31
7664-38-2	Phosphoric acid	III	15	10	0.12	43
7664-39-3	Hydrogen fluoride	I	8.2	5.5	0.065	24
7664-41-7	Ammonia	II	100	100	0.79	287
7664-93-9	Sulfuric Acid	I	0.71	0.48	0.0056	2.0
7681-49-4	Sodium Fluoride (as fluoride)	I	8.9	6.0	0.070	26
7681-57-4	Sodium metabisulfite	II	35	17	0.28	101
7697-37-2	Nitric acid	I	19	12	0.15	53
7705-08-0	Ferric Chloride (as iron, soluble salt)	II	5.0	3.4	0.040	14
7719-09-7	Thionyl chloride	I	20	12	0.15	56
7719-12-2	Phosphorus trichloride	I	3.9	2.6	0.031	11
7722-64-7	Potassium Permanganate (as manganese)	II	1.0	0.67	0.0079	2.9
7722-84-1	Hydrogen peroxide	II	9.9	4.7	0.078	28

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7722-88-5	Tetrasodium pyrophosphate	III	104	50	0.82	299
7723-14-0	Phosphorus (yellow)	I	0.36	0.24	0.0028	1.0
7726-95-6	Bromine	II	3.3	2.2	0.026	9.5
7727-21-1	Persulfate, Potassium	III	2.1	0.99	0.016	6.0
7727-43-7	Barium sulfate	III	417	99	3.3	1197
7727-54-0	Persulfate, Ammonium	III	2.1	0.99	0.016	6.0
7758-94-3	Ferrous Chloride (as iron, soluble salt)	II	5.0	3.4	0.040	14
7758-97-6	Lead chromate (TLV for Cr)	I	0.043	0.029	0.00034	0.12
7773-06-0	Ammonium sulfamate	III	149	99	1.2	427
7775-27-1	Persulfate, Sodium	III	2.1	0.99	0.016	6.0
7778-18-9	Calcium sulfate	III	149	99	1.2	427
7782-41-4	Fluorine	I	5.7	3.8	0.045	16
7782-42-5	Graphite (all forms except graphite fibers)	II	28	6.7	0.22	81
7782-49-2	Selenium	I	0.71	0.48	0.0056	2.1
7782-50-5	Chlorine	II	7.5	5.0	0.059	22
7782-65-2	Germanium tetrahydride	II	4.4	2.1	0.035	13
7783-06-4	Hydrogen sulfide	II	50	2.0	0.39	33
7783-07-5	Hydrogen selenide	I	0.57	0.38	0.0045	1.6
7783-41-7	Oxygen difluoride	I	0.39	0.26	0.0031	1.1
7783-54-2	Nitrogen trifluoride	II	146	97	1.1	419
7783-60-0	Sulfur tetrafluoride	I	1.8	1.0	0.014	5.1
7783-79-1	Selenium hexafluoride	I	0.57	0.38	0.0045	1.6
7783-80-4	Tellurium hexafluoride	I	0.36	0.24	0.0028	1.0
7784-40-9	Lead arsenate	I	0.54	0.36	0.0042	1.5
7784-42-1	Arsine	I	0.57	0.050	0.0045	0.82

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7786-34-7	Mevinphos	I	0.33	0.22	0.0026	0.94
7786-81-4	Nickel Sulfate (as nickel, soluble cmpds.)	I	0.36	0.24	0.0028	1.0
7789-06-2	Strontium chromate	I	0.0018	0.0012	0.000014	0.0051
7789-30-2	Bromine pentafluoride	III	11	7.1	0.084	31
7790-91-2	Chlorine trifluoride	I	1.5	0.91	0.012	4.4
7803-51-2	Phosphine	I	1.5	0.30	0.012	4.3
7803-52-3	Stibine	I	1.8	1.2	0.014	5.2
7803-62-5	Silicon tetrahydride	III	138	65	1.1	395
8001-35-2	Chlorinated camphene	I	1.8	1.2	0.014	5.1
8002-05-9	Petroleum Distillate	I	10000	4762	79	28706
8002-74-2	Paraffin wax fume	III	83	20	0.66	239
8003-34-7	Pyrethrum	I	18	12	0.14	51
8006-61-9	Gasoline	II	4477	2985	35	12851
8006-64-2	Turpentine	II	558	327	4.4	1603
8008-20-6	Kerosene	II	1006	671	7.9	2888
8012-95-1	Oil Mist, Mineral	II	25	17	0.20	72
8022-00-2	Methyl demeton	I	1.8	1.2	0.014	5.1
8030-30-6	Rubber solvent (Naphtha)	II	7998	5332	63	22959
8032-32-4	VM & P Naphtha	I	6850	3262	54	19664
8050-09-7	Rosin core solder thermal decomp. Prod.	II	0.50	0.34	0.0040	1.4
8052-41-3	Stoddard solvent	II	2641	1761	21	7581
8052-42-4	Asphalt fumes (as total particulate)	II	25	17	0.20	72
8065-48-3	Demeton	I	0.18	0.12	0.0014	0.51
9002-86-2	Polyvinyl Chloride	II	30	20	0.24	87

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9004-34-6	Cellulose	III	149	99	1.2	427
9005-25-8	Starch	III	149	99	1.2	427
9005-25-9	Starch (dust)	III	149	99	1.2	427
9006-04-6	Natural rubber latex, as pure proteins	II	0.0050	0.0034	0.000040	0.014
9014-01-1	Subtilisins (100 percent pure crystalline enzyme)	II	0.0010	0.0010	0.0000079	0.0029
10024-97-2	Nitrous oxide	I	321	214	2.5	923
10025-67-9	Sulfur monochloride	I	22	13	0.17	63
10025-87-3	Phosphorus oxychloride	I	2.3	1.5	0.018	6.5
10026-13-8	Phosphorus pentachloride	I	3.0	2.0	0.024	8.7
10035-10-6	Hydrogen bromide	II	37	22	0.29	107
10049-04-4	Chlorine dioxide	II	1.4	0.20	0.011	3.3
10102-43-9	Nitric oxide	II	156	104	1.2	448
10210-68-1	Cobalt carbonyl	II	0.50	0.34	0.0040	1.4
10294-33-4	Boron tribromide	III	149	99	1.2	427
10588-01-9	Sodium Dichromate (as Chromium)	I	0.18	0.12	0.0014	0.51
11097-69-1	Chlorodiphenyl (54 percent chlorine)	I	1.8	1.2	0.014	5.1
11103-86-9	Zinc chromates	I	0.036	0.024	0.00028	0.10
11292-00-8	Silica gel	II	50	34	0.40	144
12001-26-2	Mica	II	15	10	0.12	43
12035-72-2	Nickel subsulfide (as Ni)	I	0.36	0.24	0.0028	1.0
12079-65-1	Manganese cyclopentadienyl tricarbonyl	I	0.36	0.24	0.0028	1.0
12108-13-3	2-Methylcyclopentadienyl, Mn tricarbonyl	I	0.71	0.48	0.0056	2.1

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12125-02-9	Ammonium chloride fume	III	417	99	3.3	1197
12415-34-8	Emery	III	149	99	1.2	427
12604-58-9	Ferrovanadium dust	III	42	9.9	0.33	120
12656-85-8	Molybdate Orange (as Molybdenum, soluble)	I	18	12	0.14	51
13071-79-9	Terfubos	I	0.036	0.024	0.00028	0.10
13121-70-5	Cyhexatin	I	18	12	0.14	51
13149-00-3	Hexahydrophthalic anhydride, cis-isomer	II	0.0025	0.0017	0.000020	0.0072
13397-24-5	Gypsum	III	149	99	1.2	427
13463-39-3	Nickel carbonyl	I	0.43	0.29	0.0034	1.2
13463-40-6	Iron pentacarbonyl	I	1.2	0.55	0.0090	3.3
13463-67-7	Titanium dioxide	II	50	34	0.40	144
13466-78-9	3-Carene	II	558	372	4.4	1603
13494-80-9	Tellurium, as Te	I	0.36	0.24	0.0028	1.0
13530-65-9	Zinc chromate	I	0.036	0.024	0.00028	0.10
13765-19-0	Calcium chromate	I	0.0036	0.0024	0.000028	0.010
13770-89-3	Nickel (II) Sulfamate (as Nickel, soluble)	I	0.36	0.24	0.0028	1.0
13838-16-9	Enflurane	I	2021	1348	16	5803
14166-21-3	Hexahydrophthalic anhydride, trans-isomer	II	0.0025	0.0017	0.000020	0.0072
14464-46-1	Cristobalite	II	0.25	0.17	0.0020	0.72
14484-64-1	Ferbam	II	50	34	0.40	144
14807-96-6	Talc (containing asbestos fibers)	I	0.71	0.48	0.0056	2.1
14807-96-6	Talc (containing no asbestos fibers)	II	10	6.7	0.079	29
14808-60-7	Quartz	II	0.36	0.24	0.0028	1.0

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14857-34-2	Dimethylethoxysilane	II	11	7.0	0.087	32
14977-61-8	Chromyl chloride	II	0.81	0.54	0.0063	2.3
15468-32-3	Tridymite	II	0.25	0.17	0.0020	0.72
16219-75-3	Ethylidene norbornene	I	89	60	0.70	256
16752-77-5	Methomyl	I	8.9	6.0	0.070	26
16842-03-8	Cobalt hydrocarbonyl	I	0.50	0.24	0.0039	1.4
17702-41-9	Decaborane	I	0.89	0.60	0.0070	2.6
17804-35-2	Benomyl	I	36	24	0.28	103
19287-45-7	Diborane	I	0.39	0.26	0.0031	1.1
19430-93-4	Perfluorobutyl ethylene	III	41,939	9,986	330	120,391
19624-22-7	Pentaborane	I	0.046	0.031	0.00037	0.13
20816-12-0	Osmium tetroxide	II	0.011	0.0054	0.000089	0.032
21087-64-9	Metribuzin	I	18	12	0.14	51
21351-79-1	Cesium hydroxide	III	42	20	0.33	120
22224-92-6	Fenamiphos	I	0.36	0.24	0.0028	1.0
25013-15-4	Vinyl toluene	II	1217	812	9.6	3494
25321-14-6	Dinitrotoluene	I	0.71	0.48	0.0056	2.0
25322-68-3	Polyethylene glycol	III	208	99	1.6	597
25551-13-7	Trimethyl benzene	II	619	412	4.9	1777
25639-42-3	Methylcyclohexanol	III	3482	2321	27	9996
26140-60-3	Terphenyls	II	25	17	0.20	72
26471-62-5	Toluene-1,3-Diisocyanate (as TDI)	I	0.13	0.070	0.0010	0.37
26499-65-0	Plaster of Paris (as Ca Sulfate by ACGIH)	III	149	99	1.2	427
26628-22-8	Sodium azide	I	1.0	0.69	0.0081	3.0
26628-22-8	Sodium azide, as Hydrazoic acid vapor	I	0.39	0.26	0.0031	1.1

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		Class {A}	(µg/m[3])	(µg/m[3])	(lbs/day)	(lbs/year)
26952-21-6	Isooctyl alcohol	III	5542	2639	44	15908
31242-93-0	Chlorinated diphenyl oxide	III	7.4	5.0	0.059	21
34590-94-8	Dipropylene glycol methyl ether	II	3048	2032	24	8750
35400-43-2	Sulprofos	I	3.6	2.4	0.028	10
37300-23-5	Zinc chromates	I	0.036	0.024	0.00028	0.10
53469-21-9	Chlorodiphenyl (42 percent chlorine)	I	3.6	2.4	0.028	10
55720-99-5	Chlorinated diphenyl oxide	III	7.4	5.0	0.059	21
60676-86-0	Silica, fused	II	0.50	0.34	0.0040	1.4
61788-32-7	Hydrogenated terphenyls	III	73	49	0.57	209
61790-53-2	Diatomaceous earth, inhalable particulate	II	50	34	0.40	144
61790-53-2	Diatomaceous earth, respirable particulate	II	15	10	0.12	43
64742-47-8	Jet fuels	II	1006	671	7.9	2888
65996-93-2	Coal tar pitch volatiles	I	0.71	0.48	0.0056	2.1
65997-15-1	Portland cement	III	417	99	3.3	1196
68334-30-5	Diesel fuel (as total hydrocarbons)(diesel oil)	III	2083	992	16	5980
68476-30-2	Diesel fuel (as total hydrocarbons)(fuel oil #2)	II	704	335	5.5	2022
68476-31-3	Diesel fuel (as total hydrocarbons)(fuel oil #4)	III	4167	992	33	11961
68476-34-6	Diesel fuel (as total hydrocarbons)(diesel #2)	III	4167	992	33	11961
68476-85-7	Liquified petroleum gas (LPG)(see Aliphatic hydrocarbon gases)					
69012-64-2	Silica, fume	II	10	6.7	0.079	29
74222-97-2	Sulfometuron methyl	II	25	17	0.20	72
77650-28-3	Diesel fuel (as total hydrocarbons) (diesel #4, marine diesel)	III	4167	992	33	11961
93763-70-3	Perlite	III	149	99	1.2	427
112926-00-8	Precipitated silica	II	50	34	0.40	144

Appendix 1-6b

Fuel Types

(Source: NHCAR Env-A 101, 1603.01, 1603.02, and 1603.03) [Added March 2000; Revised March 2003]

The following liquid fuels, whether blended or not, shall be subject to this chapter:

a) No. 2 oil;

(b) No. 4 oil;

(c) No. 5 oil;

(d) No. 6 oil;

(e) Kerosene-1 oil;

(f) Kerosene-2 oil;

(g) Jet A aviation fuel;

(h) Jet A-1 aviation fuel;

(i) Jet B aviation fuel;

(j) JP-4 aviation fuel;

(k) JP-8 aviation fuel;

(l) Aviation gasoline;

(m) Used oil; and

(n) Crude oil.

All coal to be used as fuel, including blended coal, shall be subject to the requirements of this chapter.

All gaseous fuels, including natural gas, liquefied natural gas (LNG), liquefied petroleum gas (LP gas), propane, manufactured gas, and blended gas, shall be subject to the requirements of this chapter. Municipal solid waste landfill gas shall not be subject to the requirements of this chapter.

Appendix 1-7

Exempt CISWI Units

(Source: NHCAR Env-A 3402.01(b)) [Added March 2003]

40 CFR 60.2555 What combustion units are exempt from my State plan?

This subpart exempts fifteen types of units described in paragraphs (a) through (o) of this section.

(a) Pathological waste incineration units. Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in 60.2875 are not subject to this subpart if you meet the two requirements specified in paragraphs (a)(1) and (2) of this section.

(1) Notify the Administrator that the unit meets these criteria.

(2) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(b) Agricultural waste incineration units. Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of agricultural wastes as defined in 60.2875 are not subject to this subpart if you meet the two requirements specified in paragraphs (b)(1) and (2) of this section.

(1) Notify the Administrator that the unit meets these criteria.

(2) Keep records on a calendar quarter basis of the weight of agricultural waste burned, and the weight of all other fuels and wastes burned in the unit.

(c) Municipal waste combustion units. Incineration units that meet either of the two criteria specified in paragraphs (c)(1) or (2) of this section.

(1) Are regulated under subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors that are Constructed on or Before September 20, 1994); subpart AAAA of this part (Standards of Performance for New Stationary Sources: Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Existing Stationary Sources: Small Municipal Waste Combustion Units).

(2) Burn greater than 30 percent municipal solid waste or refuse-derived fuel, as defined in subpart Ea, subpart Eb, subpart AAAA, and subpart BBBB, and that have the capacity to burn less than 35 tons (32 megagrams) per day of municipal solid waste or refuse-derived fuel, if you meet the two requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Notify the Administrator that the unit meets these criteria.

(ii) Keep records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and wastes burned in the unit.

(d) Medical waste incineration units. Incineration units regulated under subpart Ec of this part (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or subpart Ca of this part (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(e) Small power production facilities. Units that meet the three requirements specified in paragraphs (e)(1) through (3) of this section.

(1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.

(3) You notify the Administrator that the unit meets all of these criteria.

(f) Cogeneration facilities. Units that meet the three requirements specified in paragraphs (f)(1) through (3) of this section.

(1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).

(2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.

(3) You notify the Administrator that the unit meets all of these criteria.

(g) Hazardous waste combustion units. Units that meet either of the two criteria specified in paragraph (g)(1) or (2) of this section.

(1) Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.

(2) Units regulated under subpart EEE of 40 CFR part 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).

(h) Materials recovery units. Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.

(i) Air curtain incinerators. Air curtain incinerators that burn only the materials listed in paragraphs (i)(1) through (3) of this section are only required to meet the requirements under "Air Curtain Incinerators" (§ 60.2810 through 60.2870).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

(j) Cyclonic barrel burners. (See 60.2875)

(k) Rack, part, and drum reclamation units. (See 60.2875)

(l) Cement kilns. Kilns regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).

(m) Sewage sludge incinerators. Incineration units regulated under subpart O of this part (Standards of Performance for Sewage Treatment Plants).

(n) Chemical recovery units. Combustion units burning materials to recover chemical constituents or to produce chemical compounds where there is an existing commercial market for such recovered chemical constituents or compounds. The seven types of units described in paragraphs (n)(1) through (7) of this section are considered chemical recovery units.

(1) Units burning only pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process.

(2) Units burning only spent sulfuric acid used to produce virgin sulfuric acid.

(3) Units burning only wood or coal feedstock for the production of charcoal.

(4) Units burning only manufacturing byproduct streams/residues containing catalyst metals which are reclaimed and reused as catalysts or used to produce commercial grade catalysts.

(5) Units burning only coke to produce purified carbon monoxide that is used as an intermediate in the production of other chemical compounds.

(6) Units burning only hydrocarbon liquids or solids to produce hydrogen, carbon monoxide, synthesis gas, or other gases for use in other manufacturing processes.

(7) Units burning only photographic film to recover silver.

(o) Laboratory analysis units. Units that burn samples of materials for the purpose of chemical or physical analysis.

Appendix 1-8

Emission Limitations for CISWI Units
(Source: NHCAR Env-A 3403.01, Table 3403-1)
[Added March 2003; Citation Revised March 2008]

Pollutant or Parameter	CISWI Emission limits (7 percent oxygen, dry basis)	Averaging Time	Test Method
Cadmium	0.004 milligrams per dry standard cubic meter	3-run average (1hour minimum sample time per run)	Method 29 of 40 CFR 60,Appendix A
Carbon monoxide	157 parts per million by dry volume	3-run average (1hour minimum sample time per run)	Method 10, 10A,or 10B of 40 CFR60, Appendix A
Dioxins / furans (toxic equivalency basis)	0.41 nanograms per dry standard cubic meter TEQ	3-run average (1 hour minimum sample time per run)	Method 23 of 40 CFR 60, Appendix A
Hydrogen chloride	62 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 26A of 40 CFR 60, Appendix A
Lead	0.04 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of 40 CFR 60, Appendix A
Mercury	0.47 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 29 of 40 CFR 60, Appendix A
	10 percent	6-minute averages	Method 9 of 40 CFR 60, Appendix A
Oxides of Nitrogen	388 parts per million by dry volume	3-run average (1 hour minimum sample time per run	Method 7, 7A,7C, 7D, or 7E of 40 CFR 60, Appendix A
Particulate matter	70 milligrams per dry standard cubic meter	3-run average (1 hour minimum sample time per run)	Method 5 or 29of 40 CFR 60, Appendix A
Sulfur dioxide	20 parts per million by dry volume	3-run average (1 hour minimum sample time per run)	Method 6 or 6c of 40 CFR 60, Appendix A

Appendix 1-9

Operating Limits for Wet Scrubbers
(Source NHCAR Env-A 3408.02 and 40 CFR 60, Supart DDDD, Table 3)
[Added March 2003; Citation Revised March 2006; Citation Revised March 2007]

For These Operating Parameters	You Must Establish These Operating Limits	And Monitoring Using These Minimum Frequencies		
		Data Measurement	Data Recording	Averaging Time
Charge rate	Maximum charge rate	Continuous	Every hour	Daily (batch units) 3-hour rolling (continuous and intermittent units) {a}
Pressure drop across the wet scrubber or amperage to wet scrubber	Minimum pressure drop or amperage	Continuous	Every 15 minutes	3-hour rolling{a}
Scrubber liquor flow rate	Minimum flow rate	Continuous	Every 15 minutes	3-hour rolling{a}
Scrubber liquor pH	Minimum pH	Continuous	Every 15 minutes	3-hour rolling{a}

{a} Calculated each hour as the average of the previous 3 operating hours.

Appendix 1-10

Emission Limits for MWC
(Source: Env-A 3303.01(a) and (b) and 40 CFR 60.34(b) Table 3)
[Added March 2003; Revised March 2009]

(a) The emission limits for carbon monoxide for large MWC units shall be as specified in Table 3 of 40 CFR §60.34b(a).

Municipal Waste Combustor Technology	Carbon Monoxide Emissions Level (parts per million by volume){a}	Averaging Time (hrs){b}
Mass burn waterwall	100	4
Mass burn refractory	100	4
Mass burn rotary refractory	100	24
Mass burn rotary waterwall	250	24
Modular starved air	50	4
Modular excess air	50	4
Refuse-derived fuel stoker	200	24
Fluidized bed, mixed fuel (wood/refuse-derived fuel)	200	24
fluidized bed combustor	100	4
Bubbling fluidized bed combustor	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor.	150	4
Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor.	200	24

(b) The emission limits for nitrogen oxides for large MWC units shall be as specified in Table 3303-1, below:
Table 3303-1 Nitrogen Oxides (NOx) Limits for Large MWC Units

*Municipal Waste Combustor Technology	*NOx Emission Limit (parts per million by volume, corrected to 7 percent oxygen, dry basis)	*Averaging Time (EPA Reference Method 19, §4.1)
Mass burn waterwall	205	Daily arithmetic average (24 hours)
Mass burn rotary waterwall	250	Daily arithmetic average (24 hours)
Refuse-derived fuel combustor	250	Daily arithmetic average (24 hours)
Fluidized bed combustor	180	Daily arithmetic average (24 hours)
Mass burn refractory combustor	No limit	N/A

Appendix 1-11

Emission Limits for Large MWC Units
(Source: Env-A 3303.01 Table 3303-2) [Added March 2003; Revised March 2008]

Pollutant or Parameter	**Emission Limits**	**Averaging Time**
Particulate matter	25 milligrams (mg)/dry standard cubic meter (dscm), corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Opacity	10 percent (6-minute average)	30 6-minute averages
Cadmium	0.035 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Lead	0.40 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Mercury	0.028 mg/dscm, corrected to 7 percent oxygen, or 85 percent control efficiency	3-run average (run duration specified in test method)
Sulfur dioxide	29 parts per million by volume (ppmv), or 25 percent of the potential sulfur dioxide emission concentration, corrected to 7 percent oxygen (dry basis)	24-hour daily block geometric average concentration or percent reduction
Hydrogen chloride	29 ppmv, or 5 percent of the potential hydrogen chloride emission concentration, corrected to 7 percent oxygen (dry basis)	3-run average(minimum run duration is 1 hour)
Dioxins/furans	35 nanograms/dscm (total mass), corrected to 7 percent oxygen, where an electrostatic precipitator-based emission control system is employed; or 30 nanograms/dscm (total mass) corrected to 7 percent oxygen, where an electrostatic precipitator-based emission control system is not employed	3-run average (minimum run duration is 4 hours)

Appendix 1-12

Carbon Monoxide Emission Limits for Existing Small Municipal Waste Combustion Units
(Source: Env-A 3303.02 (a) and 40 CFR 60, Subpart BBBB, Table 5) [Added March 2003]

For the Following Municipal Waste Combustion Units	You Must Meet the Following Carbon Monoxide Limits	Using the Following Averaging Times
1. Fluidized bed	100 parts per million by dry volume	4-hour.
2. Fluidized bed, mixed fuel, (wood/refuse-derived fuel)	200 parts per million by dry volume	24-hour{c}.
3. Mass burn rotary refractory	100 parts per million by dry volume	4-hour.
4. Mass burn rotary waterwall	250 parts per million by dry volume	24-hour.
5. Mass burn waterwall and refractory	100 parts per million by dry volume	4-hour.
6. Mixed fuel-fired, (pulverized coal/refuse-derived fuel)	150 parts per million by dry volume	4-hour.
7. Modular starved-air and excess air	50 parts per million by dry volume	4-hour.
8. Spreader stoker, mixed fuel-fired (coal/refuse-derived fuel)	200 parts per million by dry volume	24-hour daily.
9. Stoker, refuse-derived fuel	200 parts per million by dry volume	24-hour daily.

{a} All emission limits (except for opacity) are measured at 7 percent oxygen. Compliance is determined by continuous emission monitoring systems.
{b} Block averages, arithmetic mean. See 60.1940 for definitions.
{c} 24-hour block average, geometric mean.

Appendix 1-13

Emission Limits for All Small Municipal Waste Combustion Units
(Source: Env-A 3303.02 Table 3303-3) [Added March 2004; Revised March 2008]

Pollutant or Parameter	Emission Limit	Averaging Time
Particulate matter	27 milligrams (mg)/dry standard cubic meter (dscm), corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Opacity	10 percent (6-minute average)	30 6-minute averages
Cadmium	0.040 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Lead	0.44 mg/dscm, corrected to 7 percent oxygen	3-run average (run duration specified in test method)
Mercury	0.028 mg/dscm, corrected to 7 percent oxygen, or 85 percent control efficiency	3-run average (run duration specified in test method)
Sulfur dioxide - daily limit	77 parts per million by volume (ppmv), or 50 percent of the potential sulfur dioxide emission concentration, corrected to 7 percent oxygen (dry basis)	24-hour daily block geometric average concentration or percent reduction
Sulfur dioxide - monthly limit	29 parts per million by volume (ppmv), or 25 percent of the potential sulfur dioxide emission concentration, corrected to 7 percent oxygen (dry basis)	3-run average (minimum run duration is 1 hour)
Hydrogen chloride	29 ppmv, or 5 percent of the potential hydrogen chloride emission concentration, corrected to 7 percent oxygen (dry basis)	3-run average (minimum run duration is 1 hour)
Dioxins/furans	60 nanograms/dscm (total mass), corrected to 7 percent oxygen (dry basis), where an electrostatic precipitator-based emission control system is employed or 30 nanograms/dscm (total mass), corrected to 7 percent oxygen (dry basis), where an electrostatic precipitator-based emission control system is not employed	3-run average (minimum run duration is 4 hours)
Fugitive ash	Visible emissions for no more than 5 percent of hourly observation period	3 1-hour observation periods

Appendix 1-14

Criteria for Classification of Toxic Air Pollutants

(Source: Env-A 1406.02, 1406.03, and 1406.04) [Added March 2006; Revised March 2010]

Class I----The department shall classify a regulated toxic air pollutant as a class I regulated toxic air pollutant if it meets at least one of the following criteria pursuant to RSA 125-I:2, XIV(a):

a. It is a group A, group B1, or group B2 carcinogen, as described in "Guidelines for Carcinogen Risk Assessment," 51 Federal Register 33,992, at 34,000 (Sept. 24, 1986);
b. It is a category A1 or A2 carcinogen, as described in Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, published by the American Conference of Governmental Industrial Hygienists (ACGIH);
c. It has been demonstrated through at least one study conducted in accordance with generally accepted scientific principles that it is capable of inducing reproductive or developmental effects in experimental laboratory animals at doses less than or equal to 500 mg/kg; or
d. It has an acute toxicity where the:
    1. Oral LD50 is less than or equal to 50 mg/kg of bodyweight;
    2. Inhalation LC50 is less than or equal to 200 ppm; or
    3. Dermal LD50 is less than or equal to 200 mg/kg.

Class II----The department shall classify a regulated toxic air pollutant as a class II regulated toxic air pollutant if it does not qualify as a class I regulated toxic air pollutant and meets at least one of the following criteria pursuant to RSA 125-I:2,XIV(b):

a. It is a group C carcinogen, as described in "Guidelines for Carcinogen Risk Assessment," 51 Federal Register 33,992, at 34,000 (Sept. 24, 1986);
b. It is a category A3 carcinogen, as described in Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, published by the ACGIH;
c. It has been demonstrated through at least one study conducted in accordance with generally accepted scientific principles, that it is capable of inducing reproductive or developmental effects in experimental laboratory animals at doses greater than 500 mg/kg;
d. It has an acute toxicity where the:
    1. Oral LD50 is greater than 50 mg/kg but less than 500 mg/kg;
    2. Inhalation LC50 is greater than 200 ppm but less than 2000 ppm; or
    3.) Dermal LD50 is greater than 200 mg/kg but less than 1000 mg/kg;
e. It has been demonstrated through at least one study conducted in accordance with generally accepted scientific principles, that it induces mutagenic effects; or
f. It has been demonstrated through at least one study conducted in accordance with generally accepted scientific principles that it produces adverse chronic non-carcinogenic systemic effects.

Class III-----The department shall classify a regulated toxic air pollutant as a class III regulated toxic air pollutant if it is any regulated toxic air pollutant other than a regulated toxic air pollutant classified as class I or class II.

SECTION 2

CULTURAL RESOURCES MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Cultural Resources Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Department* - the department of cultural resources (NH Rev Stat 227-C:1) [Added March 2007].

- *Field Investigation* - the search for, identification of, and evaluation of historic resources, and the study of the traces of human culture at any land or underwater historic property, by means of inspection, surveying, digging, excavating, or removing surface or subsurface objects, or going onto a site with that intent (NH Rev Stat 227-C:1) [Revised March 2007].

- *Historic Preservation* - the research, excavation, protection, restoration and rehabilitation of buildings, structures, objects, districts, areas and sites significant in the history, architecture, archeology, or culture of this state, its communities, or the nation (NH Rev Stat 227-C:1) [Added March 2007].

- *State Archeologist* - the archeologist in the office authorized to discharge the duties of the office in accordance with these rules NH Rev Stat 227-C:1) [Revised March 2007].

CULTURAL RESOURCES MANAGEMENT GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS	
	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	CR.2.1.NH.
Archaeological/Indian Sites	CR.15.1.NH. through CR.15.6.NH.

COMPLIANCE CATEGORY: CULTURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
CR.2. **MISSING CHECKLIST ITEMS**	
CR.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: CULTURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
CR.15. **ARCHAEOLOGICAL/ INDIAN SITES**	
CR.15.1.NH. Field investigations of historic resources must be permitted (NH Rev Stat 227-C:7) [Revised March 2007].	Verify that a permit is obtained prior to the conduct of any destructive field investigation (see definitions).
CR.15.2.NH. [Deleted March 2007].	
CR.15.3.NH. Discovery of unmarked human burials or human remains must be reported (NH Rev Stat 227-C:8-a, I and II) [Revised March 2007].	Verify that any person knowing or having reasonable grounds to believe that unmarked human burials or human remains are being disturbed, destroyed, defaced, mutilated, removed, or exposed immediately notifies the medical examiner of the county in which the remains are encountered. Verify that, if the unmarked human burials or human remains are encountered as a result of construction or agricultural activities, disturbance of the remains ceases immediately and do not resume without authorization from either the county medical examiner or the state archaeologist.
CR.15.4.NH. Human remains must not be removed or retained for scientific analysis without authorization (NH Rev Stat 227-C:8-i, I and III) [Revised March 2007].	Verify that no person knowingly acquire any human remains removed from unmarked burials in New Hampshire after January 1, 1987, without authorization. Verify that human remains acquired from unmarked burials in New Hampshire after January 1, 1987 are not retained for scientific analysis beyond the time limitations.
CR.15.5.NH. [Deleted March 2007].	
CR.15.6.NH. [Deleted March 2007].	

COMPLIANCE CATEGORY: CULTURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**

SECTION 3

HAZARDOUS MATERIALS MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Hazardous Materials Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Adoption of Federal Standards

The regulations adopted by the United States Department of Transportation contained in 49 CFR 170 though 189 are hereby adopted as a part of these rules (New Hampshire Code of Administrative Rules (NHCAR) Saf-C 601.01).

The state fire marshal adopts as a rule NFPA 30, *Flammable and Combustible Liquids Code* (1987 edition); all persons storing, handling or transporting flammable and combustible liquids, or constructing facilities for storage, handling or transportation of said liquids must comply with all applicable requirements of NFPA 30 (NHCAR Fir 402.01).

Definitions

- *Floor Drain* - an opening in a floor that is not specifically included in an authorized discharge under one or more of the following regulatory mechanisms (New Hampshire Code of Administrative Rules (NHCAR), Division of Water Supply Part 421, Section 421.03 (NHCAR Env-Ws 421.03) [Added March 2000]:
  1. A NH groundwater discharge permit
  2. A registration required by Env-Ws 410
  3. A national pollution discharge elimination system permit, or
  4. A local authorization to discharge to the local wastewater treatment facility.

- *Impervious Surface* - a surface through which regulated contaminants cannot pass when spilled. The term includes concrete and asphalt unless unsealed cracks or holes are present, and does not include earthen, wooden, or gravel surfaces or other surfaces which could react with or dissolve when in contact with the substances stored on them (NHCAR Env-Ws 421.03) [Added March 2000].

- *Potential Contamination Source* - human activities or operations upon the land surface are considered potential contamination sources if the activity or operation poses a reasonable risk that regulated contaminants may be introduced into the environment in such quantities as to degrade the natural groundwater quality. The term includes those sources listed in RSA 485-C:7 II (NHCAR Env-Ws 421.03) [Added March 2000]:
  1. Vehicle service and repair shops, including but not limited to: automobile, truck, and equipment service or repair shops, auto body shops; and aircraft fueling, deicing, and maintenance areas.
  2. General service and repair shops, including but not limited to: furniture stripping, painting, and refinishing; photographic processing; printing; appliance and small engine repair; boat repair, service, and refinishing; refrigeration, heating, ventilating and air conditioning shops.
  3. Metalworking shops, including, but not limited to: machine shops; metal plating, heat treating, smelting and jewelry making shops.
  4. Manufacturing facilities, including, but not limited to: electronics and chemical manufacturing, processing, and reclamation; paper, leather, plastic, fiberglass, rubber, silicon and glass making; a pharmaceutical production; pesticide manufacture; and chemical preservation of wood and wood products.
  5. Underground and aboveground storage facilities for oil and hazardous substances, as defined in RSA 146-C.

6. Waste and scrap processing and storage, including, but not limited to: junkyards, scrap yards, and auto salvage yards; wastewater treatment plants; dumps, landfills, transfer stations and other solid waste facilities; and wastewater or septage lagoons.
7. Transportation corridors, including, but not limited to, highways and railroads.
8. Septic systems, including, but not limited to large septic systems which require a groundwater discharge permit under RSA 485-A:13.
9. Laboratories and professional offices, including but not limited to: medical, dental, and veterinary offices; and research and analytical laboratories.
10. Use of agricultural chemicals, including but not limited to: golf courses; feed lots, kennels, piggeries, and manure stockpiles; parks; nurseries and sod farms; and the usage of registered pesticides.
11. Salt storage and use for winter road and parking lot maintenance.
12. Snow dumps.
13. Stormwater infiltration ponds or leaching catch basins.
14. Cleaning services, including but not limited to: dry cleaners, laundromats; beauty salons; and car washes.
15. Food processing plants, including but not limited to: meat packing and slaughterhouses; dairies; and processed food manufacture.
16. Fueling and maintenance of excavation and earthmoving equipment.
17. Concrete, asphalt and tar manufacture.
18. Cemeteries.
19. Hazardous waste facilities regulated under the Resource Conservation and Recovery Act, as implemented by RSA 147-A.

- *Regulated Container* - any device in which a regulated substance is stored, transported, treated, disposed of, or otherwise handled, with a capacity of greater than or equal to 5 gallons. The term does not include fuel tanks attached to and supplying fuel to a single motor vehicle (NHCAR Env-Ws 421.03) [Added March 2000].

- *Regulated Substance* - either (NHCAR Env-Ws 421.03) [Added March 2000]:
  1. "Oil," that is, petroleum products and their by-products of any kind, and in any form including, but not limited to, petroleum, fuel, sludge, crude, oil refuse or oil mixed with wastes and all other liquid hydrocarbons regardless of specific gravity and which are used as motor fuel, lubricating oil, or any oil used for heating or processing. The term "oil" does not include natural gas, liquefied petroleum gas or synthetic natural gas regardless of derivation or source.
  2. A substance listed in 40 CFR 302, 7-1-90 edition (see Appendix 3-1 in the TEAM Guide), with the following exclusions:
     a. Ammonia
     b. Sodium hypochlorite
     c. Sodium hydroxide
     d. Acetic acid
     e. Sulfuric acid
     f. Potassium hydroxide, and
     g. Potassium permananganate.

- *Secondary Containment* - a structure, such as a berm or dike with an imperious surface, which is adequate to hold any spills or leaks at 110 percent of the volume of the largest regulated container in the storage area (NHCAR Env-Ws 421.03) [Added March 2000].

- *Storage Area* - a place where a regulated container is kept for a period of 10 consecutive days or more (NHCAR Env-Ws 421.03) [Added March 2000].

- *Work Sink* - a sink necessary for the performance of activities that require use of a regulated substance, excluding the following instances (NHCAR Env-Ws 421.03) [Added March 2000]:
  1. When there are flow through process systems involving a steady, variable, recurring, or intermittent flow of materials during operation; and
  2. When discharge from the sink is not authorized to discharge into the environment under one or more of the following regulatory mechanisms:
     a. A NH groundwater discharge permit

b. A registration required by Env-Ws 410
c. A national pollution discharge elimination system permit, or
d. A local authorization to discharge to the local wastewater treatment facility.

HAZARDOUS MATERIALS MANAGEMENT GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS	
	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	HM.2.1.NH.
State Specific Hazardous Materials Requirements	HM.5.1.NH. through HM.5.4.NH.
Hazardous Materials Transportation	HM.50.1.NH. through HM.50.17.NH.

COMPLIANCE CATEGORY: HAZARDOUS MATERIALS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HM.2. **MISSING CHECKLIST ITEMS**	
HM.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: HAZARDOUS MATERIALS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HM.5. **STATE SPECIFIC HAZARDOUS MATERIALS REQUIREMENTS**	
HM.5.1.NH. Storage of regulated substances must meet specific requirements (NHCAR Env-Ws 421.02 and 421.04) [Added March 2000; Revised March 2008].	(NOTE: This checklist item applies only to "potential contamination sources" (see definitions) that purchase, handle, or store any regulated substances in regulated containers. However, these rules do not apply to those regulated substances defined as pesticides, or to sources listed in subparagraph (j) of the definition of "potential contamination sources," i.e., the "use of agricultural chemicals, including but not limited to: golf courses; feed lots, kennels, piggeries and manure stockpiles; parks; nurseries and sod farms; and the usage of registered pesticides" This checklist item does not apply to on-premise use heating tanks or aboveground and underground storage tanks regulated under Env-Wm 1401 and 1402 (see the *Storage Tank Management* chapter of this manual for details).) Verify that regulated containers are stored in an area having an impervious surface. Verify that the impervious surface is inspected to ensure no cracks or holes exist prior to storage of any regulated containers, and annually thereafter during continued use of the storage area. Verify that storage areas are secured against unauthorized entry by personal surveillance, physically-restricted access, or a combination of personal surveillance and physically-restricted access. Verify that storage areas are inspected weekly for signs of spills and/or leakage from regulated containers. Verify that the aisle space between regulated containers that cannot be moved by hand is of ample size to allow an inspector to determine the condition of individual regulated containers. Verify that regulated containers in outside storage areas are kept covered at all times unless substances are actively being added to or being removed from the regulated container or the regulated containers are in the process of being transferred to another location. Verify that, if a regulated container is kept in an area with secondary containment, the covering is sufficient to keep bermed areas beneath it free of rain, snow or ice. Verify that regulated containers in outside storage areas, are not stored within any

COMPLIANCE CATEGORY: HAZARDOUS MATERIALS MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	of the following: - for surface waters, 50 ft - for private wells, 75 ft - the protective radius of any public water supply well. Verify that regulated containers tanks, in outdoor storage areas, have secondary containment. Verify that regulated containers in outdoor storage areas, are not closer than 50 ft to a storm drain unless there is secondary containment. Verify that each regulated container is clearly and visibly labeled with the chemical and trade name of the material stored within. Verify that each regulated container remains closed and sealed at all times except to add or remove regulated substances. (NOTE: Regulated containers equipped with spigots, valves, or pumps are considered closed and sealed, provided that drip pans are placed and maintained under the spigots, valves, or pumps.) Verify that spill control and containment equipment, including as a minimum, absorbents to pick up spills and leaks, is readily available.
HM.5.2.NH. The use of regulated substances must meet specific management requirements (NHCAR Env-Ws 421.05) [Added March 2000; Revised March 2004].	(NOTE: See HM.5.1.NH. for applicability.) Verify that funnels and drip pans are used when transferring regulated substances from or to regulated containers. Verify that fueling or transferring regulated substances from or to containers is done only over an impervious surface.
HM.5.3.NH. Drains in areas where regulated substances are used or stored must be sealed or lead to a registered tank (NHCAR Env-Ws 421.06 through 421.08, 1508.02, 1508.03(f) and (k)) [Added March 2000; Citation Revised March 2008].	(NOTE: See HM.5.1.NH. for applicability.) Verify that floor drains in areas where regulated substances are used or stored: - are permanently sealed, or - discharge into a registered holding tank. Verify that interior floor drains and work sinks discharge to a registered holding tank. Verify that discharges other than those described in the registration are prohibited.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	Verify that the holding tank owner notifies the department within 30 days: - of tank installation - of tank closure or removal. Verify that the contents of all registered holding tanks are emptied when at 80 percent of tank capacity and disposed of in accordance with all applicable state and local rules.

HM.5.4.NH. Release response information must be posted at storage areas for regulated containers (NHCAR Env-Ws 421.09) [Added March 2000].	(NOTE: See HM.5.1.NH. for applicability.)
	
	Verify that release response information is posted at every storage area.
	
	Verify that the release response information contains the information necessary to contact emergency response personnel, including the following:
	
	- the name of the person designated to be contacted if a spill occurs
	- the method by which the designated person should be contacted, such as by phone, or in person at the main office when there is a release
	- the procedure for spill containment
	- emergency phone numbers including:
	  - state police
	  - local police and fire department
	  - local hospital
	  - Department of Environmental Services
	  - poison control center
	  - office of emergency management.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HM.50. **HAZARDOUS MATERIALS TRANSPORTATION**	
HM.50.1.NH. [Deleted April 1998].	
HM.50.2.NH. [Deleted April 1998].	
HM.50.3.NH. [Deleted April 1998].	
HM.50.4.NH. [Deleted April 1998].	
HM.50.5.NH. [Deleted April 1998].	
HM.50.6.NH. [Deleted April 1998].	
HM.50.7.NH. [Deleted April 1998].	
HM.50.8.NH. [Deleted April 1998].	

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HM.50.9.NH. [Deleted April 1998].	
HM.50.10.NH. [Deleted April 1998].	
HM.50.11.NH. [Deleted April 1998].	
HM.50.12.NH. [Deleted April 1998].	
HM.50.13.NH. [Deleted April 1998].	
HM.50.14.NH. Transporters of hazardous materials must comply with regulations regarding the reporting of accidents (NHCAR Saf-C 605.01(a)) [Revised March 2007].	Verify that each motor carrier who transports hazardous materials immediately notifies the department after any incident pursuant to 49 CFR 171.15(a) that has occurred during the course of transportation, loading, unloading or storage.
HM.50.15.NH. [Deleted March 2007].	
HM.50.16.NH. [Deleted March 2007].	
HM.50.17.NH. [Deleted March 2007].	

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**

SECTION 4

HAZARDOUS WASTE MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Hazardous Waste Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Generator Criteria

The State of New Hampshire recognizes two categories of hazardous waste generators: Small Quantity Generators and Full Quantity Generators. These categories do not correspond to the Federal Small Quantity Generator and Large Quantity Generator categories.

Universal Wastes

The State of New Hampshire recognizes three categories of universal waste handlers: Small quantity handler, accumulates less than 5,000 kg combined total of universal waste on-site at any one time; large quantity handler, accumulates greater than or equal to 5,000 kg, but less than 20,000 kg combined total of universal wastes, on-site at any one time; very large handler, accumulates greater than or equal to 20,000 kg combined total of universal waste, on-site at any one time. New Hampshire, also, has additional requirements for universal waste pesticides and adds cathode ray tubes and antifreeze as universal waste.

Definitions

- *Active Fault Zone* - a land area that, according to geological evidence, has exhibited movement along a fault within the past 10,000 yr (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Active Portion* - that portion of a hazardous waste facility where treatment, storage, or disposal operations are being or have been conducted on or after, 19 November 1980. Active portion does not mean that portion of a hazardous waste facility that has been closed in accordance with a closure plan approved in accordance with Env-Hw 707.02 and 708.02 (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Antifreeze* - an ethylene glycol or propylene glycol based material that is full strength or diluted with only water for use as protection against freezing, overheating, and corrosion of the cooling system of an internal combustion engine (NHCAR Env-Hw 103) [Added March 2003; Citation Revised March 2010].

- *Aquiclude* - an impermeable or poorly permeable bed, formation, or group of formations that impedes groundwater movement and does not yield water freely to a well or spring (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Aquifer* - a geologic formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring (NHCAR Env-Hw 103) [Revised April 1998; Citation Revised March 2010].

- *Authorized Representative* - the person responsible for the overall operation of a facility or an operational unit of a facility, such as the plant manager, superintendent or person of equivalent responsibility (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Bulk Shipment* - the bulk transportation of hazardous waste that is loaded or carried on board a vessel without containers or labels (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Byproduct* - a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Carcinogen* - an agent that causes cancer (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Certification* - a statement of professional opinion based on knowledge and belief (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Closure* - the act of securing a facility pursuant to the requirements of Chapter Env-Hw 700 (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Commissioner* - as defined in RSA 147-A:2, I-b, namely "the commissioner of New Hampshire department of environmental services" (NHCAR Env-Hw 103) [Added March 2001; Citation Revised March 2010].

- *Confined Aquifer* - an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself (NHCAR Env-Hw 103) [Revised March 2001; Citation Revised March 2010].

- *Container* - means any portable device in which material is stored, transported, treated or disposed of, or otherwise handled (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Contingency Plan* - a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Department* - as defined in RSA 147-A:2; II-a, namely "the department of environmental services“ (NHCAR Env-Hw 103) [Added March 2001; Citation Revised March 2010].

- *Designated Facility* - (NHCAR Env-Hw 103) [Revised March 2009; Citation Revised March 2010]:
  a. A hazardous waste treatment, storage, or disposal facility that has
     1. Received a permit or interim status in accordance with Env-Hw 304 or 40 CFR Part 270 and 124 or is regulated under Env-Hw 802.01(c) and (d); and
     2. Been designated on the manifest by the generator as the destination of the hazardous waste;
  b. A generator site designated on the manifest to receive waste as a return shipment from a facility that has rejected the waste in accordance with 40 CFR 264.72(f) or 265.72(f) incorporated by reference at Env-Hw 703; or
  c. If the waste is destined to another state, a facility allowed by the receiving state to accept such waste.

- *Dike* - an embankment or ridge used to prevent the movement of materials (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Discharge* - the release of hazardous waste into or on any land, water, or air (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Displacement* - the relative movement of any two sides of a fault (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Disposal* - the discharge, deposit, incineration, injection, dumping, spilling, leaking or placing of any waste into or onto any land or water so that the waste or any constituent of the waste may enter the environment, be

emitted into the air, or be discharged into any waters, including groundwaters (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Disposal Facility* - any location or part of a location where hazardous waste is intentionally placed and will remain after closure. The term includes landfills and land treatment facilities if the waste will remain after closure disposal facilities (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Elementary Neutralization Unit* - a device which: (NHCAR Env-Hw 103) [Added March 2003; Citation Revised March 2010]
  1. Is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Env-Hw 403 or are listed in Env-Hw 402 only for this reason; and
  2. Meets the definition of tank, tank system, container, transport vehicle, or vessel in Env-Hw 104.

- *EPA Hazardous Waste Number* - the USEPA number assigned to each USEPA hazardous waste identified in NHCAR Env-Hw 400 (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *EPA Identification Number* - the site-specific number assigned to each generator, transporter, and treatment, storage and disposal facility upon approval of a notification form (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Existing Facility* - a facility which was in operation or for which construction commenced on or before 1 July 1980 or on the effective date of any statutory or regulatory amendments that render the facility subject to permit requirements under RCRA, RSA 147-A or rules adopted thereunder (NHCAR Env-Hw 103) [Revised March 2001].

- *Facility* - as defined in RSA 147- A:2, IV, namely "a location at which hazardous waste is subjected to treatment, storage or disposal and may include a facility where hazardous waste has been generated" (NHCAR Env-Hw 103) [Revised March 2001; Citation Revised March 2010].

- *Fault* - a fracture along which rocks on at least one side have been displaced (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *100-Year Flood* - a flood that has a 1 percent chance of being equaled or exceeded in any given yr (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *100-Year Floodplain* - is subject to a 1 percent or greater chance of flooding in any given yr from any source (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Full Quantity Generator* - means any generator who generates at a rate greater than 100 kgs of total hazardous wastes per mo (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Generator* - any person who owns or operates a facility where hazardous waste is generated (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Government Entity* - the state of New Hampshire and its political subdivisions including solid waste management districts and regional planning commissions (NHCAR Env-Hw 103) [Added March 2001; Citation Revised March 2010].

- *Groundwater* - water below the land surface in a zone of saturation (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Hazardous Waste* - as defined in RSA 147-A:2, VII, namely "a solid, semisolid, liquid or contained gaseous waste, or any combination of these wastes:
  1. that, because of either quantity, concentration, or physical, chemical, or infectious characteristics may:

a. cause or contribute to an increase in mortality or an increase in irreversible or incapacitating reversible illness
b. pose a present or potential threat to human health or the environment when improperly treated, stored, transported, disposed of or otherwise mismanaged

2. that has been identified as a hazardous waste by the Department using the criteria established under RSA 147-A:3, I or as listed under RSA 147- A:3, II. Such wastes include, but are not limited to, those that are reactive, toxic, corrosive, ignitable, irritants, strong sensitizers or which generate pressure through decomposition, heat or other means. Such wastes do not include radioactive substances that are regulated by the Atomic Energy Act of 1954, as amended (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Hazardous Waste Storage Area* - an area in which hazardous wastes are stores for greater than one work shift, not to exceed 12 h (NHCAR Env-Hw 103) [Added March 2001; Citation Revised March 2010].

- *Household Hazardous Waste Collection Project* - any location that accumulates, collects, transfers, or otherwise manages household hazardous waste (NHCAR Env-Hw 103) [Added March 2001; Citation Revised March 2010].

- *Incompatible Waste* - a hazardous waste that is not suited for placement in a particular device because it may cause corrosion or other hazards, or is not suited for commingling with another waste or material because it may produce heat, pressure, or a hazardous reaction (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *International Shipments* - the transport of hazardous waste into or out of the jurisdiction of the United States (NHCAR Env-Hw 103) [Citation Revised March 2010].

- *Land Treatment Facility* - a facility or part of a facility at which hazardous waste is or has been applied onto or incorporated into the soil surface (NHCAR Env-Hw 104) [Revised March 2001; Citation Revised March 2010].

- *Landfill* - a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, or a cave (NHCAR Env-Hw 104) [Revised March 2001; Citation Revised March 2010].

- *Large Quantity Handler* - a universal waste handler who accumulates greater than or equal to 5,000 kilograms, but less than 20,000 kilograms, combined total of universal waste listed in Env-Hw 104, on-site at any one time (NHCAR Env-Hw 1101.03) [Added March 2003; Revised March 2009; Citation Revised March 2010].

- *Leachate* - any liquids or suspended substances that have percolated through, or drained from, the waste (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Liner* - a continuous layer of material that restricts the downward and lateral flow of hazardous waste, its constituents, leachate, or water (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Location* - all contiguous land and structures, other appurtenances and improvements on the land (NHCAR Env-Hw 104) [Added March 2001; Citation Revised March 2010].

- *Management, Hazardous Waste* - the systematic control of the generation, collection, sorting, storage, processing, treatment, recovery, and disposal of hazardous waste (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Manifest* - the form used for identifying the origin, quantity, composition, routing and destination of hazardous waste (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Manifest Document Number* - the USEPA or New Hampshire 12 digit identification number assigned to the generator plus a unique 5 digit document number assigned to the manifest by the generator for recording and reporting purposes (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Mercury-Containing Device* - any product or component, excluding batteries and lamps, which contains elemental mercury necessary for its operation and housed within an outer casing and the term includes, but is not limited to: (NHCAR Env-Hw 104) [Added March 2003; Citation Revised March 2010]
    1. Thermostats
    2. Intact mercury-containing ampules
    3. Thermocouples
    4. Thermometers
    5. Manometers
    6. Barometers
    7. Sphygmomanometers
    8. Electric switches and relays
    9. Gas flow regulators
    10. Water meters.

- *New Facility* - a facility that began construction or operation after 1 July 1980 (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *New Hampshire Hazardous Waste Number* - the New Hampshire number assigned to each New Hampshire listed hazardous waste identified in NHCAR Env-Hw 400 (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *New Hampshire Identification Number* - the site specific number assigned to each generator that is not required to obtain a USEPA identification number, yet is required to obtain an identification number for transportation and/or reporting purposes (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Notification Form* - the form used by each generator, transporter, and owner or operator that treats, stores or disposes of hazardous waste, to notify the Department of its hazardous waste activities (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Onsite* - the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection, and access is by crossing as opposed to going along the right-of-way. The term includes noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access (NHCAR Env-Hw 104) [Revised March 2001; Citation Revised March 2010].

- *Permit* - an authorization, license or equivalent control document issued by the Department to implement the requirements of the hazardous waste rules. The term “permit” includes limited permits and emergency permits. “Permit” does not include interim status, or any document which has not been the subject of final Department action, such as a draft permit or proposed permit (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Pile* - a noncontainerized accumulation of solid, nonflowing hazardous waste used or to be used for storage or treatment (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *RCRA* - the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. section 6901 et seq (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Residence* - any structure routinely occupied as a dwelling or abode, including seasonal dwellings when said dwellings are used as secondary residences that are routinely occupied by someone for greater than 90 days/yr (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Runoff* - any rainwater, leachate, or other liquid that drains over land from any part of the facility (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Runon* - means any rainwater, leachate, or other liquid that drains over land onto any part of the facility (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Site* - the land or water area where any facility or activity is physically located or conducted including adjacent land used in connection with the facility or activity (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Sludge* - any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater plant, water supply treatment plant, or air pollution control facility, exclusive of the treated effluent from a wastewater treatment plant (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Small Quantity Generator* - any generator who generates hazardous waste at a rate of less than 100 kgs of total hazardous wastes per mo or 1 kg/mo of acutely hazardous waste (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Small Quantity Generator (SQG)* - a hazardous waste generator that generates less than 220 pounds (100 kilograms) of hazardous waste per month for every month of the SQG's operations (NHCAR Env-WM 514.02) [Added March 2005].

- *Small Quantity Handler* - a universal waste handler who accumulates less than 5,000 kilograms combined total of universal waste listed in Env-Hw 104, on-site at any one time (NHCAR Env-Hw 1101.03) [Added March 2003; Revised March 2009; Citation Revised March 2010].

- *Spill* - the accidental spilling, leaking, pumping, pouring, emitting, or dumping of hazardous wastes or materials which, when spilled, become hazardous wastes, into or on any land or water (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Storage* - the containment of hazardous wastes, either on a temporary basis or for a period of yr, in such a manner as not to constitute disposal of the hazardous wastes (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Subsequent Notification Form* - means the form used by each generator, transporter, and owner or operator that treats, stores, or disposes of hazardous waste, to notify the Department of changes to their notification form (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Surface Impoundment* - a facility or part of a facility which is a natural topographic depression, manmade excavation or diked area formed primarily of earthen materials, even if lined with manmade materials, which is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. The term “surface impoundment” includes holding, storage, settling, and aeration pits, ponds, and lagoons (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Teratogen* - an agent that, during the development of an embryo, causes permanent structural or functional changes in the offspring (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Thermal Treatment* - the treatment of hazardous waste using elevated temperatures as a primary means of changing the chemical, physical, or biological character of the waste (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Totally Enclosed Treatment Facility* - a facility for the treatment of hazardous waste which is directly connected to a generator's process including any industrial production process, and which is constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Transfer Facility* - all land and structures, including loading docks, parking, storage and other areas, where hazardous wastes in transit are transferred from vehicle to vehicle or are removed from a transport vehicle, and temporarily stored for 10 days or less (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Transport* - the movement of hazardous wastes from the point of generation to any intermediate points and, finally, to the point of ultimate storage or disposal (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Transport Vehicle* - each cargo-carrying body used for the transportation of cargo by any mode, such as a motor vehicle, a trailer or railroad freight car (NHCAR Env-Hw 104) [Revised March 2001; Citation Revised March 2010].

- *Transportation* - the movement of hazardous waste by air, rail, highway, or water (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Treatment* - any process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize the waste or to render the waste not hazardous, safer for transport, amenable to recovery, amenable to storage or reduced in volume. The term "treatment" includes rendering a waste amenable to recovery includes the recovery of energy or residual resources from the waste [sic] (NHCAR Env-Hw 104) [Revised March 2001; Citation Revised March 2010].

- *Universal Waste* - any of the following hazardous wastes that may be managed in accordance with Hw 104 1100 in lieu of Hw 104 300 through Hw 104 700: (NHCAR Env-Hw 104) [Added March 2003; Citation Revised March 2010]
  1. Batteries
  2. Pesticides
  3. Mercury-containing devices, including thermostats
  4. Lamps
  5. Cathode ray tubes
  6. Antifreeze.

- *Universal waste handler* - (NHCAR Env-Hw 104) [Added March 2003; Citation Revised March 2010]
  1. A generator of universal waste; or
  2. The owner or operator of a facility, including all contiguous property, who:
     a. Receives universal waste from other universal waste handlers
     b. Accumulates universal waste
     c. Sends universal waste to another universal waste handler, a destination facility, or a foreign destination.

- *Very Large Quantity Handler* - a universal waste handler who accumulates greater than or equal to 20,000 kilograms combined total of universal waste listed in Env- Hw 104, on-site at any one time (NHCAR Env-Hw 1101.03) [Added March 2003; Revised March 2009; Citation Revised March 2010].

- *Washout* - the movement of hazardous waste from a facility as a result of flooding (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Waste* - any matter consisting of: garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other spent, discarded or abandoned material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include domestic sewage, irrigation return waters, wastewater discharges in compliance with applicable state or federal permits, or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (NHCAR Env-Hw 104) [Citation Revised March 2010].

- *Wastewater Treatment Unit* - a device which: (NHCAR Env-Hw 104) [Added March 2003; Citation Revised March 2010]
  1. Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act;

2. Receives and treats or stores an influent wastewater that is a hazardous waste as defined in Env-Hw 400, or generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in Env-Hw 400, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Env-Hw 400; and
3. Meets the definition of tank or tank system in Hw 104.

- *Wetland* - an area that is inundated or saturated by surface or groundwater to a frequency and duration sufficient to support a prevalence of vegetation or aquatic life that is typically adapted for life in saturated or seasonally-saturated conditions (NHCAR Env-Hw 104) [Citation Revised March 2010].

HAZARDOUS WASTE MANAGEMENT
GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	HW.2.1.NH.
State-Specific Hazardous Waste Requirements	
Designated Special Wastes	HW.6.1.NH.
Hazardous Waste Recycle/Reuse	HW.7.1.NH. and HW.7.2.NH.
All Sizes of Generators	HW.10.1.NH. through HW.10.16.NH.
Conditionally Exempt Small Quantity Generators (CESQG)	
(NOTE: New Hampshire does not recognize CESQGs. Generators who would qualify as CESQGs under Federal regulations are subject to New Hampshire Small Quantity Generator requirements. See sections HW.10 and HW.20 for requirements for Small Quantity Generators in New Hampshire.)	
Small Quantity Generators (SQG)	HW.20.1.NH. through HW.20.6.NH.
State-Specific Generator Category	
(NOTE: New Hampshire recognizes two categories of generators: Small Quantity Generators and Full Quantity Generators. Generators who would qualify as CESQGs under Federal regulations are subject to New Hampshire Small Quantity Generator requirements. See sections HW.10 and HW.20 for requirements for Small Quantity Generators in New Hampshire.)	
Generators	
General	HW.55.1.NH. through HW.50.3.NH.
Satellite Accumulation Points	HW.75.1.NH.
Transfer Facilities	HW.95.1.NH. and HW.95.2.NH.
Transportation of Hazardous Waste	HW.100.1.NH. through HW.100.11.NH.
All TSDFs	
General	HW.105.1.NH. through HW.105.8.NH.
Documentation Requirements	HW.145.1.NH. through HW.145.3.NH.
Surface Impoundments	HW.150.1.NH.
Land Treatment Units	HW.160.1.NH.
Hazardous Waste Landfills	HW.165.1.NH.
Additional State Requirements	HW.175.1.NH. through HW.175.6.NH.
Additional Requirements for Permitted TSDFs	HW.180.1.NH. through HW.180.3.NH.
Universal Wastes	
The State of New Hampshire recognizes three categories of universal waste handlers: Small quantity handler, accumulates less than 5,000 kg combined total of universal waste on-site at any one time; large quantity handler, accumulates greater than or equal to 5,000 kg, but less than 20,000 kg combined total of universal wastes, on-site at any one time; very large handler, accumulates greater than or equal to 20,000 kg combined total of universal waste, on-site at any one time. New Hampshire, also, has additional requirements for universal waste pesticides and adds cathode ray tubes and antifreeze as universal waste. See the TEAM Guide for New Hampshire requirements that are the same as the Federal requirements.	
Large Quantity Universal Waste Handlers	HW.410.1.NH.
Universal Waste Transporters	HW.450.1.NH.
Universal Waste Management, State Specific	HW.480.1.NH. through HW.480.28.NH.

GUIDANCE FOR APPENDIX USERS	
REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
4-1	Exemptions Under the Hazardous Waste Rules
4-2	New Hampshire Acutely Hazardous Wastes
4-3	New Hampshire Generic Industrial Process Wastes
4-4	[Deleted]

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HW.2. **MISSING CHECKLIST ITEMS**	
HW.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
STATE-SPECIFIC HAZARDOUS WASTE REQUIREMENTS **HW.6.** **Designated Special Wastes**	
HW.6.1.NH. Certain residues must be treated as hazardous wastes (NHCAR Env-Hw 404.03 and 404.04) [Moved March 2004; Citation Revised March 2010].	Verify that any waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate, including precipitation runoff that exhibits a hazardous characteristic, is considered a hazardous waste. (NOTE: Containers and inner liners from containers of hazardous waste are not considered hazardous waste, provided that the containers and inner liners are empty.) Verify that any waste as set forth in the above paragraph that does not have a USEPA or New Hampshire hazardous waste number is assigned the waste number of NH98. (NOTE: Materials that are reclaimed from wastes and that are used beneficially are not wastes and hence are not considered hazardous wastes unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.) Verify that any hazardous waste residue or mixture of residue with other material that leaves the confines of a container after the container has been determined to be “empty” is treated as a hazardous waste mixture. Verify that any washwaters, solvents and other materials generated in the process of cleaning and purging containers are treated as hazardous waste mixtures.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
STATE-SPECIFIC HAZARDOUS WASTE REQUIREMENTS **HW.7.** **Hazardous Waste Recycle/Reuse**	
HW.7.1.NH. Generators of recyclable materials used for precious metal recovery must meet specific management requirements (NHCAR Env-Hw 808.01) [Citation Revised April 1998; Moved March 2004; Citation Revised March 2010].	(NOTE: "Recyclable materials utilized for precious metal recovery" means recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.) Verify that facility that generates recyclable materials utilized for precious metal recovery meet the notification and manifest requirements for generators (see HW.10.1.NH. and HW.10.8.NH. through HW.10.11.NH. in this chapter).
HW.7.2.NH. Facilities must meet requirements for spent lead-acid batteries (NHCAR Env-Hw 809.02) [Moved March 2004; Citation Revised March 2010].	Verify that facilities that generate or collect spent lead-acid batteries destined for reclamation store the batteries so that the battery housings do not break or leak acid onto the soil or into any groundwaters or surface waters. (NOTE: Facilities who generate or collect spent lead-acid batteries destined for reclamation are not otherwise subject to the hazardous waste rules.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HW.10. **ALL SIZES OF GENERATORS**	

HW.10.1.NH. Generators must determine if their wastes are hazardous wastes (NHCAR Env-Hw 502.01) [Added April 1998; Revised March 2001; Citation Revised March 2010].	Verify that facilities determine whether their wastes are hazardous wastes by:
	
	- determining whether the waste is exempted from regulation (see Appendix 4-1)
	- determining if the waste is listed as Federal hazardous waste (see the appendices to Chapter 4 in the TEAM Guide), or as a New Hampshire hazardous waste (see Appendix 4-2 and 4-3)
	- if the waste is not listed, determining whether the waste has characteristics of hazardous waste (see the appendices to Chapter 4 in the TEAM Guide) or constitutes a hazardous waste mixture or other regulated material by either:
	  - testing the waste
	  - applying knowledge of the hazardous nature or characteristics of the waste based on the materials or processes used to generate the waste.
	
	(NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)

HW.10.2.NH. All generators must notify the Department prior to conducting any hazardous waste activities (NHCAR Env-Hw 504.01 and 504.02(a) and (c) through (d)) [Revised April 1998; Citation Revised March 2010].	Verify that the facility notifies the Department, on the New Hampshire notification form, prior to conducting any hazardous waste activities covered under the hazardous waste rules. Verify that, if the facility has previously notified and obtained a USEPA identification number, a subsequent notification form is completed and submitted for any newly regulated activity. Verify that facilities submit a notification form for each onsite location where hazardous waste activity is conducted. Verify that the facility notifies the Department in writing of any changes to the information provided above within 30 days of the effective date of any change. Verify that the facility notifies the Department in writing within 7 days after ceasing hazardous waste activities at a particular site. (NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)
HW.10.3.NH. Hazardous waste generators must obtain	Verify that the facility does not treat, store, dispose, transport, or offer a hazardous waste for transportation without having received from the Department one of the

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an identification number from the Department (NHCAR Env-Hw 505.01 through 505.03) [Revised March 2001; Citation Revised March 2010].	following identification numbers: - a USEPA identification number - an emergency or temporary identification number - a New Hampshire identification number. (NOTE: Emergency or temporary identification numbers will also be obtained by nonrecurrent generators of hazardous waste that are required to manifest hazardous waste due to a one-time cleanup. A one-time cleanup includes, but is not limited to: removal of off-specification materials; underground storage tank removals; and removal of contaminated soil due to a spill. An emergency or temporary identification number is only valid for 30 days. If the waste cannot be removed within 30 days due to temporary, unforeseen and uncontrollable circumstances, an extension may be granted by the Department upon request.) (NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)
HW.10.4.NH. Hazardous waste generators must meet general environmental and health requirements (NHCAR Env-Hw 506.01 and 506.03) [Citation Revised March 2010].	Verify that, while accumulating hazardous wastes, the generator does not use storage practices that pose a hazard to human health or the environment. Verify that the generator prevents exposure of humans or the environment to harmful quantities of hazardous waste or its constituents. Verify that generators who cease operation of their generating facility continue to manage their hazardous wastes in accordance with all applicable generator standards. (NOTE: Failure to continue such management will be deemed disposal of the waste.) (NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)
HW.10.5.NH. Hazardous waste generators must meet procedures for storage of hazardous wastes (NHCAR Env-Hw 507.01) [Revised April 1998; Revised March 2001; Citation Revised March 2010].	Verify that all hazardous wastes are placed in containers that: - are in good condition - are chemically compatible with the waste stored therein so that no leakage or deterioration of the container or tank occurs - remain closed at all times except to add or remove waste. Verify that hazardous waste containers are stored on impervious surfaces (i.e., concrete and asphalt surfaces, unless cracks or holes are present; not earthen, wooden or gravel surfaces). Verify that hazardous waste containers are not stored in areas with functional floor

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	drains or manholes, or in or near a sink with a functional drain present, unless secondary containment is provided capable of containing the volume of the largest capacity hazardous waste container present. (NOTE: The requirement does not apply to storage of containers holding only wastes that do not contain free liquids provided that: - the hazardous waste storage area is sloped or is otherwise designed to drain and remove liquid resulting from precipitation, or - the containers are elevated or otherwise protected from contact with accumulated liquid.) Verify that hazardous waste containers stored outside are kept covered to prevent precipitation from coming into contact with the container at all times, unless actively adding wastes to or removing wastes from the container or transferring the container to another location. Verify that hazardous waste stored outside is not stored within 50 ft of surface waters. (NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)
HW.10.6.NH. [Deleted March 2001].	(NOTE: Regulation revised.)
HW.10.7.NH. [Deleted March 2001].	(NOTE: Regulation revised; now identical to Federal.)
HW.10.8.NH. Generators must meet rules regarding packaging, labeling, and pre-transport procedures (NHCAR Env-Hw 507.03(a) and (c)) [Revised March 2008; Citation Revised March 2010].	Verify that containers and tanks used for the storage of hazardous wastes are clearly labeled or marked with the following information at the time they are first used to store wastes: - the beginning accumulation date - the words “hazardous waste” - words that identify the contents of the container - the USEPA or state waste number. Verify that hazardous waste labels are not hidden by walls or other containers. Verify that, before offering hazardous waste for transportation offsite, the generator ensures that: - the transporter has received a New Hampshire hazardous waste transporter permit and a USEPA Identification Number

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	- each vehicle is placarded with an appropriate warning of the hazardous waste contained therein in compliance with rules adopted by the New Hampshire Department of Safety - if placards are not required, each vehicle is marked in accordance with 49 CFR 171.3(b)(1), 10-1-05 edition. (NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)
HW.10.9.NH. Generators must meet specific manifest procedures (NHCAR Env-Hw 501.02(c), 510.01 and 510.02) [Revised March 2008; Revised March 2010].	Verify that, when shipping a hazardous waste off-site, a generator prepares a manifest in accordance with 40 CFR 262 Subpart B, 7-1-07 edition. Verify that 7 copies of the manifest are available for distribution if the destination state does not require a copy of the manifest and that 8 copies of the manifest are available if the destination state does require a copy. (NOTE: A legible photocopy shall be acceptable as the 7th and 8th copies.) Verify that the signature imprint and date are legible on all copies. Verify that the generator does the following: - obtains the date of acceptance and handwritten signature of the initial transporter - retains one copy of the manifest with signatures - forwards one of the photocopies of the manifest with signatures to: - the destination state if required by that destination state - the department within 5 days of shipment - provides 5 copies of the manifest to the transporter to accompany the shipment. (NOTE: These requirements do not apply to small quantity generators transporting their own hazardous waste in full, sealed, and labeled containers meeting the DOT specifications for hazardous materials, and which are compatible with the waste, to another facility in New Hampshire that: - is owned or operated by the owner or operator of the small quantity generator site - has notified the department of this activity - counts the waste received towards its generator status.)
HW.10.10.NH. Generators must provide certain information on the manifest (NHCAR Env-Hw 510.03 and NHRSA 147-B:9) [Revised March 2008; Citation Revised March 2010].	Verify that the manifest contains all of the information required in the Appendix to 40 CFR Part 262, except that the word "wastes" is substituted for "waste codes" under the instructions for manifest item 27. Verify that, for manifest item 13, wastes are identified using the following: - the waste code "NHX1" for wastes that are destined for recycling and are exempt from the hazardous waste clean up fee

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	- the waste code "NHX2" for household hazardous wastes that are exempt from the hazardous waste cleanup fees - the waste code "NHX3" for wastes resulting from the remediation of environmentally contaminated properties and that are exempt from the hazardous waste cleanup fees - the waste code "NHX4" for wastes from publicly owned treatment works and that are exempt from the hazardous waste cleanup fees - the waste code "NHX5" for wastes from bottom boiler ash and flyash from incinerators which process solely municipal waste and that are exempt from the hazardous waste cleanup fees - the waste code "NHX6" for waste soil that is a hazardous waste due to lead contamination resulting from the use of the area as a shooting range and that are exempt from the hazardous waste cleanup fees. Verify that the manifests are signed in accordance with 40 CFR Part 262 (NOTE: These requirements do not apply to small quantity generators transporting their own hazardous waste in full, sealed, and labeled containers meeting the DOT specifications for hazardous materials, and which are compatible with the waste, to another facility in New Hampshire that (NHCAR Env-Hw 501.02(c)): - is owned or operated by the owner or operator of the small quantity generator site - has notified the department of this activity - counts the waste received towards its generator status.)
HW.10.11.NH. Generators must meet specific requirements regarding errors/ discrepancies on the manifest (NHCAR Env-Hw 510.04) [Citation Revised March 2010].	Verify that the generator initials and dates any corrections to the manifest prior to shipment. Verify that, if the manifest is rendered unusable, the manifest is voided and destroyed. Verify that, if an error on the manifest is detected after the waste has been shipped, the generator immediately contacts the receiving TSDF and advises the operator of the error. (NOTE: These requirements do not apply to small quantity generators transporting their own hazardous waste in full, sealed, and labeled containers meeting the DOT specifications for hazardous materials, and which are compatible with the waste, to another facility in New Hampshire that (NHCAR Env-Hw 501.02(c)): - is owned or operated by the owner or operator of the small quantity generator site - has notified the department of this activity - counts the waste received towards its generator status.)

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HW.10.12.NH. Generators must take specific measures in the event a shipment of hazardous waste cannot be delivered (NHCAR Env-Hw 511.02) [Revised March 2008; Citation Revised March 2010].	Verify that, in the event that the transporter is unable to deliver all or part of a hazardous waste shipment or if a TSDF rejects all or part of a hazardous waste shipment, the generator either designates an alternate authorized TSDF or instructs the transporter or operator to return the waste. Verify that if a waste shipment is returned, the generator does the following: - ensures that the manifest is completed - signs either item 18c of the manifest, if the transporter returned the shipment using the original manifest; or item 20 of the manifest, if the transporter returned the shipment using a new manifest - complies with the applicable storage requirements of Env-Hw 500. Verify that the generator forwards a copy of the certification of receipt to the Department within 5 days of receipt.
HW.10.13.NH. [Deleted March 2001].	(NOTE: Regulation revised; same as Federal.)
HW.10.14.NH. Generators who ship hazardous waste off-site, or who treat treat, store or dispose of hazardous waste onsite, must meet quarterly reporting requirements (NHCAR Env-Hw 512.02) [Revised April 1998; Revised March 2001; Revised March 2008; Revised March 2010].	(NOTE: The Department will mail a hazardous waste quarterly activity report to each subject generator.) Verify that generators who manifest hazardous waste off-site, or treat, store, or dispose of hazardous waste, submit quarterly activity reports, with the reporting quarters as follows: - 1st Quarter -- 1 January to 31 March - 2nd Quarter -- 1 April to 30 June - 3rd Quarter -- 1 July to 30 September - 4th Quarter -- 1 October to 31 December. Verify that quarterly activity reports include the following information: - reporting quarter - name, mailing address, site location, and USEPA identification number - weight in lb of the hazardous waste manifested during the reporting quarter, summarized by manifest number and EPA or state waste number - weight in lb of the quarter's manifested hazardous waste that was exempted from fees - for wastes resulting from the remediation of contaminated properties which are claiming the exemption from the hazardous waste cleanup fund fees, a brief description of the efforts undertaken to remediate the contaminated property - certification of the accuracy of the report by a responsible company official. Verify that the reports are reviewed for accuracy and any errors are corrected.

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	Verify that generator submits each quarterly activity report within 30 days of receipt of the blank form from the Department. Verify that, if a generator meets the criteria and has not received a quarterly activity report within 45 days following the last day of the previous quarter, the Department is contacted so that a new report form can be sent. (NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)
HW.10.15.NH. [Deleted March 2001; Citation Revised March 2010].	(NOTE: Regulation revised.)
HW.10.16.NH. Generators must take specific steps in response to a discharge of hazardous waste (NHCAR Env-Hw 513.01 and 513.02(a) and (b)) [Citation Revised April 1998; Revised March 2001; Citation Revised March 2003; Revised March 2010].	(NOTE: Any discharge of hazardous waste or any discharge of a material which when discharged becomes a hazardous waste that poses a threat to human health or the environment resulting from a generator's activity must be reported. Examples include discharges into storm or sanitary sewers, onto the land or into the air, groundwater or surface waters.) Verify that the generator reports any discharge of hazardous waste: - immediately (no longer than 1 hr after discovery) to local emergency officials - immediately (no longer than 1 hr after discovery) to the Department at 603-271-3899, Monday through Friday, 8 a.m. to 4 p.m. or the New Hampshire Department of Safety at 1-603-2171-3636, 24 h/day. Verify that the generator, in the event of a hazardous waste discharge, immediately contains and cleans up any hazardous waste discharge or any discharge of a material which, when discharged, becomes a hazardous waste. Verify, if the hazardous waste discharge cannot be cleaned up or is not cleaned up within 24 h of the spill, the generator submits a clean up plan to the Department within 5 days. (NOTE: The requirements in this section apply to both New Hampshire Small Quantity Generators and Full Quantity Generators.)

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HW.20. **SMALL QUANTITY GENERATORS (SQG)**	
HW.20.1.NH. SQGs must meet generation and accumulation quantity limits (NHCAR Env-Hw 503.01) [Citation Revised March 2010].	Verify that generators claiming SQG status in New Hampshire do not exceed the following generation quantity limits: - 100 kg (220 lb) of hazardous waste per mo - 1 kg (2.2 lb) of an acutely hazardous waste per mo - 100 kg (220 lb) of any residue or contaminated soil, waste, or other debris resulting from the cleanup of a spill of any acutely hazardous waste per mo.
HW.20.2.NH. SQGs may accumulate up to 100 kg of hazardous waste onsite for greater than 90 days without a permit if specific requirements are met (NHCAR Env-Hw 508.02) [Revised March 2001; Citation Revised March 2010].	Verify that the quantity of hazardous waste accumulated onsite never exceeds 100 kg (220 lb). Verify that the quantity of acutely hazardous waste accumulated onsite never exceeds 1 kg. Verify that waste storage areas have: - spill control equipment such as speedi-dry or absorbent rags - fire control equipment such as fire extinguishers - “no smoking” signs near ignitable or reactive wastes - a minimum of 2 ft aisle space at or near each waste storage area, sufficient to allow inspection of at least one side of each container. (NOTE: SQGs may accumulate up to 1000 kg of hazardous waste onsite if they meet a different set of requirements; see checklist items below.)
HW.20.3.NH. SQGs must meet specific requirements in order to store more than 100 kg of hazardous waste onsite for longer than 90 days without a permit (NHCAR Env-Hw 508.03) [Revised March 2001; Citation Revised March 2010].	(NOTE: SQGs may accumulate up to 1000 kg (2200 lb) of nonacutely hazardous waste stream onsite for greater than 90 days without a permit provided that they meet the requirements of this checklist item.) Verify that hazardous waste containers are managed in accordance with 40 CFR Part 265 Subpart I -- Use and Management of Containers, 7-1-89 edition, which includes weekly inspections of all hazardous waste containers (see sections HW.70, HW.72, and HW.85 in the *Hazardous Waste Management* chapter of the TEAM Guide). Verify that the hazardous waste container is under the control of a designated hazardous waste manager/emergency coordinator or their designee. Verify that there is at all times at least one employee either on the premises or on call that is available to respond to an emergency by reaching the facility within a

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	short period of time, with the responsibility for coordinating all emergency response measures. (NOTE: This employee will be the emergency coordinator.) Verify that the following information is posted next to the telephone nearest each hazardous waste storage area: - the name and telephone number, both at work and home, of the emergency coordinator and his/her designee - the telephone numbers of the fire department, police department, hospital, and state of New Hampshire and local emergency response teams that may be called upon to provide emergency services - the location of fire extinguishers and spill control material, and, if present, fire alarm. Verify that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies. Verify that waste storage areas have: - spill control equipment such as speedi-dry or absorbent rags - fire control equipment such as fire extinguishers - “no smoking” signs near ignitable or reactive wastes - a minimum of 2 ft aisle space at or near each waste storage area, sufficient to allow inspection of at least one side of each container. Verify that, upon reaching the on-site accumulation limit of 1000 kg (2200 lb) of nonacutely hazardous waste, the wastes are shipped off-site within 90 days to a facility authorized under the destination state's rules to handle the waste.
HW.20.4.NH. [Deleted March 2007; Citation Revised March 2010].	
HW.20.5.NH. SQGs may transport their own hazardous waste without obtaining a transporter permit under specific circumstances (NHCAR Env-Hw 511.01(f)) [Revised March 2001; Citation Revised March 2010].	Verify that small quantity generator transporting its own wastes transports no more than 55 gal at a time and meets the following conditions: - the waste is transferred to a facility that is owned or operated by the owner or operator of the small quantity generator site, and has notified the department of this activity, or - the waste is transferred a facility authorized under the destination state’s rules to handle the waste, or - a one-day household hazardous waste collection event sponsored by a government entity, if:

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	- the waste is given directly to a NH-registered transporter during the event, and - permission is obtained from the sponsoring government entity in advance.
HW.20.6.NH. SQGs must complete a self–certification form according to a specific schedule (NHCAR Env-Hw 514.02(c), 514.05(a), and 514.06) [Added March 2005; Revised March 2010].	Verify that a small quantity generator (see definitions) completes a self-certification form according to the following schedule: - in 2009, and every third year thereafter, SQGs in Rockingham and Strafford counties - in 2010, and every third year thereafter, SQGs in Hillsborough and Cheshire counties - in 2005, 20020118, and every third year thereafter, SQGs in Merrimack, Coos, Carroll, Belknap, Sullivan, and Grafton counties. Verify that each SQG whose declaration is due verifies through appropriate inspections and record reviews that the SQG is in compliance with the following provisions if applicable to the SQG's operations: - Env-Hw 504.02 relative to filing a declassification form if the SQG has ceased hazardous waste activities at the location identified on the SQG's original notification form (see HW.10.2.NH.) - Env-Hw 507.01 relative to storage requirements (see HW.10.5.NH.) - Env-Hw 507.02 relative to storage time requirements - Env-Hw 507.03 relative to labeling containers and tanks containing hazardous waste and shipping hazardous waste off-site(see HW.10.8.NH.) - Env-Hw 508.02 relative to quantity of storage and preparedness and prevention(see HW.20.2.NH.) - Env-Hw 508.03 relative to extended storage(see HW.20.3.NH.) - Env-Hw 510.01 through Env-Hw 510.06 relative to manifests(see HW.10.9.NH.) - Env-Hw 511.01 relative to delivery of hazardous wastes to an authorized facility(see HW.20.5.NH.) - Env-Hw 512.01 relative to maintaining records - Env-Hw 512.02 relative to quarterly reporting and paying generator fees - Env-Hw 512.03 relative to exporting hazardous waste - Env-Hw 513.01 relative to reporting discharges of hazardous waste(see HW.10.16.NH.) - Env-Hw 803.05 relative to documenting a claim of recycling of hazardous wastes - Env-Hw 1100 relative to requirements for universal waste management. Verify that if at the time the report is due the SQG is not in compliance with one or more of the provisions, the SQG prepares a corrective action plan and submits it in lieu of certification for each such provision. Verify that the corrective action plan specifies the date by which all corrective actions shall have been completed, which shall be as soon as practicable but in no

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	event later than 90 days from the date the declaration is due. Verify that, if a corrective action is not complete at the time the declaration is filed, the SQG submits a certification of completion to the department within 30 days of completing the corrective action.

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GENERATORS **HW.55.** **General**	
HW.55.1.NH. Full Quantity Generators must meet specific Federal standards (NHCAR Env-Hw 509.02(a), (d), (e) and (f)) [Citation Revised March 2001; Citation Revised March 2010].	Verify that Full Quantity Generators meet 40 CFR Part 265.15 -- General inspection requirements (see checklist item HW.145.2 in the TEAM Guide). Verify that Full Quantity Generators meet 40 CFR Part 265.16 -- Personnel Training (see section HW.110 in the TEAM Guide.) Verify that Full Quantity Generators meet 40 CFR Part 265.17 -- General requirements for ignitable, reactive or incompatible wastes (see checklist items HW.105.6 and 105.7 in the TEAM Guide). Verify that Full Quantity Generators meet 40 CFR Part 265, Subpart C -- Preparedness and Prevention (see checklist item HW.105.5 in the TEAM Guide). (NOTE: "Required aisle space" is interpreted to be not less than 2 ft. "Required equipment" is interpreted to be the equipment required at each hazardous waste storage area, not more than 100 ft from each area, accessible along a clear path. In the case of "clean rooms" which utilize spill carts, doors may be present provided they are unlocked at all times.) Verify that Full Quantity Generators meet 40 CFR Part 265, Subpart D -- Contingency Plan and Emergency Procedures (see checklist items HW.105.9 HW.105.10, HW.145.3, and HW.145.4 in the TEAM Guide). Verify that Full Quantity Generators meet 40 CFR Part 265 Subpart I -- Use and Management of Containers (see sections HW.70, HW.72, and HW.85 in the TEAM Guide). (NOTE: Full Quantity Generator requirements apply to any generator that: - generates equal to or greater than a total of 100 kg (220 lb) of hazardous waste in any single mo - generates equal to or greater than 1 kg (2.2 lb) of an acutely hazardous waste in any single mo - accumulates equal to or greater than 1 kg (2.2 lb) of an acutely hazardous waste at any time - generates equal to or greater than 100 kg (220 lb) of spill cleanup material contaminated with acutely hazardous waste in any single mo - accumulates equal to or greater than 100 kg (220 lb) of spill cleanup material contaminated with acutely hazardous waste at any time.)
HW.55.2.NH. Full Quantity Generators must post an emergency plan (NHCAR	Verify that the generator posts, at the nearest telephone to each hazardous waste storage area, a list of the steps to take if an emergency occurs.

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Env-Hw 509.02(b)) [Revised March 2001; Citation Revised March 2010].	Verify that the generator posts the following emergency telephone numbers at the nearest telephone to each hazardous waste storage area: - the emergency coordinator's (home and office) - the fire department, police department, hospital, and state of New Hampshire and local emergency response teams that may be called upon to provide emergency service, unless the generator has a 24 h response team designated to provide emergency services whose number is posted - the location of fire extinguishers and spill control material, and, if present, fire and internal emergency alarm. (NOTE: See HW.55.1.NH. for Full Quantity Generator criteria.)
HW.55.3.NH. Full Quantity Generators must take certain security measures (NHCAR Env-Hw 509.02(c)) [Citation Revised March 2010].	Verify that the generator provides the following security measures at all outdoor hazardous waste storage areas: - an artificial or natural barrier, such as a fence in good repair, which completely surrounds the hazardous waste storage area to prevent the unauthorized or unknowing entry of persons or livestock - a means to control entry, at all times, through gates or other entrances to the storage area such as an attendant, television monitor, locked entrance or controlled roadway access to the area - a sign with the legend, DANGER -- UNAUTHORIZED PERSONNEL KEEP OUT, at each entrance to the hazardous waste storage area (existing signs with other than the aforementioned legend may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the area and that entry can be dangerous). (NOTE: See Hw.55.1.NH. for Full Quantity Generator criteria.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
GENERATORS **HW.75. Satellite Accumulation Points**	
HW.75.1.NH. Satellite accumulation points must meet specific operational requirements (NHCAR Env-Hw 509.03) [Revised March 2001; Revised March 2003; Citation Revised March 2010].	(NOTE: A Full Quantity Generator may accumulate as much as 55 g of hazardous waste or 1 qt of acutely hazardous waste in containers at or near any point of generation where wastes initially accumulate without a standard permit or interim status and without complying with the 90 day time limit and the container labeling and marking requirements of Env-Hw 507.03(a)(1), the preparedness and prevention requirements of Env-Hw 509.02(a)(4), and the emergency posting requirements of Env-Hw 509.02(b), provided that \the following conditions are met.) Verify that the hazardous waste containers are under the control of the operator of the process generating the waste. Verify that the operator of the process generating the waste has been trained as specified in 40 CFR Part 265.16 (see section HW.110 in the TEAM Guide). (NOTE: In lieu of the annual training requirements specified in 40 CFR 265.16, the training internal is 3 years.) Verify that all storage requirements of HW.10.5.NH. are met. Verify that incompatible wastes are separated according id 40 CFR 265.177(see HW.30.5.US.). Verify that a minimum of 2 feet aisle space is maintained to allow for inspection of at least one side of each container. Verify that, at the time the containers are first used to store waste, hazardous waste containers are marked with the words “hazardous waste” and with words that identify the contents of the container. Verify that, for satellite storage areas that accumulate more than 10 gal of hazardous waste, the containers are inspected monthly for leaks and for signs of deterioration caused by corrosion and other factors. Verify that, when the quantity limits (55 gal of hazardous waste or 1 qt of acutely hazardous waste) are reached, the generator: - immediately label or mark the hazardous waste container with the date the accumulation limit was reached and the EPA or state waste number, as applicable - moves the excess accumulation of hazardous waste to a designated storage area within 3 days of reaching the accumulation limit

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	- ships the hazardous waste offsite within 90 days of the date the accumulation limit was reached.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HW.95. **TRANSFER FACILITIES**	
HW.95.1.NH. [Deleted March 2010].	(NOTE: The hazardous waste regulations were renumbered in 2009, and the provision did not appear in the new regulations.)
HW.95.2.NH. Transfer facilities must meet recordkeeping requirements (NHCAR Env-Hw 705.01(b)(7) and (8)) [Citation Revised March 2010].	Verify that the facility keeps a written operating record at the transfer facility. Verify that the following information is recorded as it becomes available, and is maintained in the operating record until closure of the facility, unless requirements specify they must be kept for a longer period of time. - an operating log that specifies the time and date of inspections, the inspector's name, notation of observation, and dates and nature of maintenance and remedial actions taken - records of all abnormal events, including actions requiring contingency plan implementation, explanations of manifest discrepancies, description of unmanifested wastes received, and any unplanned releases of hazardous waste to the environment.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HW.100. **TRANSPORTATION**	
HW.100.1.NH. [Deleted March 2003]	[Regulation Revised.]
HW.100.2.NH. [Deleted March 2003]	[Regulation Revised.]
HW.100.3.NH. Transporters must notify the Department prior to conducting any hazardous waste activities (NHCAR Env-Hw 601.02, 603.01, 603.02, and 603.04) [Citation Revised March 2010].	Verify that any facility transporting hazardous waste that operates from a New Hampshire location notifies the Department prior to conducting any hazardous waste activities covered under the hazardous waste rules. Verify that facility completes a New Hampshire notification form and that the form includes the following information: - company name and mailing address - New Hampshire business location address - contact person, title and telephone number - transportation method - types of hazardous waste which will be transported - certification as to the accuracy of the information provided on the notification form. Verify that facility notifies the Department in writing of any changes to the above information within 30 days of such a change. (NOTE: Upon determining that a transporter's notification form is complete, the Department, with EPA assistance, will assign an EPA identification number to the transporter.) (NOTE: Env-Hw 600 does not apply to the on-site transportation of hazardous wastes by generators or by owners or operators of permitted hazardous waste facilities. on-site transportation of hazardous wastes by generators or by owners or operators of permitted hazardous waste facilities. Env-Hw 600 does not apply to government entities that accumulate household hazardous waste and transport this waste in accordance with Env-Hw 501.02(b).)
HW.100.4.NH. Transporters must meet packaging,	(NOTE: See HW.100.3.NH. for applicability.)

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labeling, and placarding requirements (NHCAR Env-Hw 603.05) [Revised March 2001; Citation Revised March 2010].	Verify that transporter packages and labels all hazardous waste before and during shipment in accordance with the rules below and the requirements of the New Hampshire Department of Safety. Verify that transporters transporting hazardous waste offsite ensure that each container is labeled and clearly marked with the following: - the words "Hazardous Waste" - the applicable New Hampshire or USEPA waste numbers - all applicable DOT required information as set forth in 49 CFR Part 172, 10-1-92 edition. Verify that, if the label is destroyed or mutilated, if the hazardous waste is removed from its container, or if additional waste is added to the container, the transporter replaces the label with a duplicate label or a label stating information pertaining to the hazardous waste now contained, and obliterates any previous labels. Verify that the transporter placards each vehicle with an appropriate warning of the hazardous waste contained in a manner approved by the New Hampshire Department of Safety. Verify that any tank, barrel, drum, or other packaging of hazardous waste, which is not a part of the vehicle, is secured against movement within the vehicle on which it is being transported. Verify that all containers of hazardous waste are sealed prior to and during transport.
HW.100.5.NH. Transporter vehicles must meet identification requirements (NHCAR Env-Hw 603.06) [Revised March 2001; Citation Revised March 2010].	(NOTE: See HW.100.3.NH. for applicability.) Verify that the transporter displays the following in permanent and legible lettering on both sides of all power or waste carrying units used to transport hazardous waste: - the name of the company, corporation, association, or proprietorship - the city and state where its principal division is located - the transporter permit number. Verify that the lettering is a minimum of 3 in. high. Verify that the lettering is permanent and legible, and contrasts with the background.

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HW.100.6.NH. Transporters must meet security requirements (NHCAR Env-Hw 603.08) [Citation Revised March 2010].	(NOTE: See HW.100.3.NH. for applicability.) Verify that the transporter secures all loads of hazardous waste when left unattended so as to minimize exposure by unauthorized individuals. Verify that vehicles on which the cargo carrying portion can be closed and locked are closed and locked whenever the vehicle is left unattended.
HW.100.7.NH. Transporters must meet manifest requirements (NHCAR Env-Hw 604.01, 604.02, and 605.01) [Revised March 2001; Citation Revised March 2010].	(NOTE: See HW.100.3.NH. for applicability.) (NOTE: An eight-part manifest must be used. If a destination state's manifest is being used which does not have eight parts, generators must make eight copies for distribution.) Verify that the transporter does not accept hazardous waste without a manifest signed and completed by the generator in accordance with rules outlined in HW.10.8.NH. and HW.10.11.NH., or without the generator having designated on the manifest a permitted TSDF that is authorized to handle the waste described. Verify that each transporter signs and dates all manifests. Verify that the initial transporter returns a signed and dated copy of the manifest to the generator before leaving the generator's property. Verify that the transporter ensures that 5 copies of the manifest accompany the waste at all times during transit. Verify that a transporter who delivers a hazardous waste to another transporter: - obtains the date of delivery and the handwritten signature of that transporter on the manifest - duplicates one copy of the manifest and retains the duplicate - gives the remaining copies of the manifest to the accepting transporter. Verify that, upon delivery to the designated or alternate TSDF, the transporter: - obtains the date of delivery and the handwritten signature of the operator of the designated or alternate TSDF on the manifest - retains one copy of the signed manifest - gives the remaining copies of the signed manifest to the operator of the TSDF. Verify that the transporter initials and dates any changes to the manifest made by the transporter. Verify that, when liquid hazardous waste is transferred to a tank on the transport vehicle, the transporter:

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	- measures by metering, sticking, or weighing the amount of liquid hazardous waste collected and transferred to the tank - records the amount of waste measured on the accompanying manifest.
HW.100.8.NH. Transporters must meet regarding hazardous waste delivery requirements (NHCAR Env-Hw 606.01) [Revised March 2001; Citation Revised March 2010].	(NOTE: See HW.100.3.NH. for applicability.) Verify that the transporter delivers the entire quantity of hazardous waste which he/ she has accepted from a generator or a transporter to: - a continuing transporter - the designated authorized TSDF on the manifest - the alternate TSDF designated if the hazardous waste cannot be delivered to the designated TSDF because an emergency prevents delivery - the TSDF outside the United States designated by the generator. Verify that the transporter obtains the date of delivery and the handwritten signature from the next transporter or the TSDF operator. Verify that the transporter delivers the hazardous waste to a destination facility within 10 days of the time the hazardous waste leaves the generator facility.
HW.100.9.NH. Transporters must meet specific requirements if unable to deliver hazardous waste (NHCAR Env-Hw 606.02) [Revised March 2008; Citation Revised March 2010].	(NOTE: See HW.100.3.NH. for applicability.) Verify that, if a transporter is unable to deliver all or part of a hazardous waste shipment, the transporter does the following - contacts the generator - returns the hazardous waste to the generator or delivers the hazardous waste to an alternate permitted facility designated by the generator - complies with 40 CFR 263.21.
HW.100.10.NH. Transporters must meet recordkeeping requirements (NHCAR Env-Hw 607.01 through 607.04) [Citation Revised March 2010].	(NOTE: See HW.100.3.NH. for applicability.) Verify that transporters keep a copy of each manifest signed by the generator, any prior transporters, themselves, and the next designated transporter or operator of the authorized TSDF for a period of 3 yr from the date the hazardous waste was accepted by the initial transporter. Verify, in the case of bulk shipments delivered by water to the designated TSDF, each water transporter retains a copy of the manifest or shipping paper signed by the next transporter or designated TSDF for a period of 3yr from the date of acceptance by the initial transporter.

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	Verify, in the case of rail shipments, the initial rail transporter retains a copy of the manifest and the shipping paper for 3 yr from the date the waste was accepted by the initial transporter. Verify, in the case of rail shipments, the intermediate rail transporters retain a copy of the manifest or the shipping paper for the 3 yr period. Verify, in the case of rail shipments, the final rail transporter retain a copy of the signed manifest or the shipping paper if signed by the designated TSDF in lieu of the manifest for the 3 yr period. Verify, in the case of rail shipments, the final rail transporter retain a copy of the signed manifest or the shipping paper if signed by the designated TSDF in lieu of the manifest for the 3 yr period. Verify that a transporter who transports hazardous waste out of the US keeps a copy of the manifest indicating that the hazardous waste left the US for a period of 3 yr from the date the hazardous waste was accepted by the initial transporter.
HW.100.11.NH. Transporters must meet emergency/ remedial action requirements in the event of a discharge of hazardous waste during transportation (NHCAR Env-Hw 608.01 through 608.03) [Revised March 2001; Citation Revised March 2010].	(NOTE: See HW.100.3.NH. for applicability.) Verify that an air, rail, highway or water transporter who has discharged hazardous waste: - immediately notifies local emergency officials - within 1 hr, notifies the New Hampshire Department of Safety at 1-800-346-4009 from New Hampshire phones and 1-603-271-3636 from phones outside of New Hampshire, 24 h per day - notifies the Department at 603-271-3899, Monday through Friday, 8:00 a.m. to 4:00 p.m. Verify that transporter immediately contains and cleans up, within 24 hr, any hazardous waste discharge that occurs during transportation or while the waste is under the control of the transporter. Verify that, if the waste discharge is not or cannot be cleaned up with 24 hrs, the transporter submits a clean up plan to the Department within 5 days. (NOTE: In the event of an accidental discharge during transportation of a hazardous waste or material, the Department can temporarily exempt any part of the manifest and/ or permit requirements if necessary to facilitate an immediate response, and will protect human health and the environment.)

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ALL TSDFs **HW.105.** **General**	
HW.105.1.NH. TSDFs must notify the Department of all hazardous waste activities under the hazardous waste rules (NHCAR Env-Hw 701.02, 702.01, and 702.02) [Revised March 2008; Citation Revised March 2010].	Verify that TSDF operators notify the Department of all hazardous waste activities covered under the hazardous waste rules. Verify that all operators of proposed TSDFs notify the Department of their activities before they begin any activity regulated under the hazardous waste rules. Verify that notification is done by completing a form obtained from the Department which includes the following information: - company name and mailing address - TSDF or transfer facility location address - name, address and telephone number of principal contact person - name of company's legal owner - list of types of wastes handled and handling methods - certification as to the accuracy of the information provided on the notification form. Verify that the facility notifies the Department in writing of any changes to the information provided within 30 days of the effective date of any change. (NOTE: The requirements of Env-Hw 700 do not apply to: - full quantity generators who store their hazardous waste on-site for 90 days or less, except as provided in Env-Hw 509.03, and who do not dispose of their hazardous waste on-site - small quantity generators who accumulate waste in accordance with Env-Hw 508 - the owner or operator of a facility, permitted by the department to manage municipal or industrial solid waste, provided that such facility accepts no hazardous waste for treatment, storage, or disposal - the owner or operator of a totally enclosed treatment facility, elementary neutralization, or wastewater treatment unit - a transporter who stores manifested shipments of hazardous waste in containers, for a period of less than 10 days, provided that the wastes are enroute to the facility designated on the manifest, and that all wastes remain on the registered vehicle and wastes are not transferred or removed from the vehicle - the owner or operator of a facility managing recyclable materials - a farmer disposing of waste pesticides from his/her own use, provided he/she triple rinses each emptied pesticide container and disposes of the pesticide residues on their own farm in a manner consistent with the disposal instructions on the pesticide label - a person engaged in treatment or containment activities during immediate

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	response to a discharge of hazardous waste, or a discharge of a material which, when discharged, becomes a hazardous waste except: - facility owners and operators comply with Env-Hw 708.02(a)(9) and Env-Hw 708.02(a)(10) except that owners and operators of existing facilities comply with 40 CFR 265.54 instead of 40 CFR 264.54, 7-1-99 edition - any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over - the addition of absorbent to waste in a container provided that the absorbent does not change the chemical properties of the waste - generators receiving small quantity generator waste - household hazardous waste collection projects who receive hazardous waste from small quantity generators, provided that the hazardous waste is: - manifested - received only during a one day household hazardous waste collection event - given directly by the small quantity generator to a New Hampshire registered hazardous waste transporter during a one day collection event - a government entity that receives household hazardous waste from another government entity provided the household hazardous waste is shipped off-site within 90 days after receipt - a universal waste handler or a universal waste transporter handling universal waste, provided that the waste is managed in accordance with Env-Hw 1100 - the owner of a totally enclosed treatment facility.)
HW.105.2.NH. TSDFs must meet general design standards (NHCAR Env-Hw 702.09) [Citation Revised March 2010].	(NOTE: See HW.105.1.NH for exemptions.) Verify that the TSDF is designed and operated so that fugitive emissions of hazardous waste or constituents are controlled. Verify that the TSDF has diversion structures capable of diverting all surface water runoff and runon for a 24 h, 100-yr storm away from the active portions of the TSDF. Verify that the TSDF is located above the 100-yr flood level unless it is an existing TSDF that is designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-yr flood, or it is ensured that all waste can be removed safely before floodwaters can reach the TSDF. Verify that the TSDF is designed so that all surface runoff from active portions of the TSDF are collected and contained before it is discharged from a point source, and are handled in accordance with the Federal Clean Water Act and New Hampshire RSA 485-A.

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HW.105.3.NH. TSDFs must notify the Department if contamination of groundwater is detected (NHCAR Env-Hw 702.13) [Revised March 2010].	(NOTE: See HW 105.1.NH for exemptions.) Verify that, upon the detection of contamination, the TSDF immediately notifies the Department at 603-271-2942 and WSPCD at 603-271-3503 from 8 am to 4 pm, and the New Hampshire Department of Safety at (603) 271-3636 at all other times.
HW.105.4.NH. TSDFs must meet manifest requirements upon receipt of waste (NHCAR Env-Hw 703.01 and 703.02) [Revised March 2008; Revised March 2010].	(NOTE: See HW 105.1.NH for exemptions.) Verify that, upon receipt of a hazardous waste accompanied by a manifest, the TSDF complies with 40 CFR 264.71, 7-1-07 edition and 40 CFR 265.71, 7-1-07 edition, as applicable. Verify that, within 30 days of signing the manifest, the TSDF, sends a copy of the manifest to the generator, the generator state, and the destination state. Verify that TSDF initials and dates any corrections to the manifest or shipping paper if the manifest has not been received, ensuring that any corrections are legible on each copy. Verify that, if the operator notes any manifest or shipping paper discrepancy between the type or quantity of waste received and the type or quantity of waste reported on the manifest, he/she contacts the generator (and then the transporter, if unable to resolve the discrepancy with the generator). Verify that, if the discrepancy cannot be resolved, the TSDF sends a discrepancy report to the Department within 15 days after receiving the waste. Verify that the TSDF notifies the Department in writing of any discrepancies not previously corrected on the manifest.
HW.105.5.NH. TSDFs must meet specific requirements for the receipt of rail or water shipments of hazardous waste (NHCAR Env-Hw 703.03) [Citation Revised March 2010].	(NOTE: See HW 105.1.NH for exemptions.) Verify that, if a TSDF receives from a bulk shipment from a rail or water transporter, the TSDF: - inspects the shipment and compares it with the description on the manifest or shipping paper - notes any discrepancies on the manifest or shipping paper on each copy - signs and dates each copy of the manifest or shipping paper to certify that the hazardous waste covered by the manifest or shipping paper was received - immediately gives the rail or water transporter one copy of the manifest or shipping paper - within 15 days after the delivery, sends a copy of the shipping paper and if the manifest is received, signs, dates and returns the manifest to the

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	generator - signs, dates and returns the manifest upon receipt.
HW.105.6.NH. TSDFs must meet specific requirements for the receipt of unmanifested waste (NHCAR Env-Hw 703.05) [Citation Revised March 2010].	(NOTE: See HW 105.1.NH for exemptions.) Verify that, if a TSDF accepts any hazardous waste from an offsite source without an accompanying manifest (or shipping paper for water or rail shipments), the TSDF submits an unmanifested waste report to the Department within 15 days. Verify that the unmanifested waste report contains the following information: - the name, address and USEPA identification number of the TSDF - the name, address and USEPA identification number of the generator and transporter, if available - the date of receipt - for each unmanifested hazardous waste, its quantity and a description by type and source - for each unmanifested hazardous waste, the method of treatment, storage or disposal - a full explanation of why the waste was unmanifested - a certification signed by the operator or a responsible agent.
HW.105.7.NH. TSDFs must meet specific requirements for rejected shipments of hazardous waste (NHCAR Env-Hw 704.01 through 704.04) [Revised March 2010].	(NOTE: See HW 105.1.NH for exemptions.) Verify that, if the TSDF rejects all or part of a hazardous waste shipment, the generator is contacted, and the TSDF sends a copy of the new or amended manifest and the original manifest to the department within 30 days of the rejection. Verify that, in the event that the TSDF rejects an entire manifest shipment, the operator dates and signs the manifest and writes the words “rejected shipment” in manifest Item 19 and returns the manifest to the transporter. Verify that the operator sends a copy of the manifest to the Department within 5 days of shipment. Verify that, in the event of a partial shipment rejection, the TSDF dates and signs the original manifest in manifest Item 20, and does the following: - the specific line items with the total amount of waste rejected are noted in manifest Item 18a by the operator - the operator sends a copy of the manifest to the Department within 5 days of shipment.

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	Verify that, in the event of an untimely rejection (i.e., if the transporter has already left the TSDF) the TSDF contacts the generator and either return the waste to the generator or to an alternate permitted TSDF designated by the generator. Verify that the TSDF writes the alternate designated TSDF or generator name and USEPA identification number in manifest Item 19b.
HW.105.8.NH. TSDFs must meet specific requirements for emergency and remedial action (NHCAR Env-Hw 706.01) [Citation Revised March 2010].	(NOTE: See HW 105.1.NH for exemptions.) Verify that, in the event of a hazardous waste incident that endangers or may threaten public health or environment such as by contaminating public drinking water supplies or creating a fire or explosion, the TSDF immediately contacts: - the New Hampshire Department of Safety at 603-271-3636 - the Department at 603-271-3899 - the local fire department. Verify that the Department is contacted as soon as it opens, in the event that the incident occurs at a time other than the Department's normal business hours, 8:00 a.m. to 4:00 p.m. Monday through Friday. Verify that, within 5 days of such an incident, the TSDF files a written report with the Department. (NOTE: In the event of an accidental discharge during generation, transportation, treatment, storage, or disposal of a hazardous waste or material, the Department may temporarily waive any part of the manifest and/or permit requirements if such a waiver will facilitate an immediate response and protect public health and the environment.)

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ALL TSDFs **HW.145. Documentation Requirements**	

HW.145.1.NH. TSDFs must meet recordkeeping requirements (NHCAR Env-Hw 705.01) [Citation Revised March 2010].	Verify that the TSDF keeps a written operating record.
	
	Verify that the following information is recorded as it becomes available, and is maintained in the operating record until closure of the TSDF (unless requirements specify they kept for a longer period of time):
	
	- a copy of each shipping document and manifest for at least 7 yr from the date of delivery
	- a description and the quantity of each hazardous waste shipment received, treated, stored, or disposed of at the TSDF, including:
	  - the waste's common name
	  - the waste's hazardous waste number or numbers
	  - the waste's physical form, such as liquid, sludge, solid, or contained gas
	  - the process that produced the waste
	  - the estimated or manifest-reported weight; or volume and density, where applicable
	  - the methods by handling codes and dates of receipt, treatment, storage, or disposal
	- a copy of each quarterly and annual activity report for 7 yr
	- the method, location, and date of treatment, storage, and disposal
	- the location of each hazardous waste within the TSDF and the quantity at each location
	- monitoring, testing and analytical data for 7 yr following the TSDF's closure, and for the postclosure care period for disposal facilities
	- an operating log that specifies the time and date of TSDF inspections, the inspector's name, notation of observation, and dates and nature of maintenance and remedial actions taken
	- records of all abnormal events, including actions requiring contingency plan implementation, explanations of manifest discrepancies, description of unmanifested wastes received, and any unplanned releases of hazardous waste to the environment
	- adjustments to plans submitted
	- adjustments and calculations of closure and for disposal facilities, postclosure cost estimates
	- records of the dates and designation of all hazardous wastes or those wastes rendered not hazardous that are shipped offsite for further treatment, storage, or disposal
	- for offsite TSDFs, notices to generators
	- records of corrective action for 7 yr following the TSDF's closure, and for disposal facilities, for the full postclosure period
	- an annual certification that the TSDF complies with Section 3005(h) of

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	RCRA in that it has a program in place to reduce the volume and toxicity of hazardous waste that it generates, and the handling methods used minimize the present and future threat to human health and the environment to the extent economically practicable.

HW.145.2.NH. TSDFs must submit an annual report (NHCAR Env-Hw 705.03) [Citation Revised March 2010].	Verify that an annual report that summarizes the TSDF's activities during the calendar yr (1 January - 31 December) is submitted by all TSDFs that generated, treated, stored or disposed of hazardous waste at any time during the calendar yr.
	
	Verify that TSDF completes, certifies and returns the annual activity report forms to the Department by 1 April.
	
	Verify that annual reports include the following information:
	
	- name, address, telephone number, and USEPA identification number of the TSDF
	- the description and quantity of each hazardous waste received by the TSDF
	- the method of treatment, storage or disposal for each hazardous waste
	- monitoring data, if required
	- the most recent closure cost estimate and, for disposal facilities, postclosure cost estimates
	- a signed certification of the accuracy of the report by the operator or responsible agent
	- for offsite TSDFs, the following additional information:
	  - the USEPA identification number, or name and address in the case of foreign generators, of each hazardous waste generator from which the TSDF received hazardous waste during the yr
	  - the description and quantity of each hazardous waste received from offsite, listed by each offsite source.
	
	Verify that TSDF operators that are also HW generators include the following additional information in the annual report:
	
	- a description of the efforts undertaken during the yr to reduce the volume and toxicity of waste generated
	- a description of the changes in volume and toxicity of waste actually achieved during the yr in comparison to previous yr.

HW.145.3.NH. TSDFs must meet quarterly reporting requirements (NHCAR Env-Hw 705.02) [Added April 1998; Citation Revised March 2010].	Verify that TSDFs submit quarterly activity reports, with the reporting quarters as follows: - 1st Quarter -- 1 January to 31 March - 2nd Quarter -- 1 April to 30 June - 3rd Quarter -- 1 July to 30 September - 4th Quarter -- 1 October to 31 December.

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	Verify that quarterly activity reports include the following information: - reporting quarter - name, address, telephone number, and USEPA identification number - weight in lb of the hazardous waste received by the facility from out-of-state - the USEPA/state waste number for each waste received from out-of-state - certification of the accuracy of the report by a responsible company official. Verify that the reports are reviewed for accuracy and any errors are corrected. Verify that the TSDF submits to the Department each quarterly activity report within 30 days of receipt of the blank form from the Department. (NOTE: Hazardous waste quarterly activity report forms are mailed by the Department.) Verify that if a hazardous waste facility receives hazardous waste from out-of-state and has not received a quarterly activity report within 45 days following the last day of the previous quarter, the Department is contacted so that a new report can be sent.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ALL TSDFs **HW.150.** **Surface Impoundments** **HW.150.1.NH.** Surface impoundments must install and operate a groundwater monitoring system (NHCAR Env-Hw 702.10(a)) [Citation Revised April 1998; Revised March 2010].	(NOTE: TSDFs which become subject to Env-Hw 700 due to statutory or regulatory amendments must implement a groundwater monitoring program within 1 yr of the effective date of the statutory or regulatory amendments. New TSDFs must implement a groundwater-monitoring program in accordance with 40 CFR 264, Subpart F, 7-1-01 edition.) Verify that a TSDF with a surface impoundment installs and operates a groundwater monitoring system capable of detecting the potential migration of hazardous waste or waste constituents outside the boundaries of the TSDF.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ALL TSDFs **HW.160.** **Land Treatment Units**	
HW.160.1.NH. TSDFs with a land treatment operation must install and operate a groundwater monitoring system (NHCAR Env-Hw 702.10(a)) [Citation Revised April 1998; Revised March 2010].	(NOTE: TSDFs which become subject to Chapter Env-Hw 700 due to statutory or regulatory amendments must implement a groundwater monitoring program within 1 yr of the effective date of the statutory or regulatory amendments. New TSDFs must implement a groundwater-monitoring program in accordance with 40 CFR 264, Subpart F, 7-1-01 edition.) Verify that a TSDF with a land treatment operation installs and operates a groundwater monitoring system capable of detecting the potential migration of hazardous waste or waste constituents outside the boundaries of the TSDF.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ALL TSDFs **HW.165.** **Hazardous Waste Landfills**	
HW.165.1.NH. TSDFs with a landfill must install and operate a groundwater monitoring system (NHCAR Env-Hw 702.10(a)) [Revised March 2010].	(NOTE: TSDFs which become subject to Chapter Env-Hw 700 due to statutory or regulatory amendments must implement a groundwater monitoring program within 1 yr of the effective date of the statutory or regulatory amendments. New TSDFs must implement a groundwater-monitoring program in accordance with 40 CFR 264, Subpart F, 7-1-01 edition.) Verify that a TSDF with a landfill installs and operates a groundwater monitoring system capable of detecting the potential migration of hazardous waste or waste constituents outside the boundaries of the TSDF.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
All TSDFs **HW.175.** **Additional State Specific Requirements**	
HW.175.1.NH. Limited permits are required for specific elementary neutralization or wastewater treatment units (NHCAR Env-Hw 304.04(a), (k), (l), (o), (p), (q), and (r)) [Added March 2003; Moved March 2004; Revised March 2010].	(NOTE: Env-Hw 304.04 applies to owners and operators of elementary neutralization units and wastewater treatment units provided that, in the case of elementary neutralization units that are transport vehicles, vessels or containers used to transport the waste after neutralization, neutralization occurs in these units while they remain stationary and before transport of the neutralized waste begins. Env-Hw 304.04 does not apply to the owner or operator of an elementary neutralization or wastewater treatment unit who is a small quantity generator as described in Env-Hw 503.01. (NHCAR Env-Hw 304.04(a) and (b)) [Added March 2003]. (NOTE: A limited permit will be granted for an elementary neutralization unit or wastewater treatment unit that: - meets the definition(s) for such unit(s) - has and complies with a National Pollution Discharge Elimination System (NPDES) Permit if the unit discharges directly into surface waters - meets the best engineering judgment for such units - possesses and EPA identification number, unless the unit is totally enclosed with no hazardous waste sludges produced - complies with the manifesting requirements of Env-Hw 510 (see HW.10.9.NH., HW.10.10.NH., and HW.10.11.NH.) - complies with the recordkeeping and reporting requirements of Env-Hw 512 and Env-Hw 705(see HW.10.14.NH. and HW.95.2.NH.) Verify that the operators of each unit that meets the criteria above submits a New Hampshire limited permit application form to the department including the following information: - list of the types and quantities of treated wastes - description of how the wastes are treated - diagram of the facility's treatment unit(s) - copy of an authorized wastewater discharge permit. (NOTE: If facility does not meet the requirements above, it must secure a standard permit, if applicable, under the hazardous waste rules.) (NOTE: A limited permit will be granted for wastewater evaporation units if the applicant demonstrates the following: - that the facility utilizes an evaporation-type unit which removes wastewaters by an evaporation/heat process - the unit is permitted for air emission discharges or demonstrates on documents that air emission discharges from the evaporation unit do not significantly impact ambient air quality	

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	- the facility complies with the requirements of Env-Hw 304.04.) Verify that, if a facility conduct hazardous waste activities beyond that specified in its limited permit, all applicable requirements in the hazardous waste rules are followed. Verify that the elementary neutralization or wastewater treatment unit with a limited permit meets all the requirements of 304.04 represented in HW.5.5.NH. through HW.5.10.NH. (NOTE: A limited permit will expire 5 years from the date of issuance.)
HW.175.2.NH. Elementary neutralization or wastewater treatment units with limited permits must meet specific requirements (NHCAR Env-Hw 304.04 (d) and (e)) [Added March 2003; Added March 2004; Citation Revised March 2010].	(NOTE: See HW.175.1.NH. for applicability.) Verify that hazardous waste is not treated or stored in an elementary neutralization unit or a wastewater treatment unit unless the facility has an EPA identification number. Verify that the operator prevents the unknowing entry, and minimizes the possibility for the unauthorized entry of persons or livestock into or onto the elementary neutralization or wastewater treatment unit, unless: - physical contact with the waste contained in the unit will not injure unknowing or unauthorized persons or livestock which may enter the unit - disturbance of the waste or equipment by the unknowing or unauthorized entry of persons or livestock into or onto the unit will not cause a violation of the requirements of Env-Hw 304.04.
HW.175.3.NH. Elementary neutralization or wastewater treatment units with limited permits must meet inspection requirements (NHCAR Env-Hw 304.04 (f) and (g)) [Added March 2003; Added March 2004; Citation Revised March 2010].	(NOTE: See HW.175.1.NH. for applicability.) Verify that the operator inspects the elementary neutralization or wastewater treatment unit for malfunctions and deterioration, operator errors, and discharges that may be causing or may lead to, unauthorized release of hazardous waste to the environment or a threat to human health. Verify that these inspections are conducted often enough to identify problems in time to correct them before they harm human health or the environment. Verify that a written schedule is developed and followed for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment such as tank walls and pumps that are important to preventing environmental or human health hazards. Verify that the inspection schedule is kept at the facility. Verify that the schedule identifies the types of problems, such malfunctions or

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	deterioration, including inoperative pump, leaking fitting, heavy corrosion, which are to be looked for during the inspection. (NOTE: The frequency of inspection may vary for the items on the schedule.) Verify that the inspection frequency is based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if any deterioration or malfunction or operator error goes undetected between inspections. Verify that the operator remedies any deterioration or malfunction of equipment or structures detected in an inspection. Verify that remediation is done on a schedule that ensures that the problem does not lead to an environmental or human health hazard. Verify that, where a hazard is imminent or has already occurred, remedial action is taken immediately. Verify that inspection are recorded an inspection log and include, at a minimum, the following: - the date and time of each inspection - the name of the inspector - a recording of the observations made - the date and nature of any repairs or other remedial actions taken as a result of inspection observations. Verify that the inspection log required is maintained for at least 3 years from the date of each inspection.
HW.175.4.NH. Elementary neutralization or wastewater treatment units with limited permits must meet operational requirements (NHCAR Env-Hw 304.04 (h)) [Added March 2003; Moved March 2004; Citation Revised March 2010].	(NOTE: See HW.175.1.NH. for applicability.) Verify that the unit is constructed of sturdy, leakproof material. Verify that the unit is designed, constructed and operated so as to prevent hazardous wastes from being spilled or leaded into or onto any land or water during the operating life of the unit. Verify that the treatment process conducted in the unit does not: - generate extreme heat or pressure, fire or explosion, or violent reaction - produce uncontrolled toxic mists, fumes, or gases in sufficient quantities to threaten human health - produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion - damage the structural integrity of the tank or equipment containing the waste - threaten human health or the environment

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	- include placement of hazardous wastes or treatment reagents if they could cause the unit or any of its equipment to rupture, leak, abnormally corrode, or otherwise fail before the end of its intended life.
HW.175.5.NH. Elementary neutralization or wastewater treatment units with limited permits must meet spill response requirements (NHCAR Env-Hw 304.04 (j)) [Added March 2003; Moved March 2004; Citation Revised March 2010].	(NOTE: See HW.175.1.NH. for applicability.) Verify that, within 15 days after any spill or leakage of hazardous waste from an elementary neutralization or wastewater treatment unit, the operator submits a written report to the department that contains the following information: - name, address, and telephone number of the owner or operator - name, address, and telephone number of the facility - date, time, and nature of the incident - name and quantity of material(s) involved - the extent of injuries, if any - an assessment of actual or potential hazards to human health or the environment, where this is applicable - estimated quantity and disposition of recovered material that resulted from the incident.
HW.175.6.NH. Elementary neutralization or wastewater treatment units with limited permits must meet closure requirements (NHCAR Env-Hw 304.04 (i)) [Added March 2003; Moved March 2004; Citation Revised March 2010].	(NOTE: See HW.175.1.NH. for applicability.) Verify that, at closure, the operator of an elementary neutralization or wastewater treatment unit removes all hazardous waste and hazardous waste residues from the unit.

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HW.180. **ADDITIONAL REQUIREMENTS FOR PERMITTED TSDFs**	
HW.180.1.NH. Permitted TSDFs must apply for application renewals at least 270 prior to expiration of the existing permit (NHCAR Env-Hw 304.31) [Citation Revised March 2007; Citation Revised March 2010].	Verify that a TSDF with an effective permit submits a new application at least 270 days before the permit's expiration date, unless permission for a later submittal date has been granted by the Director.
HW.180.2.NH. TSDFs must meet all reporting requirements specified in the permit (NHCAR Env-Hw 705.04) [Citation Revised March 2010].	Verify that the TSDF reports in writing to the Department any instances of noncompliance that threaten public health or the environment, any planned changes to the TSDF, and any relevant facts that were not provided in the permit application of the TSDF. Verify that the TSDF submits any additional reports (e.g., monitoring data) specified on the TSDF's permit. Verify that all reports required by permits are signed, and certified for accuracy, by a responsible person.
HW.180.3.NH. TSDFs must meet specific technical requirements (NHCAR Env-Hw 708.03) [Citation Revised March 2010].	Verify that the TSDF: - treats, stores, or disposes of wastes according to best engineering judgment and with the best available technology - designs and operates the TSDF so as to minimize the quantity and impact of planned and nonplanned releases of hazardous waste or waste constituents into the environment - utilizes the best available solutions for managing the hazardous wastes received - complies with all Federal requirements and standards for TSDFs.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HW.410. **LARGE QUANTITY UNIVERSAL WASTE HANDLERS**	
HW.410.1.NH. Large quantity universal waste handlers may not have to meet the notification requirement (NHCAR Env-Hw 1104.02 [Added March 2003; Citation Revised March 2010].	(NOTE: Large quantity universal waste handlers accumulate greater than or equal to 5,000 kg, but less than 20,000 kg, combined total of universal wastes on-site at any one time. See section HW.480.1.NH. through HW.480.17.NH. for requirements for All Universal Waste Handlers and requirements for additional universal wastes.) Verify that large quantity handlers who do not meet the notification requirements of Env-Hw 1104.03 meet the following parameters: - manage only universal waste batteries - notified the Department of hazardous waste management activities in accordance with Env-Hw 504 (see HW.10.2.NH.) - received an EPA identification number.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
HW.450. **UNIVERSAL WASTE TRANSPORTERS**	
HW.450.1.NH. Universal waste transporters must meet specific requirements for waste releases (NHCAR Env-Hw 1106.05) [Added March 2003; Citation Revised March 2010].	(NOTE: Env-Hw 1106.05 goes beyond the Federal requirements in HW.450.US.) Verify that all releases of universal wastes and other residues from universal wastes are immediately contained and cleaned up, within 24 hours. Verify that it is determined within 24 hours if any material resulting from the release is hazardous waste. Verify that the transporter reports immediately, not to exceed one hour from the discovery of the release, any discharge of universal waste into storm or sanitary sewers, onto the land or into the air, groundwater or surface waters that poses a threat to human health or the environment to the following: - local emergency officials - the Department's emergency response telephone number at 603-271-3899 for use Monday through Friday, 8 a.m. to 4 p.m. or the New Hampshire department of safety telephone number at 1-603-271-3636, 24 hours/day. (NOTE: The universal waste transporter will be considered the generator of any hazardous waste resulting from a release of universal waste; and must manage the hazardous waste in accordance with all applicable requirements of applicable requirements of Env-Hw 400 through Env-Hw 800.)

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HW.480. **UNIVERSAL WASTE, STATE SPECIFIC**	
HW.480.1.NH. All universal waste handlers must meet specific prohibitions (NHCAR Env-Hw 1102.02) [Added March 2003; Citation Revised March 2010].	Verify that a universal waste handler does not dispose of universal waste. Verify that a universal waste handler does not dilute or treat universal waste, except by responding to releases as set forth in Env-Hw 1102.06 or by managing specific wastes as provided in Env-Hw 1109.03, Env- Hw 1111.03, Env- Hw 1113.03, and Env-Hw 1114.03. (NOTE: Intentionally crushing or dismantling lamps will be considered treatment and therefore require a permit in accordance with Env- Hw 304.) (NOTE: These requirements are similar to the Federal requirements, but they apply to small, large, and very large universal waste handlers and include additional universal wastes.)
HW.480.2.NH. All universal waste handlers must meet specific waste management requirements (NHCAR Env-Hw 1102.03) [Added March 2003; Citation Revised March 2010].	Verify that universal waste handlers meet the requirements for the following: - universal waste batteries in accordance with Env- Hw 1109 - universal waste pesticides in accordance with Env- Hw 1110 - universal waste mercury-containing devices in accordance with Env- Hw 1111 - universal waste lamps in accordance with Env- Hw 1112 - universal waste cathode ray tubes in accordance with Env- Hw 1113 -universal waste antifreeze in accordance with Env- Hw 1114. Verify that universal waste is managed in a way that prevents the release of the universal waste, or any component of the universal waste, to the environment. Verify that, when containment of a particular type of universal waste is required (see Env- Hw 1109.03(a), Env- Hw 1110.04, Env- Hw 1111.03(a), Env- Hw 1111.03(b)(7), Env- Hw 1112.03(a), Env- Hw 1113.03(a), Env- Hw 1113.03 (b)(4) or Env- Hw 1114.03) the containers are: - closed, except when universal waste is being added to or removed from the container - compatible with the universal waste and its contents - free of defects, design characteristics, or damage that could result in leakage, spillage, or other environmental releases. (NOTE: These requirements are similar to the Federal requirements, but they apply to small, large, and very large universal waste handlers and include additional universal wastes.)

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HW.480.3.NH. All universal waste handlers must meet accumulation time limits (NHCAR Env-Hw 1102.04) [Added March 2003; Citation Revised March 2010].	Verify that universal waste is not accumulated for longer than one year from the date the universal waste becomes a waste or is received from another handler. Verify that the length of time that the waste has been accumulated from the date it becomes a waste is demonstrated by: - placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received - marking or labeling each individual item of universal waste with the date it became a waste or was received - maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received - maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received - placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received, or - any other method that clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. Verify that, if an universal waste handler accumulates universal waste for longer than one year from the date the universal waste becomes a waste or is received, the following applies: - sole purpose of accumulation of such quantities of universal waste is necessary to facilitate proper recovery, treatment, or disposal - the handler provides proof thereof, such as, a letter or contract from a destination facility, confirming the purpose here. (NOTE: These requirements are similar to the Federal requirements, but they apply to small, large, and very large universal waste handlers and include additional universal wastes.)
HW.480.4.NH. All universal waste handlers must meet outdoor storage requirements (NHCAR Env-Hw 1102.05) [Added March 2003; Citation Revised March 2010].	Verify that universal waste stored outside is covered to prevent precipitation from coming in contact with the waste. (NOTE: These requirements are similar to the Federal requirements, but they apply to small, large, and very large universal waste handlers and include additional universal wastes.)
HW.480.5.NH. All universal waste handlers must meet	Verify that a universal waste handler responds to releases by:

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release response requirements (NHCAR Env-Hw 1102.06) [Added March 2003; Citation Revised March 2010].	- immediately containing and cleaning up, within 24 hours, all releases of universal wastes and other residues from universal wastes - determining whether any material resulting from the release is hazardous waste. Verify that the handler reports immediately, not to exceed one hour from the discovery of the release, any discharge of universal waste into storm or sanitary sewers, onto the land or into the air, groundwater or surface waters that poses a threat to human health or the environment to the following: - local emergency officials - the Department's emergency response telephone number at 603-271-3899, Monday through Friday, 8 a.m. to 4 p.m. or the New Hampshire department of safety telephone number at 1-800-346-4009 or 603-271-3636, 24 hours/day. Verify that the handler is considered the generator of any hazardous waste resulting from a release of universal waste and manages the hazardous waste in accordance with all applicable requirements of Env-Hw 400 through Env-Hw 800. (NOTE: These requirements are similar to the Federal requirements, but they apply to small, large, and very large universal waste handlers and include additional universal wastes.)
HW.480.6.NH. All universal waste handlers must meet off-site shipment requirements (NHCAR Env-Hw 1102.07) [Added March 2003; Revised March 2010].	Verify that a universal waste handler does not send or take universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination. Verify that, if a handler self-transports universal waste off-site, the handler complies with the requirements for universal waste transporters while transporting the universal waste. Verify that, if a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 49 CFR 180, 10-1-01 edition, the handler complies with the applicable DOT regulations under 49 CFR 172 through 180, 10-1-07 edition. Verify that, prior to shipping universal waste to another universal waste handler or to a destination facility, the handler who originated the shipment obtains approval from the receiving handler or destination facility. Verify that, if the transporter is unable to deliver all or part of the universal waste shipment or if the receiving handler or destination facility rejects all or part of the universal waste shipment, the handler who originated the shipment either: - receive the waste back when notified that the shipment has been rejected or -designate an alternate destination facility to which the shipment will be sent and

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	-ensure the rejected universal waste is shipped to the destination facility designated. Verify that a universal waste handler who rejects a shipment or a portion of a shipment meets the following requirements: - notify the handler who originated the shipment that the shipment has been rejected and - send the shipment back to the handler who originated the shipment or - send the shipment to the destination facility designated by the handler who originated the shipment. Verify that, if a universal waste handler receives a shipment containing hazardous waste that is not a universal waste, the handler meets the following requirements: - immediately notifies the department of the shipment - provides the name, address, and phone number of the originating shipper - complies with the applicable requirements of Env-Hw 400 through Env-Hw 800 for managing the hazardous waste. (NOTE: These requirements are similar to the Federal requirements, but they apply to small, large, and very large universal waste handlers and include additional universal wastes.)
HW.480.7.NH. All universal waste handlers must meet international shipment requirements (NHCAR Env-Hw 1102.08) [Added March 2003; Revised March 2010].	Verify that a universal waste handler who exports universal waste to a foreign destination meets the following requirements: - complies with the requirements applicable to a primary exporter in 40 CFR 262.53, 40 CFR 262.56(a)(1) through (4), (6), and (b) and 40 CFR 262.57, 7-1-07 edition - exports such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgment of Consent - provides a copy of the EPA Acknowledgment of Consent for the shipment to the transporter exporting the universal waste. (NOTE: These requirements are similar to the Federal requirements, but they apply to small, large, and very large universal waste handlers and include additional universal wastes.)
HW.480.8.NH. [Added March 2003]	[Reserved for future use.]
HW.480.9.NH. [Added March 2003]	[Reserved for future use.]

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HW.480.10.NH. [Added March 2003]	[Reserved for future use.]
HW.480.11.NH. Universal waste cathode ray tubes must meet labeling requirements (NHCAR Env-Hw 1113.02 and 1113.04) [Added March 2003; Citation Revised March 2010].	(NOTE: A used or unused cathode ray tube becomes a waste the date it is determined to be not repairable or reusable for its originally intended purpose.) Verify that all universal waste handlers of cathode ray tubes clearly label or mark each universal waste cathode ray tube, or containers holding intact, shredded, or broken universal waste cathode ray tubes with any or all of the following: - Universal Waste - Cathode Ray Tube(s) - Waste Cathode Ray Tube(s) - Used Cathode Ray Tube(s).
HW.480.12.NH. Universal waste cathode ray tubes management must meet specific requirements (NHCAR Env-Hw 1113.03) [Added March 2003; Citation Revised March 2010].	Verify that any cathode ray tube that shows evidence of breakage, spillage, or damage that could cause release of glass particles is contained, using a container that meets the following requirements: - closed, except when universal waste is being added to or removed from the container - compatible with the universal waste and its contents - free of defects, design characteristics, or damage that could result in leakage, spillage, or other environmental releases. Verify that universal waste handler of cathode ray tube(s) does not intentionally break or shred universal waste cathode ray tube(s) unless the handler: - installs and maintains system(s) designed to minimize releases via wind dispersal, run-off, and direct releases to the soil - uses breaking, shredding, or storage practices that do not pose a hazard to human health or the environment - prevents exposure of humans or the environment to harmful quantities of lead or other hazardous constituents - stores shredded and broken cathode ray tubes or components or both in closed, non-leaking containers - before transporting or offering shredded cathode ray tubes or components or both for transport, packages the shredded cathode ray tubes or components or both in containers that are: impermeable; closed; and, designed to prevent releases to the environment. Verify that a universal waste handler who shreds or intentionally breaks cathode ray tubes determines whether the following materials exhibit a characteristic of hazardous waste:

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	- clean-up residues resulting from spills or leaks
	- other waste generated from the shredding or breaking of cathode ray tubes, such as:
	  - residual waste from pollution control devices
	  - blast media
	  - cleaning media
	  - floor sweepings
	  - glass fines.
	
	(NOTE: If the residues, or other waste, or both exhibit a characteristic of hazardous waste, the handler is considered the generator of the residues or other waste or both and manage them in accordance with applicable requirements of Env-Hw 400 through Env-Hw 800.)

HW.480.13.NH. Universal waste antifreeze management must meet specific requirements (NHCAR Env-Hw 1114.02, 1114.03, and 1114.04) [Added March 2003; Citation Revised March 2010].	(NOTE: Used antifreeze becomes a waste on the date which, through use or handling, the antifreeze has become unsuitable for its original purpose due to the presence of physical or chemical impurities or loss of original properties. And, unused antifreeze becomes a waste the date the handler decides to discard it.) Verify that a universal waste handler contains universal waste antifreeze in tank(s) or container(s) that meet the following requirements: - closed, except when universal waste is being added to or removed from the container - compatible with the universal waste and its contents - free of defects, design characteristics, or damage that could result in leakage, spillage, or other environmental releases. Verify that universal waste handler of antifreeze clearly labels or marks the container(s), and tank(s) holding antifreeze with any or all of the following: - Universal Waste - Antifreeze - Waste Antifreeze - Used Antifreeze.
HW.480.14.NH. Universal waste pesticide storage must meet specific additional requirements (NHCAR Env-Hw 1110.06) [Added March 2003; Citation Revised March 2010].	Verify that universal waste pesticides are stored on an impervious surface. (NOTE: An impervious surface includes concrete or asphalt without cracks or holes; and does not include earth, wood or gravel surfaces.) Verify that, for one-day collections when an impervious surface is not available, plastic sheeting with a minimum thickness of 6 millimeters is used as an impervious surface for storing universal waste pesticides on collection day. Verify that universal waste pesticides are not stored in areas with functional floor drains or manholes present unless secondary containment is provided around all

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	universal waste pesticides container storage areas, capable of containing the volume of the largest capacity universal waste pesticides container present. (NOTE: The containment system required is not required for universal waste pesticides storage areas that store containers holding only wastes that do not contain free liquids provided that: - the universal waste pesticides storage area is sloped or is otherwise designed to drain and remove liquid resulting from precipitation - the containers are elevated or otherwise protected from contact with accumulated liquid.)
HW.480.15.NH. Universal waste pesticide handlers must meet preparedness and prevention requirements (NHCAR Env-Hw 1110.07) [Added March 2003; Revised March 2010].	Verify that the following equipment appropriate to the types and quantities of waste pesticide being accumulated on-site is kept at all times: - portable fire extinguishers - fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals - spill control equipment - decontamination equipment. Verify that aisle space is maintained to allow the unobstructed movement of personnel, fire control equipment, spill control equipment, and decontamination equipment to any area of the universal waste storage area. Verify that the following emergency telephone numbers and information is posted at the nearest telephone to each universal waste pesticide storage area: - the local fire department's local telephone number or 911 or both - the local police department's local telephone number or 911 or both - the department's emergency response telephone number at 603-271-3899 for use Monday through Friday, 8 a.m. to 4 p.m. - the New Hampshire department of safety telephone number at 603-271-3636 for use 24 hours/day - the local response team(s) telephone number - the steps to take in an emergency.
HW.480.16.NH. Universal waste pesticide handlers must meet security requirements for outdoor storage areas (NHCAR Env-Hw 1110.08) [Added March 2003; Citation Revised March 2010].	Verify that an artificial or natural barrier that completely surrounds the universal waste pesticide storage area prevents the unauthorized or unknowing entry of persons or livestock. Verify that entry(ies) to the storage area is controlled at all times. Verify that, at each entry to the universal waste storage area, a sign is posted with the legend, "Danger - Unauthorized Personnel Keep Out," or other words indicating that only authorized personnel are allowed to enter the area and that entry can be dangerous.

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HW.480.17.NH. Universal waste pesticide handlers must meet training and safety requirements (NHCAR Env-Hw 1110.09 and 1110.10) [Added March 2003; Citation Revised March 2010].	Verify that universal waste handler of pesticides complies with the personnel training requirements in 40 CFR 265.16, 7-1-01 edition. Verify that a universal waste handler of pesticides complies with the New Hampshire department of labor rules in Lab 1400 "Safety and Health of Employees."
HW.480.18.NH. [Added March 2003]	[Reserved for future use.]
HW.480.19.NH. [Added March 2003]	[Reserved for future use.]
HW.480.20.NH. [Added March 2003]	[Reserved for future use.]
HW.480.21.NH. Very large quantity universal waste handlers must meet notification requirements (NHCAR Env-Hw 1105.03) [Added March 2003; Citation Revised March 2010].	(NOTE: Very large quantity handlers accumulate greater than or equal to 20,000 kg combined total of universal waste on-site at any given time. Universal wastes are batteries; pesticides; mercury-containing devices, including thermostats; lamps; cathode ray tubes; and antifreeze. Very large quantity handler requirements do not apply to universal waste handlers who only manage waste batteries. (NHCAR Env-Hw.110.01, 1101.03, and 1105.02.) [Added March 2003].) Verify that, before accumulating greater than or equal to 20,000 kg of universal waste, a universal waste handler notifies the Department by submitting a completed New Hampshire notification form as described in Env-Hw 504.02. Verify that a very large quantity handler submits a notification form for each on-site location where universal waste is accumulated. (NOTE: An EPA identification number will be issued to a very large quantity handler not already possessing an EPA identification number. An EPA identification number will be: Site specific; and, Remain valid until the handler notifies the Department in writing that universal waste is no longer being accumulated on-site. (NOTE: The designation as a very large quantity handler of universal waste will be retained through the end of the calendar year in which greater than or equal to

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	20,000 kilograms total of universal waste is accumulated at any one time.)
HW.480.22.NH. Very large quantity universal waste handlers must not store waste in a floodplain (NHCAR Env-Hw 1105.04) [Added March 2003; Citation Revised March 2010].	(NOTE: See HW.480.22.NH. for applicability.) Verify that a very large quantity handler does not store universal waste outside within a 100-year floodplain. (NOTE: The department will identify the location of any floodplains on which the accumulation site is located, based on the latest Flood Insurance Studies or flood hazard boundary maps prepared by the Federal Emergency Management Agency.)
HW.480.23.NH. Very large quantity universal waste handlers must meet employee training requirements (NHCAR Env-Hw 1105.05) [Added March 2003; Citation Revised March 2010].	(NOTE: See HW.480.22.NH. for applicability.) Verify that a very large quantity handler of universal waste ensures that all employees are thoroughly familiar with proper waste handling and emergency procedures relative to their responsibilities during normal facility operations and emergencies.
HW.480.24.NH. Very large quantity universal waste handlers must meet waste tracking requirements (NHCAR Env-Hw 1105.06) [Added March 2003; Citation Revised March 2010].	(NOTE: See HW.480.22.NH. for applicability.) Verify that very large quantity handler of universal waste keeps a record, that may take the form of a log, invoice, manifest, bill of lading, or other shipping document, of each shipment of universal waste received at the facility. Verify that the record for each shipment of universal waste received includes the following information: - the name and address of the originating universal waste handler or foreign shipper from which the universal waste was sent - the quantity of each type of universal waste received - the date of receipt of the shipment of universal waste. Verify that a large quantity handler of universal waste keeps a record that may take the form of a log, invoice, manifest, bill of lading, or other shipping document, of each shipment of universal waste sent from the handler to other facilities. Verify that the record for each shipment of universal waste sent from the handler includes the following information: - the name and address of the universal waste handler, destination facility, or foreign destination to which the universal waste was sent - the quantity of each type of universal waste

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	- the date the shipment of universal waste left the handler's facility. Verify that each shipment record is retained for at least 3 years from the date the universal waste shipment was received.
HW.480.25.NH. Very large quantity universal waste handlers must meet inspections requirements (NHCAR Env-Hw 1105.08) [Added March 2003; Citation Revised March 2010].	(NOTE: See HW.480.22.NH. for applicability.) Verify that areas where universal waste is stored are inspected at least weekly for leaks and deterioration caused by corrosion and other factors. Verify that an inspection log or summary includes the following information: - the date and time of inspection - the name of the inspector - a notation of the observations made - the date and nature of any repairs or other remedial actions. Verify that inspection records are retained for at least 3 years from the date of the last inspection.
HW.480.26.NH. Very large quantity universal waste handlers must be prepared for emergencies (NHCAR Env-Hw 1105.09 and 1105.10) [Added March 2003; Citation Revised March 2010].	(NOTE: See HW.480.22.NH. for applicability.) Verify that each very large quantity handler has a contingency plan on-site in accordance with 40 CFR 265 Subpart D, 7-1-0 1 edition. Verify that the following equipment, appropriate for the types and quantities of waste being accumulated on-site, is maintained at all times: - portable fire extinguishers - fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals - spill control equipment - decontamination equipment. Verify that aisle space is maintained to allow the unobstructed movement of personnel, fire control equipment, spill control equipment, and decontamination equipment to any area of the universal waste storage area. Verify that the following emergency telephone numbers and information is posted at the nearest telephone to each universal waste pesticide storage area: - the local fire department's local telephone number or 911 or both - the local police department's local telephone number or 911 or both - the Department's emergency response telephone number at 603-271-3899 for use Monday through Friday, 8 a.m. to 4 p.m. - the New Hampshire Department of Safety telephone number at 603-271-

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	3636 for use 24 hours/day - the local response team(s) telephone number - the steps to take in an emergency.
HW.480.27.NH. Very large quantity universal waste handlers must meet security requirements (NHCAR Env-Hw 1105.11) [Added March 2003; Citation Revised March 2010].	(NOTE: See HW.480.22.NH. for applicability.) Verify that an artificial or natural barrier completely surrounds the universal waste storage area to prevent the unauthorized or unknowing entry of persons or livestock. Verify that entry(ies) to the storage area is controlled at all times. Verify that each entry to the universal waste storage area, a sign is posted with the legend, "Danger - Unauthorized Personnel Keep Out," or other words indicating that only authorized personnel are allowed to enter the area and that entry can be dangerous.
HW.480.28.NH. Very large quantity universal waste handlers must meet closure requirements (NHCAR Env-Hw 1105.12) [Added March 2003; Citation Revised March 2010].	(NOTE: See HW.480.22.NH. for applicability.) Verify that a very large quantity handler meets the closure requirements of 40 CFR 265.111 through 40 CFR 265.115, 7-1-01 edition.

Appendix 4-1

Exemptions under the Hazardous Waste Rules

(Source: NHCAR Env-Hw 401.03) [Revised March 2001; Revised March 2001; Revised March 2008]

(a) The following materials shall not be considered hazardous wastes under the hazardous waste rules:

(1) Domestic sewage;

(2) Wastewater discharges in compliance with applicable New Hampshire and federal permits;

(3) Irrigation return waters;

(4) Source, special nuclear, or nuclear by-product material as defined by the Atomic Energy Act of 1954 as amended, 42 USC 2011 et seq.;

(5) Material subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process;

(6) Pulping liquors, that is black liquors, that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in Env-Hw 811.01;

(7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in Env-Hw 811.01;

(8) Secondary materials, as defined in Env-Hw 110.01(c), provided:

a. Only tank storage is involved and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

b. Reclamation does not involve controlled flame combustion such as occurs in boilers, industrial furnaces, or incinerators;

c. The secondary materials are never accumulated in such tanks for over 12 mo without being reclaimed; and

d. The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal;

(9) Excluded scrap metal, as defined in Env-Hw 110.01(c), being recycled; and

(10) Shredded circuit boards being recycled provided that they are:

a. Stored in containers sufficient to prevent a release to the environment prior to recovery; and

b. Free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(b) The following materials shall be exempt from regulation under the hazardous waste rules:

(1) Household wastes, including household wastes treated or recovered, sanitary wastes from septic tanks, and sanitary wastes derived from multiple residences, motels, or hotels, except that household hazardous wastes collected as part of a household hazardous waste collection project, or accumulated at a solid waste facility regulated under RSA 149-M or any commercial facility shall be managed in accordance with Env-Hw 500;

(2) Agricultural wastes that are returned to the soil as fertilizers for growing agricultural crops and raising animals;

(3) Mining overburden returned to the mine site;

(4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or fossil fuels;

(5) Wastes which fail the test for toxicity characteristic because chromium is present, or which are listed in Env-Hw 402 due to the presence of chromium, and meet the criteria of 40 CFR 261.4(b)(6)(i), 7-1-99 edition;

(6) Solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore;

(7) Cement kiln dust waste;

(8) Waste which consists of discarded arsenical-treated wood or wood products which fail the test for toxicity characteristic for hazardous waste codes D004 - D017 and which is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use;

(9) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use;

(10) Non-terne-plated used oil filters that are not mixed with wastes listed in Env-Hw 402 if these oil filters have been gravity hot-drained using one of the following methods:
   a. Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
   b. Hot-draining and crushing;
   c. Dismantling and hot-draining; or
   d. Any other equivalent hot-draining method that will remove used oil;

(11) Hazardous waste generated in a product or raw material storage tank, product or raw material transport vehicle or vessel, product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit before it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit for greater than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials;

(12) Samples of solid or hazardous wastes, water, soil or air which are collected for the sole purpose of testing to determine its characteristics or composition that are being stored or transported in accordance with 40 CFR 261.4(d), 7-1-99 edition;

(13) Treatability study samples and samples undergoing treatability studies at laboratories and testing facilities of up to 250 kgs non-acute hazardous waste and up to 1 kg acute hazardous waste and as set forth in 40 CFR 261.4(e) and (f), 7-1-99 edition;

(14) Materials that are reclaimed from wastes and that are used beneficially unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal;

(15) Waste pickle liquor sludges generated by lime stabilization of spent pickle liquor from the iron and steel industry Standard Industry Classification, Codes 331 and 332, even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste as set forth in Env-Hw 403;

(16) The following wastes provided that they do not exhibit a hazardous waste characteristic as set forth in Env-Hw 403, and do not contain hazardous constituents listed in Env-Hw 402.04 and 402.05 in excess of the levels set forth in Env-Hw 404.01:
   a. Used oil sludges derived from collection, storage, or processing of used oils being recycled; and
   b. Waters separated from used oil by gravity separation or other physical or chemical means, unless the waters contain greater than 5 percent oil.

(17) Spill absorbent materials, soil and debris from the cleanup of spills of virgin fuel oil and virgin lubricating products, provided that the spill absorbent, materials, soil and debris do not exhibit a hazardous waste characteristic as set forth in Env-Hw 403;

(18) Spill absorbent materials, soil and debris from the cleanup of used oil spills, provided the used oil was not previously mixed with any other hazardous wastes listed in Env-Hw 402, and provided the spill absorbent materials, soil or debris do not exhibit a hazardous waste characteristic as set forth in Env-Hw 403;

(19) Spill absorbent materials, soil and debris from the cleanup of spills of virgin gasoline, provided that the spill absorbent materials, soil and debris do not exhibit a hazardous waste characteristic as set forth in Env-Hw 403;

(20) Containers and inner liners from containers of hazardous waste, provided that the containers and inner liners are empty pursuant to paragraph (f) below; and

(21) Petroleum-contaminated media and debris that:
   a. Fail the test for the toxicity characteristic of hazardous waste codes D018 - D043 only, as set forth in Env-Hw 403.06;
   b. Are generated from releases of underground storage tanks subject to Env-Hw 1401; and
   c. Are subject to the corrective action regulations under Env-Ws 412.

(22) Manufactured gas plant contaminated media and debris that:
   a. Fail the test for the toxicity characteristic of hazardous waste number D018 only, as set forth in Env-Hw 403.06; and
   b. Are treated in an incinerator or a thermal desorption unit that is authorized under the destination state's rules; and

(23) Wood ash from the burning of wood products which is only hazardous due to the corrosivity characteristic as set forth in Env-Hw 403.04(b)(3).

(c) For the purposes of (a)(1) above, "domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(d) For the purposes of (a)(2) above, "wastewater discharges" means industrial point source discharges subject to regulation under Section 402 of the Clean Water Act, as amended.

(e) For the purposes of (d) above, "point source" means any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or floating craft, or other discernible, defined, and discrete conveyance from which pollutants are or may be discharged. The term "point source" does not include agricultural irrigation return waters.

(f) The exemption at (b)(6) above shall not include the following wastes, which shall be regulated as hazardous wastes:

(1) Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production;
(2) Surface impoundment solids contained in the dredged from surface impoundments at primary lead smelting facilities;
(3) Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production;
(4) Spent potliners from primary aluminum reduction;
(5) Emission control dust or sludge from ferrochromium-silicon production; or
(6) Emission control dust or sludge from ferrochromium production.

(g) For the purposes of (b)(17) above, "virgin lubricating products" means unused motor, engine, gear, machine and transmission oils.

(h) For the purposes of (b)(20) above, containers and inner liners shall be deemed empty under the following conditions:

(1) For those containers or inner liners which have held hazardous waste, except for compressed gas or acute hazardous waste identified in Env-Hw 402.04, when:
    a. All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, such as pouring, pumping, and aspirating; and
    b. No more than one inch of residue remains on the bottom of the container or inner liner;
    c. No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gal in size; or
    d. No more than .03 percent by weight or the total capacity of the container remains in the container or inner liner of the container is greater than 110 gal in size;
(2) For those containers which have held a hazardous waste that is a compressed gas, when the pressure in the container approaches atmospheric pressure;
(3) For those containers or inner liners which have held acutely hazardous waste, when:
    a. The container or inner liner have been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;
    b. The container or inner liner has been cleansed by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or
    c. In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container has been removed.

(i) Residues removed from empty containers shall be subject to regulation under the hazardous waste rules as set forth in Env-Hw 404.04.

(j) For the purposes of (b)(1) above, "household wastes" means any waste derived from households, including, but not limited to:

(1) Single and multiple residences;
(2) Motels, hotels;
(3) Bunkhouses;
(4) Ranger stations;
(5) Crew quarters, campgrounds;
(6) Picnic grounds; and
(7) Day use recreation areas.

Appendix 4-2

New Hampshire Acutely Hazardous Wastes
(Source: NHCAR Env-Hw 402.04) [Revised March 2001]

1. The following materials, when waste, shall be considered acutely hazardous waste:

   a. any commercial chemical product or manufacturing chemical intermediate, having the generic name listed below, or any off-specification chemical product or intermediate which, if it met specifications, would have the generic name listed below
   b. any residue remaining in a container or in an inner liner removed from a container that has held any material having the generic name listed below, unless the container is empty as defined in Env-Hw 401.03(b)(12) (see Appendix 4-1).

New Hampshire Hazardous Waste Number	Hazardous Waste
NH03	Strontium sulfide
NH04 to NH11	Reserved

Appendix 4-3

New Hampshire Generic Industrial Process Wastes
(Source: NHCAR Env-Hw 402.06) [Revised March 2001]

Industry and USEPA Hazardous Waste Number	Hazardous Waste	Hazard Code
NH01	Used oil	(T)
NH51 to NH74	Reserved	(T)

Appendix 4-4

Other Hazardous Waste Mixtures Regulated by New Hampshire
[Deleted March 2001]

SECTION 5

NATURAL RESOURCES MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Natural Resources Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Boatslip* - (NHCAR Env-Wt 101) [Added March 2000; Revised March 2007]:
  1. On water bodies over 10,000 acres, means a volume of water 25 feet long, 8 feet wide, and 3 feet deep as measured at normal high water and located adjacent to a structure to which a watercraft may be secured.
  2. On water bodies of 10,000 acres or less, a volume of water 20 feet long, 6 feet wide, and 3 feet deep as measured at normal high water mark and located adjacent to a structure to which a watercraft may be secured."

- *Bog* - a wetland distinguished by stunted evergreen trees and shrubs, peat deposits, poor drainage, and/or highly acidic soil and/or water conditions (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- Breakwater - a structure extending generally perpendicular from the shore into surface waters of the state that is designed to protect sections of shoreline, docks, wharves or anchorage areas from erosion or damage from waves or currents (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Cribs* - an enclosure or framework of timber or prefabricated concrete that are securely fastened together and filled with stone ballast and which is typically used to support a structure in the water (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Dock As A Noun or Docking Facility* - a structure intended for securing of watercraft and/or to discharge and load passengers, freight, and other goods whether the structure is in the water or not (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Dock As A Verb* - to secure watercraft adjacent to a structure (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Dredge* - to dig, excavate, or otherwise disturb the contour or integrity of sediments in the bank or bed of a wetland, a surface water body, or other area within the department's jurisdiction (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Dredge Spoils* - material removed as the result of dredging (NHCAR Env-Wt 101) [Added March 2005; Citation Revised March 2007].

- *Dune* - sand dune defined by RSA 482-A: 2, VII (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Dune Vegetation* - vegetation that is commonly found is not limited to (NHCAR Env-Wt 101) [Citation Revised March 2007]:
  1. Ammophila breviligulata (American Beach Grass);
  2. Arenaria peploides (Seabeach Sandwort);
  3. Artemesia stellarina (Dusty Miller);

4. Euphorbia polygonifolia (Seaside Spurge);
5. Hudsonia tomentosa (Beach Heather);
6. Hudsonia ericoides (Beach Heather);
7. Lathyrus japonica (Beach Pea);
8. Myrica pennsvlvanica (Bayberry);
9. Prunus maritima (Beach Plum); and
10. Rosa rugosa (Salt Spray Rose).

- *Earth moving* - filling, grading, dredging, mining, excavation, construction, removal of topsoil, or any other activity that results in a change to the preexisting ground conditions (Env-Ws 415.02) [Added March 2009].

- *Endangered Species* - any species of plant that is in danger of extinction throughout all or a significant portion of its range within the state, or any species determined to be an endangered species pursuant to the Endangered Species Act (New Hampshire Revised Statues Annotated (NHSRA) 212-A:2) [Citation Revised March 2007].

- *Endangered Species Act* - the Endangered Species Act of 1973, Public Law 93-205, as amended (NHSRA 212-A:2) [Citation Revised March 2007].

- *Erosion Control* - the utilization of methods to contain soil particles and to prevent them from being displaced or washed down slopes by rainfall or run-off and include, but are not limited to (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007]:
  1. Seeding;
  2. Mulching; or
  3. Using haybales, siltation fences, or impermeable material.

- *Excavate* - to dig, remove, or form a cavity or a hole in an area within the department's jurisdiction (NHCAR Env-Wt 101) [Citation Revised March 2007].

- *Maintenance of Structures* - the repair or replacement of existing legal structures (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Major Project* - a project of such size and scope that it has the potential to create a significant impact on wetlands or waters of the state, pursuant to Env-Wt 303.02 (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Marsh* - a wetland (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007]:
  1. That is distinguished by the absence of trees and shrubs;
  2. Dominated by soft-stemmed herbaceous plants such as grasses, reeds, and sedges; and
  3. Where the water table is at or above the surface throughout the year, but can fluctuate seasonally.

- *Minimum Impact Project* - a minor project that by virtue of its size and nature is likely to have a negligible impact by itself or in the aggregate pursuant to Env-Wt 303.04, provided adequate measures are employed to protect the environment (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Minor Project* - a project of such size, scope or nature that it has the potential of having more than a negligible impact upon wetlands or waters of the state or other areas within the department's jurisdiction pursuant to Env-Wt 303.03, unless adequate measures are employed to protect the environment (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Nontidal Wetland* - a wetland not subject to periodic inundation by tidal waters (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Normal High Water For Lakes Or Ponds* - the full lake elevation as determined by the director (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Open Pile Construction* - piles installed far enough apart to allow free flow and passage of water and marine life (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Pasture* - a form of cropland devoted to the production of native or introduced forage that is normally harvested by grazing (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Permanent Dock* - a dock in which the dock and/or its supports are designed to remain in the bank or surface water bottom throughout the non-boating season. Permanent docks can be supported by piles or cribs in the water or can be cantilevered from the bank (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Pier* - a docking structure built generally perpendicular to the shore intended for securing watercraft and/or for discharging and loading passengers, freight, and other goods (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Pile* - a long, slender column of timber, steel, concrete, stone, or other rigid material driven or jetted into a beach, bank or bottom of a waterbody (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Plant* - any member of the plant kingdom, including seeds, roots, and other parts of plants (NHRSA 217-A:3) [Citation Revised March 2007].

- *Protected Shoreland* - for natural, fresh water bodies without artificial impoundments, for artificially impounded fresh water bodies, and for coastal waters and rivers, all land located within 250 feet of the reference line of public waters (NHCAR Env-Wq 1002.66 and RSA 483-B:4) [Added March 2009].

- *Protected Species* - any plant species designated as endangered, threatened, or of special concern under this Chapter (NHRSA 217-A: 3) [Citation Revised March 2007].

- *Repair* - the restoring of an existing legal structure by partial replacement of worn, broken, or unsound parts (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Replacement* - the substitution of a new structure for an existing legal structure with no change in size, dimensions, location, configuration, construction, or which conforms in all material aspects to the original structure (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Retaining Wall* - a structure constructed generally parallel to and against the shoreline to sustain a bank or prevent erosion (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Revetment* - a sloped facing of layered stone, concrete, or other hard material built to protect a bank or embankments by dissipating wave energy (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Rip-Rap* - cobble-sized and boulder-sized rocks placed on a bank to prevent erosion (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Seasonal Dock Or Seasonal Structure* - a dock and any associated supports designed to be completely removed from the water during the non-boating season and includes pipe docks or floating docks (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Sedimentation Controls* - silt fences, hay bales, and other methods utilized to trap water-borne sediment and provide protection against erosion until properly installed erosion controls can take effect (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Special Concern Species* - any species of plant that does not meet the criteria for endangered or threatened but which, in the judgment of the New Hampshire Department of Resources and Economic Development, because of its beauty, economic value, excessive collecting, or other unique qualities, requires monitoring or regulation under this Chapter (NHRSA 217-A:3) [Citation Revised March 2007].

- *Species* - includes any species, subspecies, or variety of plant (NHRSA 217-A:3) [Citation Revised March 2007].

- *Structure* - something installed, erected or constructed. Structure(s) include, but are not limited to, the following: fence, dock, breakwater, post, pile, building, bridge, culvert and wall (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Surface Water Body Or Surface Waters* - those portions of waters of the state, as defined by RSA 482-A: 4, which have standing or flowing water at or on the surface of the ground. This includes but is not limited to rivers, streams, lakes, ponds and tidal waters (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Swamp* - a wetland that is dominated by trees and/or shrubs (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Take* - to pick, collect, cut, transplant, uproot, dig, remove, damage, destroy, trample, kill, or otherwise disturb a plant, or to attempt to engage in any such conduct (NHRSA 217-A:3) [Citation Revised March 2007].

- *Threatened Species* - any species of plant likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range within the state, or any species of plant determined to be a threatened species pursuant to the Endangered Species Act (NHSRA 212-A:2) [Citation Revised March 2007].

- *Tidal Buffer Zone* - the area extending landward 100 feet from the highest observable tide line. This area can contain wetlands, transitional areas, and natural and developed upland areas (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Tidal Flat* - a relatively level landform composed of unconsolidated mineral and organic sediments, usually continuous with the shore, and that is alternately flooded and exposed by the tides (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Tidal Flushing* - the influx and outflow of water associated with the ebb and flow of the tide (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Tidal Wetland* - a wetland whose vegetation, hydrology or soils are influenced by periodic inundation of tidal waters (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *To Dredge* - to make a body of water such as a lake, river, channel, harbor, or other area of surface water wider, deeper, or cleaner by the removal of sand, silt, mud, rock, or other such material (NHCAR Env-Ws 415.02) [Added April 1998].

- *To Excavate* - to dig out and remove, to form a cavity or to form a hole in any land area (NHCAR Env-Ws 415.02) [Added April 1998].

- *To Mine* - to excavate by dredging, blasting, or any other means which significantly alters the terrain or occurs in or on the borders of the surface waters of the state (NHCAR Env-Ws 415.02) [Added April 1998].

- *To Significantly Alter The Characteristics Of The Terrain* - to undertake any activity anywhere in the state that changes or disturbs the terrain so as to impede the natural runoff or create an unnatural runoff that has the potential to adversely affect water quality in the state's surface waters. Examples of activities which significantly alter the characteristics of the terrain include, but are not limited to earth moving activities which

result in a disturbance of more than 100,000 square feet of contiguous area or 50,000 square feet or more of contiguous area if within the protected shoreland as defined in RSA 483-B, and timber harvesting operations (NHCAR Env-Ws 415.02) [Added April 1998].

- *To Transport Forest Products* - to move or convey timber and related products within an area bounded by permanent roadways (NHCAR Env-Ws 415.02) [Added April 1998].

- *To Undertake Construction* - to perform any fabrication of any structure or any appurtenance to a structure, land clearing, earth work, or any activity preliminary to fabricating such structure or appurtenance which involves a significant alteration of the characteristics of the terrain or which occurs in or on the border of the surface waters of the state (NHCAR Env-Ws 415.02) [Added April 1998].

- *Waterfront Buffer* - the protected shoreland within 50 feet of the reference line, as specified in RSA 483-B:9, V(a)(1). (NHCAR Env-Wq 1402.57) [Added March 2009].

- *Wetland* - an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, swamps, marshes, bogs and similar areas (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Wet Meadow* - a herb-dominated area typically with non-woody vegetation less than 3 feet in height, saturated for long periods during the growing season, but seldom flooded. Wet meadows develop on predominantly poorly drained or hydric B soil conditions as defined by Env-Ws 1014.02 (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

- *Wharf* - a docking structure built generally parallel to the shore and used to secure watercraft and/or to discharge and load passengers, freight and other goods (NHCAR Env-Wt 101) [Added March 2000; Citation Revised March 2007].

NATURAL RESOURCES MANAGEMENT GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS	
	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	NR.2.1.NH.
Dredging	NR.5.1.NH. and NR.5.2.NH.
Land Management	NR.10.1.NH. through NR.10.2.NH.
Water Resource Management	NR.15.1.NH. through NR.15.13.NH.
Wildlife	NR.20.1.NH. through NR.20.3.NH.

GUIDANCE FOR APPENDIX USERS	
REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
5-1	Endangered and Threatened Species of New Hampshire
5-2	Endangered, Threatened, and Special Concern Plant Species of New Hampshire
5-3	Classification of Projects
5-4	Shoreland Permit Exemptions

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
NR.2. **MISSING CHECKLIST ITEMS**	
NR.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
NR.5. **DREDGING**	
NR.5.1.NH. Dredging projects must meet specific conditions (NHCAR Env-Wt 304.11) [Added March 2005; Citation Revised March 2007].	Verify that dredge spoils are disposed of out of the areas under the jurisdiction of the department unless other disposition is specifically permitted. Verify that dredging in tidal waters is done between November 15 and March 15, and is not be permitted during a fish migration or larval setting stage of shellfish. Verify that dredging in freshwater lakes, ponds, streams, brooks, or rivers is done so as not to impede fish migrations or interfere with spawning areas for fish. Verify that dredging does not disturb contaminated layers of sediment, unless specifically identified and permitted with protective conditions. Verify that dredging projects in tidal waters is designed to ensure that there is no disruption of tidal flushing. Verify that appropriate controls, such as cofferdams, siltation curtains, or non porous curtains, are used to contain turbidity. Verify that dredged material to be stockpiled in uplands is dewatered in sedimentation basins lined with siltation and erosion controls, and located outside jurisdiction to prevent water quality degradation.
NR.5.2.NH. Any person operating a small motor dredge for the purpose of recreational mineral dredging must have a permit (NHCAR Env-Wt 504.01(a)) [Added March 2005; Citation Revised March 2007].	Verify that any person operating a small motor dredge for the purpose of recreational mineral dredging has a permit posted in the immediate vicinity of the dredging operation.

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
NR.10. **LAND MANAGEMENT**	
NR.10.1.NH. Activities affecting sand dunes must be permitted (NHCAR Env-C 614.05 (g) and NHRSA 482-A:3 (VII)) [Added March 2000; Revised March 2007].	Verify that no one destroys, razes, defaces, reduces, alters, builds upon or removes any sand or vegetation from any sand dune without a permit from the Department. (NOTE: Any person may remove sand which blows or drifts onto any lawn, driveway, walkway, parking or storage area, or boat ramp, or which blows or drifts in, on, or around buildings or other structures owned by the person. Upon request of the property owner, the Department will provide a preapplication assessment of any lot of record located in sand dunes.)
NR.10.2.NH. Vehicles must not be operated on sand dunes (NHRSA 215-C:6 and 482-A:3 (VIII) and (IX)) [Added March 2000; Revised March 2007].	Verify that no one operates or rides any mechanized or off highway recreational vehicle or snowmobile on any sand dune in the state of New Hampshire. (NOTE: This does not apply to: - police vehicles or fire vehicles - vehicles used in cases of emergency - authorized maintenance vehicles when performing maintenance duties - vehicles used by commercial fishermen or commercial lobstermen when engaged in activities related to fishing or lobstering.)

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
NR.15. **WATER RESOURCE MANAGEMENT**	
NR.15.1.NH. Activities in or on the border areas of surface waters must be permitted (NHCAR Env-Ws 415.03) [Added April 1998; Revised March 2007; Revised March 2009].	Verify that a permit is obtained from the Division prior to commencing any of the following activities: - any project involving dredging, excavation, filling, mining, transporting of forest products, construction, earth moving, or other significant alteration of the characteristics of the terrain that will occur in or on the border of the surface waters of the state - construction, earth moving, or other significant alteration of the characteristics of the terrain when a contiguous area of 50,000 square feet or more if within the protected shoreline or 100,000 square feet or more in all other areas will be disturbed.
NR.15.2.NH. Construction or repairs to certain structures within the waterfront buffer must meet specific requirements (NHCAR Env-Wq 1405.01 through 1405.05) [Added April 1998; Revised March 2007; Revised March 2009; Revised March 2010].	(NOTE: Requirements of this checklist item apply to accessory structures located between the reference line and the primary building line.) Verify that accessory structures are constructed only if allowed by local zoning and are constructed in accordance with the local building code. Verify that the accessory structures meet the following requirements: - do not exceed 12 feet in height or exceed 20 feet in height if authorized by a permit - are not larger than 1.5 square feet per linear foot of shoreline or larger than 900 square feet per structure if authorized by a permit. (NOTE: One walking path for access, up to 6 feet in width, with stairs over bank, shall not be counted when calculating the area of accessory structures.) Verify that all accessory structures built after 26 November 1996 are set back at least 20 ft from the reference line unless otherwise approved by the department. Verify that no accessory structure is built on or into land having greater than 25 percent slope.
NR.15.3.NH. Any construction, excavation, or filling activities within the protected shoreland must be permitted (NHCAR Env-Wq	Verify that any construction, excavation, or filling activities within the protected shoreland are permitted by the department. (NOTE: See Appendix 5-4 for exemptions to the permit requirement.)

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
1406.01, and 1406.13) [Added April 1998; Citation Revised March 2007; Revised March 2009].	Verify that a copy of the completed and signed application for the shoreland permit is submitted to the local governing body of the city or town in which the property is located at the time of submittal to the department. Verify that, if any portion of a project is located within 1/4-mile of a river or river segment designated under RSA 483, the applicant sends a copy of the completed and signed application or the shoreland permit to the appropriate local river advisory committee at the time of submittal to the department.
NR.15.4.NH. Dwellings extending beyond the shoreline must meet specific restrictions (NHRSA 482-A:26) [Added March 2000].	Verify that no structure suitable for use as a dwelling is constructed if the structure or any part of the structure extends beyond the shoreline of any public water or publicly owned water body. Verify that there is no conversion or modification of any existing structure in order to make the structure suitable as a dwelling if the structure or any part of the structure extends beyond the shoreline of any public water or publicly-owned water body. (NOTE: Existing dwellings over water which were constructed or converted to be made suitable for use as a dwelling in accordance with the law in effect at the time of construction or conversion, may be repaired or reconstructed, for maintenance purposes only, using any modern technologies, provided the result is a functionally equivalent use. Such repair or reconstruction may alter the interior design or existing cribwork, but no expansion of the existing footprint or outside dimensions is permitted. No permit is required for routine maintenance that does not involve work in the water.)
NR.15.5.NH. Boat docking facilities must meet specific location restrictions (NHCAR Env-Wt 402.03 and NHRSA 482-A:3(XIII)) [Added March 2000; Citation Revised March 2009].	Verify that all boat-docking facilities are at least 20 ft from an abutting property line in non-tidal waters and at least 20 ft in tidal waters. (NOTE: Boat docking facilities may be perpendicular or parallel to the shoreline or extend at some other angle into a water body, depending on the needs of the landowners, factors related to safe navigation, and the difficulty of construction. However, any boat secured to such a dock will not extend beyond the extension of the abutter's property line.) (NOTE: Boat docking facilities may be located closer than 20 ft from an abutter's property line in non-tidal waters and 20 ft in tidal waters, if the owner of the boat docking facility obtains the written consent of the abutting property owner. Such consent will be signed by all parties, notarized and filed with the dock application with the Department of Environmental Services.)
NR.15.6.NH. [Deleted March 2009].	

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
NR.15.7.NH. Specific minimum impact projects must obtain a wetlands permit by notification (NHCAR Env-Wt 506.01) [Added March 2005; Citation Revised March 2007; Revised March 2009].	Verify that the following minimum impact projects (see Appendix 5-3) obtain a wetlands permit by notification from the Department of Environmental Services: - the construction or modification of a seasonal pier or wharf, located on a stream or river - the repair or replacement of an existing retaining - maintenance dredging - the construction of a temporary cofferdam and other water control devices that meets the criteria - the repair of an existing docking structure - the excavation of less than 10 linear feet within the bank and bed of a surface water that does not exceed 200 square feet in total jurisdictional impact to the bed - the maintenance, repair, or replacement of a nondocking - the installation of a culvert, bridge, pole, or rock ford and associated fill to permit vehicular access to a piece of property for a single family building lot or for noncommercial, recreational uses - the replenishment of an existing beach - the construction of an anchoring pad for a seasonal dock - the installation of a seasonal boatlift - the installation of a personal watercraft lift that meets - the installation of a residential utility line - temporary impacts associated with the inspection, maintenance and repair of existing utility lines within an existing utility right-of-way. (NOTE: After-the-fact applications do not qualify for the permit by notification process.)
NR.15.8.NH. Replacement or alteration of pre-existing nonconforming primary structures must meet specific requirements (NHCAR Env-Wq 1408.01 through 1408.03 and NHSA 483-B:11) [Added March 2009].	Verify that any nonconforming structure damaged by accidental means is rebuilt, repaired or removed within 2 yr. of the date of the accident. (NOTE: If the owner does not begin construction or replace the pre-existing nonconforming structure 2 years, any primary structure thereafter constructed must conform to all applicable set-back requirements.) Verify that the replacement of any nonconforming primary structure is at least as far back as the primary building line. Verify that, if nonconforming structures located within the protected shoreland are repaired, renovated, or replaced in kind using modern technologies, the result is a functionally equivalent use. Verify that the repair or replacement does not expand the existing footprint except as authorized by the department Verify that, between the primary building line and the reference line, no alteration

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: March 2010
	extends the structure closer to the public water, except that the addition of a deck or open porch is permitted up to a maximum of 12 feet towards the reference line for nonconforming structures erected prior to July 1, 1994. Verify that decks and porches located between the primary building line and the reference line are not converted to become part of the primary living space.
NR.15.9.NH. Activities within a protected shoreland that are permitted by notification must meet specific requirements (NHCAR Env-Wq 1406.05) [Added March 2009].	(NOTE: The activities described in this checklist item may be undertaken in the protected shoreland without obtaining a permit as described in NR.15.3.NH. provided the notice meets these requirements.) Verify that, for drilling geotechnical borings during the design of a public project, the following requirements are met: - at least 14 days prior to its commencement, written notification of the general location and the type of work to be conducted is provided to the landowner, the department, and the local governing body - vehicles are operated in a manner that minimizes disturbance to the natural woodland buffer - drilling operations are managed so as to have no impact on water quality - drill holes are back-filled with drill spoil or filled with clean material or grout - drill cuttings not used to back fill drill holes are removed or stabilized - equipment is operated and maintained to avoid spillage of fluids including, but not limited to, oil, gas, antifreeze, or hydraulic fluids. Verify that, for drilling of test wells or installation of monitoring wells for purposes of exploring for public water supplies or soil or groundwater contamination, the following requirements are met: - at least 14 days prior to its commencement, written notification of the general location and the type of work to be conducted is provided to the landowner, the department, and the local governing body - vehicles are operated in a manner that minimizes disturbance to the natural woodland buffer - drilling operations are managed so as to have no impact on water quality - drill holes are back filled with drill spoil or clean fill or permanently cased - drill cuttings not used to back fill drill holes are removed or stabilized - equipment is operated and maintained to avoid spillage of fluids including, but not limited to, oil, gas, antifreeze, or hydraulic fluids. Verify that, for drilling of drinking water wells outside of the natural woodland buffer, the following requirements are met: - at least 14 days prior to its commencement, written notification of the general location and the type of work to be conducted is provided to the landowner, the department, and the local governing body - vehicles are operated in a manner that minimizes disturbance to the natural woodland buffer

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	- drilling operations are managed so as to have no impact on water quality - any abandoned drill holes are back filled with drill spoil or clean fill - drill cuttings not used to back fill drill holes are removed or stabilized - equipment is operated and maintained to avoid spillage of fluids including, but not limited to, oil, gas, antifreeze, or hydraulic fluids. Verify that, for site remediation activities approved by the department, the following requirements are met: - the information submitted to the department on which the approval for the activities was issued clearly identifies the protected shoreland - the information submitted to the department on which the approval for the activities was issued clearly describes the activities that will occur within the protected shoreland - as soon as practicable and in no event later than 5 working days after commencing work, written notification of the commencement of work is provided to the department's wetlands bureau and the local governing body - vehicles are operated in a manner that minimizes disturbance to the terrain - activities are managed so as to have no adverse impact on water quality - contaminated materials are not removed and returned to the site unless the materials are treated to the appropriate standards prior to being returned to the site - equipment is operated and maintained to avoid spillage of fluids including, but not limited to, oil, gas, antifreeze, or hydraulic fluids.
NR.15.10.NH. Projects in protected shoreland must meet specific erosion and siltation requirements (NHCAR Env-Wq 1406.17) [Added March 2009].	(NOTE: The following conditions apply to all projects in the protected shoreland, in addition to any project-specific conditions, regardless of whether a permit is obtained.) Verify that erosion and siltation control measures are: - are installed prior to the start of work - maintained throughout the project - remain in place until all disturbed surfaces are stabilized. Verify that erosion and siltation controls are appropriate to the size and nature of the project and to the physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to wetlands or surface waters. Verify that surface water quality standards established WQ.115.NH are met. Verify that any fill used is clean sand, gravel, rock, or other suitable material.
NR.15.11.NH. Emergency activities within the protected shoreland must meet specific	(NOTE: A property owner may request an authorization to act on an emergency basis pursuant to this section in lieu of filing an application if: - a threat to public safety or public health exists or significant damage to

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
requirements (NHCAR Env-Wq 1407.01 through 1407.03) [Added March 2009].	private property is imminent as a result of an occurrence beyond the control of the property owner, such as a natural disaster - the request for the emergency authorization is made within one week of discovering the need for the emergency authorization - the work covered by the emergency authorization is limited to temporary stabilization of the property or other mitigation of the immediate threat, such as removal of hazardous or potentially hazardous materials.) Verify that, if a request is made by telephone, the property owner or property owner's agent provides written information by e-mail or fax as soon as possible but no later than 24 hours after the initial request. (NOTE: Work without a permit issued or an emergency authorization shall be allowed during a natural disaster if the work: - was initiated and completed during a natural disaster - is limited to that work necessary to mitigate an immediate threat or stabilize a property.) Verify that, if work is done during a natural disaster, the following information is reported to the department as soon as practicable but no later than 30 days after commencing the work: - the name and daytime telephone number of the individual reporting the information, and, if available, an e-mail address and fax number - a description of the need for the work to be done on an emergency basis - a description of what work was done and when the work began and was completed. Verify that a application for a shoreland permit is submitted for any permanent repairs, restoration, or other activities proposed to be undertaken after the immediate threat has been abated and the property has been stabilized.
NR.15.12.NH. Construction within the protected shoreland must meet specific requirements (NHCAR Env-Wq 1403.03(a) and (b)) [Added March 2009].	Verify that all impacts related to construction are completely contained within the area of disturbance as appropriate given the area of the lot within the natural woodland buffer. Verify that within 3 days of final grading or temporary suspension of work in an area that is in the protected shoreland, all exposed soil areas are stabilized by: - seeding and mulching, if during the growing season - if not within the growing season, by mulching with tack or netting, or - with an alternative method of temporary stabilization.
NR.15.13.NH. New structures and all modifications to existing structures within the	Verify that construction or any other activity does not degrade water quality in violation of the water quality standards (see WQ.115.NH.)

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
protected shoreland must be designed and constructed to prevent the release of surface runoff across exposed soils and not violate water quality standards (NHCAR Env-Wq 1404.01) [Added March 2009].	Verify that new structures and all modifications to existing structures within the protected shoreland are designed and constructed to prevent the release of surface runoff across exposed soils.

COMPLIANCE CATEGORY: NATURAL RESOURCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
NR.20. **WILDLIFE**	
NR.20.1.NH. A permit must be obtained in order to take endangered or threatened wildlife (NHCAR Fis 1001.03).	Verify that a permit is obtained prior to taking any endangered or threatened wildlife (see Appendix 5-1).
NR.20.2.NH. A written report must be filed with the Executive Director on any research on endangered and/or threatened wildlife that does not involve capture or taking (NHCAR Fis 1001.03(e)) [Citation Revised March 2001; Revised March 2007].	Verify that a written report is filed including the following information, on any research on endangered and/or threatened wildlife that does not involve capture or taking: - the species - the number of individuals taken - the date and location where species were taken - the disposition of the individuals - other results of the study. Verify that the principal investigator files an annual summary of progress by 31 December, and a final report of findings upon completion of the research.
NR.20.3.NH. Permits must be obtained from the New Hampshire Department of Resources and Economic Development before taking plants designated as endangered or threatened (NHRSA 217-A:9) [Citation Revised March 2007].	Verify that any person does not uproot, dig, take, remove, damage, destroy, possess, sell, or offer for sale in intrastate, interstate or foreign commerce, import, export, deliver, carry, transport, or ship any endangered or threatened species from public highways, public property, waters of the state or from the property of another without valid state or federal permits, or both. Verify that a permit is obtained before taking endangered or threatened plants (see Appendix 5-2 for a list of state threatened and endangered plant species).

Appendix 5-1

Endangered and Threatened Species of New Hampshire
(Source: NHCAR Fis 1001.01 and 1001.02)
[Revised March 2001; Revised March 2003; Revised March 2005; Revised March 2007]

Endangered Species

Common Name	**Scientific Name**
Dwarf wedge mussel	*Alasmidonta heterodon*
Swollen wedge mussel	*Alasmidonta varicosa*
Frosted elfin butterfly	*Callophrys irus*
Karner blue butterfly	*Lycaeides melissa samuelis*
Persius dusky wing skipper	*Erynnis persius*
Banded bog skimmer	*Williamsonia lintneri*
Sunapee trout	*Salvelinus aureolus*
Shortnose sturgeon	*Acipenser brevirostrum*
Marbled salamander	*Ambystoma opacum*
Timber rattlesnake	*Crotalus horridus*
Pied-billed grebe	*Podilymbus podiceps*
Bald eagle	*Haliaetus leucocephalus*
Northern Harrier	*Circus cyaneus*
Golden eagle	*Aquila chrysaetos*
Peregrine Falcon	*Falco peregrinus*
Piping plover	*Charadrius melodus*
Upland sandpiper	*Bartramia longicauda*
Roseate Tern	*Sterna dougallii*
Common tern	*Sterna hirundo*
Least Tern	*Sterna antillarum*
Purple martin	*Progne subis*
Sedge wren	*Cistothorus platensis*
Canada lynx	*Lynx canadensis*
Small footed bat	*Myotis leibii*

Threatened Species

Common Name	**Scientific Name**
Pine pinion moth	*Lithophane lepida lepida*
Pine barrens zanclognatha moth	*Zanclognatha martha*
Cobblestone tiger beetle	*Cicindela marginipennis*
Hognose snake	*Heterodon platirhinos*
Common loon	*Gavia immer*
Osprey	*Pandion haliaetus*
Cooper's hawk	*Accipiter cooperii*
Arctic tern	*Sterna paradisaea*
Common nighthawk	*Chordeiles minor*
Three-toed woodpecker	*Picoides tridactylus*
Grasshopper Sparrow	*Ammodramus savannarum*
Pine marten	*Martus Americana*

Appendix 5-2

Endangered, Threatened, and Special Concern Plant Species of New Hampshire
(Source: NHCAR Res-N 306.01 through 306.03) [Citation Revised March 2007]

List of Endangered Plants

Scientific Name	Common Name
Acalypha virginica	three-seeded mercury
Adlumia fungosa	climbing fumitory
Allium canadense	wild garlic
Allium schoenoprasum	siberian chives
Amerorchis rotundifolia	one-leaf orchis
Amphicarpaea bracteata var. comosa	hog-peanut
Anemone cylindrica	long-fruited anemone
Arabis hirsuta var. pycnocarpa	hairy rock cress
Arabis laevigata	smooth rock cress
Arctostaphylos alpina	alpine bearberry
Arisaema dracontium	green dragon
Aristida longespica var. geniculata	spiked needle grass
Aristida tuberculosa	sea-beach needle grass
Arnica lanceolata	hairy arnica
Asclepias purpurascens	purple milkweed
Asclepias tuberosa	butterfly weed
Asplenium rhizophyllum	walking fern
Astragalus robbinsii var. jesupii	jesup's milk vetch
Aureolaria virginica	downy false foxglove
Barbarea orthoceras	american winter cress
Betula pumila	swamp birch
Bidens laevis	smooth bidens
Bromus kalmii	kalm's brome grass
Bromus pubescens	hairy brome grass
Calamagrostis canadensis var. langsdorfii	harsh bluejoint
Calamagrostis cinnoides	nuttall's reedgrass
Calamagrostis stricta ssp. stricta	neglected reedgrass
Calypso bulbosa var. americana	fairy slipper
Calystegia spithamea	low bindweed
Cardamine bellidifolia	alpine bitter cress
Cardamine bulbosa	bulbous bitter cress
Cardamine concatenata	cutleaf toothwort
Cardamine longii	long's bitter cress
Carex aestivalis	summer sedge
Carex atherodes	awned sedge
Carex atratiformis	black sedge
Carex aurea	golden-fruited sedge
Carex baileyi	bailey's sedge
Carex bullata	inflated sedge
Carex buxbaumii	buxbaum's sedge
Carex capillaris	hair-like sedge
Carex capitata ssp. arctogena	head-like sedge
Carex castanea	chestnut sedge
Carex chordorrhiza	creeping sedge
Carex cumulata	piled-up sedge
Carex diandra	lesser panicled sedge
Carex eburnea	ebony sedge

Scientific Name	Common Name
Carex exilis	meagre sedge
Carex garberi	garber's sedge
Carex glaucodea	flaccid sedge
Carex granularis	granular sedge
Carex hitchcockiana	hitchcock's sedge
Carex livida	livid sedge
Carex polymorpha	many forms sedge
Carex retroflexa	reflexed sedge
Carex rostrata	swollen-beaked sedge
Carex seorsa	separated sedge
Carex siccata	hay sedge
Carex sparganioides	bur sedge
Carex stiata var. brevis	walter's sedge
Carex tenuiflora	thin-flowered sedge
Carex trichocarpa	hairy-fruited sedge
Carex umbellata	hidden sedge
Carex wiegandii	wiegand's sedge
Castilleja septentrionalis	pale painted cup
Cenchrus longispinus	common sandbur
Chamaecrista nictitans	wild sensitive senna
Chenopodium foggii	fogg's goosefoot
Chenopodium rubrum	coast-blite goosefoot
Cirsium horridulum	yellow thistle
Collinsonia canadensis	canada horsebalm
Corallorhiza odontorhiza	autumn coralroot
Corydalis aurea	golden corydalis
Crassula aquatica	pygmy weed
Crotalaria sagittalis	arrow-headed rattlebox
Cuscuta pentagona	five-angled dodder
Cynoglossum virginianum var. boreale	wild comfrey
Cyperus grayi	gray's umbrella sedge
Cyperus houghtonii	houghton's umbrella sedge
Cyperus squarrosus	incurved umbrella sedge
Cypripedium arietinum	ram's-head lady's slipper
Cypripedium parviflorum var. makasin	yellow lady's slipper
Cypripedium reginae	showy lady's slipper
Desmodium cuspidatum	toothed tick trefoil
Desmodium marilandicum	maryland tick trefoil
Desmodium obtusum	stiff tick trefoil
Dichanthelium sphaerocarpon	spherical panic grass
Digitaria filiformis	slender crabgrass
Diphasiastrum sitchense	sitka clubmoss
Diplazium pycnocarpon	narrow-leaved spleenwort
Draba breweri var. cana	lance-leaved draba
Eleocharis diandra	wright's spike-rush
Eleocharis erythropoda	bald spike-rush
Eleocharis nitida	neat spike-rush
Eleocharis quinqueflora	few-flowered spike-rush
Eleocharis tuberculosa	tubercled spike-rush
Epilobium anagallidifolium	alpine willowherb
Epilobium lactiflorum	white-flower willowherb
Equisetum palustre	marsh horsetail
Eragrostis frankii	frank's love grass
Eragrostis hypnoides	moss love grass
Eriophorum angustifolium	narrow-leaved cotton-grass

Scientific Name	Common Name
Eupatorium fistulosum	tubular thoroughwort
Eupatorium pubescens	hairy boneset
Eupatorium sessilifolium var. brittonianum	upland boneset
Euphrasia oakesii	oakes' eyebright
Euthamia caroliniana	grassleaf goldenrod
Festuca prolifera	proliferous fescue
Galium obtusum	large marsh bedstraw
Galium pilosum	hairy bedstraw
Gentianella quinquefolia	stiff gentian
Geocaulon lividum	northern comandra
Geranium carolinianum var. carolinianum	carolina cranesbill
Geranium carolinianum var. confertiflorum	cranesbill
Glyceria acutiflora	sharp-flowered mannagrass
Hackelia deflexa var. americana	nodding stickseed
Halenia deflexa	spurred gentian
Harrimanella hypnoides	moss-plant
Heteranthera dubia	water stargrass
Hibiscus moscheutos	seaside mallow
Hieracium robinsonii	robinson's hawkweed
Hippuris vulgaris	common mare’s tail
Hottonia inflata	featherfoil
Houstonia longifolia	long-leaved bluets
Huperzia selago	northern firmoss
Hypericum ascyron	great st. johns-wort
Hypoxis hirsuta	hairy stargrass
Ilex glabra	inkberry
Isoetes engelmannii	engelmanns quillwort
Isoetes lacustris	large-spored quillwort
Isoetes riparia	river bank quillwort
Isotria verticillata	large whorled pogonia
Juncus alpinoarticulatus	alpine rush
Juncus brachycephalus	short-fruited rush
Juncus dichotomous	flat-leaved rush
Juncus secundus	one-sided rush
Juncus stygius var. americanus	moor rush
Juniperus horizontalis	creeping juniper
Lechea tenuifolia	slender pinweed
Lemna trisulca	star duckweed
Lemna valdiviana	pale duckweed
Leptochloa fusca ssp. fascicularis	salt-meadow grass
Lespedeza procumbens	trailing bush-clover
Lespedeza virginica	slender bush-clover
Leymus mollis	sea lyme grass
Liatris scariosa var. novae-angliae	northern blazing star
Lilium superbum	turk's cap lily
Limosella australis	mudwort
Lindernia dubia var. anagallidea	false pimpernel
Lipocarpha micrantha	dwarf bulrush
Listera auriculata	auricled twayblade
Luzula confusa	northern woodrush
Lycopodiella appressa	slender bog clubmoss
Lygodium palmatum	climbing fern

Scientific Name	Common Name
Malaxis monophyllos ssp. brachypoda	white adder's mouth
Megalodonta beckii	water marigold
Menispermum canadense	yellow parilla
Mertensia maritima	oyster plant
Mimulus moschatus	muskflower
Minuartia glabra	smooth sandwort
Minuartia michauxii	rock sandwort
Muhlenbergia sobolifera	sprout muhlenbergia
Muhlenbergia tenuiflora	slender-flowered muhlenbergia
Myriophyllum farwellii	farwell's water milfoil
Nabalus boottii	boott's rattlesnake root
Nabalus serpentarius	gall-of-the-earth
Nuphar microphylla	tiny cowlily
Oligoneuron album	snowy aster
Omalotheca supina	mountain cudweed
Osmorhiza berteroi	mountain sweet cicely
Oxyria digyna	mountain sorrel
Packera obovata	round-leaved ragwort
Panicum philadelphicum	philadelphia panic grass
Panicum rigidulum ssp. pubescens	long-leaved panic grass
Pellaea atropurpurea	purple cliffbrake
Persicaria robustior	robust knotweed
Persicaria vivipara	viviparous knotweed
Petasites frigidus var. palmatus	sweet coltsfoot
Phleum alpinum	alpine timothy
Physostegia virginiana	lion's head
Pinguicula vulgaris	common butterwort
Pinus banksiana	jack pine
Piptatherum canadense	canadian mountain rice
Pluchea odorata var. succulenta	salt marsh fleabane
Poa glauca	white bluegrass
Poa laxa ssp. fernaldiana	wavy bluegrass
Poa pratensis ssp. alpigena	alpine meadow grass
Polygala cruciata var. aquilonia	cross polygala
Polygonum douglasii	douglas' knotweed
Polygonum erectum	erect knotweed
Polygonum prolificum	prolific knotweed
Polygonum tenue	slender knotweed
Potamogeton alpinus	thin-leaved alpine pondweed
Potamogeton foliosus	leafy pondweed
Potamogeton nodosus	knotty pondweed
Potamogeton praelongus	white-stem pondweed
Potamogeton pusillus ssp. gemmiparus	budding pondweed
Potamogeton vaseyi	vasey's pondweed
Potamogeton zosteriformis	flatstem pondweed
Potentilla robbinsiana	dwarf cinquefoil
Proserpinaca pectinata	mermaidweed
Prunus americana	american plum
Pseudognaphalium micradenium	heller's sweet everlasting
Pterospora andromedea	giant pinedrops
Puccinellia tenella ssp. langeana	tundra alkali grass
Pycnanthemum incanum	hoary mountain mint
Pycnanthemum torrei	torry's mountain mint
Pycnanthemum virginianum	virginian mountain mint
Pyrola asarifolia	pink wintergreen

Scientific Name	Common Name
Quercus macrocarpa	mossy-cup oak
Ranunculus ambigens	water-plantain spearwort
Ranunculus fascicularis	early buttercup
Rhinanthus minor ssp. groenlandicus	yellow rattle
Rhododendron periclymenoides	pink azalea
Rhynchospora capillacea	needle beak sedge
Rosa acicularis ssp. sayi	prickly rose
Rotala ramosior	lowland toothcup
Rubus cuneifolius	wedge sand blackberry
Rumex pallidus	white dock
Sagina nodosa ssp. borealis	greater pearlwort
Sagittaria cuneata	wapato
Sagittaria teres	quill-leaved sagittaria
Salicornia bigelovii	dwarf glasswort
Salix argyrocarpa	silver willow
Salix herbacea	dwarf willow
Salix pellita	satin williow
Sanicula canadensis	short-styled sanicle
Sanicula odorata	cluster sanicle
Sanicula trifoliata	beaked sanicle
Sarcocornia perennis	woody glasswort
Saxifraga cernua	nodding saxifrage
Saxifraga paniculata ssp. neogaea	livelong saxifrage
Saxifraga rivularis	alpine brook saxifrage
Scirpus georgianus	georgia bulrush
Scirpus longii	long’s bulrush
Scirpus pendulus	lined bulrush
Scirpus polyphyllus	leafy bulrush
Scleria pauciflora	few-flower nutrush
Scleria reticularis	reticulated nutrush
Sclerolepis uniflora	sclerolepis
Senna hebecarpa	wild senna
Sericocarpus linifolius	white-topped aster
Sibbaldia procumbens	sibbaldia
Silene acaulis	moss campion
Sisyrinchium mucronatum	mucronated blue-eyed grass
Solidago patula	square-stem goldenrod
Sparganium androcladum	branching bur-reed
Sphagnum angermanicum	peat moss
Sphagnum brevifolium	peat moss
Sphagnum flavicomans	peat moss
Sphagnum lindbergii	peat moss
Sphagnum subfulvum	peat moss
Sphenopholis obtusata	blunt sphenopholis
Spiranthes casei	case's ladies’ tresses
Sporobolus neglectus	small dropseed
Staphylea trifolia	bladdernut
Stuckenia filiformis ssp. alpina	northern slender pondweed
Stuckenia pectinata	sago pondweed
Symphyotrichum ciliolatum	ciliated aster
Symphyotrichum patens	skydrop aster
Symphyotrichum tenuifolium	large salt marsh aster
Tephrosia virginiana	goat's rue
Thalictrum thalictroides	rue anemone
Triantha glutinosa	sticky false asphodel

Scientific Name	Common Name
Trichomanes intricatum	appalachian filmy fern
Triosteum aurantiacum	orange horse-gentian
Triplasis purpurea	sand grass
Trisetum melicoides	bristle grass
Uvularia grandiflora	large-flowered bellwort
Uvularia perfoliata	perfoliate bellwort
Valeriana uliginosa	marsh valerian
Veronica wormskjoldii	alpine speedwell
Viburnum rafinesquianum	downy arrowwood
Viola nephrophylla	kidney-leaved violet
Viola palustris	alpine marsh violet
Vulpia octoflora var. glauca	six weeks fescue
Waldsteinia fragarioides	barren strawberry
Woodsia glabella	smooth woodsia
Woodsia obtusa	blunt-lobe woodsia
Woodwardia areolata	netted chain fern
Zannichellia palustris	horned pondweed
Zanthoxylum americanum	northern prickly ash

List of Threatened Plants

Scientific Name	Common Name
Acer nigrum	black maple
Agalinis maritima	salt-marsh gerardia
Ammophila breviligulata	beach grass
Arabis canadensis	sicklepod
Arabis missouriensis	missouri rock cress
Arethusa bulbosa	arethusa
Artemisia campestris ssp. caudata	tall wormwood
Asclepias amplexicaulis	blunt-leaved milkweed
Asclepias quadrifolia	four-leaved milkweed
Aureolaria pedicularia var. intercedens	fern-leaved false foxglove
Betula glandulosa	dwarf birch
Betula minor	small birch
Betula nigra	river birch
Calamagrostis pickeringii	pickering's bluejoint
Calamagrostis stricta ssp. inexpansa	new england northern reedgrass
Carex albursina	sheldon’s sedge
Carex backii	back’s sedge
Carex bigelowii	bigelow’s sedge
Carex cristatella	small-crested sedge
Carex nigra	goodenough’s sedge
Carex scirpoidea	scirpus-like sedge
Celtis occidentalis	hackberry
Clematis occidentalis	purple clematis
Conopholis americana	american cancerroot
Cryptogramma stelleri	slender cliffbrake
Cypripedium parviflorum var. pubescens	large yellow lady’s slipper
Desmodium rotundifolium	prostrate tick trefoil
Diapensia lapponica	diapensia
Dicentra canadensis	squirrel corn
Dryopteris fragrans	fragrant fern
Dryopteris goldiana	goldie's fern
Eleocharis intermedia	matted spike-rush

Eleocharis ovata	ovoid spike-rush
Eleocharis parvula	small spike-rush
Eleocharis uniglumis	salt-loving spike-rush
Epilobium hornemanni	hornemann's willowherb
Galearis spectabilis	showy orchis
Galium kamtschaticum	northern wild licorice
Gaylussacia dumosa	dwarf huckleberry
Gentianopsis crinita	fringed gentian
Geum peckii	mountain avens
Hackelia virginiana	stickseed
Hierochloe alpina var. orthantha	alpine sweet grass
Hudsonia ericoides	golden heather
Hudsonia tomentosa var. intermedia	hairy hudsonia
Hudsonia tomentosa var. tomentosa	hairy hudsonia
Huperzia appalachiana	mountain firmoss
Hydrophyllum virginianum	northern waterleaf
Iris prismatica	slender blue flag
Isotria medeoloides	small whorled pogonia
Iva frutescens ssp. oraria	marsh elder
Lilaeopsis chinensis	eastern lilaeopsis
Liparis loeselii	loesel's twayblade
Listera convallarioides	lily-leaved twayblade
Listera cordata	heart-leaved twayblade
Lobelia kalmii	kalm's lobelia
Losieleuria procumbens	alpine azalea
Lupinus perennis	wild lupine
Luzula spicata	spiked woodrush
Lysimachia thyrsiflora	tufted loosestrife
Malaxis unifolia	green adder's mouth
Mikania scandens	climbing hempweed
Ophioglossum pusillum	northern adder’s tongue
Packera paupercula	dwarf ragwort
Panax quinquefolius	ginseng
Parnassia glauca	grass-of-parnassus
Paronychia argyrocoma	silverling
Paronychia canadensis	smooth-forked chickweed
Phyllodoce caerulea	mountain heath
Platanthera flava var. herbiola	pale green orchis
Potamogeton obtusifolius	bluntleaf pondweed
Rhododendron lapponicum	lappland rosebay
Rhododenron maximum	giant rhododendron
Rubus chamaemorus	baked apple berry
Sagittaria rigida	sessile-fruited arrowhead
Salix interior	sandbar willow
Salix planifolia	tea-leaved willow
Salix uva-ursi	bearberry willow
Samolus valerandi ssp. parviflorus	false water pimpernel
Scirpus ancistrochaetus	northeastern bulrush
Solidago cutleri	cutler’s goldenrod
Solidago odora	sweet goldenrod
Sparganium eurycarpum	large bur-reed
Sphagnum andersonianum	peat moss
Sphagnum contortum	peat moss
Sphagnum majus ssp. norvegicum	peat moss
Sphagnum pylaesii	peat moss
Sphagnum riparium	peat moss

Sphagnum wulfianum	peat moss
Spiranthes lucida	shining ladies' tresses
Sporobolus cryptandrus	sand dropseed
Subularia aquatica var. americana	awlwort
Teucrium canadense var. virginicum	canadian germander
Triphora trianthophora	three-birds orchid
Utricularia resupinata	reversed bladderwort
Vaccinium boreale	alpine blueberry
Vaccinium cespitosum	dwarf bilberry
Vahlodea atropurpurea	mountain hairgrass
Viola pedata	bird's-foot violet

Table 1100.5 State Special Concern Plant Species

Scientific Name	**Common Name**
Allium tricoccum var. burdickii	narrow-leaf wild leek
Allium tricoccum var. tricoccum	wild leek
Asarum canadense	wild ginger
Caulophyllum giganteum	giant blue cohosh
Caulophyllum thalictroides	blue cohosh
Limonium carolinianum	sea lavender
Matteuccia struthiopteris var. pensylvanica	ostrich fern
Sanguisorba canadensis	canadian burnet
Ulmus rubra	slippery elm

Appendix 5-3

Classification of Projects

(NHCAR Env-Wt 303.02, 303.03 and 303.04) [Added March 2005; Citation Revised March 2007]

NHCAR Env-Wt 303.02 Major projects shall be those that meet any one or more of the following criteria:

(a) Projects in sand dunes, tidal wetlands or bogs except for repair of existing structures pursuant to Wt 303.04(v);
(b) Projects within 100 feet of the highest observable tide line that alter any bank, flat, wetlands, surface water, or undeveloped uplands except for repair of existing structures pursuant to Wt 303.04(v);
(c) Projects that involve alteration of nontidal wetlands, nontidal surface waters, and banks adjacent to nontidal surface waters in excess of 20,000 square feet in the aggregate;
(d) Construction or modification of major docking system defined by Wt 101.48, and any dock adjacent or attached to a breakwater;
(e) Construction or modification of retaining walls lakeward of the natural shoreline and below the natural mean high water level of great ponds, or lakeward of the normal shoreline and below the artificial high water level of lakes where the state has fee simple ownership or flowage rights. Refacing that does not add more than 6 inches to the width of the wall shall not in itself make a project major;
(f) Projects located in or adjacent to designated prime wetlands under RSA 482-A:15;
(g) Removal of more than 20 cubic yards of rock, gravel, sand, mud or other material from public waters;
(h) Projects that disturb more than 200 linear feet, measured along the shoreline, of a lake or pond or its bank;
(i) Projects that alter the course of or disturb 200 or more linear feet of an intermittent or perennial nontidal stream or river channel or its banks. For intermittent streams, this distance shall be measured along the thread of the channel. For perennial streams or rivers, the total disturbance shall be calculated by summing the lengths of disturbances to the channel and the banks;
(j) Construction of a breakwater in public waters;
(k) Projects in a wetland that have been identified by Natural Heritage Inventory - Department of Resources and Economic Development as an exemplary natural community, and/or that has documented occurrences of state or federally listed Endangered or Threatened species;
(l) Projects which, when taken in the aggregate with previous work on the property within the last 5 years, would be considered major. For example, if previous work on the property was fill of 15,000 sq. ft. of nontidal wetlands and an individual applies to fill an additional 15,000 sq. ft. of nontidal wetlands on the property;
(m) Any project that is related to other applications or permits in the wetlands area or wetlands complex in a manner such that if the proposed action were considered to be in a single application the combined impact would be considered major. For example, if two individuals apply to rip-rap 150 linear feet of a stream that is part of the same wetlands complex;
(n) Fill in public waters for the purposes of making land; and
(o) Construction of or replenishment of a beach that does not meet the criteria for minimum impact under Wt 303.04(d) or Wt 303.04(aa), or minor impact under Wt 303.03(f).

Wt 303.03 Minor projects shall be those projects that meet any of the following criteria and that do not meet any of the criteria of Wt 303.02:

(a) Projects in any bank, flat, marsh, or swamp or in and adjacent to any waters of the state or within 100 feet of the highest observable tide line that do not meet any of the criteria of Wt 303.02, Wt 303.04 or Wt 303.05.
(b) Projects that involve work within 50 feet of a saltmarsh that do not meet the criteria of Wt 303.02.
(c) Projects that involve dredge, fill, or construction of a permanent structure in a stream or marsh that do not meet the criteria of Wt 303.02, except those projects in streams which meet the criteria of Wt 303.04(g).
(d) Construction or modification of any docking system that:
  (1) Provides for 4 boatslips including previously existing boatslips;
  (2) Uses no more than 100 feet of waterfront; and
  (3) Exceeds the design and construction criteria discussed at Wt 402.01 for minimum impact docks classified under Wt 303.04.
(e) Construction of a pond with less than 20,000 square feet of impact in a wetland or surface waters, which does not meet the criteria of Wt 303.04(p).

(f) Construction of or replenishment of a beach that does not exceed the criteria in Wt 303.04(d) or the criteria in Wt 303.04(aa) other than to propose:
(1) Replenishment in excess of the limit of one replenishment in a 6 year period; or
(2) The use of more than 10 cubic yards of sand, but not more than 20 cubic yards.
(g) Removal of no more than 20 cubic yards of rock, gravel, sand, mud or other materials from public waters.
(h) Projects involving less than 20,000 square feet of alteration in the aggregate in nontidal wetlands, nontidal surface waters, or banks adjacent to nontidal surface waters which exceed the criteria of Wt 303.04(f).
(i) Projects involving the removal of emergent or submergent vegetation when the method used disturbs the bottom sediment of the waterbody unless Wt 303.04(r) applies.
(j) Repair or replacement of existing retaining walls that requires work in the water, but that results in no change in height, length, location, or configuration. If a wall is to be refaced, such additional width shall not exceed 6 inches.
(k) Projects that disturb between 50 and 200 linear feet, measured along the shoreline, of a lake or pond or its bank and do not meet the criteria of Wt 303.02.
(l) Projects that alter the course of or disturb less than 200 linear feet of an intermittent or perennial nontidal stream or river channel or its banks and do not meet the criteria for minimum impact under Wt 303.04(n). For intermittent streams, this distance shall be measured along the thread of the channel. For perennial streams or rivers, the total disturbance shall be calculated by summing the lengths of disturbances to the channel and the banks.
(m) Installation of new tie-off piles, ice clusters, or dolphins which do not, by their presence, add boatslips to an existing docking system.

Wt 303.04 Minimum Impact Projects are those projects that meet any of the following criteria:

(a) Construction or modification of a seasonal pier or wharf if no more than two slips, including previously existing slips, are proposed, and all criteria of Wt 402 are met;
(b) Projects in previously developed upland areas within 100 feet of the highest observable tide line unless they are major or minor as defined in Wt 303.02 or Wt 303.03;
(c) Repair or replacement of existing retaining walls that is performed "in the dry" during drawdown of waters, and that results in no change in height, length, location, or configuration. If a wall is to be refaced such additional width shall not exceed 6 inches;
(d) Construction of a beach provided:
(1) The beach shall serve a privately-owned single family residence;
(2) No fill or dredge shall occur below the high water line or full pond elevation;
(3) The total amount of dredge or fill shall not exceed 900 square feet;
(4) No work shall be conducted in a swamp, marsh, tidal buffer zone, bog, or in or adjacent to a prime wetland;
(5) The work shall not alter more than 20 percent of the applicant's contiguous shoreline up to a maximum of 50 feet; and
(6) No more than 10 cubic yards of sand shall be used;
(e) Roadway construction through forested wetlands for the purpose of conducting forest management activities, provided:
(1) Construction shall be done during frozen conditions;
(2) Roads shall be cleared by felling timber in and adjacent to the roadway;
(3) The road base shall be constructed using no fill other than:
a. Snow pushed on and frozen over the road base; or
b. Stumps, inverted in places where support of the road base is necessary;
(4) The minimum required ditches shall be constructed to obtain adequate drainage;
(5) Each road crossing shall be no more than 15 feet wide and no more than 200 feet long;
(6) Stream crossings shall incorporate pole fords with no stumping within the stream banks; and
(7) Spring retirement of the winter roads shall include soil stabilization and drainage, including water bars, as necessary on the site to prevent the roadway from becoming a channel for ground or surface water runoff;
(f) Projects involving alteration of less than 3000 square feet in swamps or wet meadows that are not in prime wetlands or do not meet the requirements of Wt 303.02(k), provided that no previous department permit has placed restrictions on the property of the applicant;
(g) Installation of a culvert, pole, or rock ford and associated fill to permit vehicular access to a piece of property for forest management provided:

(1) Access shall not be used for subdivision, development, or other land conversion to non-forestry uses;
(2) Roadway width at the crossing shall not exceed 20 feet;
(3) Fill width, measured at toe of roadway side slopes, shall be minimized, and shall not exceed 50 feet;
(4) Fill for any single wetland crossing shall not exceed 50 feet in length, measured along the proposed access way; and
(5) Crossings shall be limited to those that:
a. Do not impact bogs, marshes, sand dunes, tidal wetlands, or undisturbed tidal buffer zone;
b. Are not located in or adjacent to prime wetlands;
c. Do not meet the criteria of Wt 303.02(k);
d. Do cross stream channels less than 10 feet wide; and
e. Do cross wetlands that have no standing water for 10 months of the year.

(h) Installation of a bridge provided that:
(1) No work is done in the water or wetland;
(2) The fill does not exceed 3,000 sq.ft. of fill on the banks of a river or bed of the river; and
(3) The bridge is not in prime wetlands, bogs, marshes, sand dunes, undisturbed tidal buffer zone or does not meet the requirements of Wt 303.02(k);
(i) Construction of temporary crossings of brooks, streams, or rivers for the transportation of forest products or the construction or maintenance of utility pipes or lines and is not in prime wetlands or within 100 feet of the highest observable tide line or does not meet the requirements of Wt 303.02(k);

(j) Projects located within the right-of-way of a public road that do not impact bogs, marshes, sand dunes, tidal wetlands, or undisturbed tidal buffer zone, prime wetlands or do not meet the requirements of Wt 303.02(k) and do not exceed one of the following criteria:
(1) Drainage structures do not exceed 3000 square feet of dredge or fill in area;
(2) Installation of culverts cross streams less than 10 feet wide, measured from base of bank slope to base of bank slope;
(3) Wetlands crossed have no standing water for 10 months of the year, and do not exceed 50 feet across, measured along the roadway and the fill width measured at the base of the roadway side slopes does not exceed 50 feet; or
(4) Shoulder widening does not exceed 3 cubic yards of fill per linear foot in wetlands that have no standing water for 10 months of the year, and does not exceed 10 feet of additional encroachment measured from base of slope;

(k) Maintenance dredging, when necessary to provide continued usefulness, of nontidal drainage ditches, man-made ponds, and spillways, provided that:
(1) The work is done within the original bounds of a legally constructed project;
(2) Projects are not located in or adjacent to prime wetlands;
(3) The work does not exceed 20,000 square feet; and
(4) For man-made ponds, the pond has not been abandoned as defined in Wt 101.01;

(l) Temporary cofferdams and other water control devices constructed in flowing water or adjacent to dams in conjunction with the repair or maintenance of existing structures. Temporary cofferdams means temporary watertight enclosures built in the water and pumped dry to expose the bottom so that construction may be undertaken. All such work shall be designed and supervised by a professional engineer and shall be removed upon completion of repair and/or maintenance.

(m) Projects that disturb less than 50 linear feet, measured along the shoreline, of a lake or pond or its bank and do not meet the criteria of Wt 303.03 or Wt 303.02.

(n) Projects that alter the course of or disturb less than 50 linear feet, measured along the thread of the channel, of an intermittent nontidal stream channel or its banks provided construction is performed during periods of non-flow.

(o) Projects deemed minimum impact by the department based on the degree of environmental impact.

(p) Construction of a pond with less than 20,000 sq.ft. of wetlands impact, provided none of the wetlands have type A hydric soil as defined in Env-Ws 1014.02, and that there are no streams into or out of the proposed pond site, and the project is not located in prime wetlands and does not meet the requirements of Wt 303.02(k).

(q) Projects to control aquatic weeds by cutting above the roots and harvesting, provided there is no mobilization of bottom sediments and the project is not located in prime wetlands, marshes, bogs, and does not meet the requirements of Wt 303.02(k).

(r) Projects to control exotic aquatic weeds Cabomba carolina (fanwort) and/or Myrophyllum heterophyllum (exotic milfoil) as authorized by RSA 487:17, provided work is conducted under the supervision of the department unless

included in Wt 303.05 and provided the project is not located in prime wetlands, marshes, bogs or tidal wetlands and does not meet the requirements of Wt 303.02(k).

(s) Dredging for gold or other minerals, provided the criteria of Wt 304.14 are not exceeded and provided the project is not located in prime wetlands, marshes, bogs, and does not meet the requirements of Wt 303.02(k).

(t) Restoration of altered or degraded wetlands provided the following criteria are met:

(1) The project receives financial support and direct supervision of a New Hampshire state agency, the US Environmental Protection Agency, the US Army Corps of Engineers, the US Natural Resources Conservation Service, or the US Fish and Wildlife Service;

(2) The project shall not be used to perform restoration in cases where the applicant is subject to a removal or restoration order;

(3) The project is not located in or adjacent to prime wetlands; and

(4) The project does not meet the criteria of Wt 303.02(k).

(u) Maintenance or improvement of existing crop or pasture land for continued agricultural use, provided that:

(1) The applicant's county conservation district certifies in writing that:

a. The project is in accordance with a plan developed to standards of the "Best Management Wetland Practices for Agriculture", N.H. department of agriculture, dated July 16, 1993;

b. That the project is necessary for and/or incidental to a preexisting and ongoing bonafide agricultural operation as defined by RSA 21:34-a; and

c. The applicant's county conservation district certifies that the plan is limited by those items addressed by the "Best Management Wetlands Practices for Agriculture", N.H. department of agriculture, dated July 16, 1993.

(2) The applicant accepts a permit condition stating that any change in use to a non-agricultural purpose will require further permitting by the department and this permit shall be filed with the registry of deeds.

(3) The improvement portion of the project does not impact more than three acres of wetland.

(4) The project is not in or adjacent to prime wetlands, is not in sand dunes, is not in the 100 foot tidal buffer zone, and does not meet the requirements of Wt 303.02(k).

(5) The project will cause alteration only to wet meadows except where specifically described in "Best Management Wetlands Practices for Agriculture", N.H. department of agriculture, dated July 16, 1993.

(6) The application includes:

a. A complete copy of the county conservation district's cooperator agreement;

b. Conservation plan with accompanying map;

c. A USDA soil conservation service soils map with the site located;

d. A soils legend identifying poorly drained and very poorly drained map units.

(7) The project involves poorly drained or hydric B soils with no greater than 15 percent inclusion of very poorly drained or hydric A soils as defined by Env-Ws 1014.02.

(8) The project does not include filling or draining of wetlands of greater than 3,000 sq. ft. for placement of parking lots, or lot development, or of buildings, with the exception of agri-chemical handling facility buildings.

(v) Maintenance, repair, and replacement in-kind of existing docking structures such as breakwaters, docks, boat houses, piers, wharves, walkways, boat ramps, tie-off pilings, ice clusters, dolphins, or other docking facilities provided:

(1) No work is proposed that would be prohibited under RSA 482-A:26;

(2) No change in location, configuration, construction type, or dimensions is proposed; and

(3) The applicant certifies in writing that:

a. The existing structures would be considered grandfathered in their current configuration pursuant to Wt 101.40 and have not been abandoned pursuant to Wt 101.01 or Wt 303.05(a)(4); or

b. The existing structures have been constructed in accordance with a previously-issued wetlands permit and have not been abandoned pursuant to Wt 101.01 or Wt 303.05(a)(4);

(w) Excavation of less than 10 linear feet within the bank and bed of a surface water that does not exceed 200 square feet in total jurisdictional impact to the bed, for installation of a dry hydrant;

(x) Maintenance, repair, or replacement of a nondocking structure such as a culvert, headwall, bridge, dam, residential utility line, or rip-rap slope of less than 50 linear feet, provided:

(1) No change in location, configuration, construction type, or dimensions is proposed; and

(2) The applicant certifies in writing that the structures, in their current location, configuration, construction type and dimensions:

a. Were previously permitted by the department and have not been abandoned pursuant to Wt 101.01 or Wt 303.05(a)(4); or
b. Would be considered grandfathered under Wt 101.40 and have not been abandoned pursuant to Wt 101.01 or Wt 303.05(a)(4);

(y) Construction of trails in accordance with the "Best Management Practices for Erosion Control During Trail Maintenance and Construction", 1996 that involve less than 3000 square feet of impact to wetlands per crossing, and that cross stream channels less than 10 feet wide.

(z) Installation of a culvert, bridge, pole, or rock ford and associated fill to permit vehicular access to a piece of property for a single family building lot or for noncommercial, recreational uses provided:

(1) The total jurisdictional impact does not exceed 3,000 square feet;
(2) The roadway width at the crossing shall not exceed 20 feet;
(3) The fill width, measured at toe of roadway side slopes, shall be minimized, for example, by steepening of the sideslopes and construction of walls, and not exceed 50 feet;
(4) Fill for any single wetland crossing shall not exceed 60 feet in length, measured along the centerline of the proposed access way; and
(5) Such projects shall be limited to crossings that:
a. Do not impact bogs, marshes, sand dunes, tidal wetlands, cedar swamps, or undisturbed tidal buffer zone;
b. Are not located in or adjacent to prime wetlands, as defined by Wt 701.02 through Wt 701.04;
c. Do not meet the criteria of Wt 303.02(k); and
d. Cross stream channels less than 10 feet wide.

(aa) Replenishment of sand on an existing beach provided:

(1) No sand shall be placed below the high water line or full pond elevation;
(2) No work shall be conducted in or adjacent to a prime wetland;
(3) No more than 10 cubic yards of sand shall be used; and
(4) The beach replenishment shall not exceed the limit of one replenishment in any 6 year period;

(ab) Construction of an anchoring pad for a seasonal dock provided:

(1) The pad shall be constructed landward of the high water line or full pond elevation;
(2) The pad shall not exceed 7 feet in width, not impact more than 10 linear feet along the bank, with the bank fully stabilized upon completion of construction;
(3) Appropriate erosion, siltation, and turbidity control measures shall be installed and maintained to prevent any impacts to adjacent surface waters and those controls maintained until the site has stabilized; and
(4) The pad shall not be constructed in or adjacent to prime wetlands, and does not meet the requirements in Wt 303.02(k);

(ac) Installation of a seasonal boatlift in an existing grandfathered or legally-existing, permitted boatslip, provided the boatlift is:

(1) Installed such that no additional boatslip is created by installation of the lift;
(2) Removed during the non-boating season;
(3) Located at least 20 feet from an abutting property line or the imaginary extension of the property line over the water; and
(4) Installed in a manner which requires no impact that would necessitate further permit action;

(ad) Installation of a seasonal personal watercraft lift, provided the personal watercraft lift is:

(1) Installed immediately adjacent to a dock, and in a legally existing boatslip, or, if there are no other personal watercraft lifts on the frontage, a maximum of 2 lifts installed immediately adjacent to one another and along the owner's shoreline;
(2) Removed during the non-boating season;
(3) Located at least 20 feet from an abutting property line or the imaginary extension of the property line over the water;
(4) Installed in a manner that creates no impacts that would require further permit action; and
(5) Located on a parcel of land that has 75 feet or more of shoreline frontage;

(ae) Installation of residential utility lines and associated temporary impacts to permit utility services for a single family building lot, provided:

(1) The total jurisdictional impact shall not exceed 3,000 square feet;
(2) The impact width at the crossing shall not exceed 20 feet;
(3) Such projects shall be limited to crossings that:

a. Do not impact bogs, marshes, sand dunes, tidal wetlands, cedar swamps, or undisturbed tidal buffer zone;
b. Are not located in or adjacent to prime wetlands;
c. Do not meet the criteria of Wt 303.02(k); and
d. Cross stream channels less then 10 feet wide; and

(4) All disturbed areas are regraded to original contours and stabilized within 72 hours following completion of work;

(af) Temporary impacts associated with the inspection, maintenance, and repair of existing utility lines within an existing utility right of way provided:

(1) Total jurisdictional impacts shall not exceed one acre;
(2) The equipment used shall be designed to have low ground contact pressure or placed on temporary swamp mats so as to minimize rutting of the soils;
(3) The work shall be conducted under low flow or low groundwater conditions, or during frozen ground conditions;
(4) Access routes through the right of way shall be designed to minimize impacts to jurisdictional areas;
(5) The equipment shall be operated and maintained to avoid spillage of oil, gas, or hydraulic fluids;
(6) Refueling of equipment shall occur a minimum of 100 feet away from wetland and surface waters or both;
(7) All temporary impacts to wetlands shall be regraded to original contours and stabilized within 72 hours following the completion of work and within 30 days of the start of work;
(8) Stream impacts shall be limited to intermittent stream beds less than 10 feet in width and shall be conducted during low flow conditions;
(9) No work shall be done in bogs, marshes, tidal wetlands, in or adjacent to prime wetlands, or in surface waters except as provided in (7) above; and
(10) Does not meet the criteria of Wt 303.02(k).

Appendix 5-4

Shoreland Permit Exemptions

(NHCAR Env-Wq 1406.02 through 1406.04) [Added March 2008]

Env-Wq 1406.02. Statutory Exemptions.

(a) The following are exempted by statute from the requirements of RSA 483- B:
- (1) Agriculture performed in accordance with best management practices, as specified in RSA 483-B:3, III, and RSA 483-B:9, V;
- (2) Forest management that is not associated with shoreland development or land conversion that is conducted in compliance with RSA 227-J:9, as specified in RSA 483-B:9, V; and
- (3) Forestry conducted in compliance with RSA 227-J:9 by or under the direction of a water supplier for the purpose of managing a water supply watershed, as specified in RSA 483-B:9, V.

(b) The following are exempted by statute from the requirement to obtain a shoreland permit:
- (1) Timber harvesting activities as permitted in accordance with RSA 485- A:17, IV, as specified in RSA 483-B:5-b, II;
- (2) Impacts in the protected shoreland that are covered by a permit issued under RSA 482-A, as specified in RSA 483-B:5-b, IV; and
- (3) Private water supply facilities, as specified in RSA 483-B:9, III.

(c) Construction of public roads, public utility lines and associated structures and facilities, and public water access facilities are exempted by statute from the permit fee, as specified in RSA 483-B:5-b, III.

Env-Wq 1406.03. Exemption for Vested Rights

(a) Subject to (e), below, activities in the protected shoreland shall not require a permit under RSA 483-B:5-b if the property owner or developer can demonstrate to the department's satisfaction that the property owner or developer has incurred substantial liabilities in a reasonable, good faith reliance on the absence of a controlling law or regulation, sometimes called vested rights.

(b) The department shall deem any of the following to be proof that the property owner or developer has vested rights:
- (1) The activities are specifically identified in an application that has been the subject of notice by a planning board pursuant to RSA 676:4, I(d) or the zoning board of adjustment prior to July 1, 2007, regardless of whether an approval has yet been issued, provided that such application is ultimately approved by the municipal board(s) having authority over the activities covered by the application;
- (2) The activities are specifically identified in a detailed plan or narrative description submitted with a building permit application submitted to a municipality prior to January 1, 2008, provided that such application is ultimately approved by the municipal board(s) or official having authority over building permits;
- (3) A concrete foundation for the primary structure was installed between April 1, 2007 and July 1, 2008;
- (4) The activities are specifically identified in a variance or redevelopment waiver issued by the department prior to July 1, 2008 pursuant to RSA 483-B, unless the approval specifically requires the permittee to obtain a permit pursuant to this section if work was not commenced prior to July 1, 2008; or
- (5) The activities were specifically approved in a permit issued pursuant to RSA 485-A:17 prior to July 1, 2008, unless the approval specifically requires the permittee to obtain a permit pursuant to this section if work was not commenced prior to July 1, 2008.

(c) A property owner or developer who is not able to show any of the conditions listed in (b)(1)-(5) may submit other evidence to demonstrate that the property owner or developer has otherwise incurred substantial liabilities and that such liabilities:
- (1) Resulted from a reasonable, good faith reliance on the absence of a controlling law or regulation; and
- (2) Are related to the provision of RSA 483-B from which the property owner or developer is seeking relief.

(d) A property owner claiming vested rights shall provide the following to the department in writing:
- (1) The name and mailing address of the property owner;

(2) The name, mailing address, and daytime telephone number and, if available, an e-mail address, of an individual authorized to act on behalf of the property owner with whom the department can discuss the proposed project;
(3) The physical address of the proposed project site, if different from the property owner's mailing address;
(4) The name of the surface water that causes the property to be subject to RSA 483-B;
(5) If the exemption is claimed under (b)(1), above, proof that the notice was issued;
(6) If the exemption is claimed under (b)(2), above, a copy of the detailed plan or narrative description submitted with the building permit application;
(7) If the exemption is claimed under (b)(3), above, proof that the foundation has been installed, such as dated photographs or a bill for the foundation showing the date of installation; and
(8) If the exemption is claimed under (c), above, the following information:
a. A budget showing the total estimated cost of the project;
b. A narrative describing the full scope of the project, including all work expected to be done on the property within a 5-year period;
c. How much of the total estimated cost had been incurred prior to July 1, 2007 and how much of the total estimated cost had been incurred prior to July 1, 2008;
d. How much of the total scope of the project had been completed prior to July 1, 2007 and how much of the total scope of the project had been completed prior to July 1, 2008;
e. What revisions would be required to redesign the project to reflect the standards enacted to be effective July 1, 2008;
f. The cost of the revisions that would be needed; and
g. The relationship of the revisions to the full scope of the project as originally envisioned.

(e) An exemption shall not be available under (a), above, if:
(1) The applicant proposes changes to the activities from those that would otherwise be exempt under (a), above, and such changes would increase impacts in the natural woodland buffer established by RSA 483-B:9, V(b)(1); or
(2) The applicable permit, approval, variance, or redevelopment waiver expires or otherwise lapses prior to work commencing, or is revoked for cause by the issuing authority.

Env-Wq 1406.04. Activities in Protected Shoreland That Do Not Require a Shoreland Permit.

(a) A person shall not be required to obtain a permit under RSA 483-B:5-b, I(a) prior to undertaking any activity listed in (c) or (d), below, in the protected shoreland, provided that the activity is conducted in accordance with the conditions noted.
(b) In any enforcement action against a property owner or contractor for actions arguably covered by (a), above, the burden of proving that the exemption applies shall be on the property owner or contractor, as applicable.
(c) Activities exempt pursuant to (a), above, because the activity does not constitute construction, excavation, or filling shall be as follows:
(1) Trimming, pruning, and thinning of branches to the extent necessary to protect structures, maintain clearances, and provide views, as allowed by RSA 483-B:9, V(a)(2)(D)(vi);
(2) Removal of trees, limbs, saplings, or shrubs in accordance with Env-Wq 1403.04 or removal of trees or saplings in accordance with Env-Wq 1403.05;
(3) Maintenance, repair, or modification of an existing, legal, primary structure that does not:
a. Alter the footprint or impervious area of the structure;
b. Require, or result in, the alteration of previously unaltered areas;
c. Result in an increase in loading to an onsite sewage disposal system;
d. Increase the number of residential units on the property; or
e. Require, or result in, any excavation or filling within the protected shoreland;
(4) Maintenance, repair, or modification of an existing, legal, accessory structure that does not:
a. Alter the footprint or impervious area of the structure;
b. Require, or result in, the alteration of previously unaltered areas;
c. Result in an increase in loading to an onsite sewage disposal system;
d. Increase the number of residential units on the property;
e. Require, or result in any excavation or filling within the protected shoreland; or
f. Exceed the criteria of Part Env-Wq 1405, if it is located within the waterfront buffer;

(5) Maintenance of a grandfathered or altered open area, such as by mowing a lawn, raking leaves or pine needles, or mulching landscaped areas;
(6) Hand-pulling or use of hand tools to remove invasive species or other noxious or harmful plants such as poison ivy, including root systems, provided that any area exceeding 10 square feet left without vegetation shall be subject to replanting with non-invasive, non-harmful species;
(7) Hand-removal or use of hand tools to remove rocks and stones beyond the 50- foot setback; and
(8) Placement or installation of readily removed items, such as picnic tables, lawn chairs and swing sets.

(d) Activities exempt pursuant to (a), above, because the activity constitutes de minimis construction, excavation, or filling shall be as follows:

(1) Use of hand-held tools, whether motorized or not, such as augers or tile spades, to install monitoring wells, piezometers, and flow meters, for:
   a. Evaluating site conditions as necessary for the submittal of information required by a permit application under RSA 482-A relating to wetlands, RSA 485-A:29 relating to subdivisions or septic systems, or RSA 485-A:17 relating to alteration of terrain;
   b. Educational or research purposes; or
   c. Monitoring hydrology;
(2) Planting of non-invasive vegetation or maintenance of existing gardens within the allowable disturbed or altered area using hand-held tools;
(3) Placement of stepping stones, provided no root systems are removed to accommodate the placement;
(4) Construction or installation of a fence using hand-held tools;
(5) Digging test pits for the purposes of determining suitability for wastewater disposal under RSA 485-A:29 relating to subdivisions or septic systems, provided:
   a. There is no disruption of groundcover within 50 feet of the reference line; and
   b. No test pits are dug within 75 feet of the reference line unless required in order to evaluate eligibility for replacement under Env-Wq 1003.10;
(6) Planting one or more trees within existing open areas more than 50 feet from the reference line using mechanized equipment;
(7) Replacing utility poles and guy wires using mechanized equipment, provided that appropriate siltation and erosion controls are used and all temporary impacts are restored;
(8) Replacement of a failed septic system, either in-kind as specified in Env-Wq 1003.10 or under a new approval, provided there is no increase in sewage loading from the structure(s) served by the system;
(9) Placement of a single structure more than 50 feet from the reference line, provided that:
   a. The footprint of the structure is less than 150 sq. ft.;
   b. No excavation or filling using mechanized equipment will occur in conjunction with the construction or placement of the structure;
   c. The structure will not be heated;
   d. The structure will not have electricity or plumbing; and
   e. The structure will not be used as living space for humans; and
(10) Activities required to abate an imminent threat to public safety or public health or to stabilize property during or immediately following an emergency, provided the procedures specified in Env-Wq 1407 are followed.

SECTION 6

OTHER ENVIRONMENTAL ISSUES

New Hampshire Supplement, March 2010

This section covers the state requirements for Other Environmental Issues and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

OTHER ENVIRONMENTAL ISSUES
GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS

REFER TO CHECKLIST ITEMS:

The NEPA Process

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items	O1.2.1.NH.

Environmental Noise

Missing Checklist Items	O2.2.1.NH.
State-Specific Requirements	O2.5.1.NH.

CERCLA Cleanup Sites

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Missing Checklist Items	O3.2.1.NH.

Pollution Prevention

Refer to the U.S. TEAM Guide and the DOD Component Supplements for DOD and service-specific requirements.

Missing Checklist Items	O4.2.1.NH.

Program Management

Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

COMPLIANCE CATEGORY: OTHER ENVIRONMENRAL ISSUES New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
THE NEPA PROCESS **O1.2.** **Missing Checklist Items**	
O1.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: OTHER ENVIRONMENRAL ISSUES New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ENVIRONMENTAL NOISE **O2.2.** **Missing Checklist Items**	
O2.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: OTHER ENVIRONMENRAL ISSUES New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ENVIRONMENTAL NOISE **O2.5.** **State-Specific Requirements**	
O2.5.1.NH. Every motor vehicle must be equipped with a muffler to prevent excessive noise (NHCAR Saf-C 3218.01(a) and (b) and NHS 259.66, 266:59) [Revised March 2007; Citation Revised March 2008; Revised March 2009].	Verify that every motor vehicle, at all times, is equipped with a muffler that is in good working order and in constant operation to prevent excessive or unusual noise. Verify that muffler cutouts, bypasses or similar devices are not used on motor vehicles. Verify that a motor vehicle is not operated with a straight pipe exhaust system that does not contain baffles or otherwise does not meet the definition of muffler. (NOTE: A muffler means a device consisting of a series of chambers or baffleplates or other mechanical design for the purpose of receiving exhaust gases and effectively reducing noise.)

COMPLIANCE CATEGORY: OTHER ENVIRONMENRAL ISSUES New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
CERCLA CLEANUP SITES **O3.2.** **Missing Checklist Items**	
O3.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: OTHER ENVIRONMENRAL ISSUES New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
POLLUTION PREVENTION **O4.2.** **Missing Checklist Items**	
O4.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

SECTION 7

PESTICIDE MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Pesticide Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Abutter* - any person who owns shoreline within 200 ft of the treatment area of the surface waters (New Hampshire Code of Administrative Rules (NHCAR) Pes 101.01).

- *Agricultural Commodity* - any plant, or part thereof, or animal or animal product, produced by a person, including farmers, ranchers, vineyardists, plant propagators, Christmas tree growers, agriculturists, floriculturists, orchardists, foresters, or other comparable persons, primarily for sale, consumption, propagation, or other use by man or animals (NHCAR Pes 101.02).

- *Appurtenance* - any equipment which is connected to a container or pesticide application equipment for purposes of transferring pesticides, and includes (NHCAR Pes 804.01):
  1. hoses
  2. fittings
  3. plumbing
  4. valves
  5. gauges
  6. pumps
  7. metering devices.

- *Board* - the pesticide control board as established by RSA 430:28-48 (NHCAR Pes 101.03).

- *Catch-Basin* - a low point of a storage room floor designed for recovering pesticide discharges, washwater, or rinsate (NHCAR Pes 802.02).

- *Chemical Liability* - the insurance coverage required under Pes 301.03 pertaining to the handling and use of pesticides (NHCAR Pes 101.04).

- *Chemigation* - the application of a chemical through an irrigation system by injecting or introducing the chemical into the water flowing through the system (NHCAR Pes 101.05) [Citation Revised March 2003].

- *Commercial Applicator Not For Hire* - those commercial applicators who apply pesticides to their own premises, that of their immediate employers or when performing duties required of them by a governmental subdivision; and any other commercial applicator other than a "commercial applicator for hire"; including but not limited to golf course personnel, state, Federal and municipal employees (NHCAR Pes 101.06) [Citation Revised March 2003].

- *Common Chemical Name* - a well-known, simple name of a pesticide accepted by the pesticide regulation Division of the Environmental Protection Agency or those adopted by the American National Standards Institute (ANSI) (NHCAR Pes 101.07) [Citation Revised March 2003].

- *Closed System for Applicators* - a pesticide container that is designed to allow removal of a pesticide from the original container to be mixed with a diluent for application and allow rinsing of the empty container, without

the handler contacting the pesticide so as to reduce worker and environmental exposure (NHCAR Pes 804.01) [Revised March 2005].

- *Container* - any package, can, bottle, bag, barrel, drum, tank, film, box, or other device, excluding pesticide application equipment, used to enclose a pesticide (NHCAR Pes 804.01).

- *Containment Pad* - any structure or system that is designed and constructed to intercept and contain pesticides, rinsates and equipment washwater and prevent them from running off or leaching from a pesticide dispensing area (NHCAR Pes 804.01).

- *Containment Structure* - either a secondary containment area or containment pad (NHCAR Pes 804.01).

- *Crew* - one or more men working with one piece of mechanically powered equipment that has a capacity exceeding 3 gal of liquid or 25 lb of dry material; and those men working within speaking distance of one another and each applying pesticides by hand or each operating a piece of mechanically powered equipment that has a capacity of not more than 3 gal of liquid or 25 lb of dry material (NHCAR Pes 101.08) [Citation Revised March 2003].

- *Device* - any instrument or contrivance, other than a firearm, which is intended for trapping, destroying, repelling, or mitigating any pest or any other form of plant or animal life, other than man and other than bacteria, virus, or other micro-organism on or in living man or other living animals; pesticides when sold separately there from (NHCAR Pes 101.09) [Citation Revised March 2003].

- *Disposal* - discarding, open burning or incineration of excess of unusable pesticide materials and discarding of pesticide containers, or the sale or transfer of ownership of pesticide containers for use other than to contain pesticides (NHCAR Pes 101.10) [Citation Revised March 2003].

- *Distribution* - to import, consign, sell, offer for sale or otherwise supply pesticides for use in New Hampshire (NHCAR Pes 804.01) [Revised March 2005].

- *Division* - the Division of Pesticide Control as established within the Department of Agriculture (NHCAR Pes 101.11) [Citation Revised March 2003].

- *Drift* - the airborne movement of pesticides resulting from a pesticide application such as to carry pesticides beyond the target pest area (NHCAR Pes 101.12) [Citation Revised March 2003].

- *Dry Bulk Container* - a container that is designed and constructed to hold only dry pesticide and his the capacity to hold undivided quantities of greater than 100 lb (45.5 kg) (NHCAR Pes 804.01).

- *Dry Pesticide* - a pesticide that is in solid form that has not been combined with liquids, and includes formulations such as dusts, wettable powders, dry flowable powders, and granules (NHCAR Pes 804.01).

- *Filling Establishment* - an operation dispensing pesticide for the purpose of distribution or sale from appurtenances to containers or pesticide application equipment (NHCAR Pes 804.01).

- *Food Handling Area* - those areas where food is prepared, stored or handled for human and animal consumption (NHCAR Pes 101.13) [Citation Revised March 2003].

- *Janitor* – person or persons, classified as commercial applicator not for hire, including but not limited to custodians and maintenance personnel, designated by their employer as being responsible for maintaining the building and the property immediately adjacent to those buildings. This definition does not include golf course superintendents, parks and recreation personnel or others not primarily engaged in building maintenance (NHCAR Pes 101.14) [Revised March 2003].

- *Label or Labeling* - (NHCAR Pes 101.15) [Added March 2003]

1. the written, printed, or graphic matter on, or attached to, the pesticide, or the immediate container thereon;
2. the outside container or wrapper of the retail package, if there is one, of the pesticide; and
3. written printed or graphic matter which is incorporated into the label by reference.

- *Legally Constituted Authorities* - those whose responsibility is to recommend uses of pesticides to users of such materials. Such definition includes the appropriate personnel of the University of New Hampshire Cooperative Extension and Agricultural Experiment Station, the New Hampshire Department of Agriculture, and other state and Federal agencies engaged in such functions (NHCAR Pes 101.16) [Citation Revised March 2003].

- *License* -
  1. a document issued to commercial applicators as evidence of certification that they have completed requirements for registration in one or more categories of certification; and
  2. a document issued to a person who has completed the requirements to be a pesticide dealer (NHCAR Pes 101.17) [Citation Revised March 2003].

- *Liquid Bulk Container* - a container designed and constructed to hold liquid pesticide and has the capacity to hold undivided quantities of greater than 55 gal (208.2 L) (NHCAR Pes 804.01).

- *Mechanically-Powered Equipment* - any device that distributes pesticides through means other than by hand power (NHCAR Pes 101.18) [Citation Revised March 2003].

- *Nonbulk* - pesticide containers with a capacity to hold 55 gal (208.2 L) or less or 100 lb (45.5 kg) or less of liquid pesticides or 100 pounds (45.5. kg) or less of dry pesticides) (NHCAR Pes 804.01) [Revised March 2005].

- *On-Highway Vehicle* - any motor vehicle of 4 wheels or more, duly licensed or registered with any Motor Vehicle Division to travel over the public roads and highways of the state (NHCAR Pes 101.19) [Citation Revised March 2003].

- *Operational Registration Certificates* - certificates issued to persons who apply pesticides commercially or who are present and in direct command of such persons (NHCAR Pes 101.20) [Added March 2003; Citation Revised March 2007].

- *Pesticide* - any chemical or biological agent used to control a pest including but not limited to the following materials: NHCAR Pes 101.21[Added March 2003]
  1. Acaricides or miticides;
  2. Insecticides;
  3. Nematocides;
  4. Herbicides;
  5. Desiccants;
  6. Defoliants;
  7. Fungicides;
  8. Molluscides;
  9. Repellents;
  10. Algaecides;
  11. Rodenticides;
  12. Disinfectants; and
  13. Fumigants; and
  14. Any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any insects, rodents, fungi, weeds or other forms of plant or animal life or viruses which the board declares to be a pest, except viruses on or in living man or other animals, and any substances or mixture of substances intended for use as a plant regulator, defoliant or desiccant.

- *Pesticide Dealer* - any person representing himself or a single firm, corporation, dealership or other entity who is engaged in the business of distributing, selling, offering for sale or holding for sale, in NH, any pesticide

which has been designated by the New Hampshire Pesticide Control Board to be "prohibited-limited use" or "restricted" (NHCAR Pes 101.22) [Citation Revised March 2003].

- *Pesticide Dispensing Area* - an area within the boundaries of which any of the following operations are conducted:
  1. the dispensing of pesticide from a stationary bulk container for any purpose, including, but not limited to:
     a. filling containers
     b. filling service containers or application equipment
     c. emptying containers prior to cleaning
  2 the transfer of pesticide from the appurtenance of a non-bulk container, the tank of a transportation vehicle, or other source for the purpose of distribution or sale by entities or individuals, other than applicators, or application firms (NHCAR Pes 804.01) [Revised March 2005].

- *Private Applicator* - an individual who uses or supervises the use of any pesticides, whether classified general use or state restricted use, for purposes of producing any agricultural commodity on property owned or rented by him or his employer, if applied without compensation other than trading of personal service between producers of agricultural commodities, on the property of another person (NHCAR Pes 101.23) [Citation Revised March 2003].

- *Property Immediately Adjacent to Buildings* - flower gardens, driveways and all such areas, other than surface waters and turf or lawn areas, the primary purpose of which is to enhance the aesthetic value of the business's buildings (NHCAR Pes 101.25) [Citation Revised March 2003].

- *Protected Shoreland* - natural, fresh water bodies without artificial impoundments, for artificially impounded fresh water bodies, and for coastal waters and rivers, all land located within 250 ft of the reference line of public waters (NHCAR Pes 502.03) [Added March 2002; Citation Revised March 2007].

- *Public Health Emergency* - a state of emergency declared by the commissioner when a pest borne organism has the potential for a serious impact on human health if not controlled in a timely fashion (NHCAR Pes 101.26) [Added March 2003].

- *Recommendations* - written advice of legally constituted authorities as to the use of pesticides within the scope of Section 2(ee) of the Federal Insecticide, Fungicide and Rodenticide Act, amended (1978-PL95-396) which might appear in the most current form of extension bulletins or publications, research data, crop guides or other media (NHCAR Pes 101.27) [Added March 2003].

- *Reference Line* - as defined in RSA 483-B:4, namely (NHCAR Pes 101.28) [Added March 2003]
  1. For natural fresh water bodies without artificial impoundments, the natural mean high water level as determined by the department of environmental services, or in the absence of determination by the department of environmental services, the high water mark;
  2. For artificially impounded fresh water bodies with established flowage rights, the limit of the flowage rights, and for water bodies without established flowage rights, the waterline at full pond as determined by the elevation of the spillway crest;
  3. For coastal waters, the highest observable tide line, which means a line defining the furthest landward limit of tidal flow, not including storm events, which can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt tolerant vegetation, or a physical barrier that blocks further flow of the tide; and
  4. For rivers, the ordinary high water mark.

- *Residential Area* - areas which include the following (NHCAR Pes 101.29) [Added March 2003]
  1. Occupied residential buildings in close proximity to one another.
  2. Areas designated as "residential" use by the town's zoning board which would include the following uses:
     c. One family dwellings as single lots;
     b. Rooming houses;
     c. Open space residential development, but occupied buildings only;

d. Duplexes;
e. Attached dwellings;
f. Multi-family homes; and
g. Mobile homes.

3. Those areas similar to those areas listed in (b) above, in situations where towns have no zoning ordinances.

- *Residue* - the pesticide remaining in the environment or on a crop at the time of harvesting (NHCAR Pes 101.30) [Added March 2003; Citation Revised March 2008].

- *Right-of-Way* - any path, roadway, airport, or thoroughfare on which public passage may be made and any corridor of land over or upon which facilities such as railroads, pipelines, powerlines, electric distribution lines, conduit, and channel or communication lines are located (NHCAR Pes 101.31) [Citation Revised March 2003].

- *Secondary Containment Area* - any structure or system that is effectively designed and constructed to intercept and contain pesticide spills and leaks and prevent runoff or leaching from stationary bulk containers and their appurtenances (NHCAR Pes 804.01).

- *Service Container* - any container, other than original containers bearing legible labeling and containing the original material, utilized to hold, store or transport a pesticide concentrate or a pesticide use-dilution preparation. Pesticide application equipment is excluded from this definition (NHCAR Pes 101.32) [Citation Revised March 2003].

- *Site Management Area* - a pesticide use, handling, storage or distribution area which is connected to a ground or surface water source where pesticides are detected and where the following conditions exist (NHCAR Pes 1002.01):
  1. there are activities which are controlled by the authority of RSA 430:28 - 48 and Chapter Pes 100 - 1000
  2. the site has a history of the use of the pesticides that is(are) the contaminants, by private applicators, commercial applicators and other persons within the last 5 yr
  3. the Division has determined that supplementary pesticide use or handling restrictions beyond those found on the pesticide label and Chapter Pes 100 - 1000 are necessary to minimize or prevent further pesticide contamination of surface and groundwater.

- *Special Permit* - issued by the Division approving the use of pesticides in restricted areas as specified in the New Hampshire rules, Chapters Pes 500, 600, including but not limited to pesticide application for mosquito control, aquatic nuisance control, aerial application, bird control, forest pest control, right-of-way pest control (NHCAR Pes 101.33) [Citation Revised March 2003].

- *State Restricted Use Pesticide* - any pesticide or pesticide use classified for restricted use by the New Hampshire Pesticide Control Board (NHCAR Pes 101.34) [Citation Revised March 2003; Citation Revised March 2007].

- *Stationary Bulk Container* - a bulk container for either dry or liquid pesticide formulations that is fixed at a single facility or establishment or, if not fixed, remains at the facility or establishment for 14 consecutive days or longer, during all of which time the container holds a pesticide (NHCAR Pes 804.01) [Added March 2005].

- *Supervisory Registration Certificates* - certificates issued to persons who are responsible for deciding whether or not pesticides are to be employed, how they are to be used, and the methods of application and precautions to be taken in the use of such pesticides (NHCAR Pes 101.35) [Added March 2003].

- *Surface Waters* - streams, brooks, creeks, rivers, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes or ponds bordering on the state, marshes, watercourses and other bodies of water, natural or artificial (NHCAR Pes 101.36) [Citation Revised March 2003].

- *Surface Waters or Their Tributaries Used for Public Water Supply* - those lakes, ponds, rivers, streams, or other open waters designated and delimited by the Department of Environmental Services as sources of public water supply (NHCAR Pes 101.37) [Citation Revised March 2003].

- *25-Year, 24-Hour Rainfall Event* - a rainfall event with a probable recurrence interval of once in 25 yr, as defined by the United States Department of Agriculture Natural Resources Conservation Service in Technical Release Number 55, "Urban Hydrology for Small Watersheds", Second Ed. June 1986 (NHCAR Pes 804.01) [Revised March 2005].

- *Watershed of Public Water Supply* - that area which contributes surface water runoff either directly to a surface source of a public water supply or to the reservoir, lake, pond, river, stream, ditch, watercourse, or intermittent rivulet or other open waters that at any time flow directly or ultimately into designated sources of public water supply (NHCAR Pes 101.38) [Citation Revised March 2003].

- *Wetland* - an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions, does support a prevalence of vegetation typically adopted for life in saturated soil conditions, including but not limited to swamps, marshes, bogs, and similar areas (NHCAR Pes 502.03) [Added March 2002; Citation Revised March 2007].

PESTICIDE MANAGEMENT GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS	
	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	PM.2.1.NH.
Pesticide Applicators	PM.5.1.NH. through PM.5.8.NH.
Pesticide Application	
General	PM.10.1.NH. through PM.10.4.NH.
Equipment	PM.15.1.NH. through PM.15.4.NH.
Agriculture	PM.20.1.NH. and PM.20.2.NH.
Aerial	PM.25.1.NH. through PM.25.4.NH.
Landscape	PM.30.1.NH. through PM.30.3.NH.
Other	PM.35.1.NH. through PM.35.6.NH.
Documentation	PM.40.1.NH. and PM.40.2.NH.
Storage, Mixing, Preparation	PM.45.1.NH. through PM.45.8.NH.
Disposal	PM.55.1.NH.
Bulk Pesticides	PM.60.1.NH. through PM.60.8.NH.

GUIDANCE FOR APPENDIX USERS	
REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
7-1	New Hampshire Restricted-Use Materials
7-2	New Hampshire Prohibited and Limited Use Pesticides
7-3	Notification of Application to Rights-of-Way
7-4	Categories of Certification

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PM.2. **MISSING CHECKLIST ITEMS**	
PM.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PM.5. **PESTICIDE APPLICATORS**	
PM.5.1.NH. Pesticide applicators must be licensed or certified (NHCAR Pes 302.01, 305.01 and 701.02) [Revised April 1998; Revised March 2007].	Verify that commercial applicators are certified for the applicable category of pesticide application (see Appendix 7.4). Verify that private applicators obtain a general use permit or restricted use permit if applying state restricted use pesticides. Verify that all persons engaged in the commercial application of pesticides, or in the private application of restricted pesticides, within the State possess a valid certificate of registration issued by the Division. (NOTE: See Appendix 7-1 for a list of State restricted-use pesticides.) (NOTE: Janitors using general use pesticides in non-food areas in buildings and property immediately adjacent to buildings, and those using prepackaged general use aerosols or general use aerosol dispensing devices for control of flying insects in food handling areas are exempt from these certification requirements.)
PM.5.2.NH. [Deleted April 1998].	
PM.5.3.NH. Permit, registration, and license holders must provide safety instruction and equipment (NHCAR Pes 503.01) [Citation Revised March 2007].	Verify that each permit, registration or license holder acquaints those working under him with the hazards involved in the handling of pesticides and the warnings or precautions on the pesticide label, and instructs the employees on the proper steps to avoid those hazards.
PM.5.4.NH. Pesticide applicators certified as operational applicators must be supervised (NHCAR Pes 503.03(b)(5)) [Citation Revised March 2007].	Verify that supervisory certificate holders have daily contact with operational registration holders and others applying pesticides, and are available for contact throughout the period they are applying pesticides.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PM.5.5.NH. Commercial pesticide applicators must meet staffing requirements (NHCAR Pes 403.01 and 403.02) [Added April 1998].	Verify that commercial applicator businesses have at least one employee at the supervisory or managerial level that holds a supervisory level certificate of registration. (NOTE: If more than one supervisory office or district exists in the State for any one business entity, then at least one member of each such district will hold supervisory level certificate of registration.) Verify that at least one member of each crew is registered at either the operational or supervisory level and present whenever and wherever a commercial application of pesticides is made.
PM.5.6.NH. Certain pesticide use is prohibited (NHCAR Pes 701.04) [Added April 1998; Revised March 2005].	Verify that none of the following prohibited compounds are used: - 2, 4, 5-T (Salts and Esters) - Aldrin - BHC - Chlordane - DDD - DDT - Dieldrin - Dinoseb - Endrin - Heptachlor - Rothane - Strobane - TDE - Tepp - Thallium Salts (thallium acetate, thallium sulfate) - Toxaphene (Chlorinated camphene).
PM.5.7.NH. Certain pesticide use is restricted (NHCAR Pes 701.05) [Added April 1998].	Verify that the following compounds are used only as described in Appendix 7-2: - Avitrol - DRC 1339, Starlicide - Fenthion - Mercury and its compounds - Methyl Parathion (Encapsulated) - Ornitrol - Sodium Arsenite - Sodium Fluoroacetate, compound 1080 - Tergitol. Verify that a permit is obtained from the Division prior to applying sodium arsenite on vegetation.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PM.5.8.NH. The use of pesticides containing Lindane is restricted (NHCAR Pes 701.07) [Added April 1998; Revised March 2005].	Verify that, notwithstanding the manufacturers' labeling, the use of products containing Lindane as the active ingredient is allowed only for the control of: - bark and wood borers - white pine weevil with single stem applications only - spruce gall aphids - leafminers - aphids - thrips - gall midges - leafrollers on trees, shrubs, and ornamental plants - soil insects as a seed treatment - symphylids in soil application - fungus gnats - sowbugs and millipedes - mange mites and lice in conjunction with programs to protect public health under the direction of the New Hampshire Department of Health and Human Services, office of community and public health. (NOTE: Those products restricted by the USEPA pursuant to 40 CFR 152.160 - 152.175 are also restricted in New Hampshire and use is limited to the uses listed here.) Verify that use of products containing Lindane as the active ingredient is allowed for general use only when the product is registered, and when formulation and labeled use is as follows: - liquid formulations containing 20 percent or less Lindane and packaged in containers not exceeding one pint, for control of wood boring insects, or - paste formulations for the control of wood boring insects, and containing 2 percent or less Lindane and packaged in containers not exceeding 2 oz, or - pet supplies containing one percent or less Lindane including shampoos, flea collars, flea tags and insecticides.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PESTICIDE APPLICATION **PM.10.** **General**	
PM.10.1.NH. [Deleted April 1998].	(NOTE: The requirements of this checklist item have been moved to PM.5.6.NH. and PM.5.7.NH.)
PM.10.2.NH. All pesticides used in the State must be registered (NHCAR Pes 501.01) [Citation Revised April 1998].	Verify that all pesticides used on the facility are registered with the Department of Agriculture.
PM.10.3.NH. Pesticide damage to nontarget areas must be prevented (NHCAR Pes 507.01 and 507.02) [Revised April 1998; Revised January 1999].	Verify that no application of pesticides causes contamination to nontarget areas. Verify that no application of pesticides is made by mechanically powered equipment when the wind velocity causes pesticides to contaminate a nontarget area. (NOTE: These requirements do not modify the provisions of Pes 502.01 (see PM.10.4.NH.), which requires pesticides to be used in accordance with labeling instructions.)

PM.10.4.NH. Registered pesticides must be used in accordance with the label (NHCAR Pes 502.01) [Added January 1999; Revised March 2002; Revised March 2007].	Verify that registered pesticides are used in strict accordance with manufacturer's current labeling, or in accordance with recommendations from legally constituted authorities except in the following instances:
	
	- the application is made in accordance with procedures or rates prescribed by a legally constituted authority where:
	  - the rates or procedures are such that they will serve to reduce the environmental risks associated with a pesticide application without compromising the effectiveness of the pesticide, or improve the efficacy of an application without imposing any additional risks either to persons or to the environment
	  - said procedures or rates are in writing and are in the possession of the applicator at the time of the application
	  - the legally constituted authority agrees to make available to the division, on request, any documentation or other evidence that supports their prescribed application procedures or rates

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
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	- experimental work as defined under "Exemptions" in RSA 430:46
	- use of pesticides by private applicators and on agricultural commodities by commercial applicators duly registered under Category A in the following manner:
	  - applying a pesticide at any dosage, concentration, or frequency less than that specified on the labeling
	  - applying a pesticide against any target pest not specified on the labeling if the application is to the crop, animal, or the site specified on the labeling, except when the label states that the pesticide may be used only against pests specified on the label
	  - employing any method of application not prohibited by the label
	  - mixing a pesticide or pesticides with a fertilizer when such mixture is not prohibited by the labeling.)

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PESTICIDE APPLICATION **PM.15.** **Equipment**	
PM.15.1.NH. Safety equipment must be available for pesticide application (NHCAR Pes 503.02) [Revised March 2004].	Verify that the employer has provided the necessary safety equipment as set forth on the labeling of the pesticide used, or by the Pesticide Control Board.
PM.15.2.NH. Pesticide labeling information must accompany service containers and application equipment (NHCAR Pes 502.02 and 504.01) [Revised March 2007].	Verify that service containers bear abbreviated labeling, affixed to the container, including: - product name - signal word of original concentrate - common name and percentage of active ingredients - name, address and telephone number of pesticide application firm - notation as to whether the material is dilute or concentrate. Verify that a complete copy of the pesticide labeling, as it appears on the original registered product, accompanies all service containers and pesticide application equipment in the vehicle transporting them.
PM.15.3.NH. Pest control equipment must be equipped with antisiphon devices when water is drawn from surface water (NHCAR Pes 504.03).	Verify that all pest control equipment using pesticides and drawing water from the surface waters of the State have an antisiphon device approved by the Division.
PM.15.4.NH. Identification of on-highway vehicles applying pesticides is required (NHCAR Pes 504.02).	Verify that all on-highway vehicles used for the application of pesticides by commercial applicators are identified by lettering or signs that identify the applicator's business together with license number. Verify that the lettering of business name and license number is not less than 2 in. in height. (NOTE: Registered "Commercial Applicators Not For Hire" are not required to identify their vehicles.)

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PESTICIDE APPLICATION **PM.20.** **Agriculture**	
PM.20.1.NH. Pesticide application by chemigation is subject to operational restrictions and requirements (NHCAR Pes 502.07) [Revised March 2007].	Verify that a pesticide is not applied through an irrigation system, or a chemigation system, unless the system complies with this checklist item. Verify that any method used for chemigation complies with the state plumbing code and cross connection prevention requirements (see WQ chapter). Verify that no pesticide is injected into a chemigation system in a manner inconsistent with label directions. Verify that the system is properly calibrated to apply the pesticide at the application rate specified on the pesticide label. Verify that every component of a chemigation system is both resistant to corrosion, puncture and cracking and chemically compatible with every pesticide used in the system. Verify that the water supply is protected against backflow by a check valve and an atmospheric-type or pressure-type vacuum breaker between the water supply and the location of chemical injection. Verify that an automatic low pressure drain is installed which is: - placed on the bottom side and lowest point of the irrigation line between the irrigation pump and the water supply line check valve level - does not extend beyond the inside surface of the bottom of the pipe - placed so that drained liquid will flow away from any nearby wellhead or surface water. Verify that an interlock is installed between the irrigation pump and chemical injection unit to avoid chemical flow into the irrigation line Verify that chemical injection line has a check valve to stop the flow of water from the irrigation system into the chemical supply Verify that containers used to hold pesticides for injection into a chemigation system are not located within 400 ft from gravel packed wells used for public water supply or within 250 ft of other wells so used Verify that containers used to hold pesticides for injection into a chemigation system are located at least 75 ft horizontally from a private water supply well or the high water mark of surface water unless total amount of pesticides used at the site is 5 gal or less of liquid pesticide, or 50 lb or less of nonliquid pesticide and

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	secondary containment is provided Verify that secondary containment is: - located so that the outside edge of secondary containment is at least 10 ft from any water supply including any well head or surface water source - constructed of materials compatible with the pesticide being handled - capable of containing 110 percent of the volume of the pesticide container.
PM.20.2.NH. [Deleted March 2005].	(NOTE: NHCAR Pes 805.02 is an exemption from NHCAR Pes 805.01 requirements. See PM.45.7.NH. for chemigation mixing and loading requirements.)

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PESTICIDE APPLICATION **PM.25.** **Aerial**	
PM.25.1.NH. Aerial pesticide applications require a special permit (NHCAR Pes 506.01, 506.04, and 506.10) [Revised January 1999; Revised March 2007].	Verify that pesticides are not applied by means of aircraft without a special permit issued by the Division. Verify that, in addition to complying with the requirements on a pesticide label, the conditions of the special permit are met. Verify that pesticide applications to residential areas by aircraft have prior approval of the Division.
PM.25.2.NH. Aerial pesticide applications must be reported (NHCAR Pes 901.01).	Verify that all aerial applications of pesticides are reported to the Division within 7 days following application.
PM.25.3.NH. Special permit aerial pesticide applications must meet specific requirements (NHCAR Pes 506.06) [Added January 1999].	Verify that the permit holder publishes notice of the treatment date in newspapers of general circulation in the area to be treated at least once per week during the 2 weeks preceding the treatment date to allow the general public knowledge of the treatment. Verify that the application rate of pesticides does not exceed the application rate written on the label of the registered product. Verify that notices of treatment date are not released until the special permit application has been approved. Verify that the following are notified, by certified mail, return receipt requested, of the date of treatment: - public health officials, both local town health officers and state official - property owners living within the treatment area - persons living immediately adjacent to the treatment area - property owners who have property within 1320 ft of the treatment area - registered beekeepers, within the treatment area. Verify that the permit holder notifies the Division 72 and 48 h in advance of said treatment. (NOTE: The Division shall require notification to other persons or entities who

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	are not located in the treatment area but, who have provided information that indicates that their property or its inhabitants may be potentially impacted by said treatment.)
PM.25.4.NH. Special permit aerial pesticide applications in residential areas must meet additional requirements (NHCAR Pes 506.07) [Added January 1999; Revised March 2007].	Verify that aerial applications in residential areas are made during those hours when there is minimal outdoor activity. Verify that pesticides are not applied during those hours of the day when children are going to and from school or waiting for school buses or other means of transportation. (NOTE: The hours of restriction are determined through consultation with local school officials and the Division to minimize exposure of all persons to pesticides.) Verify that in cases of postponement of treatment of more than 2 days from the proposed date of treatment, the applicant provides notification of the new date. Verify that application is not made in sensitive areas, where exposure to the pesticides could have an adverse effect on human health, wildlife, and the environment. (NOTE: Sensitive areas include the following: - school buildings and associated properties including playgrounds, athletic fields - facilities designed for use by persons in the vicinity of school buildings - nurseries and daycare centers, rest homes, hospitals and clinics and associated property.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PESTICIDE APPLICATION **PM.30.** **Landscape**	

PM.30.1.NH. Commercial applicators must provide prior notice of applications of pesticides to turf areas (NHCAR Pes 508.01(c) through (g)) [Revised April 1998].	Verify that commercial applicators provide notification to persons receiving their services prior to the application of pesticides to turf areas, including but not limited to lawns, public and private golf courses.
	
	Verify that a commercial applicator gives written notification regarding the pesticide application that is to take place to the client, or in a situation where the client does not reside at the property, to the persons residing at the property.
	
	Verify that notification is given prior to the application of pesticide.
	
	Verify that notification is given at least on an annual basis.
	
	Verify that when making applications to multi-family dwellings, notification is given by:
	
	- providing written notification to the management, owners or official spokesperson of the multi-family dwelling at least 72 h but no more than 2 weeks prior to the pesticide application
	- providing at least one of the following:
	  - posting of signs at common entryways including but not limited to the main entrance ways to the multi-family dwelling complex, mail boxes, road intersections and treatment area, or
	  - prior written notification to all inhabitants.
	
	Verify that prior to application of pesticides to public and recreational properties, or other areas with public use, such as play areas, picnic areas, or where turf areas provide some form of recreation, commercial applicators provide notification by one or more of the following methods:
	
	- posting of signs around the treatment area, at access points or other places noticeable by the public when entering the treated area
	- posting written notification on bulletin boards that are noticeable to persons entering the area for minimum period of 48 h after application is made.
	
	Verify that when making pesticide applications to commercial business properties such as banks, office buildings, restaurants, and retail stores, notification is provided by one or both of the following methods:
	
	- posting of signs at points of access and egress to the building
	- posting written notification on bulletin boards within the building that are noticeable to everyone occupying the building for a minimum period of 48 hours after application is made.

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PM.30.2.NH. Written notification of pesticide applications to turf areas must meet specific requirements (NHCAR Pes 508.01(b)) [Added April 1998].	Verify that written notification includes:
	
	- the name, address and telephone number of the contact person and the firm offering the services
	- the name of the pesticides to be used, expressed by common chemical name
	- the forms of materials to be applied and methods of application
	- a schedule of services to be provided
	- a statement which:
	  - grants the opportunity for those persons receiving the service to request, and receive, advanced notification, and any other specific information requested, of the pesticide application which is to take place
	  - states "you have a right to request and receive advanced notification of the date that each pesticide application will be made"
	  - designation of the area treated when making pesticide applications to multifamily dwellings and public and recreational properties.

PM.30.3.NH. Signs used to provide notification of pesticide applications to turf areas must meet specific requirements (NHCAR Pes 508.01(a)) [Added April 1998].	Verify that the signs:
	
	- are 8 1/2 x 11 inches in size, made of weather resistant materials with black letters on a yellow background
	- contain the following information:
	  - the word "notice" in 2 1/2 inch block letters
	  - the materials approved for use expressed as common chemical name
	  - the date of treatment
	  - the area treated
	  - a statement that the notice has been provided for public information and to those who may be sensitive to chemicals
	- the name, address and telephone number of the person who may be contacted.
	
	Verify that signs remain posted for a minimum of 48 h after application is made.

COMPLIANCE CATEGORY: PESTICIDE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PESTICIDE APPLICATION **PM.35.** **Other**	
PM.35.1.NH. Pesticide applications to bodies of water require a special permit (NHCAR Pes 601.01, 602.02, 604.01 through 604.03) [Revised March 2002; Revised March 2007].	Verify that pesticides are not applied to or in any surface water without receiving a special permit from the division. Verify that, in addition to the requirement for a special permit, applications for treatment of surface waters 10 acres or larger in area also have prior recommendations by the Water Division, Department of Environment Services, and New Hampshire Fish and Game Department. (NOTE: Surface waters include: - rivers - streams - brooks - creeks or other waterways - wetlands, including any marsh, swamp, bog or other wetland type - ponds - lakes or any body of water that drains into such a waterway - any body of water used for public or private water supply - any great pond - coastal wetland or any tidal waters. Verify that, prior to application, applicants have directly notified each abutter and have published notices in a newspaper of general circulation in the area affected. Verify that this notification includes a statement citing that certain activities and water might be temporarily restricted as a condition of the permit and that those wishing to submit comments on the application may contact the Division and request a public hearing. Verify that the applicant provides the division a copy of the following: - the notice to abutters - the proposed notice sent to newspaper - a tear sheet from the newspaper showing the notice at such time as it is received by the applicant. (NOTE: The following are exempt from these requirements: - surface waters less than 10 acres where the entire pond bottom and shoreline are owned by one individual or entity, or is under ownership by more than one individual or entity but where all owners agree to treatment, and there is no regularly flowing surface outlet or the flow can be stopped - copper sulfate or copper sulfate compound application for treatment of public

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	surface waters recommended by water supply and pollution control division, department of environmental services - reclamation of lakes and ponds for restocking purposes by the fish and game department. (NOTE: Pesticide applications to surface waters, which are not utilized for drinking or domestic purposes, by government agencies to control immature forms of mosquitoes and other biting arthropods are not be required to obtain a special permit provided that they comply with the following provisions: - the application is made on forms provided by the division - applications for special permits are received by the division at least 30 days prior to the date to be acted upon by the division - the agency submits survey information, maps, and other supporting information concerning the area or areas to be treated - the control program has been approved by vote at a town meeting - special permit applications include information on the methods to be used to notify: - residents of the town located in the spray area - town officials - apiary owners - others affected by the treatment.) Verify that upon receipt of a special permit for mosquito control, all government agencies comply with the following: - no pesticide application is made within 75 ft of a private well used as a source of drinking water - prior to commencement of any pesticide applications, the applicant provides notification to potentially affected - the applicant provides the division 48-h advanced notification of intent to commence pesticide applications - prior to commencement of any pesticide applications, the applicant provides to the division a written, signed attestation that all of the notification requirements and any other pre-application conditions of the permit have been satisfied.
PM.35.2.NH. Pesticide applications near bodies of water are restricted (NHCAR Pes 1001.01 and 1001.02) [Citation Revised April 1998; Revised March 2002; Revised March 2007; Revised March 2009].	Verify that no residential property owner, private applicator, or commercial applicator applies pesticides within the following distances from the reference line: - 25 ft from lakes, ponds, rivers and coastal waters - beyond 25 ft in such a manner or by such methods that would result in the presence of pesticides within 25 ft of the reference line of any lake, pond, river or coastal water. (NOTE: The following applications are exempted from these requirements: - inside structures provided there is no soil contact or soil incorporation

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	- to control termites provided the materials and methods to be employed have been approved by the Division - applications that are subject to prior approval of the division through issuance of a special permit where distances from surface water are determined on a case by case basis - applications to control vegetation along the embankments of sewage lagoons of wastewater treatment facilities.)
PM.35.3.NH. Pesticide applications near a public water supply must meet specific restrictions and requirements (NHCAR Pes 502.04, 502.05(a) and (i) and 502.06) [Revised March 2004; Revised March 2007].	Verify that no pesticide is applied to public water supplies or their tributaries except by legally established water supply entities or their agents as authorized by the Water Supply and Pollution Control Division, Department Of Environmental Services. Verify that pesticide applications to lands near or adjacent to public water supplies are made in such a manner that no pesticides drift or flow into such water supplies. Verify that no pesticide application is made within 400 ft of gravel packed wells used for public water supply or within 250 ft of other wells so used, unless materials and methods to be employed have been approved in a special permit. Verify that pesticides are not applied within 250 feet of the reference lines of surface waters or their tributaries used for public water supply for a radial distance of 5 miles as measured from the public water supply intake within the boundaries of the watershed surrounding that intake without being approved by a special permit issued by the Division upon consultation with the Water Division, Department of Environmental Services. Verify that any pesticide applicator having knowledge or reason to believe that contamination of a public water supply surface water has occurred immediately reports verbally and in writing within 5 days of such contamination to the Division of Pesticide Control.
PM.35.4.NH. Pesticide application to watersheds and marshes requires a special permit (NHCAR Pes 502.03(c)) [Revised March 2002; Citation Revised March 2007].	Verify that no person makes a pesticide application in a protected shoreland or to wetland for control of forest insects, mosquitoes or black flies without being in possession of a special permit issued by the Division.
PM.35.5.NH. Pesticide application to roadsides,	Verify that no herbicide is applied to brush along public road rights-of-way of more than 1 year's growth or during the period of green foliage for deciduous

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rights-of-way and woodlands are restricted (NHCAR Pes 505.01 through 505.04, and 505.07) [Revised January 1999; Revised March 2004; Revised March 2007].	trees. (NOTE: Where the brush is cut down and removed, a stump treatment method may be used at any time of the year.) Verify that no application of pesticides is made to rights-of-way without a special permit from the Division. (NOTE: Rights-of-way as used above include but not limited to power transmission and distribution lines, gas pipeline, railroad, public road.) Verify that no pesticide is applied to woodland areas exceeding 50 acres without a special permit from the Division (with consultation with the State Forester and the Director of the Fish and Game Department. Verify that public notification (see Appendix 7-3 for details) has been given prior to applying pesticides along rights-of-way and woodlands. (NOTE: Pesticide application for the establishment or maintenance of access roads designed and intended for the purpose of forestry management is exempt from these requirements where such roads: - are unpaved - are on private property owned by the person applying pesticides or contracting for the application of pesticides. These exemptions granted do not apply to pesticide applications made in conjunction with vegetation control on public utility rights-of-way.)
PM.35.6.NH. The public must be notified of herbicides applications to right-of-way from June through October (NHCAR Pes 505.06 (a) and (b)) [Added January 1999].	(NOTE: Notification of spraying does not pertain to the following type of herbicide applications: - by the "cut surface treatment" where herbicides are applied directly to the cut surface of the stump after vegetation is cut, provided that: - the herbicide is applied before the end of the work day during which the vegetation has been cut or if application is impossible due to rain, during the next work day, following said weather event - the pesticides are applied according to label recommendations - to control poison ivy - within the enclosed grounds of substations, electrical facilities and other similar types of enclosed or fenced-in structures in the rights-of-way - in conjunction with landscape plantings on roadside rights-of-way - upon roadway pavement, curbing, and guardrail.) Verify that no application of herbicides is made to rights-of-way in the State, including but not limited to, rights-of-way for power transmission and distribution lines, gas pipelines, railroads, and public roads, during the mo of June through October 15 without first providing notification to the public of intent to spray. Verify that notification meets the standards specified in Appendix 7-3.

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PESTICIDE APPLICATION **PM.40.** **Documentation**	
PM.40.1.NH. Daily records of all pesticide applications must be kept by registrants or permittees (NHCAR Pes 901.02) [Revised March 2005].	Verify that all applications of pesticides by registrants or permittees are recorded simply and accurately with records being maintained at the firm, branch office, or subsidiary for pesticide applications performed by personnel working from such firm, branch office or subsidiary. Verify that these records are maintained for a period of at least 2 yr. whether or not there is a renewal of certification. Verify that the following are included in records maintained by both commercial and private applicators: - crop treated, site of treatment, address, and town - pesticide and formulation employed - dosage applied - method of application - date or dates of application - target organisms - the registrants or permittees of the Division who participated.
PM.40.2.NH. All pesticide application records must be reported annually (NHCAR Pes 901.04) [Added March 2005].	Verify that all records pertaining to the application of pesticides are made available to the division on an annual basis, for the period ending October 31, on or before December 1. Verify that applicators and permittees report annually the following regarding pesticide use: - name of applicator and firm - the year for which the report covers - location of the site of application - the list of licenses or permittees whose use is included in the report - trade name of pesticide - amount of active ingredient in the concentrate - EPA pesticide registration number - major crop or site treated - number of acres treated with each pesticide reported - total amount of concentrated pesticide used.

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PM.45. **STORAGE/MIXING/ HANDLING**	
PM.45.1.NH. Pesticides must be stored in accordance with label requirements (NHCAR Pes 802.03(a) and (b)) [Revised April 1998].	Verify that pesticides are stored in accordance with requirements and precautionary storage instructions contained on the product label. Verify that pesticide containers have legible labeling indicating the contents of the containers.
PM.45.2.NH. Pesticide containers must meet specific requirements (NHCAR Pes 802.03(j)) [Revised April 1998; Revised March 2005].	Verify that pesticides are stored in tightly sealed containers free from leakage, corrosion, breaks, or tears. Verify that containers used for pesticide storage and handling are of materials and construction compatible with the pesticide stored and the conditions of storage and maintained in a manner as to minimize the possibility of a spill. Verify that defective containers, if not fully repaired, are destroyed or disposed of in accordance with label directions or the administrative rules of the pesticide control board.
PM.45.3.NH. Pesticide storage rooms must meet specific requirements (NHCAR Pes 802.03(c) through (g), (m) through (p), (r), (s), (w) and (x)) [Revised April 1998; Revised March 2005; Citation Revised March 2007].	(NOTE: Cabinets, storage bins, lockers, or similar type storage facilities are considered a storage room if the single or aggregate area exceeds 15 ft^3 or 25,920 $in.^3$.) Verify that pesticides and pesticide containers that have not been triple rinsed are stored in a separate room and in such a manner as to prevent contamination from the volatilization of pesticides, the leakage or breakage of pesticide containers, or other causes. Verify that pesticide storage rooms are protected and secured so that they are not readily accessible to children and the general public. Verify that the floor surface of the pesticide storage room is smooth, facilitating the complete recovery of spills, for example, sealed concrete and plastic. (NOTE: Earthen floors are prohibited for pesticide storage rooms.) Verify that the pesticide storage room is identified by signage clearly indicating that pesticides are in storage, as follows:

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	- signs include the word WARNING, DANGER, or PESTICIDES followed by wording that indicates pesticides are in storage - lettering of the words WARNING, DANGER, or PESTICIDES is a minimum of one and 1/2 in. in height Verify that pesticide storage rooms are vented to the outdoors. Verify that Ambulance and Fire Department phone numbers or the 911 number are displayed at a central location where all personnel have access. Verify that the local Fire Department has been informed that pesticides are in storage and of the general location of the storage room. Verify that pesticide storage rooms maintains sufficient lighting to allow the observation of containers and their labeling. Verify that all empty pesticide containers that have not been triple rinsed are stored in the pesticide storage room prior to disposal. Verify that there are no floor drains in pesticide storage rooms, unless the drain is connected to a catch basin where: - there are no pipes attached - the catch basin is constructed for complete recovery of a spill - the catch basin is located within the floor where liquids can be transferred to an above ground container in the event of a spill or discharge onto the floor. (NOTE: Pesticide containers having the capacity for holding greater than 55 gal but less than 300 gal of bulk pesticides, known as mini-bulk containers, are exempt from these requirements provided that: - the container is identified with pesticide labeling that is affixed to the mini-bulk container by the dealer or person who sold or distributed the product - within 90 days of receipt of the pesticide in the mini-bulk container, the container is: - returned to the dealer - disposed - emptied and triple rinsed - there is a mechanism attached to the container for the purpose of securing the dispensing apparatus.) (NOTE: The storage of dormant oil that contains no other pesticides is not subject to these requirements.)
PM.45.4.NH. Pesticide storage rooms must be clean (NHCAR Pes 802.03(u) and (v)) [Added April 1998; Citation Revised March	Verify that areas used for storage of pesticides are maintained in a clean condition. Verify that, at a minimum, spills and leaks are cleaned up by the end of the day during which the pesticides have been spilled or leaked.

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2005].	
PM.45.5.NH. Pesticide storage rooms must be dry and meet temperature requirements (NHCAR Pes 802.03(h) and (i)) [Added April 1998].	Verify that pesticides are stored in a dry place and in accordance with the temperature requirements on the label. Verify that, where the storage room is unheated, storage of pesticides where the label has precautions against freezing, during the mo of the year when temperature is at freezing or below, meets the following requirements: - the pesticides are in secondary containers - the secondary container is identified as containing pesticides - the pesticides are stored in storage rooms that meet the requirements of section PM.45.NH. before and after the period of freezing temperature - the pesticides are stored in such a manner that they are not readily accessible to children and the general public - the pesticides are stored in such a manner as to prevent contamination to food, feed, seed, livestock remedies, drugs, plants, and other products or materials from the volatilization of pesticides, the leakage or breakage of pesticide containers, or other causes.
PM.45.6.NH. Pesticide storage areas must meet location restrictions (NHCAR Pes 802.03(k) and (l)) [Added April 1998; Revised March 2005].	Verify that pesticides are stored at a minimum distance of 400 ft from public wells. Verify that pesticides are stored at a minimum distance of 75 ft from private water wells and the high water mark of surface waters. Verify that wherever possible, pesticides are stored down gradient from water wells and surface water. (NOTE: Pesticide storage facilities installed prior to 13 April 1993 are allowed within the 75 ft distance requirements specified above if one of the following conditions existed prior to 13 April 1993: - the storage of pesticides is in conjunction with a Natural Resources Conservation Service approved containment facility where a containment mechanism is installed under the storage room and becomes a part of the overall containment facility - the storage room floor can hold 110 percent of the volume of the largest container in storage and contains a concrete floor that has a hydraulic conductivity of less than 1 X 10^{-7} cm/s or a concrete floor that can be treated to have a hydraulic conductivity of less than 1 X 10^{-7} cm/s.)
PM.45.7.NH. Mixing and loading of pesticides must meet specific requirements	(NOTE: Moved from PM.45.4.NH. April 1998.) Verify that the mixing and loading of pesticides complies with all of the following

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(NHCAR Pes 805.01 and 805.02) [Moved April 1998; Revised March 2005].	provisions: - pesticide label recommendations are followed - mixing or loading of pesticides is not performed within 400 ft of gravel packed wells used for public water supply or within 250 ft of other wells so used - mixing or loading of pesticides is not performed within 75 ft of surface water or private water wells - backflow prevention is maintained by an antisiphoning device on the fill hose or water supply line - the fill hose is kept above the surface of the water/chemical solution in the tank at all times - spills are cleaned up immediately to prevent material from soaking into the ground. (NOTE: Mixing or loading for chemigation is exempt from the location requirements provided that the following conditions are met: - the total capacity of pesticide(s) at the chemigation mixing and loading site is 5 gallons or less of liquid pesticide, or 50 pounds or less of dry pesticide - secondary containment is provided that: - is constructed of material compatible with the pesticide being applied - has an outside edge that is at least 10 feet from the water supply including any well head or surface water source - is capable of containing at least 110% of the volume of the pesticide container. Mixing or loading on a containment facility approved by the Natural Resources Conservation Service, installed prior to April 13, 1993, is exempt for the requirement that mixing or loading of pesticides is not performed within 75 ft of surface water or private water wells.)
PM.45.8.NH. Catch-basins must meet specific standards (NHCAR Pes 802.02) [Added March 2005].	Verify that catch-basins meet the following standards: - the watertight part of the floor that does not connect to below-floor, or below-ground piping, containment, or storage - is constructed of non-corrodible materials with easy access for cleaning. Verify that pumps and piping used to remove pesticide discharges, washwater or rinsate from the catch-basin are above ground. Verify that there is a mechanism for removal of pesticide discharge, wash water or rinsate from the catch-basin into above-ground storage within a one hour period of the event of a spill or discharge.

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PM.55. **DISPOSAL**	
PM.55.1.NH. Pesticide and container disposal must meet certain requirements (NHCAR Pes 801.01 through 801.05) [Revised March 2005].	Verify that no person disposes of, discards, stores, or transports any pesticides or pesticide containers in a manner inconsistent with requirements of the department of environmental services, the USEPA, the division or as stated upon the pesticide label. Verify that unused or unwanted pesticides being stored prior to disposal, whether in sealed or previously opened containers, are kept in a secure enclosure and maintained under conditions that will prevent deterioration of containers, unauthorized use, mishandling, loss, contamination of the environment, and risk to the public health. Verify that pesticides which are obsolete, banned, unregistered, physically altered, or which cannot otherwise be used for the intended labeled uses are either: - returned to the manufacturer, supplier, or formulator for recycling, destruction, or disposal, as appropriate according to department of environmental services and the US EPA - disposed of in an authorized solid waste or hazardous waste treatment storage disposal facility in accordance with requirements of the Department of Environmental Services and USEPA - disposed of in accordance with manufacturer's label directions for the specific pesticides, provided such directions comply with current requirements of the Department of Environmental Services and the USEPA. Verify that all pesticide containers are triple rinsed with an appropriate solvent. Verify that the rinsate and container are disposed of in a manner consistent with the instructions found upon the pesticide label and in accordance with the requirements of the department of environmental services and US EPA. Verify that no pesticide container is reused for any other purpose except as provided on the manufacturer's label.

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PM.60. **BULK PESTICIDES**	
PM.60.1.NH. Bulk pesticide dispensing operations must have secondary containment (NHCAR Pes 804.02, 804.03, and 804.14) [Citation Revised April 1998; Revised March 2005].	Verify that any stationary bulk container and any pesticide dispensing area are protected by a containment structure if located on any of the following: - the facilities or property of a filing establishment - the facilities or property of a pesticide dealer who blends pesticides for sale in bulk - any other place where pesticides are stored and handled in bulk quantities and where operations involve the filling of containers and pesticide application equipment for distribution and sale. (NOTE: The use of a closed system (see definitions), greater than 55 gallons but less than 300 gallons in capacity is exempt from the secondary containment requirement for stationary bulk containers.) (NOTE: None of the following are considered a pesticide dispensing area: - an area where pesticides are transferred from containers holding 300 gal or less of liquid pesticide for the purpose of end use application by private applicators in accordance with label recommendations - an area where pesticides are handled and labeled for application as a gas - an area where dormant oil is being dispensed into containers holding 55 gal or less.) (NOTE: None of the following are considered a stationary bulk container: - a container holding only a pesticide which has been diluted to or below application strength, such as rinsates or washwaters, and which is so labeled - a container holding only pesticides which are intended to be applied as a gas - a container holding 300 gal or less of liquid pesticide for the purpose of end use application by private applicators.)
PM.60.2.NH. Bulk pesticide containment structures must meet specific requirements (NHCAR Pes 804.04 and 804.05).	Verify that the containment structure is constructed of reinforced concrete or other rigid material strong enough to withstand the full dynamic or static hydrostatic head, load, and impact of any pesticides, precipitation, other substances, equipment, and appurtenances placed within the structure. Verify that the containment structure is not constructed of natural earthen material, unfired clay, or asphalt. Verify that the entire area of the containment structure over which liquids can flow or accumulate has a hydraulic conductivity of less than 1 x 10^{-7} cm/s. (NOTE: This standard is satisfied by the use of structural materials, surface

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	sealants or coatings, or a continuous liner at the bottom of the containment structure.) Verify that all components of the containment structure that may contact pesticide are composed of materials that are compatible with the pesticide. Verify that the containment structure is adequate to prevent water and other liquids from seeping into or flowing onto it from surrounding surfaces, including land surfaces and adjacent roofs during a 25-yr, 24-h rainfall event. Verify that appurtenances and containers are protected against breakage or damage from operating personnel and moving equipment. (NOTE: Means of protection include but are not limited to, supports to prevent sagging, flexible connections, the use of guard rails, barriers, and cages.) Verify that no containment structure has a discharge outlet or gravity drain through the base. Verify that no containment structure has appurtenances installed through a wall, except for direct interconnections between adjacent containment structures that meet the requirements of this part. Verify that appurtenances are configured in such a way that spills or leaks can readily be observed. Verify that the containment structure is located at least 400 ft from public wells and public surface water supplies and at least 75 ft from private water wells and the high water mark of other surface waters and, wherever possible, down gradient from water wells and surface waters.
PM.60.3.NH. Bulk pesticide dispensing areas must be protected by containment pads (NHCAR Pes 804.10) [Revised March 2005].	Verify that each pesticide dispensing area protected by a pesticide containment pad meets the requirements found in PM.60.2.NH., PM.60.4.NH, and PM.60.5.NH. Verify that the area covered by the pesticide containment pad is sufficient to intercept leaks and spills of pesticides that may occur in the pesticide dispensing area. Verify that the pesticide containment pad has a containment capacity equal to or greater than volume of the largest container or pesticide-holding equipment on the pad. Verify that the base of the pesticide containment pad is sloped toward a liquid-tight sump where liquids can be collected for removal. Verify that the containment pad has a means of removing and recovering spilled,

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	leaked, or discharged material and rainfall such as by a manually activated pump or an automatically activated pump provided that the pump is equipped with an automatic overflow cutoff switch. (NOTE: Automatically activated pumps lacking automatic overflow cutoff switches are prohibited.) Verify that during dispensing of pesticides from transportation vehicles into containers, the portion of the vehicle where the delivery hose or device couples to the pesticide tank of the vehicle is positioned over the containment pad.
PM.60.4.NH. Operators of bulk pesticide containment structures must comply with specific requirements (NHCAR Pes 804.06).	Verify that the containment structure is operated in a manner that prevents pesticides or materials containing pesticides, including pesticide residues washed off the containment structure by rainfall or liquids used for cleaning the area within the containment structure, from leaving the structure and contacting the soil, surface water or groundwater. Verify that all materials containing pesticides, including water, are handled in accordance with label directions and applicable Federal, state and local regulations. Verify that transfers of pesticides within or between containment structures are attended at all times by a person who is familiar with proper transfer procedures and who is familiar with procedures that are used to control and recover pesticide releases.
PM.60.5.NH. Bulk pesticide containers and containment must be inspected (NHCAR Pes 804.07).	Verify that all stationary bulk containers and their appurtenances are inspected for wetting, discoloration, blistering, bulging, corrosion, cracks, or other signs of damage or leakage at least weekly, unless the container is empty. Verify that the containment structure is inspected for wetting, discoloration, blistering, bulging, corrosion, cracks, or other signs of damage at least monthly during periods when pesticide is being stored or handled within the containment structure. Verify that cracks and gaps in the containment structure and appurtenances are sealed with material that is compatible with the pesticide being stored and handled and which meets or exceeds the standard for hydraulic conductivity given above. Verify that, except for the removal of material in order to effect repairs, no pesticide is handled or stored within the boundaries of a containment structure which fails to meet the requirements until suitable repairs have been made.

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PM.60.6.NH. Bulk containers of pesticides must have secondary containment (NHCAR Pes 804.08 and 804.09) [Revised March 2005].	Verify that any stationary liquid bulk container is protected by a secondary containment area that meets the requirements found in PM.60.2.NH., PM.60.4.NH, and PM.60.5.NH. Verify that the secondary containment area allows for the observation of leakage from the base of any enclosed stationary bulk container. Verify that the secondary containment area has at least the following capacity, compensating for any volume displaced by containers and appurtenances: - 125 percent of the capacity of the largest stationary bulk container within a secondary containment area that is *not* protected from precipitation - 110 percent of the capacity of the largest stationary bulk container within a secondary containment area that is protected from precipitation. Verify that any stationary dry bulk container that holds dry pesticide is protected by a secondary containment area that is sufficient to contain 100 percent of the volume of the largest stationary dry bulk container within the secondary containment area.
PM.60.7.NH. Bulk pesticide operations must meet specific requirements for leaks and spills (NHCAR Pes 804.12) [Revised March 2005].	Verify that spills and leaks of pesticide on or in any containment structure are collected and recovered in a manner that ensures protection of human health and the environment, including surface water and groundwater. Verify that the spill or leak receives the maximum possible recovery. Verify that all spills and leaks occurring on the surface of any containment structure and spills or leaks that could travel off the containment structure are cleaned up immediately. Verify that spills or leaks that could travel off the containment structure as a result of cracks or gaps are cleaned up immediately and the cracks or gaps are sealed. Verify that all materials resulting from the recovery of spills and leaks are managed in accordance with label instructions and applicable Federal, state, local regulations and requirements of the department of environmental services.
PM.60.8.NH. Bulk pesticide containment operations must meet recordkeeping requirements (NHCAR Pes 804.13).	Verify that records are kept in permanent form and available for inspection for at least 3 yr. at the facility or nearest office from which the facility is administered. Verify that records are maintained of inspection and maintenance for each containment structure and for each stationary bulk container and its appurtenances, including the: - name of the person conducting the inspection or maintenance

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	- date conditions noted - maintenance performed. Verify that records are maintained of inventory and reconciliation, including for each applicable stationary bulk container: - name of product stored - quantity measured at previous inventory - quantities dispensed from or added to container - reconciliation with quantity measured at the most recent inventory. Verify that records are maintained of the duration over which undiluted pesticide remains in any bulk container not protected by a secondary containment structure that satisfies the requirements of these requirements.

Appendix 7-1

New Hampshire Restricted-Use Materials

(Source: NHCAR Pes 701.06 Table 7.1) [Revised April 1998; Revised March 2004]

Any pesticide products containing the chemicals listed in the table are "restricted use" based on the uses/ concentration affected.

Common Chemical Name	Use/Concentration Affected
Acrolein	all
Acrylonitrile	all
Alachlor	all
Aldicarb	all
Allyl Alcohol	all
Aluminum Phosphide	all
Amitrole	all above 2 percent
Arsenic (inorganic)	all above 1 percent as expressed as Metallic Arsenic in water-soluble form; and all used as wood preservatives
Arsenic Acid	all
Arsenic Pentoxide	all used as wood preservatives
Atrazine	all
Azinphos-ethyl	all
Azinphos-methyl	all
Baythroid	all above 2 percent
Bis (tributyltin) oxide	all used as marine coatings
Bomyl	all
Brodifacoum	all above 0.05 percent
Bromoxynil	all
Cadmium Chloride	all
Calcium Cyanide	all
Carbofuran	all
Carbon Bisulfide	all
Carbon Disulfide	all
Carbon Tetrachloride	all
Carbophenothion	all
Chlorfenvinphos	all
Chlorophacinone	all tracking powder, dust and ready to use formulations 0.2 percent or greater
Chloropicrin	all
Chromic Acid	all except brush-on used as wood preservatives
Clonitralid	all wettable powders 70 percent and above; all granular and wettable powders used as molluscides
Coal Tar	all
Coal Tar Creosote	all
Coumafuryl	all
Creosote	all
Creosote Oil	all
Cyanazine	all
Cycloheximide	all
Daminozide	all
Demeton	all
Diallate	all
Dichloropropene	all

Common Chemical Name	Use/Concentration Affected
Dichlorvos	all above 1 percent; except 20 percent resin strips or others so impregnated resin products not in excess of 20 percent
Diclofop Methyl	all
Dicrotophos	all
Diflubenzuron	all
Dinitrocyclohexylphenol	all
Dioxathion	all
Diphacinone	all above 1 percent
Diquat	all concentrations labeled for aquatic use; all other formulations above 2 percent provided that those products containing 2 percent or less are labeled for terrestrial use only
Disulfoton	all above 2 percent
DNOC	all
Dodemorph	all
Endosulfan	all above 3 percent
Endothall	all
EPN	all
Ethion	all
Ethoprop	all
Ethyl Parathion	all
Ethylene Dibromide	all
Famphur	all above 1 percent
Fenamiphos	all emulsifiable concentrates 35 percent and above
Fenitrothion	all forestry uses
Fensulfothion	all
Fenthion	all above 1 percent
Fluoroacetamide	all
Flucythrinate	all
Fonofos	all
Formetanate Hydrochloride	all
Hydrocyanic acid	all
Lambda-Cyhalothrin	all
Leptophos	all
Lethane 384	all
Magnesium Phosphide	all
Methamidophos	all
Methidathion	all
Methomyl	All above 1 percent
Methyl Bromide	all
Methyl Isothiocyanate	all
Methyl Parathion	all including Methyl Parathion on Prohibited-Limited Use list
Metolachlor	all
Mevinphos	all
Mexacarbate	all above 2 percent
Monocrotophos	all
Niclosamide	all
Nicotine Alkaloid	all
Nicotine Salts	all above 40 percent nicotine expressed as alkaloid
Nitrogen, liquid	all
Oxamyl	all
Oxydemeton Methyl	all

Common Chemical Name	Use/Concentration Affected
Paraquat	all above 0.2 percent cation
Parathion	all
Pentachlorophenol	all
Phorate	all
Phosacetim	all
Phosalone	all above 2 percent
Phosphamidon	all
Phosphorus (white & yellow)	all
Phostoxin	all
Picloram	all except for treating trees by a "cut surface" method with 5.4 percent or less Picloram
Pindone	all above 3 percent
PMP	all above 6 percent
Potassium Pentachlorophenate	all
Pronamide	all wettable powders 50 percent or above
Propetamphos	all emulsifiable concentrates 50 percent or greater
Propoxur	all above 3 percent; except impregnated type resin materials with a concentration not exceeding 10 percent
Pyriminil	all
Schradan	all
Selenium and its compounds	all
Simazine	all above 10 percent
Sodium Cyanide	all
Sodium Dichromate	all formulations except brush on
Sodium Methyldithiocarbamate	all
Sodium Pyronarsenate	all formulations except brush on
Strychnine	all
Sulfotepp	all
Sulfuric Acid	all
Sulfuryl Flouride	all
Sulprofos	all
Terbufos	all
TFM	all
Tralomethrin	all above 2 percent
Tributyltin	all used as marine coatings
Tributyltin Fluoride	all used as marine coatings
Tributyltin Methacrylate	all used as marine coatings
Triphenyltin Hydroxide	all
Warfarin	all above 3 percent
Zinc Phosphide	all

Appendix 7-2

New Hampshire Prohibited and Limited Use Compounds
(NHCAR Pes 701.05) [Revised April 1998; Revised March 2007]

These compounds, listed by common chemical name, shall be allowed for sale and use only for the uses listed below:

(a) Avitrol shall only be used by government agencies who have jurisdiction over federally protected birds, and commercial pest control operators for non-protected birds, upon issuance of a special permit. This compound shall not be sold to the general public;

(b) DRC 1339 Starlicide shall only be used by government agencies who have jurisdiction over federally protected birds, and commercial pest control operators for non-protected birds, upon issuance of a special permit. This compound shall not be sold to the general public;

(c) Fenthion shall only be used by government agencies who have jurisdiction over federally protected birds, and commercial pest control operators for non-protected birds, upon issuance of a special permit. This compound shall not be sold to the general public;

(d) Methyl Parathion Encapsulated, or any formulation thereof used in New Hampshire, shall be subject to the following restrictions and conditions:

(1) Those provisions contained on the manufacturer's label;
(2) Regardless of whether bees or other pollinators are known to be visiting areas to be treated, this pesticide shall not be:
  a. Applied to any corn crop having 10% or more of its plants with spike anthers;
  b. Applied on any field crop, orchard, vineyard or other agricultural crop listed on the manufacturer's label where there exists weeds or other non-target plants having an average of 5 or more blooms per square yard; or
  c. Allowed to drift to any non-target areas where weeds or other non-target plants having an average of 5 or more blooms per square yard exist;
(3) Use of this pesticide shall be by special permit only as follows;
  a. Only applicators certified under RSA 430:33 may apply for a special permit under this subparagraph;
  b. Individuals seeking special permits to use Methyl Parathion shall include the following information on application forms provided by the division:
    1. Name and address of applicant;
    2. Crops to be treated;
    3. Location of application;
    4. Maximum number of applications;
    5. Target pests;
    6. Approximate date of application; and
    7. Method of notification of apiary owners;
  c. Special permit applications under this subparagraph shall be submitted at least 20 days prior to the intended treatment date;
  d. The division shall grant a special permit within 10 days of receipt of such application if the following are true:
    1. The applicant has provided the information required in b. above;
    2. The applicant has complied with a. and c. above;
    3. The pesticide can be used without causing adverse effects on non-target organisms; and
    4. The proposed use is in compliance with (d)(2) above; and
  e. An applicator issued a special permit under this paragraph shall notify all beekeepers registered under Agr 1805.01, who indicated through registration they may have apiaries located within 2 miles of the area to be treated, at least 48 hours prior to each application;

(e) Ornitrol shall only be used by government agencies who have jurisdiction over federally protected birds, and commercial pest control operators for non-protected birds, upon issuance of a special permit. This compound shall not be sold to the general public;

(f) Sodium Arsenite, and any formulation thereof, shall be used by special permit only pursuant to Pes 505.05(b)(c) and (d);

(g) Sodium Fluoroacetate, compound 1080, shall be used by a licensed pest control applicator, upon consultation with the department of health and human services; and

(h) Tergitrol shall be used only by government agencies who have jurisdiction over federally protected birds, and commercial pest control operators for non-protected birds, upon issuance of a special permit. This compound shall not be sold to the general public.

Appendix 7-3

Notification of Application to Rights-of-Way

(Source: NHCAR Pes 505.06 (c) through (r)) [Revised January 1999; Revised March 2007]

c) Notification pursuant to (b) above shall not be given until such time as a special permit has been issued.

(d) Notification pursuant to (b) above shall be made by means of the following:

(1) Through the use of notices in newspapers in accordance with (e) below;

(2) Certified mail, return receipt requested, to the selectmen, mayor or town manager, depending on the form of government, in the municipality where the right-of-way is located; and

(3) Written notification to residents within 200 feet of a right-of-way.

(e) Notification by newspaper shall comply with the following:

(1) Notice of intent to spray shall be published in both a newspaper of statewide circulation and in all locally published newspapers which have distribution principally in the area where treatment will occur;

(2) Notices shall appear at least once a week for 2 weeks;

(3) Notices shall be at least 2 columns wide by 3 inches high;

(4) There shall be a minimum of 45 days between the second or last notification and the date of commencement of the seasonal herbicide application;

(5) Notification shall contain only the following information and provisions:

a. A title at the beginning of the notice in 15 point bold face print which states, " Herbicide Use Notification";

b. A list of towns where treatment will occur;

c. A statement as to which herbicides, identified by common chemical name, will be applied to rights-of-way within the respective towns;

d. The approximate date of commencement of the vegetation control program for that year;

e. The name and phone number of contact person, the company he or she represents, and hours that person can be reached;

f. The statement, " further information may be requested by contacting (insert the name of the contact person)";

g. An offering in the form of a notification request coupon to individual landowners whose property abuts the right-of-way, or over whose property the right-of-way passes, of an opportunity to request and receive an individual written notification 30 days prior to any treatment; and

h. An actual clip-out, mail-in coupon for purposes of registration of the request and upon which the contracting entity shall maintain a permanent list for notification purposes.

(f) Notification to selectmen, mayor or town manager, depending on the form of government in the municipality, shall comply with the following:

(1) Notices shall be by certified mail return receipt requested no less than 45 days prior to commencement of seasonal herbicide applications;

(2) Notification shall include:

a. A title at the beginning of the notice in 15 point bold face print which states, " Herbicide Use Notification";

b. The designation of right-of-way to be treated;

c. The approximate date of commencement of vegetation control program for that year, in that locality;

d. Common chemical name(s) of herbicide(s) to be used;

e. Name and phone number of contact person at the contracting entity, and hours that person can be reached; and

f. The name of the contracting entity;

(3) Notification shall include the following:

a. A current U.S. Geological Survey map, of a scale of no less than 1:24000, or 1:25000 if metric, if available, delineating the right-of-way to be treated;

b. The information in Pes 505.06(h), (i) and (j); and

c. A supply of mail-in notification-request coupons equivalent to the number of landowners abutting or owning land on the right-of-way in the respective towns for use by such landowners to request specific written notice.

(g) Direct notification to residents within 200 feet of a right-of-way shall be as follows:
(1) Notice shall contain the information in Pes 505.06(e)(5)a., b., c., d., e. and f.;
(2) Notice shall be conveyed by:
a. A personally delivered written notification that is physically passed to the occupant or, if the occupant is not present, left in a conspicuous place such as attached to the door at the place of occupancy; or
b. Certified mail, return receipt requested.
(3) Notification shall be made during the calendar year of spraying, at least 10 days prior to such application of pesticides.

(h) The applicant for the special permit shall provide the following information on the notification with the coupon, or on the coupon itself:
(1) A method to identify the owner of a utility line by examining poles or other landmarks;
(2) How the public would determine which particular line is to be treated;
(3) A statement that the landowner, as specified in Pes 505.06 (e)(5)g., has a right to receive notice by mail as set forth in Pes 505.06(k);
(4) How to contact the contracting entity for further information;
(5) A request to each landowner or resident to make the contracting entity aware of the location of a potentially affected water supply, and of any other environmentally sensitive area where herbicide application should be further restricted;
(6) An offering which specifically states "you have the right to request and receive the approximate date, plus or minus 5 days, that pesticides will be applied to the right-of-way in your area"; and
(7) Where to return the coupons.

(i) The notification request coupons that accompany newspaper notices and notices to selectmen, mayors or town managers shall provide adequate space for the landowner to record the following information:
(1) Name, address, and telephone number of the person making the request;
(2) Town/city of affected property;
(3) Utility subscriber account number, if applicable, to help a utility identify the location of the person requesting notification;
(4) Name of the company that contracted for the vegetation control program;
(5) Property of concern and/or sensitive areas;
(6) Identifying notations or features found on applicable utility poles or towers, pursuant to (i)(1) and (2) above;
(7) Any additional information requested by the contracting entity for purposes of identifying the location of the landowner in relation to the right-of-way; and
(8) The landowner's request for specific notification pursuant to Pes 505.06(h)(6).

(j) In order to receive individual written notification during a given year, persons requesting such notification shall provide mail-in requests to the applicant no later than 35 days prior to commencement of the vegetation control program for that year. Requests received later than that shall be honored during the next treatment cycle.

(k) Applicants shall, upon receipt of requests for individual written notification, compile and maintain a permanent list of landowners who have made such requests, and shall provide such notification as requested to those landowners, in accordance with (j) above.

(l) Applicants shall, upon receipt of requests for approximate date of application pursuant to Pes 505.06(i)(8), provide such information.

(m) Prior to being granted final approval of a special permit by the division, the applicant shall provide written attestation to the division, at least 10 days prior to commencement of spraying, that it has complied with the provisions of Pes 505.06.

(n) The attestation required pursuant to (m) above shall include the following:

(1) A tear sheet or the text of newspaper notices including the name of the publications, areas served, and dates the notices appeared;
(2) A copy of the notification to selectmen including the same map that was provided;
(3) A copy of the mail-in coupon request for specific written notification;
(4) A copy of the list of persons who have requested written notification; and
(5) A signed statement attesting that individual specific written notification has been made to those who have made the request.

(o) Herbicide applications due to public health emergency shall be exempt from the requirements under Pes 505.06(b)-(n).

(p) Persons applying pesticides to rights of way due to a public health emergency shall provide notification in accordance with Pes 505.06(q) and (r) to the following:
(1) The local government official(s) such as selectmen, mayor(s), or town manager(s), depending on the form of government, in the municipalities where the application will occur;
(2) The health officer of each municipality in which pesticides will be applied;
(3) Owners of apiaries whose operations would be affected by the pesticide application; and
(4) The general public, to include at a minimum, those persons who would be directly affected by the pesticide application.

(q) Notification provided under (p) above shall include at a minimum:
(1) Proposed date(s) of treatment;
(2) Location(s) of treatment area(s);
(3) Pesticides to be applied, listed by common chemical name of active ingredient; and
(4) Name, address, and telephone number of contact person.

(r) The applicant shall provide notification under (p) above at least 12 hours prior to commencement of any pesticide application, as follows:
(1) Notification to local government officials and health officers under (p) (1) and (2) above shall be in writing, by one or more of the following means:
a. U.S. mail;
b. Electronic mail; or
c. facsimile; and
(2) Notification to the public who would be directly affected by the pesticide application shall be by one or more of the following media:
a. Television;
b. Radio; or
c. Newspaper.

Appendix 7-4

Categories of Certification

(Source: NHCAR Pes 302.01) [Added March 2007]

(a) The categories listed in this section correspond to those used by EPA in 40 CFR 171.3 "Categorization of commercial applicators of pesticides." The letters following the category in parentheses shall be used by the division for coding purposes on registration certificates.

(b) Agricultural pest control (A) shall be divided into the following subcategories:

(1) Fruit (A1), which shall include applicators of pesticides for the control of pests common to fruit operations such as orchards, and small fruit and berry growers;
(2) Herbicides (A2), which shall include applicators of herbicides for the control of vegetative pests associated with crops such as corn, grass crops, and other forage crops;
(3) Field Crops (A3), which shall include applicators of pesticides, including soil fumigants, used for the control of pests associated with field crops such as corn, potatoes, beans, and other vegetative crops; and
(4) Animals (A4), which shall include the following:
a. Persons who supervise or make applications of pesticides to animals including common domestic animals such as dogs, cats, fish, birds, hamsters and rabbits;
b. Persons who supervise or make applications of pesticides to animals being grown or maintained for the production of an animal-related agricultural commodity or to structures or areas in or on which such animals are confined; and
c. Doctors of Veterinary Medicine engaged in the business of applying pesticides for hire who publicly hold themselves out to be pesticide applicators, or are engaged in large scale use of pesticides, or both.

(c) Forest pest control (C) shall be divided into the following subcategories:

(1) Forest pest control and timber treatment (C1), which shall include commercial applicators using or supervising the use of pesticides in forests or forest nurseries, including state and federal employees operating on public and private lands; and
(2) Christmas trees (C2), which shall include commercial applicators using or supervising the use of pesticides in the maintenance and production of Christmas trees.

(d) Ornamental and turf pest control (G) shall be divided into the following subcategories:

(1) Shade and ornamental pest control (G1), which shall include commercial applicators using or supervising the use of pesticides to control pests in the production and maintenance of ornamental trees, shrubs, and flowers;
(2) Turf (G2), which shall include commercial applicators using or supervising the use of pesticides to control pests in the maintenance and production of turf, including municipal and private golf courses; and
(3) Indoor foliar pest control (G3), which shall include commercial applicators using or supervising the use of pesticides to control pests in the maintenance of ornamental trees, shrubs, flowers and other ornamental plants in an indoor environment.

(e) Aquatic pest control (D) shall include commercial applicators using or supervising the use of any pesticide purposefully applied to standing or running water, excluding applicators engaged in public health related activities included in Pes 302.01(g)(2) and Pes 302.01(h).

(f) Right-of-way and commercial weed and brush control (B) shall include commercial applicators using or supervising the use of pesticides for the control of weeds, brush and other vegetative pests in industrial and non-crop sites, and in the maintenance of public roads, electric powerlines, pipelines, railways, waterways, airports, boundary markers and other right-of-way areas including any non-crop area which might require weed and brush control.

(g) Industrial, institutional, structural, and health related pest control (F) shall be divided into the following subcategories:

(1) Industrial, institutional, structural, and health related pest control (F1), which shall include commercial applicators using or supervising the use of pesticides, primarily for insect control, in, on, or around any structure and adjacent area, public or private, and for the protection of stored, processed, or manufactured products.
(2) Mosquito and black fly (F2), which shall include commercial applicators using or supervising the use of pesticides for the control of such insects as mosquitoes, black flies, and other biting arthropods in their various habitats;
(3) Termites and other wood-destroying insects (F3), which shall include commercial applicators using or supervising the use of pesticides for the preventive and remedial control of such insects as termites, ants, powder-post beetles, and other wood-destroying insects in and around structures;
(4) Fumigation (F4), which shall include commercial applicators using or supervising the use of fumigant pesticides for the control of insect pests, including the fumigation of beehives and related equipment;
(5) Pole treating and wood preservation (F5), which shall include commercial applicators using or supervising the use of wood preservatives to protect lumber products and utility poles from the degrading effects of pests;
(6) Food handlers (F6), which shall include commercial applicators not for hire, using or supervising the use of pesticides, in, on or around food handling establishments and shall be confined to direct employees of food handling establishments;
(7) Sewer root control (F7), which shall include commercial applicators using or supervising the use of pesticides to remove plant roots from sewer and drain systems; and
(8) Microbial pest control (F8), which shall include commercial applicators using or supervising the use of pesticides to control mold, fungi, bacteria, shellfish and algae within structures and industrial processing facilities including, but not limited to, recirculating cooling water systems, brewery pasteurizing systems, air washers and pulp and paper mills, in, on or around human dwellings, schools and any other structures and adjacent areas, public or private.

(h) Public health pest control (E), shall be limited to state, federal or other governmental employees using or supervising the use of pesticides in public health programs for the management and control of pests having medical and public health importance.

(i) Regulatory pest control (I) shall include state, federal or other governmental employees using or supervising the use of pesticides in the control of "Invasive species," as defined in RSA 430:52 VII, or regulated pests as listed upon the "Regulated Pest List" maintained by the US Department of Agriculture, Animal and Plant Health Inspection Service.

(j) Demonstration and research pest control (H) shall include such persons as university cooperative extension specialists and educators, representatives of pesticide manufacturers or distributors and all others who demonstrate pesticides, their use, and application. Also included in this category shall be federal, state or other public employees, representatives of private institutions or pesticide manufacturers who conduct field research or supervise the use of pesticides.

(k) Aerial pest control (J) shall include commercial and governmental applicators using fixed wing aircraft, rotary wing aircraft, or both to apply pesticides in the control of various pests.

SECTION 8

PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for POL Management and is intended to supplement the U.S.TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Ambient Groundwater Quality Standards (AGQS)* - ambient groundwater quality standards" as defined in RSA 485-C:2, I, namely " maximum concentration levels for regulated contaminants in groundwater which result from human operations or activities, as delineated in RSA 485-C:6 (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Background* - those levels of chemical concentrations that would exist at the site in the absence of the discharge and which include chemicals that are ubiquitous and consistently present at or in the vicinity of the site and are attributable to (NHCAR Env- Or 602) [Added March 2006; Citation Revised March 2009]:
  1. Coal or wood ash associated with fill material;
  2. Petroleum residues that are incidental to the normal operation of motor vehicles; and
  3. Asphalt pavement.

- *Boiler* - an enclosed device using controlled flame combustion and having the following characteristics (NHCAR Env-Wm 110.01):
  1. the unit has physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases
  2. the unit's combustion chamber and primary energy recovery section(s) are of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) are physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section
  3. the following units are not to be precluded from being boilers solely because they are not of integral design: process heaters which transfer energy directly to a process stream, and fluidized bed combustion units
  4. while in operation, the unit maintains a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel
  5. the unit exports and utilizes at least 75 percent of the recovered energy, calculated on an annual basis, excluding recovered heat used internally in the same unit. Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps
  6. the unit is one which the Director has determined to be a boiler in accordance with the procedures cited in Env-Wm 810.01, after considering the standards in 40 CFR 260.32 (NHCAR Env-Wm 110.01).

- *Certificate of Completion* - a certificate issued by the Department which certifies that (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009]:
  1. The activities specified in an approved remedial action plan have been completed;
  2. Any necessary activity and use restrictions have been implemented;
  3. Any monitoring requirements are being met; and
  4. All fees and costs due under RSA 146-A, RSA 146-C, RSA 147-A, RSA 147-B, and RSA 147-F have been paid.

- *Certificate of No Further Action* - a certificate issued by the Department which certifies that (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009]:
  1. No further investigation, remediation, or other actions are required;
  2. Any necessary activity and use restrictions have been implemented;
  3. Any monitoring requirements necessary to implement an activity and use restriction are being met; and
  4. All fees and costs due under RSA 146-A, RSA 146-C, RSA 147-A, RSA 147-B, and RSA 147-F have been paid.

- *Contamination* - the presence of oil, as defined herein, other than naturally occurring substances at naturally occurring or background levels, in oil, groundwater, soil gas, air, sediment, surface water, construction/excavation debris, or any other material at a concentration that has the potential to adversely affect human health or the environment. For the purposes of this part, this also includes the term "contaminated" (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Department* - the New Hampshire Department of environmental services (NHCAR Env-Or 602) [Added March 2006].

- *Discharge* - the release or addition of any regulated contaminant to land, groundwater or surface water (NHCAR Env-Or 602) [Added March 2006; Revised March 2009].

- *Division* - the Waste Management Division of the New Hampshire Department of Environmental Services (NHCAR Env-Wm 110.01) or the Water Supply and Pollution Control Division of the New Hampshire Department of Environmental Services (NHCAR Env-Ws 421.03).

- *EPA Identification Number* - the site-specific number assigned to each generator, transporter, and treatment, storage and disposal facility upon approval of a notification form (NHCAR Env-Wm 110.01).

- *Groundwater* - subsurface water that occurs beneath the water table in soils and geologic formations (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Groundwater Contamination* - a violation of the groundwater quality criteria in Env-Or 603.01 (NHCAR Env-Or 602) [Added March 2006; Revised March 2009].

- *Groundwater Management Permit* - a permit issued pursuant to RSA 485-C:4,VIII to a site owner or responsible party to establish a groundwater management zone, manage the use of contaminated groundwater, and monitor remedial progress (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Import* - the conveyance of oil into New Hampshire by any means, by or on behalf of a licensed distributor, for purposes of distribution, sale or use in the state. Distribution, sale or use includes any transfer of ownership of oil from a licensed distributor to another licensee or other person. (NHCAR Saf-C 4302.07) [Added March 2009].

- *Industrial Furnace* - any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame devices to accomplish recovery of materials or energy:
  1. cement kilns
  2. lime kilns
  3. aggregate kilns
  4. phosphate kilns
  5. coke ovens
  6. blast furnaces
  7. smelting, melting and refining furnaces including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces
  8. titanium dioxide chloride process oxidation reactors
  9. methane reforming furnaces
  10. pulping liquor recovery furnaces

11. combustion devices used in the recovery of sulfur values from spent sulfuric acid
12. such other devices as the Commissioner of the Department of Environmental Services may, in accordance with the rulemaking procedures of RSA 541-A, add to this list on the basis of one or more of the following factors:
    a. the design and use of the device primarily to accomplish recovery of material products
    b. the use of the device to burn or reduce raw materials to make a material product
    c. the use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks
    d. the use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product
    e. the use of the device in common industrial practice to produce a material product
    f. other factors, as appropriate (NHCAR Env-Wm 110.01).

- *Initial Site Characterization* - a preliminary assessment following a discharge of oil, which is performed to collect information regarding the subsurface conditions of a site, the extent of the discharge, and potential receptors in the area (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Non-aqueous phase liquid (NAPL)* - a liquid containing oil, that is immiscible or only partially miscible in water, and which exists as a separate phase (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Notification Form* - the form used by each generator, transporter, and owner or operator that treats, stores or disposes of hazardous waste, to notify the Division of its hazardous waste activities (NHCAR Env-Wm 110.01).

- *Oil* - petroleum products and their by-products of any kind, and in any form including, but not limited to, petroleum, fuel, sludge, crude, oil refuse or oil mixed with wastes and all other liquid hydrocarbons regardless of specific gravity and which are used as motor fuel, lubricating oil, or any oil used for heating or processing. The term "oil" shall not include natural gas, liquefied petroleum gas or synthetic natural gas regardless of derivation or Source (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Person* - any individual, partnership, joint venture, corporation, association or any group of the foregoing or the United States of America, any agency thereof and any other legal entity (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Potential Receptor* - a living organism or environmental medium that is in the pathway of contamination from a discharge (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Receptor* - a living organism or an environmental medium that is exposed to contamination from a discharge (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Remedial Action* - any measure or combination of measures which will, when implemented, ensure attainment of a level of control of contaminants such that no contaminant will present a significant risk of harm to human health or the environment (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Remedial Action Plan* - proposed actions to (NHCAR Env-Or 602) [Added March 2006; Revised March 2009]:
    1. Remove, treat, or contain contamination sources
    2. Mitigate indoor air contamination
    3. Contain contaminated groundwater within the limits of a groundwater management zone
    4. Restore groundwater quality to meet groundwater quality criteria of Env-Or 603.01
    5. Restore soil quality to meet soil remediation criteria of Env-Or 606.19.

- *Responsible Party* - any person subject to the strict liability provisions of RSA 146-A:3-a or RSA 146-C:11 (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Site* - the place or location where a discharge is known or suspected to have occurred and includes the full extent of contamination resulting from the discharge (NHCAR Env-Or 602) [Added March 2006 ; Citation Revised March 2009].

- *Site Investigation* - an investigation of a discharge of oil at the site and the off-site surrounding area, which determines the location and full extent of contamination and identifies receptors and potential receptors (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Soil* - any unconsolidated material above bedrock, regardless of particle size, produced by the physical and chemical disintegration of bedrock and which might contain organic matter. Soil does not include sediment found in surface water (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Surface Water* - perennial and seasonal streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, watercourses, and other bodies of water, natural or artificial (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Water Supply Well* - a well that serves as a drinking water supply, including public water supplies, as defined in RSA 485:1-a,XV (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Writing* - any intentional reduction to tangible form including letters, words, or numbers, or their equivalent, set down by handwriting, typewriting, photostating, photographing, magnetic impulse, mechanical or electrical recording, or other form of data compilation (NHCAR Env-Or 602) [Added March 2006; Citation Revised March 2009].

- *Used Oil* - any oil that has been refined from crude oil that, through use or handling, has become unsuitable for its original purpose due to the presence of physical or chemical impurities or loss of original properties (NHCAR Env-Wm 110.01).

- *Used Oil Fuel Burner (UOF Burner)* - any owner or operator of an industrial furnace, boiler, or space heater identified in Env-Wm 807.10(b) that burns used oil fuel (NHCAR Env-Wm 807.10 (a)) [Added March 2005; Citation Revised March 2009].

PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS	
	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	PO.2.1.NH.
Spill Plans	PO.5.1.NH.
Discharges/Spills	PO.15.1.NH. through PO.15.10.NH.
(NOTE: See section HM.5, HM.5.1.NH. through HM.5.4.NH., in the *Hazardous Materials Management* chapter for requirements related to the prevention of spills or discharges from potential contamination sources, which include petroleum storage and usage areas.)	
Used Oil Generators	PO.65.1.NH. through PO.65.6.NH.
Used Oil Transportation	PO.75.1.NH. and PO.75.2.NH.
Used Oil Burners	PO.80.1.NH. through PO.80.6.NH.
Used Oil Marketing	PO.85.1.NH. through PO.85.7.NH.
Dust Suppression With Used Oil	PO.90.1.NH. and PO.90.2.NH.
State-Specific POL Requirements	PO.100.1.NH. through PO.100.3.NH.
POL Contaminated Soils	PO.105.1.NH.

GUIDANCE FOR APPENDIX USERS	
REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
8-1	Used Oil Classification Criteria
8-2	Soil Cleanup Standards

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PO.2. **MISSING CHECKLIST ITEMS**	
PO.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PO.5. **SPILL PLANS**	
PO.5.1.NH. Facilities in New Hampshire must meets state specific Spill Prevention, Control and Countermeasure (SPCC) Plan requirements (NHCAR Env-Wm 1402.30) [Added March 2010].	(NOTE: In New Hampshire, an SPCC Plan is not required for an AST facility having a total storage capacity not exceeding 1,320 gallons if the facility otherwise meets all new system standards (see the *Storage Tank Management* chapter, section ST.5), has covered secondary containment, and is not used for refueling water craft.) Verify that the owner submits a copy of the signed and professional engineer stamped certification page of the SPCC Plan to the Department within 60 days of implementation of new and revised SPCC Plans.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PO.15. **DISCHARGES/SPILLS**	
PO.15.1.NH. Oil discharges, potential discharges, and resulting actions must be reported to the Division (NHCAR Env-Or 604.06, 604.07 1604.04, 1603.05, and 1603.07) [Added April 1998; Revised March 2006; Revised March 2009].	Verify that the Department is notified immediately after obtaining knowledge that a discharge meeting one or more of the following criteria has occurred: - a discharge of any oil into surface water or groundwater of the state - a discharge of 25 gallons or more of oil to land - a discharge of less than 25 gallons of oil to land where the oil will ultimately seep into groundwater or surface water unless the discharge is cleaned up immediately and properly disposed of - a discharge that results in the presence of vapors which pose an imminent threat to human health - a discharge resulting in a violation of the groundwater quality criteria in a sample collected from a water supply well - discharge resulting in the detection of NAPL (non-aqueous phase liquid). Verify that the responsible party or other person who becomes aware of a potential discharge of oil based on an exceedance of the soil remediation standards that might have been caused by an oil discharge notifies the Department no more than 60 days after obtaining knowledge of the exceedance. Verify that the notification to the Department, either orally or in writing, includes as much of the following information as is available at the time of notification: - the name and daytime telephone number of the individual notifying the Department - the location of the discharge site - the date and time of the discharge - the type and amount of oil discharged - the name(s) and daytime telephone number(s) of the responsible party(ies) - the proximity of the discharge to receptors and potential receptors including water supply wells and surface water - the name, mailing address, and daytime telephone number of the contractor hired to clean up the contamination - a description of any emergency or initial response actions that have been taken or are proposed to be taken - the names of other federal, state, or local government agencies that have been notified or that have responded to the discharge, or both - the cause of the incident and the method used that detected the discharge - all available reports and sampling results related to the discharge.
PO.15.2.NH. Detection of NAPL (non-aqueous phase liquid) of greater than 1/8	Verify that the responsible party notifies the Department, either orally or in writing, immediately after obtaining knowledge of the detection of NAPL (non-aqueous phase liquid) of greater than 1/8 inch in thickness on groundwater unless

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inch i n t hickness o n groundwater must be reported (NHCAR E nv-Or 604. 05) [Added A pril 1998 ; Re vised March 2 005; R evised Mar ch 2006; Citation Revised March 2009].	the NAPL is being managed in accordance with the following: - emergency or initial response action - an approved remedial action plan - a groundwater management permit. Verify that the Department is provided with as much of the following information as is available at the time of notification: - the name and the phone number of the person notifying the Department - the location of the discharge site including the Department site identification number - the type and thickness of the NAPL layer observed - a description of proposed NAPL recovery actions.
PO.15.3.NH. Emergency response action is required for any discharge of oil (NHCAR Env-Or 605.03) [Added April 1998; Revised March 2005; Revised March 2006; Citation Revised March 2009].	Verify that the responsible party initiates an emergency response action as soon as practicable to prevent, eliminate, or minimize damage to human health and the environment for any discharge of oil. Verify that the responsible party conducts an emergency response action at the following sites: - where a discharge has created or might create hazardous or explosive vapors - where the discharge of oil has caused the contamination of a private or public water supply well(s) - where the discharge of oil has caused a sheen on surface water - where the discharge of oil has caused oil to enter a storm drain or sanitary sewer - at sites where NAPL is detected - at any other site where the Department determines and notifies the responsible party that emergency response actions are necessary to prevent, eliminate, or minimize damage to human health and the environment. Verify that the responsible party conducts an emergency response action that: - assesses and evaluates fire, health, and safety hazards - stops the discharge - contains the discharge - cleans up and disposes of discharged oil and contaminated debris in accordance with all local, state, and federal regulations - protects potential receptors from contamination - stabilizes the site to protect human health and the environment. Verify that the emergency response action includes, as applicable, the following: - discharge containment measures - vapor abatement measures - drainage controls - providing potable water

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	- NAPL recovery - disposal of oil or contaminated debris - soil excavation and disposal - collection and analysis of soil, sediment, surface water, groundwater, soil gas, or indoor air samples.
PO.15.4.NH. Initial response actions must be conducted after a oil discharge (NHCAR Env-Or 605.04) [Added April 1998 ; Revised March 2005; Revised March 2006; Citation Revised March 2009].	Verify that the responsible party conducts an initial response action at a site following a discharge of oil that reduces risks to human health and the environment and reduces potential future costs of response actions by remediating or containing discharges until such a time as a more comprehensive response action can be implemented. Verify that an initial response action includes, as applicable, the following: - NAPL recovery - groundwater treatment and recovery - soil excavation - soil vapor extraction - receptor surveys - vapor abatement measures - collection and analysis of soil, sediment, surface water, groundwater, soil gas, or indoor air samples.
PO.15.5.NH. Emergency response action and initial response action activities must be reported to the Department (NHCAR Env-Or 605.06) [Added April 1998 ; Revised March 2006; Revised March 2009].	Verify that the responsible party submits a written report to the Department within 30 days of completing an emergency response action or an initial response action. Verify that the report includes the following information: - the site owners name, address, and telephone number - the name(s), address(es), and telephone number(s) of the responsible party - the name(s), address(es), and telephone number(s) of the consultant and contractor hired to conduct the response action - identification of potential receptors - the type and quantity of the discharge - a description of response actions conducted - disposal documentation including copies of bills of lading and manifests - copies of laboratory analytical data - a site sketch showing the location of the discharge in relation to site buildings and the site boundary - a summary of findings. (NOTE: Where response actions continue for longer than 120 days, the responsible party submits an interim response action report every 60 days.)
PO.15.6.NH. Responsible	(NOTE: An initial site characterization is not required if:

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parties must conduct initial site characterizations and report the finding of the Department (NHCAR Env-Or 605.07 through 605.09) [Added April 1998; Citation Revised March 2009].	- the Department determines, based on preliminary response actions, that the site meets the no further action criteria of Env-Wm 1606.03 - the Department determines that a site investigation in accordance with Env-Wm 1605.01 is required to adequately characterize the nature and extent of the discharge.) Verify that the responsible party performs an initial site characterization following notification to the Department of a discharge of oil except as noted above. Verify that the responsible party submits a report of the initial site characterization to the Department within 60 days of a Department request for an initial site characterization. Verify that the initial site characterization includes: - a description of the source, location and estimated quantity of the discharge including any response actions taken - a description of the nature and extent of contamination encountered - identification of nearby receptors and potential receptors. Verify that the initial site characterization report includes the following: - complete site information, description, site sketch, and description of response actions - a summary of groundwater, soil, surface water, and water supply well sampling data, as appropriate - a copy of borings logs, and monitoring well construction details - a preliminary assessment of receptors and potential receptors located within 500 feet of the site including: drinking water supply wells including owners name and address; and surface water bodies - a summary of findings.
PO.15.7.NH. Discharges from unknown sources adjacent to the facility an initial site characterization must be conducted (NHCAR Env-Or 605.10, NHRSA 146-A:2, and NHRSA 146-C:1) [Added April 1998; Revised March 2006; Revised March 2009].	Verify that, when a discharge from an unknown source is discovered adjacent to a facility, the owner of the facility conducts an initial site characterization. (NOTE: Facility means either - an assemblage of tanks, pipes, pumps, vaults, fixed containers, and appurtenant structures, singly or in any combination, which are used or designed to be used for the storage, transmission, or dispensing of oil or a hazardous substance, and which are within the size, capacity, and other specifications prescribed by rules adopted by the Department - a location, including structures or land, at which oil is subjected to treatment, storage, processing, refining, pumping, transfer, or collection.)
PO.15.8.NH. Responsible parties must conduct oil discharge site investigations (NHCAR Env-Or 606.01 and	Verify that the site investigation is prepared by, or under the direct supervision of, a professional engineer or a licensed, professional geologist and bears the seal of the professional responsible for preparing the document.

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606.03) [Added A pril 1998 ; Revised March 2006; Citation Revised March 2009].	Verify that the responsible party submits a report of the site investigation to the Department for approval within 120 da ys of a Department request for a site investigation. Verify that the site investigation: - determines the source, nature, location, and full extent of contamination - identifies receptors and potential receptors - identifies the need to conduct further investigation or remedial actions. (NOTE: The Department will approve the site investigation upon determining that the report is complete.)
PO.15.9.NH. When required, r emedial a ction plans must be prepared, submitted, a nd implemented (NHCAR E nv-Or 606. 10) [Added A pril 1998; C itation Revised March 2001; Revised March 2 006; R evised Mar ch 2009].	Verify that the responsible party submits a report of the remedial action plan to the Department within 120 days following a Department request for a remedial action plan. Verify t hat t he remedial act ion p lan r eport is prepared by, o r und er t he d irect supervision of, a licensed, professional engineer and bears the seal of the professional engineer responsible for preparing the document. Verify that the remedial action plan is approved by the Department.
PO.15.10.NH. Remedial action p lans must b e an d implemented (NHCAR Env-Or 606. 15) [Added A pril 1998; Citation Revised March 2001; Revised March 2006; Revised March 2009].	Verify t hat, if the ap proved remedial action d oes not include any act ive on-site treatment system, co ntainment system, or source removal project, the responsible party initiates implementation of the approved plan within 90 days. Verify that, i f the approved remedial action includes any active on-site treatment system, containment system, or source removal project, the responsible party does the following: - submits design p lans a nd c onstruction s pecifications to th e Department prepared for the active on-site treatment system or source removal project, as applicable, w ithin 90 da ys following Department approval of t he r emedial action - initiates implementation of t he a pproved r emedial a ction within 90 da ys following Department approval of the de sign p lans and c onstruction specifications. Verify t hat a r emedial a ction i mplementation r eport is s ubmitted to the Department within 9 0 d ays following c ompletion o f r emedial a ction implementation activities. Verify that periodic status reports are submitted to the Department to monitor the effectiveness o f r emedial a ction i mplementation a ctivities a t t he frequency

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	specified in the Department-approved remedial action. Verify that, if implementation of the approved remedial action fails to meet performance standards specified in the approved remedial action, the Department is notifies in writing and recommendations for revising the remedial action, including a schedule of milestones, are submitted to the Department for approval.

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PO.65. **USED OIL GENERATORS**	
PO.65.1.NH. Storage of used oil on site must meet specific container requirements (NHCAR Env-Wm 807.06(b)(1) through 807.06(b)(6)) [Citation Revised March 2005].	Verify that used oil stored on site is stored in containers that meet D.O.T. specifications under 49 CFR 173 (7-1-89 edition), or in a structurally sound tank. Verify that oil containers and tanks are labeled with the words "Used Oil for Recycle". Verify that containers or tanks are sealed at all times, except when used oil is being added to or removed from the container or tank. Verify that all tanks and containers are maintained and operated to prevent spillage, seepage, or other discharge of used oil into storm or sanitary sewers, onto the land, or into ground or surface waters.
PO.65.2.NH. Generators must conduct an initial analysis of the used oil (NHCAR Env-Wm 807.06(b)(7) through (9)) [Citation Revised April 1998; Revised March 2005].	Verify that generators conduct an initial used oil determination on their used oil by analyzing it for all of the parameters specified in Appendix 8-1. (NOTE: Generators may omit the analysis for polychlorinated biphenyls (PCBs) if no sources of PCBs are present in the process generating the used oil.) Verify that the analysis is repeated whenever the process generating the used oil changes or the oil has been mixed with other materials. (NOTE: In cases where used oils from 2 or more different sources are collected in one container or tank in proportions which vary over time, the generator is to conduct analyses with sufficient frequency to ensure that the oil is correctly classified before being offered for transport.) (NOTE: Municipalities that collect used oil generated as a household waste and generators of used oils that are comprised solely of used automotive oils may omit the initial used oil determination, if the municipality or generator ensures that the oil is not mixed with any other types of oil or wastes. For the purposes of this exemption, automotive oil means motor, engine, and gear oils, and transmission and brake fluids.)
PO.65.3.NH. Used oil must not be mixed with hazardous waste (NHCAR Env-Wm 807.06(b)(10)) [Citation Revised March 2005].	Verify that generators do not mix used oil with any other hazardous waste.

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PO.65.4.NH. Generators must deliver used oil to an authorized facility or burn used oil onsite (NHCAR Env-Wm 807.06(b)(11)) [Citation Revised March 2005].	Verify that generators deliver used oil to a facility authorized to accept used oil, or burn the used oil onsite (see section PO.80.NH.).
PO.65.5.NH. Generators who burn their used oil or market directly to a used oil burner must comply with specific notification requirements (NHCAR Env-Wm 807.06(b) (15) and (16)) [Citation Revised March 2005].	Verify that generators who market their used oil directly to a burner comply with Env-Wm 807.09 (PO.85.1.NH.), notification of activities. Verify that generators who burn their own used oil comply with Env-Wm 807.10 (PO.80.1.NH.), notification of activities.
PO.65.6.NH. Generators must comply with specific recordkeeping requirements (NHCAR Env-Wm 807.06(b) (17)) [Citation Revised March 2005].	Verify that generators maintain on file copies of all bills of lading or used oil analyses for 3 yr from the date of shipment or analysis.

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PO.75. **USED OIL TRANSPORTATION**	
PO.75.1.NH. Used oil must be transported by duly permitted hazardous waste transporters (NHCAR Env-Wm 807.06(b) (12) through 807.06(b) (14)) [Citation Revised March 2005].	Verify that a used oil transporter is permitted to transport hazardous waste. Verify that the used oil transporter uses a three-copy bill of lading. Verify that the bills of lading includes the following information: - a shipment number unique to each shipment - the name and site address of the generator/shipper, transporter/carrier, and receiving facility/consignee - the EPA identification numbers of the shipper, the transporter, and the receiving facility - the quantity of used oil to be delivered - the date(s) of shipment and delivery - the following statement signed by the generator: "This used oil is destined to be recycled and is subject to regulation by the Department of Environmental Services under Part Env-Wm 807. I certify that this used oil is not a hazardous waste fuel as defined in Env-Wm 807. 04 and that I have not mixed this used oil with any other hazardous wastes identified in Chapter Env-Wm 400 or any used oil classified as hazardous waste fuel under Env-Wm 807.04". Verify that if used oil is being shipped to another state that regulates used oil as a hazardous waste, a hazardous waste manifest may be used in lieu of a bill of lading.
PO.75.2.NH. Used oil transporters must comply with hazardous waste transporter requirements (NHCAR Env-Wm 807. 07) [Revised March 2005].	Verify that transporters of used oil being recycled comply with all of the requirements for hazardous waste transporters under Chapter Env-Wm 600 (see HW.100.NH.), except that generators transporting up to 110 gal at a time of their own used oil are exempt from these requirements. Verify that generators transporting their own oil use a bill of lading for transportation of used oil, except in cases where used oil is being shipped to another state or jurisdiction that regulates used oil as a hazardous waste and requires the use of a hazardous waste manifest. Verify that generators transporting their own oil keep a copy of the bill of lading for each shipment on file for 3 yr from the date of shipment. (NOTE: The 3-yr record retention period is extended during the course of any enforcement action until such action has been resolved.)

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PO.80. **USED OIL BURNERS**	
PO.80.1.NH. Used oil burners are required to notify the Division of used oil management activities (NHCAR Env-Wm 807.10(b)(1)) [Revised April 1998; Revised March 2005].	Verify that a used oil burner has notified the Division of used oil management activities on a form provided by the Division. (NOTE: Even if the used oil burner has notified the Division of hazardous waste management activities, the burner must re-notify the Division of any used oil management activities.)
PO.80.2.NH. [Deleted April 1998].	

PO.80.3.NH. Off-specification used oil must be burned in specific devices only (NHCAR Env-Wm 807.10(b)(4)) [Citation Revised March 2005].	Verify that off-specification used oil (see Appendix 8-1) fuel is burned only in the following devices:
	
	- industrial furnaces
	- boilers that are identified as follows:
	  - industrial boilers possessing a heating capacity in excess of 10 MBtu/h and located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes
	  - utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale
	- used oil fired space heaters, provided that the heater is designed to have a maximum capacity of not more than 0.5 MBtu/h, combustion gases from the heater are vented to the outside ambient air, and the burner burns only used oil that is generated on site.

PO.80.4.NH. Specification used oil must be burned in specific devices only (NHCAR Env-Wm 807.10(b)(5) and (6)) [Revised March 2005].	Verify that specification used oil (see Appendix 8-1) fuel is burned only in the following devices: - oil furnaces and boilers, except those located at private residences, hotels, motels, apartment buildings, and residential institutions including hospitals, residential treatment facilities, and retirement homes - used oil fired space heaters, provided that the heater is designed to have a maximum capacity of not more than 0.5 MBtu/h, and combustion gases from the heater are vented to the outside ambient air. (NOTE: Used oils containing greater than or equal to 2 ppm polychlorinated

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	biphenyls (PCBs) are to be burned only in units allowed under 40 CFR 761.60, 7-1-99 edition, pursuant to the Toxic Substances Control Act.)
PO.80.5.NH. Used oil burners must conduct analysis (NHCAR Env-Wm 807.10(b)(7)).	Verify that burners perform analyses of the oil to determine if it is specification, off-specification or hazardous waste, unless: - the burner has received the used oil fuel from a marketer that has tested the batch in question and has provided a copy of the analytical report for same to the burner - the burner is burning only used automotive oil that is generated on-site - the burner is burning only used oil collected from persons generating the oil as a household waste.
PO.80.6.NH. Used oil burners must maintain specific records (NHCAR Env-Wm 807.10(b)(9)) [Added March 2005].	Verify that a used oil burners keep the following records on file: - a copy of each certification notice that the burner sends to a marketer for 3 years from the date the burner last receives used oil fuel from that marketer - copies of all used oil fuel analysis reports for 3 years from the date that the oil is received at the burner's facility - a copy of each bill of lading for 3 years from the date that the oil is received at the burner's facility.

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PO.85. **USED OIL MARKETING**	
PO.85.1.NH. Used oil marketers are required to notify the Division of their oil management activities (NHCAR Env-Wm 807.08 and 807.09(b)(1)) [Revised April 1998; Citation Revised March 2007].	Verify that any used oil marketer has notified the Division of used oil management activities on a form provided by the Division. (NOTE: Even if a used oil marketer has previously notified the division or USEPA of hazardous waste management activities and obtained an EPA identification number, the marketer must renotify to specifically identify the used oil management activities.) (NOTE: The following persons are deemed to be used oil marketers: - generators who market their used oil directly to a burner - persons who receive used oil from generators and produce, process, or blend used oil fuel from the used oils received, including persons sending blended or processed used oil to brokers or other intermediaries - persons, including transporters who take ownership of the oil they collect, who distribute but do not process or blend used oil. The following persons are not classified as used oil marketers unless they transfer their used oil directly to a person who burns it for energy recovery: - used oil generators - transporters who transport used oil received only from generators.)
PO.85.2.NH. [Deleted April 1998].	
PO.85.3.NH. Marketers must comply with sampling and analysis requirements (NHCAR Env-Wm 807.09(b)(3)) [Citation Revised March 2005; Citation Revised March 2007].	(NOTE: See PO.85.1.NH. for definition of used oil marketers.) Verify that marketers perform sampling and analyses, for the parameters specified in Env-Wm 807.02 and Env-Wm 807.03 (see PO.60.1.NH.) on used oil being marketed. (NOTE: A unique number or code is assigned to each batch of used oil tested. The number or code is recorded on the corresponding analytical reports and on the bill(s) of lading or hazardous waste manifest(s) documenting shipment(s) of that batch. If a previously tested batch is subsequently mixed with more used oil, a new number or code is assigned to the batch and testing is repeated prior to marketing.)
PO.85.4.NH. Marketers must comply with used oil marketing rules (NHCAR	(NOTE: See PO.85.1.NH. for definition of used oil marketers.) Verify that off-specification used oil is marketed only to rerefiners or to owners

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Env-Wm 807.09(b)(6)) [Citation Revised March 2005; Citation Revised March 2007].	and operators of burning devices identified in Env-Wm 807.10(b)(4) (see PO.80.3.NH.), or to other marketers. Verify that specification used oil is marketed only to rerefiners or to owners and operators of burning devices identified in Env-Wm 807.10(b)(5) (see PO.80.4.NH.), or to other marketers.
PO.85.5.NH. Marketers initiating a shipment must use a three-copy bill of lading (NHCAR Env-Wm 807.09(b)(7) through (10)) [Citation Revised March 2005; Citation Revised March 2007; Revised March 2008].	(NOTE: See PO.85.1.NH. for definition of used oil marketers.) Verify that, when initiating a shipment of used oil, a marketer utilizes a three-copy bill of lading. Verify that the marketer indicates on the bill of lading the batch code or number corresponding to the batch being shipped and whether the oil is specification or off-specification used oil. Verify that a copy of the analytical report accompanies the bill of lading. Verify that the marketer, transporter, and the receiving facility each receive and maintain on file a copy of the bill of lading.

PO.85.6.NH. Marketers must meet specific notification requirements (NHCAR Env-Wm 807.09(b)(11)) [Citation Revised March 2005; Citation Revised March 2007].	(NOTE: See PO.85.1.NH. for definition of used oil marketers.)
	
	Verify that the following required notices have been made:
	
	- before initiating the first shipment of used oil to a burner, rerefiner, or other marketer, the marketer obtains a one-time written and signed notice from the recipient certifying that:
	  - the recipient of the used oil has notified the Division of the recipient's used oil management activities
	  - if the recipient is a burner, the recipient will burn the used oil only in a device allowed under Env-Wm 807.10
	- before accepting the first shipment of used oil from another marketer subject to the requirements of this Section, the receiving marketer provides the shipping marketer with a one-time written and signed notice certifying that the receiving marketer has notified the Division of the receiving marketer's used oil management activities.

PO.85.7.NH. Used oil marketers must meet specific recordkeeping requirements (NHCAR Env-Wm 807.09(b)(12)). [Citation Revised	Verify that the used oil marketer maintains the following records: - a copy of each certification notice that the marketer receives or sends for 3 yr from the date the marketer last engages in a used oil marketing transaction with the person who sends or receives the certification notice - copies of all used oil analysis reports for 3 yr from the date that the oil is

COMPLIANCE CATEGORY: PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
March 2005].	marketed to another marketer, rerefiner, or burner - a copy of each bill of lading for 3 yr from the date of shipment. Verify that a operating log is maintained, with the following information regarding each shipment of used oil fuel: - the name and address of the facility receiving the shipment - the quantity of used oil fuel delivered - the date of shipment or delivery - a cross-reference to the record of the used oil analysis, including the batch code or number.

COMPLIANCE CATEGORY: PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PO.90. **DUST SUPPRESSION WITH USED OIL**	
PO.90.1.NH. Used oil must not be used for dust suppression or applied to other land areas (NHCAR Env-Wm 807.01(c) (1)).	Verify that used oil is not applied to roads or other land areas for the purpose of dust suppression or any other reason.
PO.90.2.NH. Off-specification used oil must not be used for automotive undercoating (NHCAR Env-Wm 807.01).	Verify that off-specification used oil is not used as an automotive undercoating.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PO.100. **STATE-SPECIFIC POL REQUIREMENTS**	
PO.100.1.NH. Importers of oil into New Hampshire must obtain an Oil Discharge and Disposal License (NHCAR Saf-C 4303.01, and 4302.07) [Revised April 1998; Revised March 2007; Citation Revised March 2009].	Verify that any importers of oil have a Oil Discharge and Disposal License from the Bureau of Road Toll, Department of Safety. (NOTE: For the purpose of this checklist item, "import' means the conveyance of oil into New Hampshire by any means, by or on behalf of a licensed distributor, for purposes of distribution or sale or use in the state. Distribution or sale or use includes any transfer of ownership of oil from a licensed distributor to another licensee or other person.)
PO.100.2.NH. Importers of oil into New Hampshire are required to obtain an Oil Pollution Control License (NHCAR Saf-C 4203.01 and 4203.02) [Revised April 1998; Revised March 2007].	Verify that importers of oil into New Hampshire have an Oil Pollution Control License from the Bureau of Road Toll, Department of Safety. (NOTE: For the purpose of this checklist item, "importer" means: - an out-of-state seller who owns the product as it crosses the state line into New Hampshire, or has hired a transporter to deliver the product, and of which the title to the product passes to the customer, upon delivery at the customer facility - an in-state purchaser that picks up the product out of state and owns it as it crosses the state line into New Hampshire, or hires a transporter to deliver the product to his facility.)
PO.100.3.NH. Oil Discharge and Disposal Licenses must file monthly reports (NHCAR Saf-C 4304.01 (a), (b), (e) and (g) and 4204.01(a), (b), (e) and (f)) [Added March 2009; Citation Revised March 2010].	(NOTE: This checklist applies to persons that have the Oil Discharge and Disposal License or the Oil Pollution Control License.) Verify that licensees file monthly reports using form RT-51, Oil Discharge and Disposal Report. Verify that all proper supporting documentation, including forms RT-45, Oil Discharge and Pollution Control Delivery Schedule, is submitted. Verify that a separate RT-45 is prepared for each oil type. Verify that the required report is filed, even in those cases where no operations occurred within the state, during a given reporting period.

COMPLIANCE CATEGORY: PETROLEUM, OIL, AND LUBRICANT (POL) MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PO.105. **POL CONTAMINATED SOILS**	
PO.105.1.NH. All contaminated soil resulting from an oil discharge must meet soil standards (NHCAR Env-Or 606.19) [Added April 1998; Revised March 2006; Revised March 2009].	Verify that all contaminated soil resulting from and oil discharge meets the standards found in Appendix 8-2. (NOTE: In lieu of the soil standards in Appendix 8-2, the responsible party may: - develop site-specific soil remediation standards by evaluating the risk to human health and the environment - use an activity and user restriction at a site where a Department-approved remedial action relies on the restriction of site activities and uses to eliminate exposure pathways to achieve or maintain protection of human health and the environment.)

Appendix 8-1

Used Oil Classification Criteria

(Source: NHCAR Env-Wm 807.02 through 807.04) [Added April 1998]

Used oil shall be classified as "specification used oil" if:

(a) The oil has not been mixed with hazardous waste; and
(b) The oil meets all of the standards in Table 8.1 below and does not otherwise exhibit any hazardous waste characteristic:

Table 8.1. Specification Used Oil Standards.

Constituent/Property	Allowable Level (ppm, Dry Weight Basis)
Arsenic	5.0 ppm maximum
Cadmium	2.0 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Polychlorinated biphenyls (PCBs)	less than 2 ppm
Total Halogens	1000 ppm maximum
Flash Point	100 degrees F minimum

Used oil shall be classified as "off-specification used oil" if:
(1) The oil does not meet the standards for "specification used oil" outlined in Env-Wm 807.02;
(2) The oil has not been mixed with hazardous waste; and
(3) The oil meets all of the standards in Table 8.2 below and does not otherwise exhibit any hazardous waste characteristic.

Table 8.2. Off-Specification Used Oil Standards.

Constituent/Property	Allowable Level (ppm, Dry Weight Basis)
Arsenic	18.0 ppm maximum
Cadmium	10.0 ppm maximum
Chromium	35 ppm maximum
Lead	1,000 ppm maximum
Flash Point	100 degrees F. minimum

NOTE: Used oil containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 2 parts per million shall be classified as off-specification used oil, and shall be subject to all requirements governing the management of off-specification used oil. Used oils containing PCBs shall also be subject to regulation under the Toxic Substances Control Act and its rules codified under 40 CFR 761, 7-1-94 edition.

Used oil shall be classified as hazardous waste and shall be managed in accordance with the hazardous waste rules if it:
(1) Has been mixed with hazardous waste;
(2) Exhibits a hazardous waste characteristic (except as provided for specification or off-specification used oil above), or
(3) Does not meet the standards for off-specification used oil specified in Env-Wm 807.03.

Used oil classified as a hazardous waste pursuant to this section which is burned for energy recovery shall be managed as a hazardous waste fuel in accordance with Part Env-Wm 806.

Used oil containing more than 1000 parts per million of total halogens shall be presumed by the division to be a hazardous waste on the basis that it has been mixed with halogenated hazardous waste listed in Env-Wm 400. Persons may rebut this presumption by providing conclusive information that the used oil has not been mixed with hazardous halogenated waste listed in Env-Wm 400.

Used oil which is determined to be a hazardous waste under Env-Wm 807.04 shall not be blended to meet the standards outlined in Env-Wm 807.02 or Env-Wm 807.03.

Appendix 8-2

Soil Remediation Standards
(Source: NHCAR Env-OR 606.19) [Added March 2006; Revised March 2008; Revised March 2009]

Soil remediation standards apply to all contaminated soil resulting from a discharge

(NOTE: The soil standards do not apply at sites where contamination is at or below background levels.)

Table 600-2
SOIL REMEDIATION STANDARDS

Chemical Name	CAS No.	Concentration (mg/kg)
Acenaphthene	83-32-9	340
Acenaphthylene	208-96-8	490
Acetone	67-64-1	75
Acrylonitrile	107-13-1	0.5
Alachor	15972-60-8	0.2
Aldicarb	116-06-3	0.1
Aldicarb sulfone	1646-88-4	0.1
Aldicarb sulfoxide	1646-87-3	0.2
Aldrin	309-00-2	0.09
Allyl chloride	107-05-1	1
Anthracene	120-12-7	1,000
Antimony	7440-36-0	9
Arsenic	7440-38-2	11
Atrazine	1912-24-9	0.09
Barium	7440-39-3	1000
Benzene	71-43-2	0.3
Benzidine	92-87-5	0.004
Benzo(a)anthracene	56-55-3	1
Benzo(a)pyrene	50-32-8	0.7
Benzo(b)fluoranthene	205-99-2	1
Benzo(g,h,i)perylene	191-24-2	960
Benzoic acid	65-85-0	350
Benzo(k)fluoranthene	207-08-9	12
Beryllium	7440-41-7	1
Biphenyl, 1,1-	92-52-4	174
Bis (2Chloroisopropyl) ether	108-60-1	5
Bis (Chloroethyl) ether	111-44-4	0.7
Bisphenol A	80-05-7	1,300
Boron	7440-42-8	1,000
Bromodichloromethane	75-27-4	0.1
Bromoform	75-25-2	0.1
Bromomethane	74-83-9	0.3
Butylbenzene, n-	104-51-8	110
Butylbenzene, sec-	135-98-8	130
Butylbenzene, tert-	98-06-6	100
Cadmium	7440-43-9	33
Camphor	76-22-2	760
Carbofuran	1563-66-2	0.6

Table 600-2 SOIL REMEDIATION STANDARDS		
Chemical Name	**CAS No.**	**Concentration (mg/kg)**
Carbon disulfide	75-15-0	460
Carbon tetrachloride	56-23-5	12
Chlordane	57-74-9	4
Chloroaniline, p-	106-47-8	1.3
Chloromethane	74-87-3	3
Chlorophenol, 2-	95-57-8	2
Chlorotoluene, 2 (o)	95-49-8	15
Chlorotoluene, 4 (p)	106-43-4	2,400
Chromium (III)	16065-83-1	1,000
Chromium (VI)	18540-29-9	130
Chrysene	218-01-9	120
Clopyralid	1702-17-6	13,000
Cyanazine	21725-46-2	0.03
Cyanide	57-12-5	100
2,4-D (Dichlorophenooxy acetic acid, 2,4-)	94-75-7	300
Dalapon	75-99-0	3
DDD (Dichlorodiphenyl dichloroethane, p,p')	72-54-8	6
DDE (Dichlorodiphenyl dichloroethylene, p,p')	72-55-9	4
DDT (Dichlorodiphenyl trichloroethane, p,p')	50-29-3	4
Dibenzo(a,h)anthracene	53-70-3	0.7
Dibromochloromethane	124-48-1	1
Dibromochloropropane	96-12-8	0.1
Dibutylphthalate	84-74-2	2,600
Dichlorobenzene, 1,2- (o-DCB)	95-50-1	88
Dichlorobenzene, 1,3- (m-DCB)	541-73-1	150
Dichlorobenzene, 1,4- (p-DCB)	106-46-7	7
Dichlorobenzidine, 3,3'-	91-94-1	0.7
Dichlorodifluoromethane	75-71-8	1,000
Dichloroethane, 1,1-	75-34-3	3
Dichloroethane, 1,2-	107-06-2	0.1
Dichloroethylene, 1,1-	75-35-4	2
Dichloroethylene, cis-1,2-	156-59-2	2
Dichloroethylene, trans-1,2-	156-60-5	9
Dichloromethane (Methylene chloride)	75-09-2	0.1
Dichlorophenol, 2,4-	120-83-2	0.7
Dichloropropane, 1,2-	78-87-5	0.1
Dichloropropene, 1,3-	542-75-6	0.1
Dieldrin	60-57-1	0.06
Diethyl ether	60-29-7	3900
Diethyl phthalate	84-66-2	1,000
Di-(2-ethylhexyl)phthalate (DEHP)	117-81-7	72
Diisopropyl ether (DIPE)	108-20-3	10
Dimethyl phthalate	131-11-3	700
Dimethylphenol, 2,4-	105-67-9	4
Dinitrophenol, 2,4-	51-28-5	0.7
Dinitrotoluene, 2,4-	121-14-2	0.7
Dinoseb	88-85-7	1
Dioxane, 1,4-	123-91-1	5

Table 600-2 SOIL REMEDIATION STANDARDS		
Chemical Name	**CAS No.**	**Concentration (mg/kg)**
Diphenylhydrazine, 1,2-	122-66-7	1
Diquat (dibromide)	85-00-7	0.3
Endosulfan	115-29-7	45
Endothall	145-73-3	1
Endrin	72-20-8	8
Ethyl tert butyl ether (ETBE)	637-92-3	0.7
Ethylbenzene	100-41-4	140
Ethylene dibromide	106-93-4	0.1
Ethylene glycol	107-21-1	91
Fluoranthene	206-44-0	960
Fluorene	86-73-7	77
Fluoride	7782-41-4	2200
Formaldehyde	50-00-0	1
Heptachlor	76-44-8	0.2
Heptachlor epoxide	1024-57-3	0.1
Hexachlorobenzene	118-74-1	0.8
Hexachlorobutadiene	87-68-3	7
Hexachlorocyclohexane, alpha	319-84-6	0.06
Hexachlorocyclohexane, beta	319-85-7	0.06
Hexachlorocyclohexane, gamma	58-89-9	0.09
Hexachlorocyclopentadiene	77-47-4	200
Hexachlorodibenzodioxin, 2,3,7,8-	34465-46-8	0.0007
Hexachloroethane	67-72-1	0.7
Indeno(1,2,3-cd)pyrene	193-39-5	1
Isophorone	78-59-1	1
Isopropyl benzene	98-82-8	330
Isopropyl toluene, p-	99-87-6	3400
Lead	7439-92-1	400
Manganese	7439-96-5	5200
MCPA (2-Methyl-4-chlorophenoxyacetic acid)	94-74-6	13
MCPP (2-(2- Methyl-4-chlorophenoxy) propionic acid)	93-65-2	26
Mercury (inorganic)	7439-97-6	6
Methanol	67-56-1	50
Methoxychlor	72-43-5	130
Methyl ethyl ketone (MEK)	78-93-3	51
Methyl isobutyl ketone (MIBK)	108-10-1	29
Methyl mercury	22967-92-6	3
Methylnaphthalene, 2-	91-57-6	96
Methyl phenol, 2-	95-48-7	0.9
Methyl phenol, 4-	106-44-5	0.7
Methyl tert butyl ether (MTBE)	1634-04-4	0.2
Metolachlor	51218-45-2	3
Metribuzin	21087-64-9	5
Monochlorobenzene	108-90-7	6
Naphthalene	91-20-3	5
Nickel	7440-02-0	400
Oxamyl	23135-22-0	2
Pentachlorophenol	87-86-5	3

Table 600-2 SOIL REMEDIATION STANDARDS		
Chemical Name	**CAS No.**	**Concentration (mg/kg)**
Phenanthrene	85-01-8	960
Phenol	108-95-2	56
Picloram	1918-02-1	6
Polychlorinated Biphenyls (PCBs)	1336-36-3	1
Propyl benzene, n-	103-65-1	85
Pyrene	129-00-0	720
Selenium	7782-49-2	180
Silver	7440-22-4	89
Simazine	122-34-9	0.4
Styrene	100-42-5	17
TCDD,2,3,7,8-(Dioxin)	1746-01-6	0.001
Tertiary amyl methyl ether (TAME)	994-05-8	3
Tertiary butyl alcohol (TBA)	75-65-0	2
Tetrachloroethane, 1,1,1,2-	630-20-6	0.8
Tetrachloroethane, 1,1,2,2,-	79-34-5	4
Tetrachloroethylene (PCE)	127-18-4	2
Tetrachlorophenol 2,3,4,6	58-90-2	130
Tetrahydrofuran	109-99-9	200
Thallium	7440-28-0	10
Toluene	108-88-3	100
Total Petroleum Hydrocarbons		10,000
Toxaphene	8001-35-2	1
2,4,5-TP (Silvex)	93-72-1	60
Trichlorobenzene, 1,2,4-	120-82-1	19
Trichlorobenzene, 1,3,5-	108-70-3	340
Trichloroethane, 1,1,1-	71-55-6	78
Trichloroethane, 1,1,2-	79-00-5	0.1
Trichloroethylene (TCE)	79-01-6	0.8
Trichlorofluoromethane	75-69-4	1,000
Trichloromethane (Chloroform)	67-66-3	3
Trichlorophenol, 2,4,5-	95-95-4	24
Trichlorophenol, 2,4,6-	88-06-2	0.7
Trichloropropane, 1,2,3-	96-18-4	0.2
Trimethylbenzene, 1,2,4	95-63-6	130
Trimethylbenzene, 1,3,5	108-67-8	96
Vinyl chloride	75-01-4	1
Xylenes (mixed isomers)	1330-20-7	500
Zinc	7440-66-6	1,000

SECTION 9

SOLID WASTE MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Solid Waste Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

NOTES

New Hampshire's solid waste regulations have been completely revised as of 29 October 1997. All of the checklist items, definitions, and appendices in this chapter are new as of April 1998.

The solid waste rules do not apply to a solid waste facility that has demonstrated to the Department, by complying with the registration requirements in New Hampshire Code of Administrative Rules (NHCAR) Env-Wm 309 (see SO.6.3.NH.), that it ceased operating before 10 July 1981 (NHCAR Env-Wm 101.04).

Definitions

- *Abutter* - any person who owns property adjacent to, or across a road, railroad, or stream from the property on which a solid waste facility may be permitted (NHCAR Department of Environmental Services- Solid Waste Programs (Env-Sw) 102) [Citation Revised March 2007].

- *Accumulated Waste* - the quantity of waste stored at a facility in excess of the storage capacity specified in the permit or permit exemption (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Active Life* - that period of time at a facility during which solid waste is or will be received, processed, treated or disposed, beginning with the date of first waste receipt and ending with the date waste is last received, processed, treated or disposed. The term includes both operating and nonoperating days falling between the described beginning and ending points (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Actively Manage* - to handle a waste or material, including waste-derived products and recyclable materials, in a controlled manner without causing (NHCAR Env-Sw 102) [Citation Revised March 2007]:
  1. a nuisance
  2. an adverse effect to the environmental, public health and safety
  3. accumulations which have no identifiable destination or value
  4. a loss of material value in the market place due to material damage, degradation and/or contamination

- *Amended Water* - water to which a chemical wetting agent, such as a surfactant, has been added to improve penetration of the water into asbestos or other materials to limit the potential for airborne particulates (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Approved Bulking Agent* - any material that a facility is authorized in the permit or by the solid waste rules to mix with waste to provide, for processing or treatment of the waste, a source of carbon, air spaces and liquid absorption. The term includes waste-derived products certified for distribution and use as a bulking agent pursuant to Env-Sw 1500 (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Applicant* - the person applying for a permit, permit modification, certificate, waiver or other approval pursuant to the solid waste rules and who will be responsible for complying with the provisions of the approval, if granted (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Application* - information and documentation submitted to the Department by an applicant to request a permit, permit modification, certificate, waiver or other approval pursuant to the solid waste rules (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Approved Design Capacity* - the quantity of waste a facility is authorized to manage, expressed as follows (NHCAR Env-Sw 102) [Citation Revised March 2007]:
  1. For all facilities, the average weekly tonnage to be received at the facility during the quarter in which the most waste is anticipated to be received, as specified in the permit or the permit exemption;
  2. For processing or treatment or transfer facilities:
     a. The rated through-put capacity of the equipment for processing of solid waste, as specified in the permit or permit exemption; and
     b. The approved storage capacity; and
  3. For landfills, the approved design volume.

- *Approved Design Volume* - the maximum in-place volume of waste, including cover materials, to be received at a landfill during its active life, as specified in the permit or the permit exemption (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Approved Storage Capacity* - the maximum quantity of waste which a facility is authorized to store, pending removal, processing, treatment or disposal as specified in the permit or permit exemption (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Aquifer* - a geological formation, group of formations, or part of a formation, that is capable of yielding usable quantities of groundwater (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Asbestos* - asbestos as defined by RSA 141-E:2,I, namely amosite, chrysotile, crocidolite, or asbestiform tremolite, actinolite, or anthophyllite (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Asbestos Waste* - (NHCAR Env-Sw 102) [Citation Revised March 2007]:
  1. Solid waste that contains more than one percent asbestos by weight;
  2. Any asbestos-containing solid waste that is collected in a pollution control device designed to remove asbestos; and
  3. The entire volume and weight of any waste identified in (1) or (2) above when mixed with any other material or any solid waste.

- *Asbestos Waste Site* - any site that is not permitted to receive asbestos, where asbestos waste, either on the surface or subsurface, is located (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Authorized Facility* - a facility holding all requisite federal, state or local permits, licenses or approvals. As applied to a New Hampshire facility, the term includes both permitted facilities and permit-exempt facilities which hold all requisite federal and local permits, licenses or approvals (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Authorized Waste* - a waste that is approved by the Department for receipt by a facility, as specified in the permit or permit exemption as applicable (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Base Flood* - a flood that has a one per cent chance of being equaled or exceeded in any given yr. The term includes "100-yr flood" (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Bill of Lading* - a receipt, issued by the transporter, listing waste and/or materials shipped (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Biologicals* - preparations made from living organisms and their products, including vaccines and cultures, intended for use in diagnosing, immunizing and/or treating humans or animals or in research pertaining thereto (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Body Fluids* - liquid emanating or derived from humans and limited to blood, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids and semen and vaginal secretions (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Bottom Ash* - the ash residue remaining after combustion of solid waste, fossil fuel, wood, sludge or other materials in an incinerator that is discharged through and from the grates, combustor or stoker (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Bulky Waste* - large items that cannot be handled by normal solid waste processing, collection or disposal methods, such as appliances, furniture, large auto parts, tires, and, when they are not buried on-site in accordance with RSA 149-M:4,XXIV, tree stumps (NHCAR Env-Sw 102).

- *Bypass Waste* - any waste that is delivered to a processing or treatment facility but cannot be processed or treated by the facility. The term includes downtime waste, excess waste, unsuitable waste, and accumulated waste (NHCAR Env-Sw 102). [Citation Revised March 2007]

- *Call* - action by the Department to invoke the provisions of a temporary permit requiring the permittee to either commence the facility closure process or the process for obtaining a permanent permit issued pursuant to RSA 149-M and the solid waste rules for continued operation of the facility (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Cap* - the final cover placed over solid waste at a landfill to minimize the amount of precipitation contacting the solid waste, to prevent contact with the solid waste and to assist in the collection of landfill gas (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Capacity Needs* - the amount of facility capacity identified as necessary to accommodate the management of solid waste for (NHCAR Env-Sw 102) [Citation Revised March 2007]:
  1. The state, as contained in the most recent version of the state solid waste plan required by RSA 149-M:6,VI; and
  2. A solid waste management district, as contained in the most recent version of that district's solid waste plan required by RSA 149-M:24,IV.

- *Cell* - within a landfill, the smallest unit of subdivided area which is surrounded by berms that hydraulically separate the cell, when active, from other cells of the landfill when such other cells have not yet received wastes or been constructed (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Certified Operator* - an individual certified pursuant to Env-Sw 1600 (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Certified Waste-derived Product* - a waste-derived product certified for distribution and use pursuant to Env-Sw 1500 (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Class A Compost* - compost meeting the criteria specified in Env-Sw 605.05 (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Class AA Compost* - compost produced from the following wastes and materials only (NHCAR Env-Sw 102) [Revised March 2000; Citation Revised March 2007]:
  1. Yard waste and farming crop residuals
  2. Food waste
  3. Animal manure
  4. Approved bulking agents, including waste-derived products certified for distribution and use as a composting bulking agent pursuant to Env-Wm 3200.

- *Class I Incinerator* - a device engineered to burn solid waste for volume reduction under controlled conditions (NHCAR Env-Sw 1602) [Citation Revised March 2007].

- *Class II Incinerator* - a device engineered to burn solid waste for volume reduction under controlled conditions that recovers energy as a by-product (NHCAR Env-Sw 1602) [Citation Revised March 2007].

- *Class III Incinerator* - a device engineered to burn infectious waste (NHCAR Env-Sw 1602) [Citation Revised March 2007].

- *Closure* - the procedures used to permanently cease use of a facility, or portion thereof, in a manner that will minimize future risks of environmental damage and includes all required postclosure inspection, monitoring and maintenance activities (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Coefficient of Permeability* - saturated hydraulic conductivity and is the rate of laminar flow of water through a unit cross-sectional area of porous medium under a unit hydraulic gradient at a standard temperature (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Collection, Storage And Transfer Facility* - a facility which collects waste from any location, stores the waste for a limited period of time and subsequently transfers the waste to another location without having changed the characteristics of the waste as received except by having sorted, packaged and/or compacted the waste. The term includes "transfer station" as defined by Env-Sw 104.54, "recycling facility" as defined by Env-Sw 104.20, stockpiles of waste, and collection devices such as dumpsters (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Combined Ash* - a mixture of bottom ash and fly ash (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Commercial Facility* - a facility that receives waste from an unlimited service area. The term does not include limited public and limited private facilities (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Commissioner* - the commissioner of the Department of environmental services (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Compost* - a stable, humuslike substance which is derived from a process involving the biological decomposition of any readily biodegradable material, such as animal manure, garbage, yard waste, septage, sludge, or other organic solid wastes, and which can be beneficially reused for land application (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Composting Facility* - a facility that produces compost (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Confidential Business Information* - information that is exempt from disclosure under RSA 91-A:5,IV (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Construction And Demolition Debris* - non-putrescible waste building materials and rubble that is solid waste resulting from the construction, remodeling, repair or demolition of structures or roads. The term includes but is not limited to, bricks, concrete and other masonry materials, wood, wall coverings, plaster, dry wall, plumbing, fixtures, non-asbestos insulation or roofing shingles, asphaltic pavement, glass, plastics that are not sealed in a manner that conceals other wastes and electrical wiring and components, incidental to any of the above and containing no hazardous liquid or metals. The term does not include asbestos waste, garbage, corrugated containerboard, electrical fixtures containing hazardous liquids such as fluorescent light ballasts or transformers, furniture, appliances, tires, drums and containers, and fuel tanks (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Contingency Plan* - a document describing organized, planned, and technically-coordinated courses of action to be followed by a facility in case of emergency or other special conditions, such as equipment breakdowns; fire; odor; vectors; explosion; spills; receipt or release of hazardous or toxic materials or substances; groundwater,

surface water or air contamination attributable to a facility; and other incidents that could threaten human health or safety or the environment (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Council* - the waste management council established by RSA 21-O:9 (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Cover Material* - soil or other functionally equivalent material that is placed over solid waste at a landfill. The term does not include materials used to construct a landfill capping system (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Department* - the Department of environmental services (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Designated River* - that portion of a river which has been specifically designated by the general court pursuant to RSA 483:15 (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Director* - the director of the division of waste management (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Discharge* - the accidental or intentional release, spilling, leaking, pumping, pouring, emitting, emptying, or dumping of any solid waste or solid waste constituent, including leachate, into or on any air, land or water (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Disposal* - the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or onto any land or water with the possible result that such solid waste or any constituent of it may enter the environment, be emitted into the air, or be discharged into any waters, including groundwater" (NHCAR Env-Sw 102) [Revised March 2000; [Citation Revised March 2007].

- *District* - a solid waste management district established under RSA 149-M:24 (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *District Plan* - the plan developed for waste management within a district, and approved by the Department (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Division* - the division of waste management within the Department of environmental services (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Dormant Application* - an application for which the applicant has failed to submit the information required to complete the application within 12 mo of the date the application is first deemed incomplete by the Department (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Downtime Waste* - any processable or treatable solid waste accumulated during a scheduled or unscheduled shutdown of facility operations (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Emergency Permit* - a permit issued pursuant to the solid waste rules which authorizes waste management activities at a facility for a limited period of time in response to an emergency for which no other readily available response exists and for which a delayed response to obtain another type of permit would result in an unnecessary risk to public health, safety or the environment (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Emergency Permit Facility* - a facility authorized or requiring authorization by issuance of an emergency permit (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Encapsulant or Sealant* - a substance applied to a material, such as friable asbestos, which controls the release of airborne fibers or particles (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Endangered Or Threatened Species* - any species protected under the Federal Endangered Species Act or under NH RSA 212-A, Endangered Species Conservation Act (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Environmental Monitoring Points* - locations, monitoring wells, and devices for sampling air, soil, groundwater or surface water at a facility (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Excess Waste* - solid waste that cannot be processed or treated because the facility is operating at its approved design capacity (NHCAR Env-Sw 102). [Citation Revised March 2007].

- *Existing Facility* - a facility that was in existence prior to October 29, 1997 (NHCAR Env-Sw 102) [Added March 2007].

- *Expansion* - an increase in the approved design capacity, approved design volume or approved storage capacity of a facility (NHCAR Env-Sw 102) [Citation Revised March 2007].

- *Facility* - a location, system, or physical structure for the collection, separation, storage, transfer, processing, treatment or disposal of solid waste." The term includes "solid waste facility," "waste management facility" and "solid waste management facility" (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Facility Identification* - in the context of filing an application or registration pursuant to the solid waste rules, all of the following information for a facility (NHCAR Env-Sw 103) [Citation Revised March 2007]:
    1. Name;
    2. Functional classification pursuant to Env-Wm 302;
    3. Mailing address;
    4. Permit number, if applicable;
    5. Location by street address and municipality; and
    6. If for a facility not yet issued a permit:
        a. Local tax map and lot numbers;
        b. Deed reference by county, volume and page numbers;
        c. A plotting on a United States Geological Survey (USGS) topographic map, or copy thereof, prepared at a scale of 1:24,000 or 1:25,000; and
        d. Latitude and longitude of a known fixed point on the site; and
        e. Written directions from a known point of reference in the vicinity of the facility site.

- *Floodplain* - the land area adjoining inland or coastal waters that are capable of being inundated by a base flood (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Fly Ash* - the ash residue from the combustion of solid waste, fossil fuel, wood sludge, or other material that is entrained in the gas stream of the incinerator and removed by the air pollution control equipment (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Footprint* - (NHCAR Env-Sw 103) [Citation Revised March 2007]:
    1. For a permitted landfill or stockpile, the area in which solid waste actually exists or formerly existed, or is proposed to be placed, as authorized in the permit, regardless of whether solid waste has actually been deposited;
    2. For a proposed landfill or stockpile, the area in which solid waste is to be placed as proposed in the permit application; and
    3. For any other landfill or stockpile, the area in which solid waste actually exists.

- *Friable Asbestos* - any material containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure" (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Generator* - any person whose act or process produces a waste or whose act first causes waste to be subject to regulation (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Groundwater* - water below the land surface in the zone of saturation of soil or rock and includes perched water separated from the main body of groundwater by an unsaturated zone (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Groundwater Table* - the seasonally high surface of groundwater naturally occurring at atmospheric pressure (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Hazardous Waste* - a solid, semi-solid, liquid or contained gaseous waste, or any combination of these wastes (NHCAR Env-Sw 103) [Citation Revised March 2007]:
  1. Which, because of quantity, concentration, or physical, chemical, or infectious characteristics may:
     a. Cause or contribute to an increase in mortality or an increase in irreversible or incapacitating reversible illness; or
     b. Pose a present or potential threat to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged.
  2. Or which has been identified as a hazardous waste by the Department using the criteria established under RSA 147-A:3,I or as listed under RSA 147-A:3,II. Such wastes include, but are not limited to, those that are reactive, toxic, corrosive, ignitable, irritants, strong sensitizers or which generate pressure through decomposition, heat or other means. Such wastes do not include radioactive substances that are regulated by the Atomic Energy Act of 1954, as amended.

- *Hazardous Waste Rules* - the rules found in Env-Wm 101, Env-Wm 110, Env-Wm 211 through Env-Wm 216, Env-Wm 351 through Env-Wm 353 and Env-Wm 400 through Env-Wm 1000 (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Hearing* - the opportunity for the submission of written or oral comments, or both" (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *High Level Disinfection* - inactivation of all vegetative bacteria, fungi, lipophilic/hydrophilic viruses, parasites and mycobacteria at a 6 Log(10), or a million-fold, reduction or greater (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Household Hazardous Waste* - hazardous waste generated from non-commercial usage by persons in their living abodes (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Household Infectious Waste* - infectious waste generated from non-commercial medical treatment of individuals in personal residences, such as needles from self-administered insulin treatments (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Identification of Parties* - in the context of filing an application or registration pursuant to the solid waste rules, all of the following information for the applicant or registrant, facility operator and property owner (NHCAR Env-Sw 103) [Citation Revised March 2007]:
  1. If an individual, the individual's name, date of birth, mailing address and telephone number; or
  2. If other than an individual:
     a. The information required by RSA 149-M:10,I(b); and
     b. The name, title, mailing address and telephone number of the individual associated with and designated by the identified party to be the contact individual for matters concerning the application or registration being filed.

- *Imminent Hazard* - any condition or practice that presents a substantial and immediate threat to human health, safety or the environment (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Impermeable* - not permitting passage through a substance which, when used in the solid waste rules to describe any soil or geosynthetic component of a landfill liner or cap, means the component has a saturated hydraulic conductivity of 1 x 10^{-7} cm/sec or less (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Incinerator* - a facility that employs a method of using controlled thermal combustion, including flame combustion, to thermally break down waste or other materials, including refuse-derived fuel, to an ash residue that contains little or no combustible materials (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Inert Construction And Demolition Debris* - construction and demolition debris which is comprised of materials that do not degrade, combust or generate leachate (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Infectious Agent* - any organism, such as a virus, bacteria, parasite, fungus or other microbial agent which is capable of being communicated by invasion and multiplication in body tissues and body fluids, and capable of causing disease or adverse health impacts in humans (NHCAR Env-Sw 103) [Citation Revised March 2007].

- I*nfectious Waste* - any waste which because of its infectious nature may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Insignificant Effect On Environmental Quality* - a minimal adverse change in the quality of groundwater, surface water, air quality or public health, either for the short term or the long term (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Land Owner* - the record owner of a parcel of land upon which a facility is or is proposed to be located (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Landfill Reclamation* - the excavation of a portion or all of a landfill for the purpose of reducing landfill volume; reducing closure and post-closure costs by complete or partial removal of the landfill; creating capacity; and/or reducing adverse environmental impacts through the mining and separation of waste and soils into recyclable, reusable and/or combustible components. The term does not include recontouring, regrading or relocating existing waste at a landfill to reduce the landfill footprint and/or to achieve final grades (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Landfill* - a facility that collects and disposes of waste by landfilling methods. The term includes facilities that collect and store waste indefinitely. The term does not include incinerators, land application sites, surface impoundments and injection wells (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Landfilling* - a method of disposing of solid waste, by the intentional placement of the solid waste in or on land where it will remain after closure (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Leachate* - a liquid, including any suspended components in the liquid, which has contacted or passed through solid waste (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Level I Facility* - any of the following (NHCAR Env-Sw 1602) [Citation Revised March 2007]:
    1. A permit-exempt facility;
    2. A permit-by-notification facility having an active life of 90 days or less;
    3. An emergency permit facility; and
    4. A research and development permit facility.

- *Level II Facility* - a facility that is not a level I facility and is a monofill for only brush and stumps (NHCAR Env-Sw 1602) [Citation Revised March 2007].

- *Level III Facility* - a facility that is not a level I facility and is any of the following (NHCAR Env-Sw 1602) [Citation Revised March 2007]:

1. A landfill that is permitted to receive 30 tons or less per day of waste on average annually;
2. A monofill that only receives scrap metal, construction and demolition debris or asbestos;
3. A transfer station, a recycling facility, or a composting facility which receives 30 tons or less of waste per day on average annually; or
4. A Class I incinerator.

- *Level IV Facility* - a facility that is not a level I facility and is (NHCAR Env-Sw 1602) [Citation Revised March 2007]:
  1. A landfill that has a liner system;
  2. A landfill that is permitted to accept more than 30 tons per day of waste on average annually;
  3. An ash landfill;
  4. A transfer station, a recycling facility or composting facility permitted to accept more than 30 tons of waste per day on average annually; or
  5. A Class II or Class III incinerator.

- *Lift* - a layer of compacted solid waste and the cover material immediately above it in a landfill or other land disposal site (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Limited Private Facility* – a type of "private facility" that is permitted to receive only wastes generated by permittee (NHCAR Env-Sw 103) [Revised March 2000; Citation Revised March 2007].

- *Limited Public Facility* - a type of "public facility" that is permitted to receive only wastes generated by sources that are within the permittee's jurisdiction and/or within the jurisdiction of other towns, governmental units, agencies, political subdivisions or districts that have entered into a written agreement with the permittee for management of said waste (NHCAR Env-Sw 103) [Revised March 2000; Citation Revised March 2007].

- *Limited Service* - the service type provided by a public or private facility that, through the conditions of the permit, allows the facility to receive authorized waste from specified sources only (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Liner* - a barrier that restricts the downward or lateral flow of the overlying waste and its constituents, or leachate. Liners can be natural, for instance clay, or man-made, for instance plastic (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Low Permeability Cap* - a cap installed for landfill closure with a permeability of not greater than 1×10^{-5} cm/sec (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Lower Explosive Limit* - the lowest concentration by percentage in air of a flammable gas or vapor in which an explosion can occur upon ignition at 25 deg C (78 deg F) at atmospheric pressure (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Manure* - animal feces and urine with natural organic bedding materials such as hay, sawdust, straw or wood chips, but exclusive of human waste. The term also includes animal feces and urine which are not mixed with bedding or which are mixed with newsprint that has been used as bedding (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Monitoring Well* - a well used for the purpose of sampling groundwater and/or measuring groundwater elevations (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Monofill* - a landfill or landfill cell into which only one type of waste is placed (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Mixed Municipal Solid Waste* - municipal solid waste that is not separated by type (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Municipal Solid Waste (MSW)* - solid waste generated at residences, commercial or industrial establishments, and institutions, but excluding construction and demolition debris, automobile scrap and other motor vehicle waste, infectious waste, asbestos waste, contaminated soil and other absorbent media and ash other than ash from household stoves (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *New Facility* - a facility not existing as of October 29, 1997. The term includes proposed facilities and landfill expansions beyond the footprint boundaries (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Non-friable Asbestos* - any asbestos material that does not contain friable asbestos (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Non-friable Category I Asbestos* - asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy" (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Non-friable Category II Asbestos* - any material, excluding Category I nonfriable ACM, containing more than one percent asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Non-landfill Facility* - a facility that is not a landfill, including collection, storage and transfer facilities, processing or treatment facilities and land application sites (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Nonpoint Sources* - pollution sources that are diffuse by nature, in that the pollution emitted does not normally enter the environment by discrete conveyances as do point sources. Nonpoint sources of pollution potentially result from activities associated with agriculture, silviculture, mining of sand and gravel, urban storm runoff, urban and rural construction, subsurface disposal systems, deicing salts from highways, and sludge, septage and solid waste disposal on the land (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Open Burning* - the combustion of solid waste without (NHCAR Env-Sw 103) [Citation Revised March 2007]:
  1. Control of combustion air to maintain adequate temperature for efficient combustion;
  2. Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and
  3. Control of the emissions of the combustion products.

- *Owner* - a person who owns a facility or part of a facility (NHCAR Env-Sw 103) [Citation Revised March 2007].

- *Permit* - an authorization from the Department for the construction and operation of a facility (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Permit-by-notification* - a permit, obtained after supplying notification in accordance with the requirements of Env-Wm 311, authorizing the construction and operation of certain solid waste facilities as prescribed in Env-Wm 2107, Env-Wm 2207, Env-Wm 2307, Env-Wm 2407 and Env-Wm 2509 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Permit-by-notification Facility* - a facility authorized or requiring authorization by issuance of a permit-by-notification (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Permit-exempt Facility* - a facility not required by the solid waste rules to hold a permit issued pursuant to RSA 149-M, as specified by Appendix 9-4 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Permitted Facility* - a facility with a valid permit issued pursuant to RSA 149-M and the solid waste rules (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Permittee* - a person to whom a permit to operate or construct a facility is issued pursuant to the solid waste rules or, in the case of a permit-exempt facility, the person who is responsible for construction, operation, maintenance, closure and post-closure monitoring of the facility (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Person* - any individual, business entity, including a trust, firm, joint stock company, corporation, including a government corporation; partnership; association; government agency; or political subdivision of the state" (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Phase* - within a landfill, an area comprised of 2 or more stages and which is surrounded by berms that hydraulically separate the phase from other phases of the landfill when such phases have not yet received wastes or been constructed (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Preliminary Plan* - a plan for a proposed activity that provides sufficient information to determine that the proposed activity meets the requirements of the solid waste rules, but does not provide a level of detail or include documentation or features sufficient to implement the proposed activity in compliance with the solid waste rules. The term applies to design plans, operating plans, financial assurance plans, and closure plans for facilities (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Private Facility* - one whose permit is held by a person other than a government unit or agency or political subdivision of the state (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Process* - any activity that changes the chemical, biological or physical characteristics of a waste (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Processed Recyclable Material* - a recyclable material which has been physically sorted and separated by material type, formed into bales or otherwise physically processed and packaged in a manner satisfying the specifications for transportation to and acceptance by a market that will use the material for the production of certified waste-derived products (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Processing or Treatment Facility (P/T Facility)* - a facility which collects waste from any location, stores the waste for a limited period of time, subsequently processes or treats the waste subsequently stores the processed or treated waste for a limited period of time and ultimately transfers the treated or processed waste to another location. The term excludes collection, storage and transfer facilities, landfills and land application sites (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Property Owner* - the record owner of the parcel of land and/or structures where a facility is or is proposed to be located. The term includes "landowner" and "facility owner" (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Public Benefit* - the protection of the health, economy and natural environment of the state of New Hampshire consistent with RSA 149-M:11 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Public Facility* - one whose permit is held by a town or other governmental unit or agency or political subdivision of the state, or a combination thereof (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Putrescible Material* - any organic material that can decompose and give rise to foul odors and noxious by-products (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Qualified Professional Engineer* - a person who is a registered professional engineer in New Hampshire and whose formal education, training and experience in the field of engineering falls within the scope of the

professional engineering efforts required to be undertaken (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Recyclable Materials* - materials that can be used to produce marketable goods, including but not limited to separated clear and colored glass, aluminum, ferrous and nonferrous metals, plastics, corrugated cardboard, motor vehicle batteries, tires from motor vehicles, and paper. The term does not include (NHCAR Env-Sw 104) [Citation Revised March 2007]:
    1. Hazardous waste, hazardous air pollutants, and other waste not regulated as solid waste, as identified in Env-Wm 101.03;
    2. Waste identified as non-reusable in Env-Wm 2600, including asbestos and infectious waste; and
    3. Wastes from an unspecified production or generation process, such as municipal solid waste incinerator ash and contaminated soils or absorbent media.

- *Recycling Facility* - a collection, storage and transfer facility that collects, stores and prepares recyclable materials for market and transfers processed recyclable materials to markets for recycling. The term includes "recycling center" (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Recycling* - the collection, storage, processing and redistribution of recyclable materials. The term excludes the redistribution of recyclable materials for any purpose constituting disposal as defined in RSA 149-M:4,VI, incineration or another purpose not directly related to the production of certified waste-derived products (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Refuse* - any waste product, solid or having the character of a solid rather than a liquid in that it will not flow readily without additional liquid, and which is composed wholly or partly of such materials as garbage, swill, sweepings, cleanings, trash, rubbish, litter, industrial or domestic solid wastes; organic wastes or residue of animals sold as meat; fruit, vegetable or animal matter from kitchens, dining rooms, markets, food establishments or any places dealing in or handling meat, fowl, fruits, grain or vegetables; offal, animal excreta, or the carcasses of animals; brick, plaster or other waste matter resulting from the demolition, alteration or construction of buildings or structures; or accumulated waste material, cans, containers, tires, junk or other such substances which may become a nuisance. The term does not include yard waste, actively managed waste-derived products that are certified for distribution and use pursuant to Env-Wm 3200, and bodies of deceased persons. The term includes recyclable materials, whether processed or unprocessed (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Representative Sample* - a sample collected from a population or whole that exhibits the average or typical properties of the larger population or whole (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Research and Development Facility Permit* - a permit issued pursuant to the solid waste rules authorizing research and development projects (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Research and Development Permit Facility* - a facility authorized or requiring authorization by issuance of a research and development facility permit (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Research And Development Project (R&D Project)* - a scientific study involving the collection, storage, transfer, processing, treatment or disposal of solid waste, that is conducted by one or more investigators, qualified by reason of education and experience, and which is intended to further fundamental knowledge, evaluate processes or technologies, and generate and interpret data relative to solid waste management (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Residual Waste* - solid waste remaining after processing, treatment or disposal of solid waste or as a by-product of processing or treatment or disposal of solid waste, including leachate, decomposition gases and waste-derived products not certified for distribution and use pursuant to Env-Wm 3200. The term includes "residuals" (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Responsible Charge* - accountability for and performance of active daily on-site operation of a solid waste facility (NHCAR Env-Sw 1602) [Added March 2007].

- *Reuse* - the act of placing a waste into service again, subsequent to its generation (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Runoff* - the liquid that drains from an area as surface flow (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Salvaged Item Or Material* - an item or material which has been recovered or diverted from the solid waste stream and, without processing or treatment except for incidental cleaning, reconditioning or repair, is or will be used in a manner consistent with its original purpose. Examples include used auto parts which are removed from the vehicle and reused as auto parts on another vehicle; used furniture pieces which are repaired or restored for use as furniture; used tools or equipment which are reconditioned and returned to use as tools or equipment; left-over latex paint used as paint; scrap fabric used as fabric; scrap lumber used as lumber; and used brick used as brick (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Saturated Hydraulic Conductivity* - the rate of laminar flow of water through a unit cross-sectional area of porous medium under a unit hydraulic gradient at a standard temperature. The term includes "coefficient of permeability" (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Saturated Zone* - that part of the earth's crust in which the interconnected voids are filled with water at a pressure equal to or greater than atmospheric pressure. The term includes "zone of saturation" (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Select Recyclable Material* - a recyclable material comprised of one of the following materials: paper, cardboard, glass, plastic, ferrous metal, non-ferrous metal, or textile materials (NHCAR Env-Sw 104) [Revised March 2000; Citation Revised March 2007].

- *Service Area* - the area(s) or place(s) from which a facility receives waste, typically identified by geographic location or by generator source, or a combination thereof (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Service Type* - the type of service a facility provides based on the source of waste received, as follows (NHCAR Env-Sw 104) [Citation Revised March 2007]:
  1. Unlimited service, as is provided by a commercial facility; or
  2. Limited service, as is provided by either a limited public or limited private facility.

- *Solid Waste* - solid waste as defined by RSA 149-M:4,XXII, namely "any matter consisting of putrescible material, refuse or residue from an air pollution control facility; and other discarded or abandoned material. It includes solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. For purposes of this chapter [RSA 149-M] it does not include hazardous wastes as defined in RSA 147-A:2; solid or dissolved materials in irrigation return flows; cut or uprooted tree stumps buried on-site with local approval if required, provided that such burial locations are not located within 75 ft of any drinking water supply; municipal and industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended; source, special nuclear or by-product materials as defined by the Atomic Energy Act of 1954, as amended; or septage or sludge which is not disposed at solid waste facilities permitted under RSA 149-M. The term "solid waste" also does not include yard waste, actively managed waste-derived products which are certified for distribution and use pursuant to Env-Wm 3200 and bodies of deceased persons (NHCAR Env-Sw 104) [Revised March 2000; Citation Revised March 2007].

- *Solid Waste Management* - the systematic administration of activities for the collection, source separation, processing, treatment, transportation, transfer, storage, recovery and disposal of solid waste." The term includes "management of solid waste (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Solid Waste Facility Operator Training* - professional and/or technical instruction which supplies the required amount of solid waste management information as provided and approved by the Department pursuant to Env-Wm 3300 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Solid Waste Rules* - those rules found in Env-Wm 101 through Env-Wm 102, Env-Wm 201 through Env-Wm 205, Env-Wm 301 through Env-Wm 316, Env-Wm 2100 through Env-Wm 3700 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Source Water Protection Inventory* - a list, compiled and maintained by the Department, which identifies regulated or permitted sites that are known or potential threats to drinking water quality (NHCAR Env-Sw 104) [Citation Revised March 2007] [Citation Revised March 2007].

- *Source Reduction* - changing industrial processes, technologies and product components with the specific objective of reducing the amount or toxicity of waste at the source (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Source Separation* - dividing solid waste into some or all of its component parts at the point of generation (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Stage* - within a landfill, an area comprised of 2 or more cells and which is surrounded by berms that hydraulically separate the stage, when active, from other stages of the landfill when such other stages have not yet received wastes or been constructed (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Standard Permit* - a permit to construct and operate a solid waste facility, issued pursuant to RSA 149-M as follows (NHCAR Env-Sw 104) [Citation Revised March 2007]:
  1. For a facility permitted on or after October 29, 1997, pursuant to Env-Wm 314;
  2. For a facility permitted before October 29, 1997, pursuant to the provisions of Env-Wm 307.

- *Standard Permit Facility* - a facility authorized or requiring authorization by issuance of a standard permit (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *State Plan* - the state solid waste management plan developed under RSA 149-M:29 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Storage* - the temporary accumulation, containment or stockpiling of wastes (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Surface Water* - streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Tank* - a device designed to contain solid waste in a liquid or gaseous form, including leachate, for storage or transportation (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Temporary Permit* - a permit issued prior to 29 October 1997, pursuant to a rule codified as Env-Wm 315 effective 1 July 1991 and amended 24 December 1991 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Temporary Permit Facility* - a facility holding a temporary permit (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Time of Concentration* - the time it takes for runoff to travel from the hydraulically most distant point of the watershed to the design point (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Transfer* - depending on the context in which it is used (NHCAR Env-Sw 104) [Revised March 2001; Citation Revised March 2007]:
  1. Removal of waste from one location to another location; or
  2. Authorizing a permit to be held by a new permittee.

- *Transfer Station* - a solid waste collection, storage and transfer facility, which collects, stores and transfers solid waste, including non-recyclable waste (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Treat* - to process a waste by a method or technique that uses an external agent or agents to cause a chemical, biological or physical change, said agents to include heat, chemicals, or incorporation of other substances or materials (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Type of Waste* - a category of waste, at least as specific as the following, which describes the belonging waste by its material composition and/or other distinguishing characteristics (NHCAR Env-Sw 104) [Citation Revised March 2007]:
  1. Ash
  2. Bulky waste
  3. Construction and demolition debris
  4. Hazardous waste
  5. Household hazardous waste
  6. Household infectious waste
  7. Infectious waste
  8. Municipal solid waste
  9. Putrescible waste
  10. Recyclable materials
  11 White goods
  12 Yard waste.

- *Unlimited Service* - the service type provided by a commercial facility that, through the conditions of the permit, allows the facility to receive authorized waste from any source, including the spot market (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Unsaturated Zone* - the zone between the land surface and the saturated zone in which the void spaces in soil or rock are only partially or intermittently filled with water. The term includes the "zone of aeration" (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Unsuitable Waste* - waste for which a processing or treatment facility is not designed and which, if processed or treated by that facility, may adversely effect the quality of the products or materials being produced by the facility or the quality of residual waste generated by the facility to the extent that the residuals cannot be managed as required by Env-Wm 2205 (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Vector* - any carrier that is capable of transmitting a pathogen from one organism to another including, but not limited to, flies and other insects, rodents, birds, and other vermin (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Waste-derived Product* - a material or item that is produced, in whole or in part, using materials or items that are recovered or diverted from the solid waste stream (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Waste Reduction* - the reduction of waste at the source by changing industrial processes, technologies, and product components with the specific objective of reducing the quantity or rate at which waste is generated (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Waste Shipment Record* - a shipping document, originated and signed by the waste generator, which is used to track and substantiate the disposition of waste (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Wetland* - an area that is subject to the jurisdiction of the New Hampshire wetlands council under RSA 482-A (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *White Goods* - a generic term for a variety of discarded household appliances, including clothes washers, clothes dryers, stoves, refrigerators, freezers, dishwashers and air conditioners (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Working Face* - the portion of a landfill where solid waste is being actively deposited, spread, compacted, and covered (NHCAR Env-Sw 104) [Citation Revised March 2007].

- *Yard Waste* - leaves, grass clippings, garden debris, and small or chipped branches (NHCAR Env-Sw 104) [Citation Revised March 2007].

SOLID WASTE MANAGEMENT
GUIDANCE NEW HAMPSHIRE CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:
Missing Items Checklist	SO.2.1.NH.
State Specific	
All Facilities	SO.4.1.NH. through SO.4.33.NH.
Permits/Notifications/Exemptions	SO.6.1.NH. through SO.6.15.NH.
Operations	SO.8.1.NH. through SO.8.7.NH.
Specific Wastes	SO.9.1.NH. through SO.9.4.NH.
Storage/Collection of Solid Waste	SO.10.1.NH. and SO.10.7.NH. (Moved to SO.15)
Transfer Facilities	SO.15.1.NH. through SO.15.10.NH.
Recycling	
NOTE: Recycling facilities are subject to the requirements for collection, storage and transfer (C/S/T) facilities in section SO.15.NH.	
Ash Handling/Disposal	SO.92.1.NH. through SO.92.6.NH.
Resource Recovery Facilities	SO.95.1.NH. and SO.95.2.NH.
Medical Waste	
Containers/Labeling/Storage Areas	SO.110.1.NH.
Transportation	SO.115.1.NH.
Treatment/Disposal	SO.120.1.NH. through SO.120.5.NH.
Landfills	SO.135.1.NH. through SO.135.26.NH.
Incinerators	SO.145.1.NH.through SO.145.3.NH.
Waste Tire Management	SO.160.1.NH. through SO.160.5.NH.
Yard Waste/Composting	SO.165.1.NH. through SO.165.8.NH.
Other Treatment/Processing Units	SO.175.1.NH. through SO.175.7.NH.
Closure of Solid Waste Facilities	SO.180.1.NH. and SO.180.2.NH.

GUIDANCE FOR APPENDIX USERS

REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
9-1	Solid Waste Permit Types
9-2	Applicability of Federal Municipal Solid Waste Landfill Regulations
9-3	Exemptions and Conditions
9-4	Solid Waste Permit Exemptions

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
SO.2. **MISSING CHECKLIST ITEMS**	
SO.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: SOLID WASTE MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
STATE SPECIFIC **SO.4.** **All Facilities**	
SO.4.1.NH. Solid waste facilities must meet general environmental conservation and protection requirements (NHCAR Env-Sw 1001.02 and 1002.01) [Citation Revised March 2007].	Verify that solid waste facilities are located, designed, constructed, operated and closed in a manner that conserves natural resources and is protective of the natural environment, human health and safety. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.2.NH. Solid waste facilities must meet flood protection requirements (NHCAR Env-Sw 1002.05(b)) [Citation Revised March 2007].	Verify that solid waste facilities and practices protect all waste storage, handling and disposal areas against impact from the 100 yr flood. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.3.NH. Solid waste facilities must meet universal siting requirements (NHCAR Env-Sw 1003.01 through 2703.07) [Revised March 2000; Revised March 2007].	Verify that a solid waste facility or practice does not physically interfere with the proper operation or closure of any other solid waste facility. Verify that the location of a solid waste facility is outside the limits of any right-of-way or easement. Verify that the location of a solid waste facility is on property owned by the permittee or on property for which the property owner has granted a lease, easement or other legal right to the permittee for use of the property, including access to the property when required by the permittee and Department for closure and post-closure monitoring of the solid waste facility and site. (NOTE: The location of a solid waste facility may be on property where a right-of-way, easement or other legal right for use of the property is granted to a third party, provided that the grant does not adversely affect the permittees ability to meet all solid waste facility requirements, the solid waste rules and the terms and conditions of the permit.) Verify that no facility sited in violation of regulations to protect groundwater. Verify that no facility sited in violation of regulations to protect wetlands. Verify that no facility sited in violation of regulations to protect shorelands.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	Verify that no facility sited in violation of regulations to protect designated rivers. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.4.NH. Solid waste facilities must not discharge prohibited pollutants (NHCAR Env-Sw 1002.02) [Citation Revised March 2007].	Verify that facilities or practices do not cause the discharge of the following pollutants: - a discharge of pollutants that is in violation of Section 402 of the Federal Clean Water Act into surface waters of the United States or the state - a discharge of dredged material to waters of the United States that is in violation of Section 404 of the Clean Water Act - a nonpoint source of pollution that contravenes the requirements of an area wide or statewide water quality management plan under Section 208 of the Clean Water Act. Verify that facilities or practices do not contaminate surface water or groundwater in violation of Federal or state law, any rules implemented by the Department or any administratively-attached board or the conditions of any permit issued by the Water Supply and Pollution Control Division, the Waste Management Division, the Water Resources Division or any administratively-attached Board. Verify that facilities or practices do not cause air pollution in violation of Federal or state law, any rules implemented by the Department or the conditions of any permit issued by air resources Division, or the state implementation plan under the Clean Air Act. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.5.NH. Solid waste facilities or practices must not adversely affect any endangered or threatened species (NHCAR Env-Sw 1002.03) [Citation Revised March 2007].	Verify that solid waste facilities or practices do not adversely affect any endangered or threatened species. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.6.NH. Solid waste facilities must meet general safety standards (NHCAR Env-Sw 1002.04) [Citation Revised March 2007].	Verify that solid waste facilities do not allow concentrations of explosive gases such as methane to exceed 25 percent of the lower explosive limit in any structure (excluding solid waste facility-related gas recovery equipment), or to exceed 50 percent of the lower explosive limit at the property boundary. Verify that solid waste facilities are designed, constructed, operated and closed in

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	a manner that minimizes the risk of fires and provides the ability to deal with them effectively if they occur. Verify that facilities disposing of putrescible waste and located within 10,000 ft (3048 m) of any airport runway used by turbojet aircraft or within 5000 ft (1524 m) of any airport runway used by only piston-type aircraft are designed, constructed, operated and closed in a manner that minimizes the risk of attracting birds that are hazardous to aircraft. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.7.NH. Solid waste facilities must meet road and traffic requirements (NHCAR Env-Sw 1004.02) [Citation Revised March 2007].	Verify that the solid waste facility is designed to prevent entering and exiting vehicles from obstructing the safe flow of traffic on any public road leading to or from the solid waste facility. Verify that there is adequate on-site area at the solid waste facility's entrance and exit points to allow the number and types of waiting vehicles expected to use the solid waste facility during peak times to safely queue off the public roads and right-of-way. Verify that the solid waste facility is designed to accommodate on-site traffic flow in a safe and efficient manner in all weather conditions. Verify that separate on-site access for passenger vehicles is provided at facilities where public drop-off is allowed. Verify that the solid waste facility is designed to assure that traffic conflicts does not occur between bulk transport vehicles, passenger vehicles and pedestrians at the solid waste facility site. Verify that the on-site road surface and the road base are suitable for heavy vehicles and capable of withstanding expected loads. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.8.NH. Solid waste facilities must meet drainage control requirements (NHCAR Env-Sw 1004.03) [Citation Revised March 2007].	Verify that detention basins and other drainage structures are located and designed to minimize the potential to adversely impact any landfill closure system located at or near the site. Verify that surface drainage is collected and directed to discharge points having no potential to affect the performance of any groundwater or surface water monitoring system, leachate collection and removal system, or any other component of a landfill closure system.

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	(NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.9.NH. Solid waste facilities must incorporate protective measures (NHCAR Env-Sw 1004.04) [Citation Revised March 2007].	Verify that the design of a solid waste facility includes measures or features to avoid damage to any component of a landfill closure system, including: - ground control markers - the capping system - leachate collection system risers and clean-outs - groundwater monitoring wells - decomposition gas control devices. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.10.NH. Motor vehicle wastes must be stored separately (NHCAR Env-Sw 1004.06) [Citation Revised March 2007].	Verify that a solid waste facility that receives motor vehicle wastes is designed to provide for separation of such wastes. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.11.NH. Solid waste facilities must meet specific equipment requirements (NHCAR Env-Sw 1004.07(a)) [Citation Revised March 2007].	Verify that equipment is installed at the solid waste facility in conformance with the manufacturer's specifications and recommendations for installation, unless otherwise allowed by the solid waste rules. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.12.NH. Solid waste facilities must meet general operating requirements (NHCAR Env-Sw 1005.01) [Citation Revised March 2007].	Verify that a solid waste facility does not exceed the capacity limits specified in its permit or, in the case of a permit-exempt solid waste facility, the capacity limits specified by the exemption, if any. Verify that a solid waste facility, including associated equipment, containers and vehicles, is operated and maintained in a manner that controls to the greatest extent practicable: - dust - litter - insects - odors - vectors - spills - the production of leachate - fire hazards including spontaneous combustion

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	- the generation of methane and other hazardous or explosive gases - noise - nuisances. Verify that the solid waste facility regularly inspects, monitors and maintains the solid waste facility to assure compliance with the permit and the solid waste rules. Verify that the solid waste facility executes repairs and corrects, abates and remediates solid waste facility operating problems in a timely manner and as directed by the Department. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.13.NH. Solid waste facilities must control access (NHCAR Env-Sw 1005.02) [Citation Revised March 2007].	Verify that unauthorized entry to and unauthorized use of a solid waste facility is prohibited by: - restricting access to the solid waste facility - regularly inspecting the waste received and managed at the solid waste facility - other appropriate measures based on the type, size, location and life expectancy of the solid waste facility and the type, source and quantity of waste handled by the solid waste facility. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.14.NH. Traffic at solid waste facilities must be managed (NHCAR Env-Sw 1005.03) [Citation Revised March 2007].	Verify that operations are conducted so that incoming or exiting vehicles do not obstruct the safe passage of traffic on any public road leading to and from the solid waste facility. Verify that operations are conducted in a manner as to accommodate on-site traffic flow in a safe and efficient manner. (NOTE: Universal facility requirements apply to all solid waste facilities covered in Chapter 2702, including permit-exempt facilities.)
SO.4.15.NH. Solid waste facility operators must meet specific requirements (NHCAR Env-Sw 1005.06(a) and (b)) [Citation Revised March 2007].	Verify that the operator is capable of efficiently operating and maintaining the solid waste facility in a manner that is protective of the environment, public health and safety. Verify that an operator demonstrate a level of knowledge and understanding of the solid waste rules sufficient to operate the solid waste facility in compliance with

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	all applicable requirements of the solid waste rules and the permit. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.16.NH. Solid waste facilities must meet staffing requirements (NHCAR Env-Sw 1005.07) [Citation Revised March 2007].	Verify that the solid waste facility is staffed with persons qualified by reason of education, experience and performance history to operate the solid waste facility in accordance with all applicable requirements of the solid waste rules and the permit. Verify that, for level II through level IV facilities (see definitions): - all persons who operate the solid waste facility are certified by either issued certification or interim certification - for every one to 5 operators, there is at least one supervisor who is certified as a level III or level IV operator - during the hours of operation, no less than 50 percent of the on-site personnel directly involved with the management of solid waste are certified operators. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)

SO.4.17.NH. Solid waste facilities must meet incident reporting requirements (NHCAR Env-Sw 1005.09) [Citation Revised March 2007].	Verify that the solid waste facility reports to the Department all incidents or situations at the solid waste facility which involve an imminent and substantial risk to human health, safety or the environment and/or which constitute a violation of the solid waste rules or the solid waste facility permit.
	
	Verify that reports are made verbally to the Department as soon as practicable.
	
	Verify that the solid waste facility submits a written report within 5 working days of the time the solid waste facility becomes aware of the incident or situation, and includes the following information:
	
	- solid waste facility name, location by street and municipality, and permit number
	- permittee name, mailing address and telephone number
	- identification of all persons involved in the incident or situation, including name, title and affiliation
	- a description of the incident or situation, including:
	  - the date and time the incident or situation occurred
	  - the quantity and types of wastes and materials involved in the incident or situation and in the clean-up activities
	  - measures employed to contain releases caused by the incident or situation
	  - an assessment of actual or potential hazards to the environment, safety and human health related to the incident

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	- measures the permittee has or intends to apply to reduce, eliminate, and prevent a recurrence of the incident or situation. Verify that the solid waste facility reports, in writing, complaints made by abutters or other third parties which involve operating conditions or practices having the potential to adversely effect human health, safety or the environment or which involve a recurring or persistent nuisance situation such as noise, litter, odor, dust or vectors. Verify that the written report is made as soon as practicable and includes the following information: - solid waste facility name, location by street and municipality, and permit number - permittee name, mailing address and telephone number - name, mailing address and, if available, telephone number of the complainant - the nature of the complaint, dates of receipt by the permittee, and a complete description of the circumstances or situation giving rise to the complaint - a description of the permittee's response actions - such other information as required if the circumstances or situation giving rise to the complaint require reporting. (NOTE: The rules above is not construed to mean a report is required on each day that an incident persists if the likelihood of its persistence is disclosed to the Department in the initial report and the permittee is taking action to remedy the problem.) (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)
SO.4.18.NH. Solid waste facilities must meet recordkeeping requirements for out-of-state wastes (NHCAR Env-Sw 1005.10) [Citation Revised March 2007].	Verify that, upon receipt of out-of-state waste by a disposal solid waste facility, the solid waste facility obtains the information specified below in the form of a written statement signed by the transporter certifying that the information is true and correct to the best of the transporter's knowledge and belief: - the printed or typed name and mailing address of the person delivering the out-of-state waste - the date of delivery - a declaration of the total number of tons of out-of-state waste being delivered to the solid waste facility - the point of origin of the out-of-state waste contained in each load, identified by individual state, and number of tons from that state. Verify that the solid waste facility maintains in a secure location the records required above, and provides a copy to the Department. (NOTE: Universal facility requirements apply to all solid waste facilities, including permit-exempt facilities.)

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SO.4.19.NH. Solid waste facilities must not interfere with other activities (NHCAR Env-Sw 1101.02 and 1102.02) [Revised March 2007].	Verify that the property on which the solid waste facility is located is not also the site of any activity not specifically authorized in the solid waste facility permit, either because it is an activity not regulated by the solid waste rules (such as the collection of used oil for recycling or the operation of a non-waste related business), or because it is a permit-exempt activity such as the operation of a burn pile, unless: - the activity has no adverse affect on operating the permitted solid waste facility in compliance with the solid waste rules and the permit - notice of the activity is provided to the Department (if required). (NOTE: The rules for "Additional Facility Requirements" apply to all solid waste facilities having an active life longer than 90 days, except: - permit-exempt facilities - research and development permit facilities - emergency permit facilities. The requirements in this subsection apply as the complement of the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.), Env-Sw 1200 for permit-by-notification facilities (see SO.6.4.NH. through SO.6.13.NH.), Env-Sw 400 through Env-Sw 800 as applicable based on the functional classification of the solid waste facility, and Env-Sw 900 as applicable based on the type of waste managed by the solid waste facility (asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires).)
SO.4.20.NH. Solid waste facilities must meet general design requirements (NHCAR Env-Sw 1103.01(a) and (c)) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that a solid waste facility employs best practicable technologies and sound engineering practices in meeting the design requirements specified in the solid waste rules. Verify that the design of a solid waste facility is compatible and facilitates compliance with the applicable solid waste facility operating and closure requirements.
SO.4.21.NH. Solid waste facilities must meet specific equipment requirements (NHCAR Env-Sw 1103.02) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that the installation and use of manufactured equipment at a solid waste facility conforms to the manufacturer's specifications and recommendations, unless the facility provides a written statement by a qualified professional engineer certifying that the non-conforming installation and use do not adversely affect the environment, public health or safety.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
SO.4.22.NH. Solid waste facilities must control access (NHCAR Env-Sw 1103.03) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that the perimeter of a solid waste facility site is fenced in a manner that restricts unauthorized access to the solid waste facility. (NOTE: No fence is required if natural site features restrict access to the site, or all waste handling, storage and disposal areas at the solid waste facility are wholly contained within locked structures or devices when the solid waste facility operator is not present.) Verify that weather resistant signs, which state that access is restricted, are posted around the perimeter of a solid waste facility site wherever fencing is not required. Verify that the lawful access points to the solid waste facility are secured by locked gates or the equivalent during times when the solid waste facility operator is not present.
SO.4.23.NH. Solid waste facilities must incorporate features to shield surrounding properties (NHCAR Env-Sw 1103.04) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that the design of a solid waste facility incorporates features to minimize adverse impacts, if any, to surrounding properties (such as the use of stockade fencing where appropriate to shield waste storage and handling areas from view and to control the off-site transport of dust and windblown litter, or the use of landscaping berms or other vegetation for similar purposes).
SO.4.24.NH. Solid waste facilities must meet additional construction requirements (NHCAR Env-Sw 1104.01) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that, prior to commencing construction of a solid waste facility, or any phase or portion, the facility: - obtains approval for the applicable design plans and specifications - obtain approval for preliminary plans to close the solid waste facility as though the phase being constructed will be the terminal phase, if the construction project is for new landfill capacity - obtains legal rights of access or property ownership - complies with all other pre-construction requirements specified in the permit - after complying with the above requirements, files a notice of intent to construct. Verify that for a landfill or other solid waste facility constructed in phases over time, including construction of a landfill closure system, the facility complies with these requirements for each new phase of construction.

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SO.4.25.NH. Solid waste facilities must meet general construction requirements (NHCAR Env-Sw 1104.04 and 1104.07) [Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that a solid waste facility is constructed in strict accordance with the approved plans and specifications. Verify that construction of a solid waste facility occurs in accordance with standard engineering and construction practices. Verify that the facility assures implementation of quality assurance controls during construction. Verify that construction of a solid waste facility does not take place during climatic conditions having the potential to adversely affect the quality of the work being performed, or the performance of the solid waste facility or any component when operated and closed. Verify that construction involving the removal or relocation of waste occurs in accordance with a site safety and contingency work plan that: - satisfies all applicable federal, state and local requirements for protection of human health and the environment - is submitted for informational purposes, and includes a signed statement by a qualified professional attesting to the adequacy of the plan (submittal of the site safety and contingency work plan is not required for incidental waste removal such as occurs during gas vent installation). Verify that, prior to causing any part of any waste containment, conveyance, processing or treatment system at a solid waste facility to become inaccessible for inspection and repair, the system is inspected and tested to assure that it meets all applicable standards and specifications, and a written report is prepared that includes: - the method of inspections - the applicable test protocol and standards - the professional stamp and signature of the project engineer to certify that, based upon inspection and testing conducted pursuant to the approved design plans and specifications and all additional information known to the project engineer, the applicable solid waste facility system has been constructed in accordance with the approved plans and specifications. Verify that a written status report of all construction activities in progress is submitted, no later than the Wednesday following the end of each 2 week work period during construction of a facility.
SO.4.26.NH. Solid waste facilities must meet specific requirements prior to commencing operations	(NOTE: See SO.4.19.NH. for applicability.) Verify that, prior to commencing operation of a solid waste facility, or any phase

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(NHCAR Env-Sw 1105.01 and 1105.04(b)) [Revised March 2001; Revised March 2007].	or portion, the facility meets the following requirements: - obtains operating plan approval - completes solid waste facility construction in accordance with all applicable construction requirements and submits all construction status reports, including construction inspection reports - complies with all other pre-operation requirements specified in the permit - after complying with the above requirements, files a notice of intent to operate. Verify that, for a landfill or other solid waste facility operated on a phase by phase basis over time, these requirements are met each time operation of a new phase begins. Verify that the facility operates in accordance with the last approved operating plan record.
SO.4.27.NH. Solid waste facilities must meet signage and documentation requirements (NHCAR Env-Sw 1105.05) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that legible signs are posted at or near each public entrance to a solid waste facility. Verify that the signs include: - the solid waste facility name and permit number - the name, address and telephone number of the permittee - the days and hours that the solid waste facility is open to receive waste - the type of wastes accepted - a statement that unlawful dumping is subject to fine and prosecution. Verify that a copy of the permit, including a complete copy of the last approved operating plan of record and a complete copy of the last approved closure plan of record, are maintained at a location accessible to solid waste facility operators. Verify that a copy of the authorization page of the permit bearing the permit number and the authorization signature is prominently displayed at the solid waste facility. Verify that current operator certification certificates are prominently displayed at the solid waste facility.
SO.4.28.NH. Solid waste facilities must maintain specific operating records (NHCAR Env-Sw 1105.06) [Citation Revised March	(NOTE: See SO.4.19.NH. for applicability.) Verify that the solid waste facility compiles and maintains records which document all phases of solid waste facility operations, including:

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SO.4.29.NH. Solid waste facilities must meet specific reporting requirements (NHCAR Env-Sw 1105.07) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that the Department is notified in writing within 30 calendar days of any change in the solid waste facility address, telephone number, key certified operators and contact persons. Verify that an annual solid waste facility report is filed by 31 March for the prior calendar yr for each yr that the solid waste facility operates and for each yr of the solid waste facility's post-closure monitoring and maintenance period. Verify that all changes in operational and ownership control are reported. Verify that the Department is notified in writing prior to conducting any activity that is permit-exempt in Appendix 9-4 (see SO.6.1.NH.)

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SO.4.30.NH. Solid waste facilities must meet operating hour requirements (NHCAR Env-Sw 1105.08) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that all active and routine solid waste facility operations, including waste disposal, solid waste facility inspections, maintenance, repairs and monitoring, occur between 6:00 a.m. and 6:00 p.m. under normal non-emergency circumstances. (NOTE: Regular operating hours outside of the normal 6:00 a.m. to 6:00 p.m. window are allowed only if: - approved by the Department in the terms and conditions of the permit - the facility is a limited private solid waste facility and receive no waste from off-site locations.)
SO.4.31.NH. Solid waste facilities must meet requirements for the receipt and management of waste (NHCAR Env-Sw 1105.09) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that only authorized wastes, as specified in the permit, are accepted by a solid waste facility. Verify that incoming wastes are inspected and, if necessary, sampled and analyzed to assure the solid waste facility accepts authorized waste only. Verify that unauthorized waste is rejected by the solid waste facility. Verify that the facility advises the transporter of a rejected waste as to potentially available alternative facilities that the permittee believes or knows to be authorized to receive the type of waste being rejected. Verify that the quantity of incoming waste, outgoing waste and certified waste-derived products produced by the solid waste facility are measured and recorded in the solid waste facility operating records.
SO.4.32.NH. Solid waste facilities must meet requirements for the management of residual waste (NHCAR Env-Sw 1105.10) [Citation Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that solid waste facility operations include provisions to properly manage residual waste. Verify that a solid waste facility obtains and maintains access to at least 2 authorized locations where adequate capacity exists to handle the type and quantity of all residual waste, excluding landfill decomposition gas, that the solid waste facility regularly generates during its operating and post-closure periods. Verify that a residual waste is not distributed for use unless certified for distribution and use.

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SO.4.33.NH. Solid waste facilities must meet closure requirements (NHCAR Env-Sw 1106.01, 1106.03, and 1106.04(a)) [Revised March 2007].	(NOTE: See SO.4.19.NH. for applicability.) Verify that, prior to commencing closure of a solid waste facility, the permittee files a notice of intent to close and, for any closure activity involving construction, obtains construction approval. Verify that a solid waste facility closes in conformance with the solid waste rules and the provisions of an approved closure plan. Verify that a facility closure plan provides sufficient detail to allow a third party to implement and complete all required facility closure tasks, the permit and the solid waste rules without further explanation or guidance.

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STATE SPECIFIC **SO.6. Permits/Notifications/ Exemptions**	
SO.6.1.NH. Solid waste facilities must be permitted (NHCAR Env-Sw 302.02) [Revised March 2001; Revised March 2007].	Verify that any solid waste facility at which solid waste is collected, stored, transferred, processed, treated and/or disposed has a permit issued by the Department. (NOTE: See Appendix 9-1 for a list of different types of solid waste permits.) (NOTE: See Appendix 9-4 for solid waste permit exemptions.)
SO.6.2.NH. Modifications to a solid waste facility or its operation must be approved (NHCAR Env-Sw 315.03(a)) [Citation Revised March 2007].	Verify that written approval is obtained from the Department before making a modification to the design, construction, operation or closure of a solid waste facility.
SO.6.3.NH. Certain solid waste facilities must be registered with the Department (NHCAR Env-Sw 309.02) [Revised March 2007].	Verify that the landfills, including asbestos waste sites, that stopped receiving waste before July 10, 1981 and claiming exemption from the solid waste rules pursuant to Env-Sw 101.04 register with the Department.
SO.6.4.NH. Permit-by-notification solid waste facilities that operate longer than 90 days must meet specific requirements (NHCAR Env-Sw 1202.02) [Revised March 2007]	Verify that a permit-by-notification landfill does not have an active life longer than 90 days unless: - the solid waste facility is located on publicly owned land - the permittee is a government agency or unit or a political subdivision of the state - vehicular access to the solid waste facility is physically restricted at all times when a solid waste facility operator is not present. Verify that a permit-by-notification facility having an active life longer than 90 days complies with the requirements in Env-Sw 1100 (see SO.4.19.NH. through SO.4.33.NH.). (NOTE: Exemptions from Env-Sw 1100 include: - no requirement to submit final design plans and specifications for

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	construction approval - no requirement to submit an operating plan, provided that: - a written operating plan is prepared prior to operating the solid waste facility - the operating plan is available for use by the solid waste facility operators and for inspection - the permittee submits in the permit application a signed statement which attests to the existence of the plan, and certifies that the plan meets the requirements of Env-Wm 2805.11 - the solid waste facility operates in compliance with the solid waste rules and the permit - no requirement to submit a closure plan, provided that: - a written closure plan is prepared prior to operating the solid waste facility - the closure plan is available for use by the solid waste facility operators and for inspection - the permittee submits in the permit application a signed statement which attests to the existence of the plan, and certifies that the plan meets the requirements of Env-Wm 2806.04 - the solid waste facility closes in compliance with the solid waste rules and the permit.) Verify that a non-landfill permit-by-notification solid waste facility having an active life longer than 90 days complies with the following: - Env-Sw 403 through Env-Sw 406 (see section SO.15.NH.), if the solid waste facility is a collection, storage and transfer solid waste facility - Env-Sw 503 through Env-Sw 506 (see section SO.175.NH.), if the solid waste facility is a processing or treatment solid waste facility or a composting solid waste facility or an incinerator - Env-Sw 603 through Env-Sw 606, if the solid waste facility is a composting solid waste facility - Env-Sw 703 through Env-Sw 706 (see section SO.145.NH.), if the solid waste facility is an incinerator.
SO.6.5.NH. Permit-by-notification solid waste facilities must meet permittee and operator qualifications (NHCAR Env-Sw 1202.05) [Citation Revised March 2007].	(NOTE: See SO.6.4.NH. for applicability.) Verify that permittee and solid waste facility owner are one and the same. Verify that the permittee is in responsible charge of operating the solid waste facility. Verify that, if the solid waste facility has an active life longer than 90 days, the operators are certified pursuant to Env-Sw 1600 (see SO.4.16.NH.).
SO.6.6.NH. New permit-by-notification solid waste	(NOTE: See SO.6.4.NH. for applicability.)

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facilities must meet location restrictions (NHCAR Env-Sw 1203.01) [Revised March 2000; Citation Revised March 2007].	Verify that the solid waste facility is not sited on property that is subject to any on-going enforcement action by the Department, unless the solid waste facility is approved by the Department as part of the enforcement action and a copy of the approval is submitted with the application for the related permit-by-notification. Verify that the solid waste facility is not sited within 50 ft of any property line. Verify that the solid waste facility is not sited in a flood plain. (NOTE: If the facility has an active life longer than 90 days, it will be subject to siting requirements in Env-Sw 1102 (see SO.4.19.NH.).)
SO.6.7.NH. New permit-by-notification solid waste landfills must meet additional location restrictions (NHCAR Env-Sw 1203.02) [Citation Revised March 2007].	(NOTE: See SO.6.4.NH. for applicability.) Verify that a permit-by-notification landfill is not sited less than 75 ft to surface water, and wetlands. Verify that a permit-by-notification landfill is located to provide at least 4 ft of vertical separation between the base of the disposal area and the seasonal high groundwater table. Verify that a permit-by-notification landfill is located to provide at least 4 ft of vertical separation between the base of the disposal area and bedrock. Verify that a permit-by-notification landfill is not sited less than 50 ft from the footprint of any landfill that is not yet capped. Verify that a permit-by-notification landfill having an active life longer than 90 days is sited on publicly owned land only.
SO.6.8.NH. Permit-by-notification solid waste facilities must not receive certain wastes (NHCAR Env-Sw 1204.03) [Revised March 2001; Citation Revised March 2007].	(NOTE: See SO.6.4.NH. for applicability.) Verify that a permit-by-notification solid waste facility does not receive the following types of solid waste: - asbestos waste - explosive waste - contained gaseous waste (unless collected for recycling) - liquid waste - infectious waste (except for those facilities explicitly authorized) - animal carcasses - contaminated soils and other absorbent media - out-of-state waste, unless the waste is received for recycling, not incineration or disposal.

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SO.6.9.NH. Permit-by-notification solid waste facilities must not exceed capacity limits (NHCAR Env-Sw 1204.04(b)) [Citation Revised March 2007].	(NOTE: See SO.6.4.NH. for applicability.) Verify that no permit-by-notification solid waste facility receives greater than 30 tons of waste per day as averaged over the active life of the solid waste facility.
SO.6.10.NH. Permit-by-notification solid waste landfills must meet operating requirements (NHCAR Env-Sw 1204.05) [Citation Revised March 2007].	(NOTE: See SO.6.4.NH. for applicability.) Verify that at all times during solid waste facility operations, the permittee maintains cover materials at the site in a quantity sufficient to comply with all daily and final cover requirements specified by the solid waste rules (except publicly owned facilities with an active life longer than 90 days may maintain the cover materials at other locations readily accessible to the site and permittee). Verify that only soil is used as cover material. Verify that waste is placed, compacted and covered in a manner as to eliminate voids, limit settlement and otherwise limit the potential for sink-holes or surface openings to develop. Verify that waste is placed only within the vertical and lateral limits of the solid waste facility as identified on a plan submitted and approved by the Department by permit issuance.
SO.6.11.NH. Permit-by-notification solid waste facilities must meet closure requirements (NHCAR Env-Sw 1205.01) [Citation Revised March 2007].	(NOTE: See SO.6.4.NH. for applicability.) Verify that a permit-by-notification non-landfill closes in conformance with the universal facility requirements. Verify that all waste is removed to an authorized solid waste facility that is not another permit-by-notification solid waste facility. Verify that closure is completed within 30 days following the date of last waste receipt or before the expiration date of the permit, whichever is earlier.
SO.6.12.NH. Permit-by-notification solid waste landfills must meet specific closure requirements (NHCAR Env-Sw 1205.02) [Citation Revised March	(NOTE: See SO.6.4.NH. for applicability.) Verify that a permit-by-notification landfill closes in conformance with the universal facility requirements. Verify that at least 2 ft of compacted soil is placed as final cover over all

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2007].	landfilled waste. Verify that final cover is compacted, graded, seeded and mulched in a manner as to produce and sustain vegetative growth and/or otherwise stabilized to prevent erosion. Verify that closure is completed within 30 days following the date of last waste receipt or before the expiration date of the permit, whichever is earlier. (NOTE: If the date of last waste receipt falls within a time period where seasonal factors prevent closure by the date specified above, the permittee may delay closure.) Verify that following closure, the permittee assures that the integrity of the cover materials is maintained, that voids and sink holes do not develop, and that the site is otherwise protective of the environment, public health and safety. Verify that the permittee regularly inspects the solid waste facility and, when necessary, implements repairs or takes other remedial action to achieve and maintain compliance. Verify that in the event the disposal area is disturbed for any reason after closure, the permittee subsequently restores the area. Verify that if buried waste is removed from a permit-by-notification landfill, the permittee disposes of the removed waste at an authorized solid waste facility.
SO.6.13.NH. Permit-by-notification solid waste landfills must meet closure notification requirements (NHCAR Env-Sw 1205.03) [Citation Revised March 2007].	(NOTE: See SO.6.4.NH. for applicability.) Verify that upon completion of all required closure activities at a permit-by-notification solid waste facility, the permittee certifies in writing to the Department that closure has been completed as required.
SO.6.14.NH. Research and development permits must meet specific requirements (NHCAR Env-Sw 312.02 and 302.03 (b)(7)) [Added March 2007].	Verify that a government agency or research institution, such as a public or private university, conducts or supervises the project. Verify that the project complies with the following, as applicable: - universal facility requirements ((see SO.4.1.NH. through SO.4.18.NH.)) - additional facility requirements (see SO.4.19.NH. through SO.4.33.NH.) as applicable - facility type (Env-Sw 400 through Env-Sw 800) - management of certain wastes such as asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires (Env-Sw 900).

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	(NOTE: Compliance with the above is not required if the applicant demonstrates in the permit application that compliance with the requirement defeats the purpose of the project and that exemption from the requirement does not cause a violation of the universal facility requirements.) (NOTE: No permit is required for conducting bench scale research and development projects within a building or other location used for research studies, provided that practices comply with the universal facility requirements (see SO.4.1.NH. through SO.4.18.NH.).)
SO.6.15.NH. Emergency facility permits must meet specific requirements (NHCAR Env-Sw 313.01 and 313.02) [Added March 2007].	Verify that an emergency facility permit complies with the following, as applicable: - universal facility requirements (see SO.4.1.NH. through SO.4.18.NH.) - additional facility requirements (see SO.4.19.NH. through SO.4.33.NH.) as applicable - facility type (Env-Sw 400 through Env-Sw 800) - management of certain wastes such as asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires (Env-Sw 900) depending on the type(s) of waste involved by the project. (NOTE: The requirements above do not apply if the department determines, based on the nature of the emergency and the information in the permit application, that compliance with the requirement will prohibit effective emergency response.) (NOTE: An emergency facility permit applies to facilities that operate for a limited period of time in response to any emergency for which no other readily available response exists and for which a delayed response to obtain another type of permit will result in an unnecessary risk to public health, safety or the environment.)

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STATE SPECIFIC **SO.8.** **Operations**	
SO.8.1.NH. [Moved March 2007].	(NOTE: Moved to SO.9.1.NH. March 2007)
SO.8.2.NH. [Moved March 2007].	(NOTE: Moved to SO.9.2.NH. March 2007)
SO.8.3.NH. [Moved March 2007].	(NOTE: Moved to SO.9.3.NH. March 2007)
SO.8.4.NH. [Moved March 2007].	(NOTE: Moved to SO.9.4.NH. March 2007)
SO.8.5.NH. Solid waste facility operators must be certified (NHCAR Env-Sw 1603.01 and 1603.02) [Citation Revised March 2007].	Verify that all solid waste facility operators are certified by the Department for the level of his/her responsibilities. (NOTE: Operator certification will be granted by level based on a range of responsibilities and duties as follows: - a certified level IV operator/manager will be considered qualified to be in responsible charge at a level IV, III, II or I solid waste facility and may assume supervisory responsibilities - a certified level III advanced operator will be considered qualified to be in responsible charge at a level III, II or I solid waste facility and may assume supervisory responsibilities - a level II certified operator will be considered qualified to be in responsible charge at a level II or I solid waste facility but will not assume supervisory responsibilities - a certified level I attendant and a level I attendant-in-training may work at, but not be in responsible charge at any solid waste facility.)
SO.8.6.NH. [Moved March 2007].	(NOTE: Moved to SO.95.1.NH. March 2007)

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SO.8.7.NH. [Moved March 2007].	(NOTE: Moved to SO.95.2.NH. March 2007)

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STATE SPECIFIC **SO.9.** **Specific Wastes**	
SO.9.1.NH. Collection, storage and transfer of contaminated soils and absorbent media must meet specific requirements (NHCAR Env-Sw 903.01 and 903.02) [Citation Revised March 2007; Added March 2007].	Verify that collection, storage and transfer of contaminated soils and absorbent media complies with the requirements of SO.15.1.NH. through SO.15.10.NH. Verify that contaminated soils and absorbent media are collected and stored in leak tight containers or are underlain by impermeable surfaces or by other means to prevent the discharge of contaminants to groundwater and surrounding soils. Verify that contaminated soils and absorbent media are stored under cover in a manner that protects the waste from exposure to precipitation, or by a method that collects and manages all leachate generated. Verify that contaminated soils and absorbent media are stored in accordance with applicable air and water quality rules and regulations. Verify that, prior to transfer, the generator complies with testing requirements to assure proper management of the contaminated soils or absorbent media. Verify that prior to receiving contaminated soils or absorbent media from off-site locations, a solid waste facility obtains documentation from the generator demonstrating compliance with testing and hazardous waste determination requirements. Verify that a solid waste facility that collects contaminated soils or absorbent media from off-site locations inspects the waste upon receipt and verifies that the waste is the same waste as characterized by the generator. (NOTE: The rules in this checklist item apply to facilities that manage soils and absorbent media contaminated with liquids not regulated as hazardous waste, including certain oils, greases, fats, tars and petroleum products. The rules in this subsection do not apply to soils contaminated with oil and regulated pursuant to Env-Wm 1600, namely, oil contaminated soils managed at the waste generation site.)
SO.9.2.NH. Processing and treatment of contaminated soils and absorbent media must meet specific requirements (NHCAR Env-Sw 903.03) [Citation Revised March 2007; Added March	(NOTE: See SO.9.1.NH. for applicability.) Verify that processing and treatment of contaminated soils and absorbent media complies with the requirements of Env-Sw 500 2200 (see section SO.175.NH.) and this subsection. Verify that a solid waste facility that processes or treats contaminated soils and media employs technologies demonstrated to successfully manage the specific

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2007].	contaminants present in the soil or media. Verify that contaminated soils and absorbent media are processed or treated in compliance with applicable air and water quality rules and regulations.
SO.9.3.NH. Disposal of contaminated soils and absorbent media must meet specific requirements (NHCAR Env-Sw 903.04) [Citation Revised March 2007; Added March 2007].	(NOTE: See SO.9.1.NH. for applicability.) Verify that the disposal of contaminated soils and absorbent media occurs only at authorized facilities. Verify that prior to disposal, contaminated soils and absorbent media are tested. Verify that contaminated soil and absorbent media from out-of-state are not disposed in a NH landfill if it fails the disposal criteria of its state of origin.
SO.9.4.NH. Transportation of contaminated soils and absorbent media must meet specific requirements (NHCAR Env-Sw 903.06) [Citation Revised March 2007; Added March 2007].	(NOTE: See SO.9.1.NH. for applicability.) Verify that contaminated soil and absorbent media are transported using a standard bill of lading. Verify that contaminated soil and absorbent media are transported in a manner that prevents dispersion of the waste to the air, ground or waterways. Verify that contaminated soil and absorbent media are not transported from the site of generation prior to completing a hazardous waste determination.

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SO.10. **STORAGE/COLLECTION OF SOLID WASTE**	
SO.10.1.NH. [Moved March 2007].	(NOTE: Moved to SO.15.4.NH. March 2007)
SO.10.2.NH. [Moved March 2007].	(NOTE: Moved to SO.15.5.NH. March 2007)
SO.10.3.NH. [Moved March 2007].	(NOTE: Moved to SO.15.6.NH. March 2007)
SO.10.4.NH. [Moved March 2007].	(NOTE: Moved to SO.15.7.NH. March 2007)
SO.10.5.NH. [Moved March 2007].	(NOTE: Moved to SO.15.8.NH. March 2007)
SO.10.6.NH. [Moved March 2007].	(NOTE: Moved to SO.15.9.NH. March 2007)
SO.10.7.NH. [Moved March 2007].	(NOTE: Moved to SO.15.10.NH. March 2007)

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SO.15. **TRANSFER FACILITIES**	

SO.15.1.NH. Waste collection and transfer operations that are carried out by temporarily parking a truck or other motor vehicle at a site where persons then deliver waste from off-site locations must meet operational requirements to operate under a permit-by-notification (NHCAR Env-Sw 407.05) [Added March 2007].	(NOTE: This section also applies to recycling facilities.)
	
	Verify that all waste collected by the facility is placed directly into a motor vehicle that:
	
	- is registered and insured by the permittee for legal use on public roads
	- bears a current state inspection sticker
	- is prominently marked with an identification name or logo
	- displays the required permit
	- displays a list of authorized and prohibited wastes, consistent with (d) and (e) below
	- is equipped with a spill response kit
	- is equipped with an emergency communication system
	- fully encloses the collected waste.
	
	Verify that the land owner has granted the permittee permission to so use the land.
	
	Verify that the site is operated one day per week only, during daylight hours only.
	
	Verify that the facility receives only mixed municipal solid waste or source-separated recyclable materials or a combination thereof.
	
	Verify that the facility does not receive:
	
	- any of the following waste (listed in Env-Sw 1204.03)
	  - asbestos waste
	  - explosive waste
	  - contained gaseous waste, unless collected for recycling
	  - liquid waste
	  - infectious waste
	  - animal carcasses
	  - contaminated soils and other absorbent media
	  - out-of-state waste, unless the waste is received for recycling, not incineration or disposal
	- ash, liquid waste, and white good.
	
	Verify that the waste is not stored at the collection site overnight.
	
	Verify that all other applicable permit-by-notification facility requirements (see SO.6.4.NH. through SO.6.13.NH.)

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SO.15.2.NH. Limited public transfer stations that are permitted by notification must meet specific requirements (NHCAR Env-Sw 407.02) [Added March 2007].	(NOTE: This section also applies to recycling facilities.) Verify that the facility complies with the permit by notification requirements (see SO.6.4.NH. through SO.6.13.NH.). Verify that the facility only receives the following types of waste: - mixed municipal solid waste comprised principally of mixed refuse - source separated select recyclable materials - bulky waste, including white goods, furniture, and stumps - construction and demolition debris - tires - wood ash from household stoves. Verify that the facility receives no more than 30 tons of waste per day on average: - annually, for facilities operating longer than one year - over the life expectancy of the facility, for facilities operating less than one year. Verify that the facility stores no more than 14 times the maximum quantity of waste the facility is authorized in the permit to receive on average daily. (NOTE: The storage limit specified above does not include storage of select recyclable materials, provided that: - the materials are fully processed - the materials are actively managed by the facility - storage of the materials complies with the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.), and at facilities having an active life of longer than 90 days, the additional facility requirements (see SO.4.19.NH. through SO.4.33.NH.).)
SO.15.3.NH. Collection, storage and transfer (C/S/T) facilities operating without a permit must meet specific requirements (NHCAR Env-Sw 408.02, 408.05, 408.06, and 408.07) [Added March 2007].	(NOTE: This section also applies to recycling facilities.) Verify that the C/S/T facilities operating without a permit complies with the following: - the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.) - the waste specific requirements (asbestos, ash, contaminated solids and media, infectious waste, and tires), as applicable based on the type of waste managed by the facility - all waste managed at the facility is actively managed. Verify that the collection, storage, and transfer of unprocessed select recyclable materials from off-site locations meets the following requirements:

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	- only source separated recyclable materials are collected - the recyclable materials are collected and stored in containers that are covered and labeled to identify ownership and authorized use(s) - no more than 100 cubic yards of recyclable materials are stored at the facility - the facility is operated by: - a person who owns an authorized facility that receives the recyclable materials for processing or reuse, or both - a commercial waste hauler holding a written agreement from an authorized facility that receives the recyclable materials for processing or reuse, or both - a person in responsible charge of a fund drive or similar event sponsored by a community, government or civic non-profit organization. Verify that the temporary storage of waste while in transit to an authorized facility meets the following requirements: - the waste arrives at the storage facility in covered container(s) (including a waste collection vehicle) - no waste is removed from or added to the container(s) while at the storage facility - not more than 150 cubic yards of waste is stored at the storage facility - the waste is stored no longer than 4 days from date of receipt - the waste is not be stored in a manner or for a time period that has the potential to result in conditions adversely affecting the environment, public health or safety, including conditions that attract insects or vectors, generate odors or leachate, or have the potential to cause fire or explosion. Verify that the temporary storage of waste collected from highway rights-of-way pending transfer to an authorized facility meets the following requirements: - the facility is on property controlled by a state or local highway agency controlling the right-of-way - the facility is operated by the same state or local highway agency.
SO.15.4.NH. Collection, storage and transfer (C/S/T) solid waste facilities must be permitted (NHCAR Env-Sw 401.01 and 402.01) [Citation Revised March 2007; Added March 2007].	(NOTE: Moved from SO.10.1.NH., March 2007) (NOTE: This section also applies to recycling facilities.) Verify that the facility obtains a permit prior to the construction, operation and closure of a C/S/T solid waste facility, unless exempt from permit requirements under SO.15.2.NH.
SO.15.5.NH. Permitted collection, storage and transfer (C/S/T) solid waste	(NOTE: Moved from SO.10.2.NH., March 2007)

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facilities must meet siting requirements (NHCAR Env-Sw 403.01 and 403.02) [Revised March 2007; Added March 2007].	(NOTE: This section also applies to recycling facilities.) Verify that a C/S/T solid waste facility is sited no less than 50 ft from the footprint of any landfill not yet capped. (NOTE: A lesser distance may be permitted by the Department.) Verify that a C/S/T solid waste facility is sited no less than 50 ft from any property line. (NOTE: The siting requirements apply to all C/S/T facilities, except: - facilities that hold a permit prior to the 2005 readoption of the solid waste rules - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities. The siting requirements in this part apply as the complement of the siting requirements in Env-Sw 1003 for all facilities, Env-Sw 1102 for facilities having an active life longer than 90 days, and Env-Sw 1203 for permit-by-notification facilities.)
SO.15.6.NH. Permitted collection, storage and transfer (C/S/T) solid waste facilities must meet design requirements (NHCAR Env-Sw 404.01 and 404.03) [Revised March 2007; Added March 2007].	(NOTE: Moved from SO.10.3.NH., March 2007) (NOTE: This section also applies to recycling facilities.) Verify that C/S/T facilities have: - waste receiving and inspection areas - waste sorting areas, if facility operations involve the sorting of waste - hot load segregation and control areas - waste storage areas and devices including, as appropriate for the type of waste being stored, transfer containers, bins, concrete bunkers, covered pallets, buildings and storage pads for stockpiles - equipment required to operate the solid waste facility in conformance with the solid waste rules including, as applicable to the size and scope of operations, scales, balers, compactors, mechanical sorting devices, fork lifts, trucks and other vehicles - equipment storage and cleaning areas - a closed drainage system or functionally equivalent operating system to manage the discharge of liquids, if any, from waste handling and storage areas and from equipment cleaning areas - lighting - active or passive ventilation systems for enclosed areas - fire control devices or systems, including smoke detectors, alarms, fire extinguishers and/or sprinkler systems as appropriate - shelter for solid waste facility operators - sanitation facilities for solid waste facility operators - first aid station for solid waste facility operators

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	- emergency communication for solid waste facility operators - an office or other area for maintaining and storing solid waste facility records - access control devices such as fencing, gates and bars, locked buildings and/or signs. (NOTE: A design feature or appurtenance listed above is not required if: - the applicant or permittee, as applicable, demonstrates in a permit application, application for permit modification or compliance report, as applicable, that: - the underlying solid waste facility operating requirements are met without the design feature or appurtenance, or met through use of an alternative feature, appurtenance or practice - not incorporating the design feature or appurtenance, as proposed, will not result in a violation of the universal environmental performance requirements - the Department provides written approval in the permit or permit modification, specifically including reference to any alternative feature, appurtenance or practice the solid waste facility will employ as a condition of the approval.) (NOTE: These design requirements apply to all C/S/T facilities, except : - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities. These design requirements apply as the complement of the design requirements in Env-Sw-1004 for all facilities, Env-Sw 1103 for facilities having an active life longer than 90 days, Env-Sw 1200 for permit-by-notification facilities (see SO.6.4.NH. through SO.6.13.NH.), and depending on the type of waste managed , Env-Sw 900 for wastes such as asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires.)
SO.15.7.NH. Waste handling and storage areas at permitted C/S/T solid waste facilities must meet specific design requirements (NHCAR Env-Sw 404.04) [Revised March 2007; Added March 2007].	(NOTE: Moved from SO.10.4.NH., March 2007) (NOTE: This section also applies to recycling facilities.) Verify that a waste handling and storage area is designed to collect and contain waste in a manner that is protective of the environment, public health and safety. Verify that storage areas for waste being managed as a recyclable material are designed to preserve the market value of the material (for instance, waste paper destined for recycling is stored indoors, protected from rain and moisture). Verify that a waste handling and storage area is delineated and signed to control and assure proper use of the area by solid waste facility users and operators. Verify that a waste handling and storage area is designed to manage and store waste in a manner that controls to the greatest extent practicable dust, litter,

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	insects, odors, vectors, spills, the production of leachate, fire hazards including spontaneous combustion, the generation of methane and other hazardous or explosive gases, noise and nuisances. Verify that a waste storage and handling area is designed to prohibit public access to any area used for storing or handling a waste that requires special handling to assure protection of the environment, public health and safety. Verify that a C/S/T solid waste facility is designed to allow yr round access by solid waste facility operators to all waste storage areas for the purposes of inspection, monitoring, maintenance, and the removal of waste. Verify that putrescible waste is not collected or stored on the ground. Verify that mixed municipal solid waste, including mixed refuse, is not collected or stored on the ground.
SO.15.8.NH. Waste stockpiles at permitted C/S/T solid waste facilities must meet specific design requirements (NHCAR Env-Sw 404.05) [Revised March 2007; Added March 2007].	(NOTE: Moved from SO.10.5.NH., March 2007) (NOTE: This section also applies to recycling facilities.) Verify that stockpiles of waste are positioned within a footprint identified on the solid waste facility site plan. Verify that if a stockpile will be open to precipitation, the footprint of the stockpile is: - underlain by an asphalt, concrete or packed soil surface - graded to prohibit precipitation and surface drainage from surrounding areas from draining through and/or collecting in the stockpile area. Verify that a waste stockpile is located, sized and configured as required by local fire authorities in order to assure that available fire fighting equipment and resources will be able to effectively respond to a fire. Verify that, at a minimum, a C/S/T solid waste facility is designed to: - provide access to all waste stockpiles for fire control purposes, including the placement and maintenance of fire lanes between and around all stockpiles of combustible waste - limit the height of the stockpiles to a height compatible with local fire fighting equipment response capabilities - provide a water supply within a distance and in a quantity sufficient for local fire fighting needs. Verify that a stockpile is sized and configured to be physically stable against slides, collapse or other conditions that might result in personal injury or

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	destruction of property. Verify that a stockpile is covered when required to protect the environment, public health or safety. Verify that, if a waste exhibits a characteristic that has the potential to cause groundwater or surface water contamination when placed in contact with the ground surface, the waste is stockpiled in a manner to prevent the contamination by means of a leachate collection system or functionally equivalent control system. Verify that, if a waste exhibits a characteristic that has the potential to cause air pollution or a respiratory hazard, the waste is stockpiled in a manner as to prevent the air pollution and respiratory hazard in conformance with state and federal regulations for the control of air pollution.
SO.15.9.NH. Permitted collection, storage and transfer (C/S/T) solid waste facilities must meet waste management requirements (NHCAR Env-Sw 405.02 and 405.03) [Revised March 2007; Added March 2007].	(NOTE: Moved from SO.10.6.NH., March 2007) (NOTE: This section also applies to recycling facilities.) Verify that a C/S/T solid waste facility does not collect a waste for which it has no provisions for storage or for which available storage provisions are not protective of the environment, public health and safety. Verify that a C/S/T solid waste facility does not receive any waste for which it has no arrangements for removal to an authorized solid waste facility. Verify that materials destined for recycling are collected and stored in a manner to preserve the market value of the material. Verify that stockpiles of metal are maintained free of plastic, wood and other non-metal debris. Verify that white goods potentially containing polychlorinated biphenols (PCBs) or chlorinated fluorocarbons (CFCs) are stored separately in an accessible location and in such a manner as to allow qualified personnel to examine each article and extract any CFCs or remove any PCB-containing components. Verify that all solid waste received by a C/S/T solid waste facility is actively managed. Verify that all solid waste leaving a C/S/T solid waste facility is transferred to an authorized solid waste facility. Verify that a waste is not stored at a C/S/T solid waste facility for a period of time that results in a condition adversely affecting the environment, public health or safety, including conditions that attract insects and vectors, generate odors or

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	leachate, or have the potential to cause fire or explosion. Verify that putrescible wastes are transferred from the solid waste facility before producing a noticeable odor or within one week of its receipt by the solid waste facility, whichever is earlier.
SO.15.10.NH. Permitted collection, storage and transfer (C/S/T) solid waste facilities must meet closure requirements (NHCAR Env-Sw 406.02) [Citation Revised March 2007; Added March 2007].	(NOTE: Moved from SO.10.7.NH., March 2007) (NOTE: This section also applies to recycling facilities.) Verify that all processed recyclable materials are removed to an authorized solid waste facility, and do not remain at the closing solid waste facility under any claim of a permit exemption.

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SO.92. **ASH HANDLING AND DISPOSAL**	
SO.92.1.NH. The collection, storage and transfer of bottom ash and fly ash must meet specific requirements (NHCAR Env-Sw 902.01 and 902.02) [Citation Revised March 2007].	(NOTE: The rules in this subsection apply to management of bottom ash and fly ash from the point of origin to the point of final disposal. The rules in this part do not apply to: - ash generated by private residences from the combustion of wood or fossil fuel - ash from crematoriums - wood ash certified for distribution and use, provided it is distributed and used in accordance with the certification - boiler slag from the combustion of coal.) Verify that ash is collected and stored in containers in a manner which: - avoids the dispersion of ash residue, including particulates - is fire safe - prevents rain water infiltration - collects and controls the free liquid that drains from the ash, if the ash is quenched or treated with applied liquids. Verify that prior to transfer, ash generators comply with the hazardous waste determination requirements and thereby assure proper management of the ash. Verify that ash is not transferred from the generator's collection area until cooled sufficiently to eliminate the potential to cause fire and burn injury. Verify that prior to unloading, ash shipments received by a collection, storage and transfer solid waste facility are inspected by the receiving solid waste facility to determine whether the load is hot. Verify that hot ash is not deposited at a receiving solid waste facility where it might start a fire and/or cause burn injury. Verify that hot ash is segregated from combustible materials, contained and extinguished.
SO.92.2.NH. Processing and treatment of bottom ash and fly ash must meet specific requirements (NHCAR Env-Sw 902.03) [Citation Revised March 2007].	(NOTE: See applicability note in SO.92.1.NH.) Verify that processing and treatment of ash complies with the requirements of Env-Sw 500 (see section SO.175.NH.) and this section. Verify that processing and treatment of ash is carried out in a manner which:

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	- avoids the dispersion of ash residue, including particulates - is fire safe - prevents rainwater infiltration - collects and controls the free liquid that drains from the ash, if quenched or treated with applied liquids. Verify that prior to unloading, ash shipments received by a processing or treatment solid waste facility are inspected by the receiving solid waste facility to determine whether the load is hot. Verify that hot ash is not deposited at a receiving solid waste facility where it might start a fire and/or cause burn injury Verify that hot ash is segregated from combustible materials, contained and extinguished.
SO.92.3.NH. Disposal of bottom ash and fly ash must meet specific requirements (NHCAR Env-Sw 902.04) [Revised March 2007].	(NOTE: See applicability note in SO.92.1.NH.) Verify that ash is disposed only at authorized facilities. Verify that ash from the combustion of municipal solid waste is disposed in double lined facilities only. Verify that ash from the combustion of coal is disposed in either a double lined solid waste facility or single lined solid waste facility that meets the requirements for coal ash disposal facilities. Verify that coal ash is disposed in a single lined solid waste facility only if: - the solid waste facility is a monofill - the required groundwater monitoring system is designed to serve as a leak detection system. Verify that, prior to unloading, ash shipments received by a New Hampshire landfill are inspected by the receiving facility to determine whether the load is hot. Verify that hot ash is not deposited where it might start a fire or cause burn injury and is segregated from combustible materials, contained and extinguished.
SO.92.4.NH. Transportation, packaging and labeling of bottom ash and fly ash must meet specific requirements (NHCAR Env-Sw 902.06) [Citation Revised March	(NOTE: See applicability note in SO.92.1.NH.) Verify that ash is transported in a manner that prevents dispersion of ash residue, including particulates. Verify that ash is not transported in or through New Hampshire unless the

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2007].	generator has first completed a hazardous waste determination. Verify that ash is not transported unless cooled sufficiently to eliminate the potential for fire and/or burn injury while in-transit and following delivery. Verify that ash that is quenched or contains free liquid is transported in leak tight containers or is sufficiently dry prior to transport to preclude the discharge of liquids while in transit.
SO.92.5.NH. Solid waste facilities that receive bottom ash and fly ash generated in another state must meet specific requirements (NHCAR Env-Sw 902.08) [Citation Revised March 2007].	(NOTE: See applicability note in SO.92.1.NH.) Verify that a New Hampshire solid waste facility that receives ash generated in another state obtains from the ash generator copies of the required hazardous waste determination. Verify that this information is maintained by the permittee as part of the solid waste facility operating records.
SO.92.6.NH. Solid waste facilities that generate bottom ash and fly ash must meet testing requirements (NHCAR Env-Sw 902.07) [Added March 2000; Citation Revised March 2007].	Verify that the ash generator complies with the hazardous waste determination requirements by developing and implementing a quality assurance/quality control (QA/QC) plan for ash sampling and analysis. Verify that the QA/QC plan for ash sampling and analysis specifies: - the procedures by which representative samples of ash will be obtained - the contaminants and parameters for which testing will be conducted - the data analysis necessary to demonstrate the level of precision and accuracy are acceptable - the testing methods. Verify that ash testing results and QA/QC plan information is maintained by the ash generator and made available to Department for inspection.

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SO.95 **RESOURCE RECOVERY FACILITIES**	
SO.95.1NH. Collection centers for select recyclables that are permitted by notification must meet the following operating requirements (NHCAR Env-Sw 407.03) [Added March 2007].	Verify that facilities that collect and temporarily store select recyclable materials and transfer the materials to authorized facilities or markets for recycling meet the following requirements: - select recyclable materials are the only type of solid waste received by the facility - the select recyclable materials are source separated by material type before delivery to the facility - the select recyclable materials are actively managed - the facility complies with permit by notification requirements (see SO.6.4.NH. through SO.6.13.NH.).
SO.95.2.NH. Scrap metal collection and recycling centers that are permitted by notification must meet the following requirements (NHCAR Env-Sw 407.04) [Added March 2007].	Verify that facilities that only collect and temporarily store ferrous or non-ferrous scrap metal, or a combination thereof, and that transfer the scrap metal to authorized facilities or markets for recycling, are eligible for a permit-by-notification, provided that: Verify that the facility does not receive any: - parts of a motor vehicle that contain or have contained fluids or lubricants excluding lead acid batteries - specific types of wastes listed in Env-Sw 900 (asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires) - free-draining oil or lubricants, including cutting oils mixed with or coating metal shavings. Verify that the scrap metal goods, as received by the facility, are not mixed with other types of waste, including municipal solid waste, and construction and demolition debris. Verify that the permittee identifies whether the scrap metal goods include any of the following substances or devices, and subsequently assures that such substances, if present, are managed in accordance with applicable state and federal rules and regulations, either at the facility or by transfer to another facility that provides such proper management: - CFCs - PCBs - mercury-containing switches and other devices - batteries - other regulated substances, materials, and wastes.

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	Verify that all tanks, drums and other containers received by the facility are emptied and cleaned of residues in accordance with applicable state and federal rules and regulations. Verify that the scrap metal processing activities conducted at the facility are limited to sorting, cutting, crushing, baling, or smelting, or a combination thereof, provided the latter is done in units not requiring a permit. Verify that the scrap metal is actively managed. Verify that all residual waste at the facility is: - directly attributable to the allowable scrap metal processing activities - segregated from the recyclable scrap metal - actively managed - not accumulated in excess of 30 cubic yards, unless the permittee establishes and maintains an approved financial assurance plan to guarantee the cost of disposing of the residual waste. Verify that all other applicable permit-by-notification facility requirements are met.

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MEDICAL WASTE **SO.110. Containers/Labeling/ Storage Areas**	
SO.110.1.NH. The collection, storage and transfer of infectious waste must meet specific requirements (NHCAR Env-Sw 904.01 and 904.02) [Revised March 2007].	(NOTE: This checklist applies to the management of infectious waste and treated infectious waste which is not ash residue, from the point of origin to the point of final disposal, including the following: - cultures and stocks of infectious agents and associated biologicals - pathological wastes - waste human blood and products of blood - sharps that have been used in human or animal patient care or in medical, research, or industrial laboratories, including hypodermic needles, syringes, pasteur pipettes, broken glass and scalpel blades - contaminated animal carcasses, body parts, and bedding of animals that were exposed to infectious agents - wastes from human or animal patient care, surgery or autopsy that were in contact with infectious agents - laboratory wastes from medical, pathological, pharmaceutical, or other research, commercial or industrial laboratories that were in contact with infectious agents - dialysis wastes that were in contact with the blood of patients undergoing hemodialysis - discarded medical equipment and parts that were in contact with infectious agents - biological waste and discarded materials contaminated with blood, excretion, exudates or secretion from humans or animals who are isolated to protect others from communicable diseases - any discarded preparations made from genetically altered living organisms and their products - other waste material that results from the administration of medical care to a patient whether human or animal by a health care provider and is found by the director in consultation with the division of public health services or state veterinarian to pose a threat to human health or the environment due to its infectious nature. This checklist item does not apply to the following types of waste: - gloves, gowns, underpads or any other materials that come in contact with patients, but not saturated with blood, body fluids or secretions, through routine examination or patient care - household infectious waste, provided that: -sharps are enclosed inside rigid, puncture-resistant containers - containers encasing sharps are sealed and labeled "not for recycling " - the waste is disposed at an authorized facility only. Verify that the waste is stored in a pre-designated location, protected from water, rain and wind.

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	Verify that storage containers and packaging are labeled conspicuously in a legible manner with the words "infectious waste," or "biohazard waste," or with the universal biohazard symbol. Verify that waste stored at generator facilities is maintained in a nonputrescent state, using refrigeration when necessary. Verify that waste is not stored at room temperatures in excess of 72 h. Verify that outdoor storage areas containing the waste, such as dumpsters, sheds, tractor-trailers, or other storage areas, are locked to prevent unauthorized access. Verify that access to on-site storage areas is limited to authorized persons. Verify that the waste is stored in a manner that provides protection from animals and does not provide a breeding place or a food source for insects or rodents. Verify that storage containers and packaging are of sufficient structural integrity to ensure that the waste is not released to the environment during storage. Verify that the contents of damaged or ruptured containers are repackaged. Verify that infectious waste is transferred by the generator to authorized facilities only. Verify that facilities that receive infectious waste from off-site generators do not store the waste in excess of 7 days from date of receipt.

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MEDICAL WASTE **SO.115.** **Transportation**	

SO.115.1.NH. Transportation of infectious waste must meet specific requirements (NHCAR Env-Sw 904.06) [Citation Revised March 2007].	Verify that infectious waste transported off-site for treatment prior to disposal is transported in conformance with the U.S. Department of Transportation hazardous materials regulations as provided in 49 CFR 171-180 or as specified below.
	
	Verify that the transportation of infectious waste not subject to 49 CFR 171-180 meets the following requirements:
	
	- sharps are segregated and encased inside rigid, puncture-resistant containers
	- infectious waste and sharps containers are placed in a sealed nonpermeable 3 mil polyethylene bag or equivalent, which is itself placed in a second bag of similar construction and sealed
	- the outermost container or package is labeled with the following:
	  - clear markings indicating the contents which includes the words "infectious waste," or "biohazard waste" or the universal biohazard symbol
	  - the name, address and telephone number of the generator and transporter.
	
	Verify that transporters notify the receiving solid waste facility prior to delivering infectious waste to a New Hampshire landfill.

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MEDICAL WASTE **SO.120.** **Treatment/Disposal**	
SO.120.1.NH. Processing and treatment of infectious waste must meet specific management requirements (NHCAR Env-Sw 904.03 and 904.08) [Citation Revised March 2007].	(NOTE: Facilities that process or treat infectious waste must also meet the requirements in section SO.175.NH.) Verify that the waste is treated at an authorized solid waste facility to achieve high-level disinfection plus a 4 $\log_{10}$ reduction of *Bacillus subtilis* or *Bacillus stearothermophilus*. Verify that infectious waste so treated is not combined or mixed with other waste prior to disposal, unless authorized by the receiving disposal solid waste facility. Verify that limbs and recognizable organs, excluding teeth and contiguous gum tissue, are disposed of by incineration or interment. Verify that all infectious waste managed by the solid waste facility is collected and stored as specified in SO.110.NH., pending treatment. Verify that if the solid waste facility is an incinerator that treats the infectious waste by combustion, the solid waste facility meets the requirements of Env-Sw 700 (see section SO.145.NH.).
SO.120.2.NH. Disposal of infectious waste must meet specific management requirements (NHCAR Env-Sw 904.04) [Revised March 2007].	Verify that infectious waste is not landfilled in New Hampshire unless treated to achieve the high-level disinfection plus a 4 $\log_{10}$ reduction of *Bacillus subtilis* or *Bacillus stearothermophilus*. Verify that treated infectious waste is disposed at authorized facilities. Verify that notification is given by the transporter to the receiving solid waste facility prior to the disposal of treated infectious waste. (NOTE: Liquid infectious waste may be disposed via a sanitary sewer, subject to the provisions of local sewer ordinances and regulations, only if the receiving wastewater treatment solid waste facility includes secondary treatment.)
SO.120.3.NH. Materials or equipment contaminated with infectious waste must meet specific disinfection requirements before reuse or distribution (NHCAR Env-Sw	Verify that materials or equipment contaminated with infectious waste, for example surgical equipment, maintenance carts, bedding, waste containers and the like, meet the following requirements: - if reused within the generating solid waste facility, the materials and equipment are cleaned and disinfected prior to reuse to achieve the standards

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904.05) [Revised March 2007].	for disinfection prescribed by the solid waste facilities internal management protocol - if sent off-site for reuse, the materials and equipment are cleaned and disinfected prior to leaving the generating solid waste facility to achieve at least the high-level disinfection plus a 4 $\log_{10}$ reduction of *Bacillus subtilis* or *Bacillus stearothermophilus*.
SO.120.4.NH. Solid waste facilities that treat infectious waste by other than incineration must meet testing and reporting requirements (NHCAR Env-Sw 904.07) [Revised March 2007].	Verify that facilities, including generator facilities, that treat infectious waste by methods other than incineration meet the following requirements: - quality assurance/quality control efficacy testing is performed during initial solid waste facility operations to verify solid waste facility operating procedures meet the disinfection requirements of SO.120.1.NH. - following verification, the solid waste facility performs quality assurance/quality control efficacy testing no less than 4 times yearly - the solid waste facility maintains the records of quality assurance/quality control efficacy testing for a minimum of 3 yr.
SO.120.5.NH. Infectious waste bench top facilities may operate without a permit when specific requirements are met (NHCAR Env-Sw 508.04) [Added March 2007].	Verify that the treatment facility is located at, and owned and operated by, a health care facility licensed pursuant to RSA 151. Verify that the treatment facility receive waste only from the following sources: - health care facility itself - affiliated health care facilities - households within the community served by the health care facility. Verify that the waste treatment equipment is limited to a bench-top unit with a through-put rate of less than 30 pounds per hour or, if the unit is an autoclave, the chamber capacity is less than one cubic yard. Verify that the treatment facility is located inside a building. Verify that all infectious waste is managed by the facility in accordance with Env-Sw 904. Verify that the facility has assured access to a permitted waste management facility for the transfer of all treated waste and residual waste to be generated by the facility. Verify that the facility has assured access to an authorized facility to which it will divert bypass wastes. Verify that, if the facility is an incinerator, the resultant ash residue is managed in accordance with Env-Sw 902.

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SO.135. **LANDFILLS**	
SO.135.1.NH. Landfill siting must meet groundwater protection standards (NHCAR Env-Sw 804.01 and 804.02) [Citation Revised March 2007].	Verify that a landfill is not sited within the well head protection area of a community or noncommunity, non-transient water supply well system as delineated in the Department's source water protection area inventory. Verify that a landfill and all associated leachate storage units are located only in areas where groundwater monitoring for release detection, characterization and remediation can be conducted prior to a release having an adverse affect on a water supply. Verify that the base of the bottom liner system, or the base of the solid waste facility if unlined, is a minimum of 6 ft above the seasonal high groundwater table and the confirmed bedrock surface. (NOTE: Certain landfills are subject to Federal municipal solid waste landfill regulations; see Appendix 9-2 for details.) (NOTE: These siting requirements apply to all landfills except: - existing permitted facilities and existing facilities scheduled to close - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.)
SO.135.2.NH. Landfill siting must meet surface water protection standards (NHCAR Env-Sw 804.03) [Citation Revised March 2007].	(NOTE: See SO.135.1.NH. for applicability.) Verify that a landfill and all associated leachate storage units are located only in areas where potential adverse effects to surface water quality, due to erosion, sedimentation, siltation, flood, or discharge of contaminants, can be prevented or minimized and mitigated by solid waste facility design. Verify that the footprint of a landfill is not located within 200 ft of any perennial surface water body, measured from the closest bank of a stream and closest shore of a lake, as applicable. Verify that the footprint of a landfill is not located within 200 ft upgradient and 100 ft downgradient of a wetland, excluding any drainage appurtenances related to the site, that is not allowed to be filled. Verify that the footprint of a landfill is not located within 1000 ft upgradient of a surface water reservoir or intake used for a community drinking water supply. Verify that the footprint of a landfill is not located within the 100-yr flood hazard

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	zone.
SO.135.3.NH. Landfills must meet setback requirements (NHCAR Env-Sw 804.04) [Citation Revised March 2007].	(NOTE: See SO.135.1.NH. for applicability.) Verify that there is a minimum 100-ft buffer strip between the property line and the footprint of the landfill. Verify that there is a minimum 300-ft buffer between the footprint of the landfill and Class I and Class II roads and a minimum 100-ft buffer between the footprint of the landfill and Class III through Class VI roads. Verify that there is a minimum distance of 500 ft maintained between the footprint of the landfill and all existing residences not owned by the applicant. Verify that the footprint of a landfill receiving putrescible wastes is not located within 10,000 ft of any airport runway used by turbojet aircraft or 5000 ft of any airport runway used by only piston-type aircraft.
SO.135.4.NH. Landfills must meet geologic siting limitations (NHCAR Env-Sw 804.05) [Citation Revised March 2007].	(NOTE: See SO.135.1.NH. for applicability.) Verify that the footprint of a landfill and associated leachate storage units is a minimum of 200 ft from faults that have had displacement in Holocene time, meaning from Pleistocene to present or within the last 11,000 yr. Verify that no landfill footprint or associated leachate storage units overlie an area underlain by karstified dolomite or limestone, or an area susceptible to mass movements of earth material such as landslides, rockfalls, mudslides, slumps, earth flows, or subsidence.
SO.135.5.NH. Landfills must be sited on property owned by the permittee (NHCAR Env-Sw 804.06) [Citation Revised March 2007].	(NOTE: See SO.135.1.NH. for applicability.) Verify that a new landfill is sited only on property that is owned by the permittee.
SO.135.6.NH. Landfills must meet general design requirements (NHCAR Env-Sw 805.01 and 805.02) [Citation Revised March 2007].	Verify that a lined landfill incorporates the following design features: - a foundation - a liner system - a leak detection and location system - a groundwater and surface water monitoring system, if required - a stormwater management system

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	- a decomposition gas control system - a final capping system - solid waste facility structures as necessary to house, maintain and repair equipment and supplies, and to accommodate the needs of solid waste facility personnel relative to shelter, sanitation and communication. Verify that an unlined landfill incorporates the following design features: - a groundwater and surface water monitoring system, if required - a stormwater management system - a final capping system - solid waste facility structures as necessary to house, maintain and repair equipment and supplies, and to accommodate the needs of solid waste facility personnel relative to shelter, sanitation and communication. (NOTE: These design requirements apply to all landfills, except: - portions of existing permitted facilities which are constructed or approved for construction as of 29 October 1997 - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities. These design requirements apply as the complement of the design requirements in Env-Sw 1004 for all facilities, Env-Sw 1103 for facilities having an active life longer the 90 days, Env-Sw 1200 for permit-by-notification facilities (see SO.6.4.NH. through SO.6.13.NH.), and depending on the type of waste managed, Env-Sw 900 for asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires.)
SO.135.7.NH. Landfills receiving municipal solid waste (MSW) must meet specific additional design requirements (NHCAR Env-Sw 805.09, 805.12 and 805.13) [Revised March 2000; Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that landfills receiving MSW are designed as double-lined facilities. Verify that landfills receiving MSW are designed to provide the capability to operate in a manner that promotes rapid biological stabilization of landfilled wastes, as by leachate recirculation and/or bioreactor technologies. Verify that landfills receiving MSW incinerator ash are double-lined facilities. Verify that all landfills include a stormwater management system to: - divert run-on around or away from the facility - control run-off discharge from the facility - control erosion, sedimentation, siltation, and flooding - minimize the generation of leachate. Verify that stormwater management systems are designed to accommodate the 25-yr storm event of a duration equivalent to the time of concentration of the drainage

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	area being served. Verify that stormwater management systems are designed to accommodate all phases of the landfill's active life, as well as the closure and post-closure period. Verify that stormwater management systems are hydraulically separate from the leachate collection and removal system(s). Verify that stormwater management systems are designed to function effectively during frozen ground conditions. Verify that permanent sedimentation ponds and detention ponds are sized to handle the 25-yr/24-hr storm event with no less than 1 ft of freeboard below the emergency spillway invert. Verify that peak surface run-off from the landfill site during the 25-yr storm event is controlled and maintained at the pre-development discharge rate. Verify that all stormwater that contacts waste is managed as leachate unless representative analytical characterization conducted in accordance with the facility's approved operating plan demonstrates the liquid may be lawfully discharged to ground or surface waters without treatment. Verify that perimeter drainage swales are provided to channel run-off during facility development and during the facility's post-closure period. Verify that perimeter drainage swales are designed and located to accommodate facility capping. Verify that surface water run-on is diverted around and away from the facility by using berms and ditches or similar methods. Verify that surface water run-off is controlled by using benches, terraces, diversion berms and diversion swales or similar methods. Verify that erosion is controlled by using vegetation, terrace berms, silt fences and check dams or similar methods. Verify that closed drainage systems, if used, include provisions for inspections, monitoring and maintenance.
SO.135.8.NH. Landfills receiving construction / demolition debris and coal ash must meet specific additional design requirements (NHCAR Env-Sw 805.14) [Revised	(NOTE: See SO.135.6.NH. for applicability.) (NOTE: Landfills receiving construction and demolition debris only or coal ash only may be designed as single-lined facilities. If the characteristics of the wastes cannot be consistently determined or assured or the characteristics pose a threat to groundwater quality, the facility must be a double-lined facility.)

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March 2007].	Verify that design features include the means to control and extinguish fires that might occur within the landfill and to otherwise limit the potential for liner damage due to fire. Verify that landfills which co-mingle construction and demolition debris with other waste types meet the design requirements set forth in this part relative to the other waste types.
SO.135.9.NH. Landfills receiving other types of wastes must meet specific additional design requirements (NHCAR Env-Sw 805.15) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that landfills for any waste types not specifically identified SO.135.7.NH. and SO.135.8.NH. are designed as double lined facilities. (NOTE: Landfills which receive only stumps and brush or only asbestos or only inert demolition debris, as assured through the provisions of the solid waste facility's operating plan, may be designed as unlined landfills.)
SO.135.10.NH. Landfills must meet specific requirements for placement of wastes (NHCAR Env-Sw 806.02) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that, as part of the solid waste facility operating plan, a fill sequencing plan is developed and implemented in accordance with these requirements. Verify that wastes are placed only within the permitted vertical and lateral limits of the landfill. Verify that wastes are placed in a controlled manner, in accordance with the fill sequencing plans. Verify that the fill sequencing plans is developed on the basis of limiting the quantity of leachate a solid waste facility generates, through grading and covering techniques which maximize the quantity of received precipitation that can be handled as stormwater. Verify that unloading of waste is confined to the smallest practical area. Verify that the exposed waste on the working face of the landfill is limited, to reduce precipitation contact with the waste and to allow the area to be covered. Verify that all waste is evenly spread in shallow lifts and compacted, in accordance with plans and procedures which: - assure stability - limit potential future settlement - limit rainfall infiltration - are consistent with the progressive development of final grades.

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	Verify that the first layer of waste placed above the leachate collection layer is a minimum of 4 ft in compacted thickness and of a select nature containing no large or rigid objects, such as pipes or posts that might cause damage to the liner system or instability.

SO.135.11.NH. Landfills must meet specific cover requirements (NHCAR Env-Sw 806.03) [Revised March 2000; Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.)
	
	Verify that an approved cover material is applied over all sides and working faces of the landfill in a manner and at a frequency required to achieve the following performance objectives:
	
	- minimize the dispersal of offensive odors
	- minimize the potential to attract and harbor vectors
	- control drainage
	- control unsightly conditions and windblown waste
	- reduce the potential for fire
	- provide stability
	- assist in the proper development of final grades, as set forth in the solid waste facility's approved fill sequencing plans.
	
	Verify that a material is not used as cover material unless:
	
	- the material exhibits characteristics required to achieve the performance objectives listed above
	- use of the material does not:
	  - cause equipment or operational problems
	  - contribute to the deterioration of leachate quality at lined landfills
	  - cause groundwater contamination at unlined landfills
	  - pose a hazard to human health through skin contact or respiration
	- the material itself is:
	  - not a hazardous waste
	  - is physically and chemically consistent in nature
	  - contains no free liquids.
	
	Verify that, at landfills receiving MSW, cover material is placed over all exposed wastes no less frequently than at the end of each operating day.

SO.135.12.NH. Landfills must meet leachate management requirements (NHCAR Env-Sw 806.05) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that all lined landfills manage leachate by collecting and removing it from the liner systems to an approved treatment or disposal solid waste facility. Verify that, as part of a solid waste facility's operating plan, a leachate management plan is developed and implemented at all lined landfills. Verify that capacity is provided to contain the leachate generated by the

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	precipitation from the 100-yr storm event. Verify that a pumping/removal schedule is incorporated into solid waste facility operations to assure the availability of storage capacity. Verify that regularly-scheduled inspections and routine maintenance of the leachate collection and removal systems are established as part of the solid waste facility's operating plan to limit clogging of the systems and to otherwise assure the functional integrity of the systems.
SO.135.13.NH. Landfills must meet stormwater management requirements (NHCAR Env-Sw 806.06) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that the site is graded to redirect run-on/off away from the active face of the landfill, reduce the amount of leachate generated, and reduce the potential for erosion.
SO.135.14.NH. Landfills must meet gas control management requirements (NHCAR Env-Sw 806.07) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that decomposition gases are controlled to prevent hazards to health, safety or property. Verify that solid waste facility operations do not cause the concentration of methane and other explosive gases to: - exceed 25 percent of the lower explosive limit for gases in structures on or off-site, excluding leachate collection and gas control and recovery components - exceed 50 percent of the lower explosive limit for the gases at and beyond the property boundary within the soil. Verify that a decomposition gas monitoring program is implemented in accordance with provisions in the solid waste facility's approved operating plan and closure plan. Verify that if methane or other explosive gases are detected above the limits specified above, the landfill notifies the Department immediately and implements contingency procedures to ensure the protection of public health and safety. Verify that a decomposition gas program is implemented under the provisions of the solid waste facility's approved operating plan and closure plan to assure that the solid waste facility complies with the federal clean air act and state air quality standards.

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SO.135.15.NH. Landfills must meet inspection and monitoring requirements (NHCAR Env-Sw 806.08(b) through (f)) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) (NOTE: Unless otherwise specified, the word "daily" as used in this checklist item means on each operating day.) Verify that there are regular inspections and maintenance of all solid waste facility components, including: - roads - berms - active and inactive filling areas - pipes - vaults - valves - tanks - ponds - equipment - temporary, intermediate and final cover - groundwater monitoring wells - gas management devices. Verify that the leachate management system is monitored, and the data recorded in the solid waste facility operating records. Verify that landfill gas concentrations are measured no less than quarterly. Verify that groundwater and surface water quality monitoring systems are monitored and the data reported.
SO.135.16.NH. Landfills must meet reporting and recordkeeping requirements (NHCAR Env-Sw 806.08(g) through (l)) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that landfills file quarterly and annual reports, according to the following schedule: - quarterly reports are filed no later than 30 days following the end of the quarterly reporting period - annual reports are filed no later than 31 March of the yr following the calendar yr being reported. Verify that the quarterly report includes: - the name and permit number of the reporting solid waste facility - the quantity and type of waste received by the solid waste facility daily, in tons - data units for each type of data reported - the reporting period and/or dates the data was collected, for each type of data reported - monthly and quarterly subtotals for each type of data reported.

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	Verify that the leachate analytical data is filed no later than 30 days following receipt of analytical results. Verify that annual reports include: - a summary of the solid waste facility inspection and maintenance activities - an analysis of remaining capacity based on a site survey that identifies the remaining solid waste facility capacity. Verify that the landfill reports the average secondary leachate collection system flow rates (occurring over a 30-day period) as follows: - rates less than or equal to 25 gal per tributary acre per day are reported to the Department no less than quarterly - rates that exceed 25 gal per tributary acre per day are reported to the Department within one week of identifying the rate, except for flow that the Department agrees is the result of the dewatering of the drainage layer following construction. Verify that, except for flow which the Department agrees is the result of the dewatering of the drainage layer following construction, the landfill files an investigation report for average secondary leachate collection system flow rates which exceed 100 gal per tributary acre per day. Verify that destruction of solid waste facility records does not occur unless approved by the Department.
SO.135.17.NH. Landfills must meet additional equipment requirements (NHCAR Env-Sw 806.09(a) and (b)) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that equipment for spreading, compacting and covering solid wastes under all anticipated weather conditions is available and in operating condition at all times. Verify that auxiliary equipment is available as required by the solid waste facility's operating plan.
SO.135.18.NH. Landfills must meet control salvaging (NHCAR Env-Sw 806.09(c)) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that salvaging of solid waste is controlled so as not to interfere with landfill operations and not to harbor vectors or otherwise result in violating the universal solid waste facility requirements.

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SO.135.19.NH. Landfills must investigate high leachate flow rates (NHCAR Env-Sw 806.09(e)) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that the landfill investigates the occurrence of flow rate in the secondary leachate collection system that exceeds 100-gal per tributary acre per day and which cannot be reasonably attributed to the dewatering of the drainage layer following construction.
SO.135.20.NH. Certain wastes must not be landfilled (NHCAR Env-Sw 806.12) [Citation Revised March 2007].	(NOTE: See SO.135.6.NH. for applicability.) Verify that the following wastes are not landfilled: - untreated infectious waste - contained gaseous waste - liquid wastes - wet cell batteries - leaf or yard waste.
SO.135.21.NH. Landfills must meet general closure requirements (NHCAR Env-Sw 807.01 and 807.02(a) and (d)) [Citation Revised March 2007].	Verify that landfills are closed in accordance with an approved closure plan. Verify that, for landfills existing prior to 29 October 1997 and located on property not owned by the permittee, the permittee obtains legal rights of access to the property prior to solid waste facility closure for the purpose of meeting all required closure and post-closure obligations at the solid waste facility in accordance with the solid waste rules. Verify that such legal rights-of-access is for a period of time not less than 99 yr. (NOTE: These rules apply to closure of all landfills, except: - existing permitted facilities which have closed in accordance with a Department approved closure plan and have achieved the performance standards of this subsection - permit-exempt facilities, operated and closed in compliance with the exemption - permit-by-notification facilities having an active life of 90 days or less, which have operated and closed in compliance with the permit-by-notification - research and development permit facilities - emergency permit facilities. These closure requirements apply as the complement of the closure requirements in Env-Sw 1006 for all facilities, Env-Sw 1106 for facilities having an active life longer than 90 consecutive days and, depending on the type of waste managed, Env-Sw 900 for asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires.)

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SO.135.22.NH. Landfill closure must meet specific performance standards (NHCAR Env-Sw 807.04). [Citation Revised March 2007].	(NOTE: See. 135.21.NH. for applicability.) Verify that the solid waste facility and site effectively cease generating leachate. Verify that the solid waste facility and site effectively cease generating decomposition gases. Verify that the solid waste facility and site achieve maximum settlement, with the capping system intact and no reasonable expectation that integrity of the capping system will be at risk without regular maintenance. Verify that solid waste facility and site have no adverse impact to air, groundwater or surface water. Verify that solid waste facility and site do not otherwise pose a risk to human health or the environment.
SO.135.23.NH. Landfill closure must meet specific post-closure standards (NHCAR Env-Sw 807.05(i), (j), (o), and (p)) [Revised March 2007].	(NOTE: See. 135.21.NH. for applicability.) Verify that a detailed post-closure inspection, monitoring and maintenance plan is developed and implemented by the permittee. Verify that the landfill files an annual report with the Department including an assessment of whether solid waste facility is achieving the performance requirements specified in SO.135.22.NH. Verify that the landfill notifies the Department when solid waste facility damage, malfunction or sub-standard performance occurs at the solid waste facility. Verify that the landfill obtains Department approval, via the permit modification procedures, for any post-closure activity at the site not specifically approved by the solid waste facility's permit. Verify that the landfill implements repairs or remedial activities as necessary to assure compliance with the performance standards set forth in SO.135.22.NH.
SO.135.24.NH. Landfill reclamation activities must be approved (NHCAR Env-Sw 808.02 through 808.05) [Revised March 2007].	(NOTE: See. 135.21.NH. for applicability.) Verify that landfill reclamation activities proceed only in accordance with approval granted in the form of a permit or permit modification. Verify that the landfill conducts a feasibility study prior to any reclamation activities. Verify that prior to conducting the feasibility study, a scope-of-work for the study

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	is submitted to the Department as an application for type I-B permit modification. Verify that, if landfill reclamation is determined to be feasible, and landfill reclamation is to be undertaken, the landfill submits a landfill reclamation work plan to the Department. Verify that a contingency plan is submitted as part of any landfill reclamation work plan and feasibility study. Verify that the contingency plan includes the following: - a description of actions to be taken with respect to personnel safety, on-site personnel injury, fires, explosions, landfill gases, dust, odor, noise, vectors and excavation and release of hazardous substances or toxic materials - hazard evaluation and protection from potential hazards, including engineering controls, personal protection equipment and air monitoring techniques - designation of exclusion, decontamination and support zones, decontamination procedures, on-site communication procedures, emergency procedures and access control - designation of a qualified, full-time site health and safety coordinator.
SO.135.25.NH. Landfills must meet groundwater and surface water monitoring system design requirements (NHCAR Env-Sw 805.08) [Added March 2007].	Verify that at least one groundwater monitoring well is installed hydraulically upgradient from the landfill and at least 3 monitoring wells is installed in each down-gradient direction. Verify that the location, materials and specifications of the groundwater and surface water monitoring system comply with the requirements of RSA 485-C.
SO.135.26.NH. Landfills must meet stormwater management requirements (NHCAR Env-Sw 805.09 (a)(h)(k) through (n)) [Added March 2007].	Verify that all landfills include a stormwater management system to: - divert run-on around or away from the facility - control run-off discharge from the facility - control erosion, sedimentation, siltation, and flooding - minimize the generation of leachate. Verify that all stormwater that contacts waste is managed as leachate unless representative analytical characterization conducted in accordance with the facility's approved operating plan demonstrates the liquid may be lawfully discharged to ground or surface waters without treatment. Verify that surface water run-on is diverted around and away from the facility by using berms and ditches or similar methods. Verify that surface water run-off is controlled by using benches, terraces,

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	diversion berms and diversion swales or similar methods. Verify that erosion is controlled by using vegetation, terrace berms, silt fences and check dams or similar methods. Verify that closed drainage systems, if used, includes provisions for inspections, monitoring and maintenance.

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SO.145. **INCINERATORS**	
SO.145.1.NH. Incinerators must be permitted (NHCAR Env-Sw 701.01 and 702.01) [Citation Revised March 2007].	Verify that a permit is obtained for the construction, operation and closure of an incinerator, unless exempt pursuant to Env-Sw 302.03 SO.6.1.NH. or Env-Sw 708 (see Appendix 9-3). (NOTE: These rules apply to processing and treatment (P/T) facilities that incinerate solid waste, including waste derived fuel not certified for distribution and use as fuel. The requirements in this chapter apply as the complement of the P/T solid waste facility requirements in Env-Sw 500.)
SO.145.2.NH. Incinerators must have specific signs and postings (NHCAR Env-Sw 705.01 and 705.03) [Citation Revised March 2007].	Verify that there are signs posted at a conspicuous place adjacent to the incinerator, stating the following information based on the provisions of the solid waste facility permit: - authorized wastes - prohibited wastes - ash residue and waste storage limitations - instructions for ash residue storage and disposal. Verify that emergency procedures, including the telephone number for emergency assistance, are posted at a conspicuous place adjacent to the incinerator. Verify that a copy of the operating instructions manual for the combustion unit is maintained in close proximity to the incinerator, readily available for reference. (NOTE: These rules apply to operation of all incinerators, except: - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.) These operating requirements apply as the complement of the operating requirements in Env-Sw 1005 for all facilities, Env-Sw 1105 for facilities having an active life longer than 90 days, Env-Sw 1204 for permit-by-notification facilities, Env-Wm 2205 and, depending on the type of waste managed, Env-Sw 900 for asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires)
SO.145.3.NH. Incinerators must meet combustion efficiency requirements (NHCAR Env-Sw 705.04 and	(NOTE: See SO.145.2.NH. for applicability.) Verify that an incinerator combusts waste in a manner and to a degree that results

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705.05) [Revised March 2007].	in an ash residue that contains little to no combustible materials. Verify that ash residue is managed in accordance with Env-Sw 902 (see So.92.NH.)

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SO.160. **WASTE TIRE MANAGEMENT**	

SO.160.1.NH. Collection, storage and transfer of waste tires must meet specific requirements (NHCAR Env-Sw 905.02) [Revised March 2007].	(NOTE: The storage, collection, and transfer of tires is subject to the requirements of section ST.10.NH. (NHCAR Env-Sw 400)
	
	Verify that the outdoor storage of tires meets the following requirements:
	
	- covered trailers
	- transfer containers, or
	- in stockpiles where:
	  - the diameter of the piles does not exceed 25 ft
	  - the height of the piles does not exceed 15 ft
	  - fire lanes no less than 25 ft in width are maintained around each pile
	  - each pile has a berm with a minimum height of 12 in. constructed around its perimeter capable of containing any pyrolitic oils or other liquids generated by fire
	  - the stockpiling solid waste facility has equipment, cover material and other supplies, including water, sufficient to control a fire until the nearest fire company capable of extinguishing the fire arrives.
	
	Verify that storage is in conformance with the Standard for Storage of Rubber Tires, N.F.P.A. 231D, 1994 edition, as adopted by the National Fire Protection Association.

SO.160.2.NH. Processing and treatment of waste tires must meet specific requirements (NHCAR Env-Sw 905.03(a) and (c)) [Citation Revised March 2007].	(NOTE: The chipping, shredding and other physical processing of tires must meet the requirements in Env-Sw 500 (see section ST.175.NH.) and this section.) Verify that processing of tires is done in a manner to limit noise, odor and fugitive dust emissions to the greatest extent possible.
SO.160.3.NH. Disposal of waste tires must meet specific requirements (NHCAR Env-Sw 905.04) [Citation Revised March 2007].	Verify that waste tires are disposed at authorized facilities only. Verify that tires are landfilled only in a manner that precludes movement of the tires after burial, such as by shredding, splitting or quartering the tires prior to landfilling, or by filling the tires during landfilling.
SO.160.4.NH. Transportation	Verify that tires, either whole or processed, are transported in a manner to prevent

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of waste tires must meet specific requirements (NHCAR Env-Sw 905.06) [Citation Revised March 2007].	blowing or falling debris.
SO.160.5.NH. Waste tire facilities must meet tire management requirements (NHCAR Env-Sw 905.08) [Citation Revised March 2007].	Verify that there is no open burning of tires or processed. Verify that tires are managed in a manner to avoid establishing habitat for breeding mosquito populations.

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SO.165. **YARD WASTE/ COMPOSTING**	
SO.165.1.NH. Composting solid waste facilities must be permitted (NHCAR Env-Sw 601.01 and 602.01) [Citation Revised March 2007].	Verify that a permit has been obtained for the construction, operation and closure of a composting solid waste facility, unless exempt (see SO.6.1.NH. and Appendix 9-1). Verify that if the solid waste facility also composts septage or sludge, the solid waste facility also complies with the permitting requirements in WA.105.NH. (NOTE: These rules apply to processing and treatment (P/T) facilities that produce compost from solid waste, referred to as composting facilities. The requirements in this chapter apply as the complement of the P/T requirements in Env-Sw 500 (see section SO.175.NH.).)
SO.165.2.NH. Certain composting solid waste facilities must meet the siting requirements for landfills (NHCAR Env-Sw 603.01 and 603.02) [Citation Revised March 2007].	Verify that a composting solid waste facility that has the potential to discharge leachate to the ground or generate odors complies with the siting standards for landfills (see SO.135.1.NH. through SO.135.5.NH.). (NOTE: These rules apply to siting of all composting facilities, except: - existing permitted facilities - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.) The siting requirements in this part apply as the complement of siting requirements in Env-Sw 1003 for all facilities, Env-Sw 1102 for facilities having an active life longer than 90 days, Env-Sw 1203 for permit-by-notification facilities, Env-Sw 503 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable (see section WA.105.NH.).)
SO.165.3.NH. Composting facilities must meet processing standards (NHCAR Env-Sw 604.01 and 604.03) [Citation Revised March 2007].	Verify that the composting process is designed to meet the criteria for a process to further reduce pathogens, such as, but not limited to, one of the following: - using the windrow composting method, the solid waste is maintained under aerobic conditions during the compost process (a minimum of five turnings are required during a period of 15 consecutive days when the temperature of the mixture is not less than 55 ^{o}C (131 ^{o}F) at 6 to 8 in. below the surface of the pile - using the aerated static pile composting method, the compost pile is insulated and a temperature of not less than 55 ^{o}C (131 ^{o}F) is maintained throughout the compost pile for at least three consecutive days

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	- using the enclosed vessel composting method, the mixture is maintained at a temperature of not less than 55 ^{o}C (131 ^{o}F) throughout the mixture for at least three consecutive days. Verify that the composting solid waste facility conducts sufficient temperature monitoring to ensure that the pathogen reduction criteria are met, such as the following: - for a windrow or an aerated static pile process, monitoring 6 to 8 in. and 18 to 24 in. below the pile surface - for an aerated static pile process, monitoring 6 to 8 in. and 18 to 24 in. from the outlet of the aeration pipe - for an enclosed vessel system, monitoring 6 to 8 in. and 18 to 24 in. inside the vessel wall and 6 to 8 in. from the aeration piping when operating in the positive aeration mode. (NOTE: These rules apply to design of all composting facilities, except (NHCAR Env-Wm 604.01): - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.) The design requirements in this part apply as the complement of the design requirements in Env-Sw 1004 for all facilities, Env-Sw 1103 for facilities having an active life longer than 90 days, Env-Sw 1200 for permit-by-notification facilities (see SO.6.4.NH. through SO.6.13.NH.), Env-Sw 504 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable (see section WA.105.NH.).)
SO.165.4.NH. Waste collection, storage, processing and area design must meet specific requirements (NHCAR Env-Sw 604.04) [Citation Revised March 2007].	(NOTE: See SO.165.3.NH. for applicability.) Verify that waste collection, storage and processing areas are designed in conformance with Env-Sw 504 (see section SO.175.3.NH.). Verify that areas used for windrows and aerated static piles conform to the same design requirements as specified for waste stockpiles in Env-Sw 404.05 (see SO.15.8.NH.). Verify that solid waste facility design includes provisions to limit the production and off-site dispersal of odors.
SO.165.5.NH. Composting facilities must meet general operating requirements (NHCAR Env-Sw 605.01 and 605.02) [Citation Revised	Verify that a composting solid waste facility operates in a manner to meet the pathogen reduction design criteria, and consistently produces either a Class AA or Class A compost.

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March 2007].	Verify that the temperature is monitored and is recorded daily.
	
	Verify that operational records include:
	
	- the source, description and quantity of all materials received at the solid waste facility
	- for facilities producing other than Class AA compost, a sampling log, which identifies:
	  - the date and time of sampling
	  - the person taking the sample
	  - the sampling method and location
	  - the lab to which the samples were sent for analysis
	  - the results of the analysis, including quality assurance and quality control provisions
	- a temperature data log, which identifies:
	  - the date, time and location of data collection
	  - the person collecting the data
	  - calibration data for the temperature device
	  - the data collection method
	  - the data
	- quantity of bypass waste removed prior to composting
	- quantity of non-compostables and other residual waste removed after composting
	- locations to which or persons to whom Class A compost is distributed.
	
	Verify that all wastes received by the solid waste facility are inspected to identify and remove wastes that are not suitable for composting, including:
	
	- wastes that are not organic in nature
	- wastes that are prohibited wastes as specified below and any other waste having the potential to adversely affect the capabilities for producing either a Class AA or Class A compost.
	
	Verify that a composting solid waste facility does not receive or compost the following types of waste:
	
	- asbestos
	- batteries
	- explosive or contained gaseous wastes
	- white goods
	- construction and demolition debris
	- bulky wastes
	- recyclable materials other than paper or cardboard products certified for distribution and use as a composting bulking agent
	- household hazardous waste and hazardous waste
	- liquid wastes
	- infectious waste or treated infectious waste
	- animal carcasses or deceased persons
	- contaminated soils or absorbent media
	- radioactive materials

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	- sludge or septage as defined by RSA 485-A:2, except in accordance with a permit issued pursuant to RSA 485-A (see WA.105.NH.). (NOTE: These rules apply to design of all composting facilities, except: - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.) The operating requirements in this part apply as the complement of the operating requirements in Env-Sw 1005 for all facilities, Env-Sw 1105 for facilities with an active life longer than 90 days, Env-Sw 1204 for permit-by-notification facilities, Env-Sw 505 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable. (see section WA.105.NH.).)
SO.165.6.NH. Composting facilities that produce other than Class AA compost must meet quality assurance/quality control requirements (NHCAR Env-Sw 605.03(a), (d), (e) and (h)) [Revised March 2007].	(NOTE: The following requirements apply to facilities producing other than a Class AA compost, except for small food waste composting facilities permitted pursuant to Env-Sw 607.02 which compost sludge in compliance with Env-Ws 800.) Verify that sampling and analysis of the compost is performed in accordance with a QA/QC plan which: - assures all compost distributed by the solid waste facility meets the standards for Class A compost - is approved by the Department as a condition of the permit. Verify that the results of laboratory analyses are reported to the Department on a quarterly basis for those facilities that produce at least one dry ton of compost per day and on a semi-annual basis for those facilities that produce less than one dry ton of compost per day. Verify that reports of the analyses include copies of the laboratory reports, with all results reported on a dry weight basis except pH, total solids and total volatile solids, and a narrative of the findings, trends and results. (NOTE: If the compost is produced using septage or sludge, the pathogen testing requirements in 40 CFR 503.32 apply.)
SO.165.7.NH. Class A compost must be labeled prior to distribution (NHCAR Env-Sw 605.09) [Citation Revised March 2007].	Verify that, prior to distribution, all Class A compost is clearly marked to show its classification and identify: - the type of waste from which it was derived - use restrictions - recommended safe uses - application rates - maximum allowable contaminant levels and average contaminant

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	concentrations to date. (NOTE: These requirements apply to compost distributed in bulk and in bag form.)
SO.165.8.NH. Compost solid waste facilities must meet specific closure requirements (NHCAR Env-Sw 606.01 and 606.02) [Citation Revised March 2007].	Verify that all finished compost that is certified for distribution and use is removed to places where it is used accordingly or removed to an authorized solid waste facility. Verify that all unfinished compost is removed to an authorized solid waste facility to be finished or disposed. Verify that no waste or compost remains at the site following closure under a claim of permit exemption. (NOTE: These rules apply to design of all composting facilities, except: - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.) The closure requirements in this part apply as the complement of the closure requirements in Env-Sw 1006 for all facilities, Env-Sw 1106 for facilities having an active life longer than 90 days, Env-Sw 1205 for permit-by-notification facilities, Env-Sw 506 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable (see section WA.105.NH.).)

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SO.175. **OTHER TREATMENT/ PROCESSING UNITS**	
SO.175.1.NH. Processing and treatment (P/T) solid waste facilities must have a solid waste permit (NHCAR Env-Sw 501.01, 502.01, and 508.03) [Revised March 2007].	Verify that a permit has been obtained for the construction, operation and closure of a P/T solid waste facility, unless exempt (see SO.6.1.NH. and Appendix 9-3). (NOTE: These rules apply to processing and treatment (P/T) facilities, including: - composting facilities (see section SO.165.1.NH. through SO.165.8.NH.) - incinerators (see section SO.145.1.NH through SO.145.3.NH.) (NOTE: Waste processing or treating at its site of generation meeting the following requirements is not required to have a permit: - the waste generator owns and operates the subject P/T facility - the subject P/T facility is not receive, process, or treat waste generated at any location other than the property where the facility is located - the P/T facility does not process or treat waste by combustion methods - the facility does not manage infectious waste, except in accordance with Env-Sw 508.04.)
SO.175.2.NH. P/T solid waste facilities must meet setback requirements (NHCAR Env-Sw 503.02) [Revised March 2007].	(NOTE: See SO.175.1.NH. for applicability.) Verify that a P/T solid waste facility is sited no less than 50 ft from the footprint of any landfill not yet capped except if the Department that the lesser distance does not prohibit compliance. Verify that a P/T solid waste facility is sited no less than 50 ft from any property line.
SO.175.3.NH. P/T solid waste facilities must meet general design requirements (NHCAR Env-Sw 504.01 and 504.04) [Citation Revised March 2007].	(NOTE: These rules apply to design of all P/T facilities, except: - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities. These design requirements apply as the complement of the design requirements in Env-Sw 1004 for all facilities, Env-Sw 1103 for facilities having an active life longer than 90 days, Env-Sw 1200 for permit-by-notification facilities (see SO.6.4.NH. through SO.6.13.NH.), and depending on the type of waste managed, Env-Sw 900 for asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires.) Verify that areas used to handle and store each of the following waste groups and materials is designed in conformance with the requirements for C/S/T solid waste

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	facilities (see section SO.15.1.NH. through SO.15.10.NH.): - incoming waste - residual and bypass waste resulting from the operation of the solid waste facility - waste-derived products produced by the solid waste facility - materials used by the solid waste facility to process or treat waste.
SO.175.4.NH. P/T solid waste facilities must meet general design requirements (NHCAR Env-Sw 505.01 and 505.02) [Citation Revised March 2007].	Verify that processing or treatment methods achieve one or both of the following results: - reduce, eliminate or change an undesirable characteristic of a waste and thereby render the waste more suitable for final disposal or further management at permitted facilities, or - produce a certified waste-derived product. Verify that processing and treatment practices, by-products and end-products do not pose a greater adverse impact to the environment, public health or safety than the impact posed by not changing the characteristics of the waste. (NOTE: These rules apply to the operation of all P/T facilities, except: - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.) These operating requirements in this part apply as the complement of the operating requirements in Env-Sw 1005 for all facilities, Env-Sw 1105 for facilities with an active life longer than 90 days, Env-Sw 1204 for permit-by-notification facilities and, depending on the type of waste managed, Env-Sw 900 for asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires.)
SO.175.5.NH. Collection and storage of incoming waste at P/T solid waste facilities must meet specific management requirements (NHCAR Env-Sw 505.03) [Citation Revised March 2007].	(NOTE: See SO.175.3.NH. for applicability.) Verify that incoming waste is actively managed. Verify that incoming waste is collected and, pending processing or treatment, is stored in conformance with the requirements of SO.15.1.NH. through SO.15.10.NH. Verify that a waste is not stored at a P/T solid waste facility without processing or treatment for a period of time which: - results in conditions adversely affecting the environment, public health or safety, including conditions that attract insects and vectors, generate odors or leachate, or have the potential to cause fire or explosion - exceeds the storage life of a waste destined for reuse such that a

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	characteristic of the waste changes in a manner or to a degree that renders the waste non-reusable by the solid waste facility.
SO.175.6.NH. Bypass and residual waste at P/T solid waste facilities must meet specific management requirements (NHCAR Env-Sw 505.04) [Citation Revised March 2007].	(NOTE: See SO.175.3.NH. for applicability.) Verify that bypass and residual waste is stored and transferred in conformance with the requirements of SO.15.1.NH. through SO.15.10.NH. Verify that bypass and residual waste is managed in accordance with Sw 1105.10 (see SO.4.19.NH. through SO.4.33.NH.).
SO.175.7.NH. Bypass and residual waste at P/T solid waste facilities must meet specific management requirements (NHCAR Env-Sw 506.01 through 506.04) [Citation Revised March 2007].	Verify that all processed recyclable materials is removed to an authorized solid waste facility, and does not remain at the closing solid waste facility under any claim of a permit exemption pursuant to Appendix 9-4. Verify that, if a P/T facility distributes an uncertified waste-derived product, including an off-specification waste-derived product, for land application in New Hampshire, the facility closure requirements include all activities required to properly close the affected land application site(s). Verify that all residual waste generated by a P/T solid waste facility, whether a solid waste or other, is removed from the solid waste facility in conformance with applicable law, rules and regulations. Verify that a P/T solid waste facility that generates a residual that is a hazardous waste complies with all applicable solid waste facility closure provisions of the hazardous waste rules, including the hazardous waste generator requirements in Env-Wm 500 (see the *Hazardous Waste Management* chapter). (NOTE: These rules apply to the operation of all P/T facilities, except: - permit-exempt facilities - permit-by-notification facilities having an active life of 90 days or less - research and development permit facilities - emergency permit facilities.) These closure requirements in this part apply as the complement of the closure requirements in Env-Sw 1006 for all facilities, Env-Sw 1106 for facilities having an active life longer than 90 days, Env-Sw 1205 for permit-by-notification facilities and, depending on the type of waste managed, Env-Sw 900 for asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires.)

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SO.180. **CLOSURE OF SOLID WASTE FACILITIES**	
SO.180.1.NH. Solid waste facilities must initiate closure under specific circumstances (NHCAR Env-Sw 1006.01) [Revised March 2001; Citation Revised March 2007].	Verify that a solid waste facility implements closure when one or more of the following conditions exists: - the solid waste facility's operating permit expires or is revoked, or the facility has no permit - the permittee abandons use of the solid waste facility or ceases solid waste facility operations - solid waste facility development is abandoned prior to commencing solid waste facility operations - the solid waste facility sustains irreparable damage or otherwise cannot operate in accordance with its permit and the solid waste rules - environmental conditions exist at the site causing a threat to human health or the environment and such conditions have not been or cannot be remediated - if the solid waste facility is a landfill and it reaches its approved design volume or its temporary permit is called - the solid waste facility reaches the end of its life expectancy or can no longer meet performance standards - the facility is issued an administrative or judicial order to close. (NOTE: These are the universal closure requirements that apply to all solid waste facilities, unless exempted.)
SO.180.2.NH. Closure of solid waste facilities must meet general requirements (NHCAR Env-Sw 1006.02) [Citation Revised March 2007].	Verify that all waste deliveries to the solid waste facility are terminated Verify that all waste not permitted to remain at the solid waste facility following closure, including processed recyclable materials and all surface debris and litter, is removed from the solid waste facility to an authorized solid waste facility. Verify that, if the solid waste facility is a landfill, all waste permitted to remain at the solid waste facility is contained and covered as necessary to protect the environment, public health and safety, and to achieve and maintain compliance with all universal solid waste facility performance requirements (see SO.4.1.NH. through SO.4.18.NH.). Verify that waste management equipment is removed or decommissioned, except for equipment needed to meet post-closure monitoring and maintenance obligations. Verify that, if the solid waste facility is not a land disposal solid waste facility, the solid waste facility site is cleaned to its original condition of cleanliness.

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	Verify that if it is impracticable to return the solid waste facility site to its original condition of cleanliness, whether because the character of the surrounding land use has changed, the original condition was in violation of state or federal environmental or public health laws, rules or regulations, or for any other reason, it is cleaned so as to render it suitable for an alternate use consistent with local land use and/or zoning regulations or plans. Verify that post-closure monitoring and maintenance is undertaken as required to assure the solid waste facility is closed in a manner to not adversely effect the environment, public health or safety. (NOTE: These are the universal closure requirements that apply to all solid waste facilities, unless exempted.)

Appendix 9-1

Solid Waste Permit Types

(Source: NHCAR Env-Sw 302.04) [Revised March 2000; Revised March 2007]

The solid waste rules establish a permit system comprised of the following permit types:

The solid waste rules shall establish a permit system comprised of the following permit types:

(a) Standard permit, pursuant to Env-Sw 314, for a facility meeting each of the following criteria:

(1) The facility is not a permit-exempt facility in Env-Sw 302.03;
(2) The facility is not eligible for a permit-by-notification pursuant to Env-Sw 407, Env-Sw 507, Env-Sw 607, or Env-Sw 707;
(3) The facility is not eligible for a research and development permit pursuant to Env-Sw 312;
(4) The facility is not eligible for an emergency permit pursuant to Env-Sw 313; and
(5) If the facility is a temporary permit facility, it elects to continue operating following call of the temporary permit and is not a landfill;

(b) Temporary permit, for facilities that obtained temporary permit status prior to October 29, 1997 and continue to operate under such status;

(c) Permit-by-notification, pursuant to Env-Sw 311, for certain limited waste management activities, as specified in Env-Sw 407, Env-Sw 507, Env-Sw 607, and Env-Sw 707 based on the functional classification of the facility;

(d) Research and development facility permit, pursuant to Env-Sw 312, for research and development projects as defined by Env-Sw 104; and

(e) Emergency permit, pursuant to Env-Sw 313, for facilities which operate for a limited period of time in response to an emergency for which no other readily available response exists and for which a delayed response to obtain another type of permit will result in an unnecessary risk to public health, safety or the

Solid Waste Facility Types

Facility permits shall be issued on the basis of facility type according to the following facility functional classifications:

(a) Land disposal sites, including landfills, as defined by Env-Sw 103.32;
(b) Processing/treatment facilities, as defined by Env-Sw 104.13, including:
  (1) Composting facilities; and
  (2) Incineration facilities; and
(c) Collection, storage and transfer facilities, as defined by Env-Sw 102.35, including:
  (1) Transfer stations; and
  (2) Recycling centers.

Appendix 9-2

Applicability of Federal Municipal Solid Waste Landfill Regulations

(Source: NHCAR Env-Sw 803.03 and 803.04) [Citation Revised March 2007]

In order to determine whether a municipal solid waste landfill (MSWLF) is subject to the requirements of 40 CFR 258, the following provisions and definitions from 40 CFR 258.1 and 40 CFR 258.2 apply:

(a) MSWLFs that stopped receiving waste on or before 9 October 1991 are exempt from the requirements of 40 CFR 258.

(b) MSWLFs that received 100 tons per day of waste or less after 9 October 1991 and stopped receiving waste prior to April 9, 1994 are exempt from the requirements of 40 CFR 258 except for the final cover requirements specified in 40 CFR 258.60(a) provided the final cover was fully installed by 9 October 1994. If the final cover was not fully installed by 9 October 1994, the MSWLFs is subject to all requirements of 40 CFR 258.

(c) MSWLFs that received 100 tons per day of waste or less on or after 9 April 1994 are subject to all requirements of 40 CFR 258.

(d) MSWLFs that received greater than 100 tons per day of waste after 9 October 1991 and stopped receiving waste prior to 9 October 1993 are exempt from the requirements of 40 CFR 258 except for the final cover requirements specified in 40 CFR 258.60(a) provided the final cover was fully installed by 9 October 1994. If the final cover was not fully installed by 9 October 1994, the MSWLFs is subject to all requirements of 40 CFR 258.

(e) MSWLFs that received greater than 100 tons per day of waste on or after 9 October 1993 are subject to all requirements of 40 CFR 258.

(f) In determining the scope and applicability of the federal requirements, the definitions specified in 40 CFR 258.2 for the following terms are used:

(1) Active life
(2) Active portion
(3) Director
(4) Household waste
(5) Industrial solid waste
(6) Owner
(7) Saturated zone
(8) Sludge
(9) Solid waste
(10) State
(11) State director
(12) Waste management unit boundary.

Any municipal solid waste landfill (MSWLFs) that is identified as being subject to 40 CFR 258 must comply with the following provisions of 40 CFR 258 in addition to the requirements in Env-Wm 2600, Env-Wm 2700, Env-Wm 2800, Env-Wm 3100, Env-Wm 3300 and Env-Wm 2500:

(1) Location restrictions specified in 40 CFR 258.10 through 258.16;
(2) Operating criteria specified in 40 CFR 258.20, 258.21, 258.23, 258.24, 258.28 and 258.29;
(3) Design criteria specified in 40 CFR 258.40;
(4) Groundwater monitoring and corrective action requirements specified in 40 CFR 258.53 through 258.58;
(5) Closure and post-closure requirements specified in 40 CFR 258.60(I) and 258.61; and
(6) Financial assurance mechanisms specified in 40 CFR 258, subpart G.

The provisions specified above are not waived.

Appendix 9-3

Exemptions and Conditions

(NHCAR Env-Sw 408.02 through 408.07, 508.02 through 508.08, 607.02, 608.02, 608.03, 708.02, 708.03, 810.03 through 810.09) [Revised March 2000; Revised March 2007]

(NOTE: A permit exemption does not affect a person's obligation to obtain all requisite federal, state or local permits, licenses or approvals, or to comply with all other applicable federal, state, district or local permits, ordinances, laws or approvals or conditions pertaining to the permit-exempt activities.)

Env-Sw 408.02 and 508.02. General Conditions for Exemption for C/S/T and P/T facilities

(a) The C/S/T and P/T facilities are exempt from obtaining a permit, subject to the following conditions:

(1) The facility shall comply with:

a. The universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.); and

b. The waste specific requirements in Env-Sw , as applicable based on the type of waste managed by the facility (asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires); and

(2) All waste managed at the facility shall be actively managed.

(b) A permit exemption shall not affect a person's obligation to obtain all requisite federal, state or local permits, licenses or approvals, or to comply with all other applicable federal, state, district or local permits, ordinances, laws or approvals or conditions pertaining to the permit-exempt activities.

Env-Sw 408.03. Site of Generation C/S/T Facilities

No permit shall be required to temporarily store a waste at the site of generation pending its transfer to an authorized facility.

Env-Sw 408.04. C/S/T Facilities for Processed Select Recyclable Materials

No permit shall be required to collect, store and transfer to markets for the production of certified waste-derived products, processed select recyclable materials

Env-Sw 508.03. Generator P/T Facilities

No permit shall be required to process or treat a waste at its site of generation provided that:

(a) The waste generator shall own and operate the subject P/T facility;

(b) The subject P/T facility shall not receive, process, or treat waste generated at any location other than the property where the facility is located;

(c) The subject P/T facility shall not process or treat waste by combustion methods; and

(d) The facility shall not manage infectious waste, except in accordance with Env-Sw 508.04.

Env-Sw 508.04. Infectious Waste Bench Top Facilities

No permit shall be required to treat infectious waste provided that:

(a) The subject treatment facility shall be located at, and owned and operated by, a health care facility licensed pursuant to RSA 151;

(b) The subject treatment facility shall be a limited service area facility permitted to receive waste from the following sources only:

(1) The health care facility itself;

(2) Affiliated health care facilities; and

(3) Households within the community served by the health care facility;

(c) The waste treatment equipment shall be limited to a bench-top unit with a through-put rate of less than 30 pounds per hour or, if the unit is an autoclave, the chamber capacity shall be less than one cubic yard;

(d) The facility shall be located inside a building;

(e) All infectious waste shall be managed by the facility in accordance with Env-Sw 904;

(f) The facility shall have assured access to a permitted waste management facility for the transfer of all treated waste and residual waste to be generated by the facility;

(g) The facility shall have assured access to an authorized facility to which it will divert bypass wastes; and

(h) If the facility is an incinerator, the resultant ash residue shall be managed in accordance with Env-Sw 902;

Env-Sw 508.05. Burn Piles

No solid waste facility permit shall be required to open burn piles of brush, slash and untreated wood provided that:

(a) The facility shall conform to all requirements of Env-A 1000 (see SO.4.1.NH. through SO.4.18.NH.);

(b) The waste stockpile(s) shall conform to the requirements of Env-Sw 404.05; and

(c) The ash residue shall be actively managed in accordance with Env-Sw 902.

Env-Sw 508.06. P/T Facilities Using Select Processed Recyclable Materials

No permit shall be required to collect, store, and use a select processed recyclable material to produce any certified waste-derived product.

Env-Sw 508.07. P/T Facilities Using Non-Select Processed Recyclable Materials

No permit shall be required to collect, store, and use a non-select processed recyclable material to produce a certified waste-derived product of a type specified in Env-Sw 1503.04, Env-Sw 1503.05 or Env-Sw 1503.07.

Env-Sw 508.08. Certified Testing Laboratories

No permit shall be required to collect, store, and test samples of waste at certified laboratories, provided that:

(a) The sample size is no greater than that which is necessary to successfully complete the required test procedure(s); and

(b) All samples and residual sample materials are disposed in accordance with applicable statutes and rules, including but not necessarily limited to:

(1) RSA 149-M and the solid waste rules, if a solid waste and disposed in New Hampshire; and

(2) RSA 147-A and the hazardous waste rules, if a hazardous waste.

Env-Sw 607.02. Small Food Waste Composting Facilities

A facility which composts food waste shall be eligible for a permit-by-notification pursuant to Env-Sw 311, provided that the facility meets each of the following requirements:

(a) The facility shall comply with the requirements of Env-Sw 1200 (see SO.6.4.NH. through SO.6.13.NH.);

(b) The facility shall restrict its operations to composting one or more of the food wastes specified in (e) below, mixed with yard waste, animal manure, farming crop residuals, sludge as defined in RSA 485-A:2, XI-a, an approved bulking agent as defined in Env-Sw 102.06, or a combination thereof;

(c) If the facility composts sludge, it shall hold a valid permit issued pursuant to Env-Ws 800;

(d) The food waste portion of the compost mixture described in (b) above shall be no more than 20 percent of the entire mixture by volume;

(e) The facility shall receive and compost the following types of food waste only:

(1) Vegetable matter, including produce, and bakery wastes generated by retail food sales outlets;

(2) Food preparation waste from commercial and institutional kitchens that is limited to vegetable matter, edible vegetable oils, and bakery wastes; and

(3) Vegetable wastes generated as byproducts of food processing operations, including canning and freezing;

(f) The facility shall not receive or compost:

(1) Dairy products and their derivatives;

(2) Meat;

(3) Meat byproducts; or

(4) Non-food matter other than the non-food wastes allowed pursuant to (b) above, for instance:

a. Plastic and paper bags;

b. Plastic and paper wrappings;

c. Plastic and paper ties; and

d. String;

(g) No food waste shall be left uncovered at the facility for more than 2 hours;

(h) Food waste not incorporated into working compost shall be stored at the facility:

(1) No longer than 24 hours from receipt; and

(2) In a closed container controlling the dispersal of odors and preventing the attraction of birds, insects, rodents and other vectors;

(i) Access to windrows by compost turning equipment shall be maintained on a year round basis, including during periods of snowmelt, spring thaw, and high precipitation;

(j) Supplies of water and pumping capabilities shall be available at the facility and used to keep the compost moist;

(k) If manure is a primary constituent of the compost, sufficient quantities of an approved bulking agent shall be incorporated at all times to:

(1) Assure that the compost shall not become waterlogged; and

(2) Prevent the development of anaerobic conditions in the compost;

(l) Compost windrows shall be turned sufficiently often to maintain aerobic conditions at all times throughout each windrow;

(m) Prior to distribution and use, the compost shall be matured and stabilized to a condition which shall not cause it to re-heat when piled;

(n) Prior to distribution and use, the finished compost shall be determined and certified by the permittee to meet the specifications of:

(1) Class AA compost, if no sludge has been incorporated and the compost otherwise meets the definition of a Class A compost as provided by Env-Sw 102.32; or

(2) Class A compost, if sludge has been incorporated and, based on the testing results obtained pursuant to a permit issued for the facility pursuant to RSA 485-A and Env-Ws 800, the compost meets Class A standards.;

(o) Following the cessation of facility operations or any other trigger event for closure as provided in Env-Sw 1006, the permittee shall close the facility in accordance with Env-Sw 1006 and Env-Sw 606, and Env-Ws 800, as applicable; and

(p) Following closure, the permittee shall certify to the department in writing that the facility has been closed as required in (o) above, specifically including certification that the following conditions are met:

(1) All waste, including bypass and residual waste and unfinished compost, has been removed from the facility to an authorized facility for disposal or further management;

(2) All finished compost has been removed from the facility to locations that use or distribute the finished compost or disposed at an authorized facility; and

(3) The site has been cleaned pursuant to Env-Sw 1006.

Env-Sw 608.02. General Conditions for Exemption

(a) The composting facilities described in this part shall be exempt from obtaining a permit, subject to the following conditions:

(1) The facility shall comply with the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.); and

(2) All waste managed at the facility shall be actively managed.

(b) A permit exemption shall not affect a person's obligation to obtain all requisite federal, state or local permits, licenses or approvals, or to comply with all other applicable federal, state, district or local permits, ordinances, laws or approvals or conditions pertaining to the permit-exempt activities.

Env-Sw 608.03. Generator Composting Facilities

(a) No permit shall be required to compost the following wastes and materials at the waste generation site:

(1) Yard waste or farming crop residuals;

(2) Food waste limited to vegetable matter, edible vegetable oils and bakery waste;

(3) Animal manure;

(4) An approved bulking agent as defined in Env-Sw 102; or

(5) Any combination of (1) - (4) above.

(b) The facilities described in (a) above shall include:

(1) Composting operations at a private home for food waste generated by the home kitchen;

(2) Composting operations at schools and other institutions, for food waste generated by cafeteria(s) at the institution; and

(3) Farm based composting operations for food waste generated by the farm and farming crop residuals.

Env 708.02 General Conditions for Exemption of Incinerators

The incinerators are exempt from obtaining a permit, subject to the following conditions:

(1) The solid waste facility complies with:

a. The universal solid waste facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.); and

b. The waste specific requirements in Env-Sw 900, as applicable based on the type of waste managed by the solid waste facility (asbestos, ash, contaminated soils and other absorbent media, infectious waste, and tires); and

(2) All waste managed at the solid waste facility is actively managed.

Env-Sw 708.03 Animal Crematoriums

No permit is required for an animal crematorium, provided that:

(a) The solid waste facility is used only for the incineration of animal carcasses not classified as infectious waste.

(b) The combustion units have an operational capacity of less than 200 lb per h.

(c) The solid waste facility does not incinerate more than 1000 lb per week.

Env-Sw 810.03 Permit Exempt Landfills

The landfills described in this part are exempt from obtaining a permit, subject to the following conditions:

(a) A permit-exempt landfill is not located on property that is subject to any ongoing enforcement action by the Department, unless approved by the Department as part of the enforcement action.

(b) A permit-exempt landfill does not adversely affect the operation and closure of any existing solid waste facility.

(c) The owner of the property on which the solid waste facility is located is designated as the permittee and subject to all obligations related thereto.

(d) At all times during solid waste facility operations, the permittee shall maintain cover materials at the solid waste facility site in a sufficient quantity as to comply with the applicable cover requirements.

(e) During the active life of the solid waste facility, the permittee shall control access to the solid waste facility in a manner as to prevent unlawful dumping.

(f) The permittee shall close the solid waste facility in conformance with Env-Wm 2706 as follows:

(1) No less than 2 ft of clean, compacted soil, and more when specified by the rules in this part, is placed as final cover over all landfilled waste;

(2) Final cover is properly graded, seeded and mulched to produce and sustain vegetative growth, or otherwise stabilized to prevent erosion;

(3) The permittee shall regularly inspect the solid waste facility to assure that the cover materials maintain their integrity, that voids and sink holes do not develop, and that the site is otherwise protective of the environment, public health and safety; and

(4) The permittee shall implement repairs and/or take other remedial action as necessary to achieve and maintain compliance therewith.

(g) The solid waste facility shall comply with all other requirements specified in Env-Wm 2700 and, depending on the type of waste managed at the solid waste facility, Env-Wm 2600; and

(h) All waste managed at the solid waste facility is actively managed.

Env-Sw 810.04. On-site Asphalt and Masonry Debris Landfill

Buried asphalt and masonry type debris at the waste generation site, pursuant to Env-Wm 2510.04 as effective on October 29, 1997 is not required to be removed provided that:

(a) The solid waste facility shall receive and bury the following waste types only:

(1) Fully cured asphalt, concrete, brick, cement or other inert masonry materials substantially free of protruding reinforcing materials; and/or

(2) Fully cured asphalt which is not ground or pulverized.

(b) The buried waste does not include any materials or substances that have the potential to leach contaminants to groundwater or surface water or to emit pollutants to the air, including lead paint, asbestos and chemicals.

(c) The waste is buried in a manner as to preclude the development of sink holes and to otherwise be protective of the environment, public health and safety.

(d) The waste is buried at least 75 ft from all water supply wells and surface waters and at least 4 ft above the seasonal high water table and bedrock.

Env-Sw 810.05. Leachfield Repair Residuals Landfill

No permit is required to bury waste soil and stone from the repair or replacement of existing leaching fields regulated under Env-Ws 1000, provided that:

(a) The burial location is on the same property as the waste generation site.

(b) The buried waste is placed at least 4 ft above the seasonal high water table and bedrock.

(c) The burial location shall meet the minimum separation distances for leach bed trenches required in Env-Ws 1008.03(a).

Env-Sw 810.06. Abandoned Underground Structures

No permit is required to bury in place existing abandoned underground structures, such as foundation walls, footings, pipes and culverts, provided that:

(a) The abandoned structure does not include:

(1) Materials or substances that have the potential to leach contaminants to groundwater or surface water or to emit pollutants to the air;

(2) Treated wood;

(3) Insulation; and

(4) General construction and demolition debris.

(b) The abandoned structure is not a structure which is required by other rules or regulations to be removed.

(c) The structure is buried in a manner as to preclude the development of sink holes and to otherwise be protective of the environment, public health and safety.

(d) The material used to fill and cover the structure is not a waste.

Env-Sw 810.07. Incidental Animal Burial

No permit is required to bury a deceased animal, provided that:

(a) The person controlling the land where the animal is buried shall agree to the location of the grave site.

(b) The grave is covered with a sufficient quantity and depth of soil as to avoid disturbance of the burial site by other animals.

(c) The grave site does not constitute a pet cemetery as otherwise regulated under the provisions of Env-Wm 2510.08.

Env-Sw 810.08. Pet Cemeteries

No permit shall be require to bury animal carcasses not regulated under Env-Sw 904.01(e) and not exempt pursuant to Env-Sw 810.07, provided that:

(a) The location shall be at least 100 feet from any property boundary or surface water, 200 feet from a private or community water supply, and 400 feet from a municipal water supply;

(b) The buried material shall be placed at least 4 feet above the seasonal high water table and bedrock;

(c) The carcasses shall be covered with at least 3 feet of clean fill immediately following placement in the ground; and

(d) Written notification shall be provided to the state veterinarian in instances where 10 or more carcasses are buried.

Env-Sw 810.09. Off-Site Stump Dump

No permit shall be required to bury stumps and tree parts thereof received from off-site locations, provided that:

(a) The burial site is:

(1) At least 75 feet from any water supply well;

(2) At least 25 feet from any property line; and

(3) At least 4 feet above the seasonal high groundwater table;

(b) The stumps and tree parts thereof are buried in a manner as to preclude the development of sink holes and erosion of cover materials, and to otherwise be protective of the environment, public health and safety; and

(c) A notation is recorded in the chain of title for the property on which the burial site is located, to include the following information:

(1) A statement that the property has been used for the disposal of stumps and tree parts thereof;

(2) The date the disposal activity took place;

(3) The location of the burial area(s), with sufficient specificity as to allow an independent third party to locate the area(s); and

(4) The estimated quantity of waste disposed on the property.

Appendix 9-4

Solid Waste Permit Exemptions

(Source: NHCAR Env-Sw 302.03) [Added March 2000; Revised March 2007]

(a) Pursuant to RSA 149-M:9, I and subject to the provisions of Env-Sw 305.04(b), no permit shall be required to haul or store manure being used as fertilizer including the production of compost.

(b) Pursuant to RSA 149-M:7, V and subject to the provisions of Env- Sw 305.04(b), no permit shall be required to:

(1) Collect, store, and transfer a waste as specified in Env-Sw 408;

(2) Process or treat a waste, for reuse or other purposes, as specified in Env-Sw 508, Env-Sw 608, and Env-Sw 708;

(3) Landfill a waste as specified in Env-Sw 810;

(4) Land spread ash from the combustion of virgin wood as specified in Env-Sw 1704;

(5) Manage a waste that has been formally declared by the generator, in accordance with Env-Wm 502.01(c)(2), to be a hazardous waste, provided that the waste is managed in accordance with the requirements of RSA 147-A and the hazardous waste rules;

(6) Manage virgin wood by above ground methods not including composting, provided that:

a. The virgin wood is actively managed;

b. Management practices comply with the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.);

c. Stockpiles conform to the requirements in Env-Sw 404.05;

d. The virgin wood is not mixed or co-mingled with any other wastes or materials at the waste generation site or any other location; and

e. If combusted, the facility complies with all provisions of Env-A 1000;

(7) Conduct bench scale research and development projects within a building or other location used for research studies, provided that practices comply with the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.);

(8) Manage boiler slag from the combustion of coal, destined for use as a raw material for commercial and industrial purposes, provided that:

a. The boiler slag is actively managed; and

b. Management practices comply with the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.);

(9) Collect, store, transfer, process, treat, or dispose of waste concrete, cement, brick, other inert masonry materials, or bituminous concrete, provided that:

a. The waste is actively managed;

b. Management practices comply with the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.);

c. The materials comprising the waste are derived from virgin materials only;

d. The materials comprising the waste are fully cured;

e. The waste is free of any materials or substances that have the potential to leach contaminants to groundwater or surface water or to emit pollutants to the air, including lead paint, asbestos, and chemicals;

f. If landfilled, the bituminous concrete waste is not ground or pulverized; and

g. The activity occurs after March 30, 1999; and

(10) Collect, store, and process wooden pallets and wooden crates into wood chips, provided that:

a. The wood chip is certified for distribution and use pursuant to Env-Sw 1500 and accordingly managed;

b. The pallets and crates are actively managed;

c. Management practices comply with the universal facility requirements in Env-Sw 1000 (see SO.4.1.NH. through SO.4.18.NH.);

d. The pallets and crates comply with the toxics in packaging requirements in RSA 149-M:32 - 40;

e. The pallets and crates have not been treated in any way, including painted or stained, except for labeling purposes, or pressure treated;

f. The pallets and crates are free of glues and adhesives;

g. The pallets and crates are empty;

h. The pallets and crates are not otherwise contaminated with foreign substances;
i. Stockpiles conform to the requirements of Env-Sw 404.05; and
j. All residual waste resulting from the management of the pallets and crates, including nails and fasteners, is actively managed in accordance with all applicable rules and regulations.

SECTION 10

STORAGE TANK MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Aboveground Storage Tank (AST)* - a device constructed of impermeable material(s), designed to wholly enclose oil and which is not considered a tank in an underground storage tank system as regulated by RSA 146-C and Env-Wm 1401 (NHCAR Env-Wm 1402.03) [Added April 1998; Citation Revised March 2007].

- *As-built Record Drawing(s)* - a facility plan that clearly delineates the plan as built record drawing(s) that records the actual installation conditions for a new facility or for a substantially modified facility (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Assist System* - a type of Stage II system that uses a vacuum pump to assist the transfer of displaced vapors from a motor vehicle gasoline tank into a gasoline storage tank at a gasoline dispensing facility (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *AST System* - one or more aboveground storage tanks in combination with piping, pumps, containment structures, monitors, or other appurtenances, used to contain, receive, or dispense oil (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Backfill* - a process that includes covering tanks, piping, and system equipment with materials required by the manufacturer's specifications and the placement of paving and concrete pads over the backfill materials (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Balance System* - a type of Stage II system which relies on a tight-seal between the nozzle and the vehicle fill port which causes the displacement and transfer of vapors from a motor vehicle gasoline tank into a gasoline storage tank (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Bulk Gasoline Terminal* - a gasoline storage facility which (NHCAR Env-A 1204.03):
  1. receives gasoline from refineries primarily by pipeline, ship, or barge
  2. delivers gasoline to bulk gasoline plants, to commercial or retail accounts within or outside NH, primarily by tank truck
  3. has a daily throughput of 76,000 L (20,000 gal) or more of gasoline based on any consecutive 30-day period during the ozone season.

- *Bulk Gasoline Plant* - a gasoline storage and distribution facility with a daily throughput of less than 76,000 liters (20,000 gallons) which receives gasoline from bulk terminals by trailer transport, which gasoline is stored in tanks and subsequently delivered by trucks to local farms, businesses and service stations (NHCAR Env-A 1204.03) [Added March 2004].

- *Cargo Truck* - any vehicle which is used for the transfer or delivery of gasoline (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Cathodic Protection System* - a system used to reduce the corrosion of a metal surface by making that surface the cathode of an electrochemical cell using either a sacrificial anode or impressed current system (NHCAR Env-Wm 1401.03 and 1402.03) [Added April 1998; Revised March 2007; Citation Revised March 2009].

- *Cathodic Protection Tester* - an individual who is certified by NACE International or the International Code Council as having qualification in the measurements of cathodic protection of buried metal piping systems and tanks (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Certified Tank Installer* - an individual who is certified by the International Code Council in underground storage tank system installation/retrofitting and certified as a qualified installer by the equipment manufacturer as being qualified in the installation of the manufacturer's equipment or individual system components (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Certified Tank Remover* - an individual who is certified by the International Code Council in underground storage tank system decommissioning and has a knowledge of national underground storage tank regulations and industry standards (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Closure* - permanently taking a tank out of service with the intent to not introduce oil to or otherwise use the tank for dispensing or storage of oil (NHCAR Env-Wm 1402.03) [Added April 1998; Revised March 2007].

- *Coaxial System* - a type of Stage I system which consists of a tube within a tube. The fill tube, which is submerged in the gasoline storage tank, delivers the product through the inner tube. The vapors from the storage tank are returned via the outside space surrounding the fill tube. The single coupling services both the product and vapor recovery hoses (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Compatible* - the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the underground storage system (NHCAR Env-Wm 1401.03).

- *Connected Piping* - all piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank or system through which regulated substances flow (NHCAR Env-Wm 1401.03).

- *Corrosion Specialist* - an individual who is either certified by NACE International or who is a registered professional engineer with certification or licensing that includes education and experience in corrosion control of buried metal piping systems and metal tanks (NHCAR Env-Wm 1401.03) [Revised March 2006].

- *Department* - the New Hampshire Department of Environmental Services (NHCAR Env-Wm 1401.03 and 1402.03) [Added April 1998; Citation Revised March 2006].

- *Discharge* - "discharge" as defined in RSA 146-A:2,I-a. namely, "the release or addition of any oil to land, groundwater or surface water" (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Equilibrium Partial Pressure* - the pressure attributable to one of the several components of a gaseous or vapor mixture at which the number of molecules leaving the gaseous phase of the component is equal to the number entering it (NHCAR Env-A1204.38) [Added March 2004].

- *Existing AST System* - an AST system installed, or for which installation has begun, before 25 April 1997 (NHCAR Env-Wm 1402.03) [Added April 1998].

- *External Floating Roof* - a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the VOL being contained and is equipped with a closure seal to close the space between the roof edge and tank shell (NHCAR Env-A 1204.03) [Added March 2004].

- *Facility*:

1. a location, including structures or land, at which oil is subjected to treatment, storage, processing, refining, pumping, transfer, or collection." This term includes "AST facility" (NHCAR Env-Wm 1402.03) [Added April 1998].
2. as defined in RSA 146-C:1, namely, " an assemblage of tanks, pipes, pumps, vaults, fixed containers, and appurtenant structures, singly or in any combination, which are used or designed to be used for the storage, transmission, or dispensing of oil or a hazardous substance, and which are within the size, capacity, and other specifications prescribed by rules adopted by the department pursuant to RSA 146-C:9, VI." (NHCAR Env-Wm 1401.03) [Revised March 2006].

- *Field-Constructed AST* - an AST which is constructed by assembling on-site at a facility (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Floodway* - the channel of a river, or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Gasoline Dispensing Facility* - any stationary facility which dispenses gasoline directly into a fuel tank of a motor vehicle (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Gasoline* - motor fuel containing any petroleum distillate where the Reid vapor pressure of the fuel is greater than 4.0 psi (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Heating Oil* - petroleum that is No. 1, No. 2, No. 4 -- light, No. 4 -- heavy, No. 5 -- light, No. 5 -- heavy, or No. 6 technical grades of fuel oil, other residual fuel oils, Navy Special Fuel Oil and Bunker C, and Other fuels, excluding used oil, when used as substitutes for any of these fuel oils (NHCAR Env-Wm 1401.03) [Revised March 2006].

- *Hydrostatic Test*- a test designed to evaluate the tightness of an underground storage tank system component that is performed in accordance with manufacturer's requirements or nationally recognized industry codes of practice using pressure of liquid to test for tightness (NHCAR Env-Wm 1401.03) [Added March 2006]

- *Impermeable* - a characteristic of a substance that prevents the natural transfer of oil from one medium to another (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Impressed Current System* -direct current supplied to a cathodic protection system using an external power source (NHCAR Env-Wm 1402.03) [Added April 1998; Revised March 2006; Revised March 2007].

- *Internal Floating Roof* - a cover or roof in a fixed roof tank which rests upon or is floated upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and the tank shell (NHCAR Env-A 1204.20 and Env-A1204.38) [Revised March 2004].

- *Leak Free* - a description of a system where no more than 3 drops/min of product is leaked while a system is pressurized (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Leak Monitoring* - the detection of a regulated substance before a release to the environment has occurred (NHCAR Env-Wm 1401.03) [Revised March 2006].

- *Lining* - a coating of a noncorrosive material bonded to the interior surface of a tank (NHCAR Env-Wm 1401.03).

- *Liquid-mounted Seal* - a primary seal mounted around the circumference of the cylindrical tank in continuous contact with the liquid between the tank wall and the floating roof (NHCAR Env-A1204.39) [Added March 2004].

- *Liquid-tight* - no liquid can be released (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Lower Explosive Limit (LEL)* - the lowest concentration of a gas or vapor percentage by volume in air that burns or explodes if an ignition source is present at ambient temperature (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Marina* - a waterfront facility whose principal use is the provision of available services such as the securing, launching, storing, fueling, servicing and repairing of watercraft (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Monthly* - at least once every calendar month (NHCAR Env-Wm 1401.03) [Revised March 2006].

- *Motor Fuel* - petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, jet fuel, diesel fuel, or any grade of gasohol, and which typically is used to fuel a motor engine (NHCAR Env-Wm 1401.03) [Revised March 2006].

- *Motor Fuel* - petroleum or a petroleum-based substance which is typically used in the operation of a motor vehicle or aircraft engine, including(NHCAR Env-Wm 1402.03) [Added March 2007]:
  - gasoline and reformulated gasoline
  -aviation gasoline
  - diesel fuel and diesel fuel blends such as bio-diesel
  - jet fuel.

- *New AST Site* - a parcel of land where no regulated aboveground storage tank system has existed and on which the installation of a regulated aboveground storage tank system is proposed (NHCAR Env-Wm 1402.03) [Added March 2010].

- *New AST System* - an AST system for which the construction or installation begins on or after 25 April 1997 (NHCAR Env-Wm 1402.03) [Added April 1998].

- *New Underground Storage Tank Site* - a parcel of land where no underground storage tank systems have existed and on which the installation of a system is proposed (NHCAR Env-Wm 1401.03) [Added April 1998].

- *NFPA 30* - National Fire Protection Association publication number 30 entitled, “Flammable and Combustible Liquids Code”, dated 1987 (NHCAR Env-Wm 1401.03).

- *NFPA 329* - National Fire Protection Association publication number 329 entitled, “Underground Leakage of Flammable and Combustible Liquids”, dated 1987 (NHCAR Env-Wm 1401.03).

- *Oil* - as defined in RSA 146-A:2,III, namely, petroleum products and their by-products including, but not limited to, petroleum, fuel, sludge, crude and all other liquid hydrocarbons regardless of specific gravity. Notwithstanding the above, the term "oil" does not include natural gas, liquefied petroleum gas or synthetic natural gas regardless of derivation or source (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Oil* - petroleum products and their by-products of any kind, and in any form including, but not limited to, petroleum, fuel, sludge, crude, oil refuse or oil mixed with wastes and all other liquid hydrocarbons regardless of specific gravity and which are used as motor fuel, lubricating oil, or any oil used for heating or processing. The term "oil" does not include natural gas, liquefied petroleum gas or synthetic natural gas regardless of derivation or source” (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Oil-Filled Electrical Equipment* - devices containing oil which are used in the generation, transmission, or distribution of electrical power such as: transformers, oil circuit breakers, capacitors, and voltage regulators (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Operate* - to store a regulated substance in an underground storage tank system (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Operating Day* - a 24-hour period in which any product has been put into or removed from the tank (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Operator* - a person who has responsibility for the care, custody, and control of the daily operation of an AST facility (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Out of Service* - a facility or portion thereof no longer in use, but which the owner or operator of the facility intends to return to use. Facilities or tank systems which are used for seasonal storage, for surcharge storage, or for standby storage, are not to be considered "out of service" (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Owner* - the person in possession of or having legal ownership of a facility (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Owner* - as defined in RSA 146-C:1,XIV, namely, the person in possession of or having legal ownership of a facility. In addition, for facilities no longer in use "owner" includes the person having had legal ownership of such facility immediately prior to discontinuance of its use (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Permeability* - the ease with which fluid can move through a material and is measured by the rate of flow in suitable units (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Petroleum Refinery* - any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants or other products through distillation, cracking, extraction, or reforming of unfinished petroleum derivatives (NHCAR Env-A 1204.03).

- *Pipe* - an impermeable hollow cylinder or tubular conduit that conveys or transports oil, liquid, or vapors, or is used for venting, filling, or removal of oil or liquids (NHCAR Env-Wm 1401.03).

- *Piping System* - all underground storage tank connected piping, pipe, pumps, monitor and secondary containment associated with the conveying, venting, filling or dispensing of a stored substance or vapors of the stored substance (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Pneumatic Test* - a test designed to evaluate the tightness of an underground storage tank system component performed in accordance with the manufacturers' requirements or nationally recognized industry codes of practice using positive or negative gauge pressure of air to test for tightness

- *Poppetted Drybreak* - a Stage I coupling which by action of a spring return design prevents vapors from escaping when a vapor return hose is not connected (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Professional Engineer* - a person who by reason of advanced knowledge of mathematics and the physical sciences, acquired by professional education and practical experience, is technically and legally qualified to practice professional engineering, and who is licensed by the [New Hampshire] board [of engineers] or otherwise authorized by RSA 310-A to engage in the practice of engineering" (NHCAR Env-Wm 1402.03) [Added April 1998].

- *RCRA* - the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 USC section 6901 et seq (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Reconcile* - to compare volume of stored regulated substance at the beginning of an inventory period with receipts, sales, and other uses during the inventory period, and with volume stored at the end of the inventory period, to determine whether there is any unexplained gain or loss of regulated substance (NHCAR Env-Wm 1401.03).

- *Regulated Substance* - oil or a hazardous substance (NHCAR Env-Wm 1401.03).

- *Reid Vapor Pressure* - the absolute vapor pressure as determined by the American Society for Testing and Materials (ASTM), testing method D-323-89 (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Release Detection*:
  1. determining whether a release of a regulated substance has occurred (NHCAR Env-Wm 1401.03) [Revised March 2006].
  2. electronic or manual measurement of the AST system which notifies the operator of the failure of a system's ability to contain liquid (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Release Prevention* - a program of routine, documented, and visual inspection which is designed to identify the potential for a discharge of oil to the environment and the subsequent action to ensure the release does not occur (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Repairs* - to fix or replace in kind an integral unit of piping of less than 25 feet or any existing defective or damaged part of an underground storage tank system to meet the requirements of Env-Wm 1401 (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Rim-mounted Secondary Seal* - a continuous seal extending from the floating roof to the tank wall (NHCAR Env-A 1204.39) [Added March 2004].

- *Secondary Containment*:
  1. a containment system such as a double-wall tank or a single-wall tank with a concrete vault that prevents regulated substance that has discharged or leaked from the primary containment system from impacting the land and waters of the State (NHCAR Env-Wm 1401.03) [Added April 1998].
  2. a device or system or a combination of devices or systems which include(s) a surface specifically designed to contain a release from spreading vertically or horizontally to the environment after discharge from an AST or its appurtenances (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Shoe-mounted Secondary Seal* - a secondary seal that extends circumferentially from the top of the shoe seal to the tank wall (NHCAR Env-A1204.39) [Added March 2004].

- *Shoe Seal* - a seal consisting of a metal sheet connected by braces to the floating roof and held tight against the wall of a vertical tank by springs or weighted levers (NHCAR Env-A1204.39 and 1401.03) [Added March 2004].

- *Shop-Fabricated AST* - an AST which is constructed at a tank manufacturer's plant and transported to a facility for installation (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Significant Modification* - any construction or alteration of a Stage I or Stage II system other than normal upkeep or maintenance (NHCAR Env-Wm 1401.03 and 1404.03) [Citation Revised March 2005; Citation Revised March 2006].

- *Special Flood Hazard Area* or *SFHA* - the area of land that has a one percent or greater chance of being flooded in any given yr, better known as the 100-yr flood. The term includes those areas delineated on a Flood Insurance Rate Map as a Zone A, and in coastal areas as Zone V (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Spill Prevention Control and Countermeasure Plan* or *SPCC Plan* - the written plan required for oil storage facilities as described in 40 CFR 112 (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Stage I* or *Stage I System* - one of the following (NHCAR Env-Wm 1404.03) [Revised March 2005]:
  1. For gasoline dispensing facilities and cargo trucks delivering gasoline to the facilities, the stage I equipment installed such that gasoline vapors displaced from the gasoline storage tank are recovered and fed back into the cargo truck during gasoline delivery; or

2. For bulk gasoline plants and cargo trucks transferring gasoline at the plants, a closed system that allows for the recovery of vapors displaced during the loading or unloading of gasoline at the plant.

- *Stage I or Stage I System* - the stage I equipment installed such that gasoline vapors displaced from the gasoline storage tank are recovered and fed back into the cargo truck during product delivery (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Stage I Equipment* - all components in a stage I system including but not limited to dry breaks, two-point fill adaptors, coaxial fill adaptors, PV vent caps, vent piping, manifold (NHCAR Env-Wm 1404.03) [Added March 2005].

- *Stage II* or *Stage II System* - the stage I and the stage II equipment installed at a gasoline dispensing facility such that gasoline vapors displaced from a motor vehicle fuel tank are recovered into the facility's gasoline storage tank during refueling of the motor vehicle as configured and operated as specified in Env-Wm 1401.37 (NHCAR 1404.03) [Revised March 2005].

- *Stage II or Stage II System* - equipment installed at a gasoline dispensing facility such that gasoline vapors displaced from a motor vehicle fuel tank are recovered into the facility's gasoline storage tank during refueling of the motor vehicle, as defined in Env-Wm 1404 (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Stage II Equipment* - all components and connections in a stage II system including but not limited to vapor return piping, coaxial hoses through which the vapor flows, gasoline nozzles, vapor pumps, and gasoline dispensers, as applicable (NHCAR Env-Wm 1404.03) [Added March 2005].

- *Submerge Fill* - the method of filling a delivery tank truck or storage tank where product enters within 150 mm (5.9 inches) of the bottom of the tank truck or storage tank. Bottom filling of delivery tank trucks and storage tanks is included in this definition (NHCAR Env-A 1204.03) [Revised March 2004].

- *Submerged Fill Tube* - a tube used to load or deliver gasoline into a gasoline storage tank with a gasoline discharge which is totally submerged during the gasoline delivery to avoid agitation of the gasoline (NHCAR 1404.03) [Added March 2005].

- *Substantial Design Change* - any alteration to the location, materials, or configuration of to any components of the AST system that will have a tangible affect on the AST system's ability to prevent, detect, or contain a potential release from the tank or its appurtenances (NHCAR Env-Wm 1402.03) [Added April 1998].

- *Substantial Modification* - one or more of the following changes to a facility (NHCAR Env-Wm 1402.03) [Added April 1998 Revised March 2007]:
  1. One or more new AST system(s) have been added;
  2. An AST system has been replaced, taken out of service, or permanently closed; or
  3. An AST system from which there has been a release reportable under Env-Wm 1600 has been replaced, repaired, or permanently closed.

- *Substantial Modification* - as defined in RSA 146-C:1, XVI, namely, "the construction or installation of any addition to a facility or any restoration or renovation of a facility which: increases or decreases the on-site storage capacity of the facility; significantly alters the physical configuration of the facility; or impairs or improves the physical integrity of the facility or its monitoring systems. On-site abandonment is specifically excluded as a "substantial modification" of a facility (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Surface Waters of the State* - surface waters of the state" as defined by RSA 485-A:2, XIV, namely, "streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Tank* - a stationary device constructed of impermeable materials and designed to contain or hold oil or liquids, which is a component of an underground storage system (NHCAR Env-Wm 1401.03).

- *Throughput* - the amount of product dispensed by a gasoline dispensing facility (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Topping Off* - to attempt to dispense additional gasoline into a motor vehicle fuel tank after a vapor recovery dispensing nozzle has automatically shut off, thereby preventing the dispensing of any more product. This terms does not include the filling of a motor vehicle fuel tank where the nature and configuration of the fill pipe causes the premature shut off of the dispensing nozzle (NHCAR Env-Wm 1404.03) [Revised March 2005].

- *True Vapor Pressure* - the equilibrium partial pressure exerted by a VOL as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss From Floating Roof Tanks," second edition, February 1980 (NHCAR Env-A 1204.20).

- *True Vapor Pressure* - the equilibrium partial pressure exerted by a VOL as determined in accordance with methods described in American Petroleum Institute (API) Chapter 19.2, "Evaporative Loss From Floating Roof Tanks", first edition, April 1997 (NHCAR Env-A1204.38) [Added March 2004].

- *Underground Storage Tank Facility* - a facility or facility component that is 10 percent or more below the surface of ground and is not fully visible for inspection (NHCAR Env-Wm 1401.03) [Added April 1998].

- *Underground Storage Tank System or System* - an underground storage tank(s) and all connected piping that routinely contains a regulated substance or vapors of the regulated substance (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Used Oil* - an oil which, through use or handling, has become unsuitable for its original purpose due to the presence of impurities or loss of original properties, but which still has sufficient liquid content to be free flowing (NHCAR Env-Wm 1401.03) [Added March 2006].

- *Vapor-mounted Seal* - a primary seal mounted so there is an annular vapor space underneath the seal, which space is bounded by the bottom of the primary seal, the tank wall, the liquid surface, and the floating roof (NHCAR Env-A1204.39) [Added March 2004].

- *Vaportight* - equipment or a system where there is no loss of vapors, as determined by ensuring that the concentration of vapors at a potential leak source is not equal to or greater than 100 percent of the lower explosive limit when measured with a combustible gas detector, calibrated with hexane or equivalent, at a distance of 1 in. from the source (NHCAR Env-Wm 1404.03) [Citation Revised March 2005].

- *Volatile Organic Compound (VOC)* - a chemical compound or mixture of chemical compounds containing the element carbon, but not containing carbon monoxide, carbon dioxide, carbonic acid, metallic carbonates carbides or ammonium carbonate. VOCs include, but are not limited to, petroleum crudes, petroleum fractions, petrochemicals, solvents, diluents, thinners, degreasing agents, and propellants (NHCAR Env-A 101.170).

- *Volatile Organic Liquid (VOL)* - any organic liquid which is capable of emitting nonexempt VOC compounds into the atmosphere (NHCAR Env-A 1204.03).

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	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	ST.2.1.NH.
Aboveground Storage Tanks	ST.5.1.NH. through ST.5.32.NH.
Emissions/Discharges From Bulk Gasoline Terminals	ST.10.1.NH. through ST.10.7.NH
Emissions/Discharges From POL Storage Vessels	ST.15.1.NH. through. ST.15.30.NH.
Emissions/Discharges From VOL Storage Vessels	ST.20.1.NH. through ST.20.7.NH
UST State-Specific	ST.30.1.NH. through ST.30.8.NH.
New or Upgraded USTs	ST.35.1.NH. through ST.35.19.NH.
UST Filling	ST.45.1.NH. and ST.45.2.NH.
UST Corrosion Protection	ST.50.1.NH. through ST.50.4.NH.
UST Repairs	ST.55.1.NH. through ST.55.3.NH.
Release Detection for USTs	
General	ST.60.1.NH. through ST.60.10.NH.
Petroleum USTs	ST.65.1.NH. through ST.65.4.NH.
USTs Connected to Emergency Generators	ST.75.1.NH.
Deferred USTs	ST.85.1.NH.
UST Documentation	ST.90.1.NH.
Changes in Service or Closure of USTs	ST.95.1.NH. through ST.95.8.NH.
Used Oil Storage Tanks	ST.139.1.NH.

GUIDANCE FOR APPENDIX USERS	
REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
10-1	USTs Excluded from Regulation
10-2	Applicability of Regulations Concerning Aboveground Petroleum Storage Facilities
10-3	Monthly Maintenance Inspection Requirements for Stage I and Stage II Facilities
10-4	Yearly Maintenance Inspection Requirements for Stage I and Stage II Facilities
10-5	Testing Procedures for Stage I and Stage II Facilities

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ST.2. **MISSING CHECKLIST ITEMS**	
ST.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ST.5. **ABOVEGROUND STORAGE TANKS**	
ST.5.1.NH. Petroleum aboveground storage tanks (ASTs) must meet registration requirements (NHCAR Env-Wm 1402.05(a) and (d) through (g) and 1402.07(a) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all AST systems are registered with the Department. (NOTE: For an AST facility at which 55-gallon drums comprise part or all of the ASTs at the facility, the owner does not register each individual 55-gallon drum but instead registers the storage area(s) for the drums.) Verify that the owner reports to the Department in writing any significant change in the information presented on the original registration form within 30 days of the change. (NOTE: For the purpose of this checklist item, "significant change" means: - any addition or reduction in the aggregate oil storage capacity at the facility - any change in service - any change in the ownership of the facility - any time the oil content of a tank is changed from a flammable liquid to a combustible liquid, or vice versa - any addition of release prevention or release detection measures to an AST system - any other change that affects the information provided to register the AST.) Verify that the owner keeps a record of all registered ASTs on a certificate of registration provided by the department and the certificate is kept at the facility. Verify that no person operates an AST facility which is not registered with the Department. Verify that, when a transfer of ownership of an AST facility occurs, the new owner files an amended registration form with the department no later than 30 days after the transfer.
ST.5.2.NH. Petroleum ASTs undergoing a change in use must be registered or re-registered (NHCAR Env-Wm 1402.06) [Added April 1998; Revised March 2006].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that the owner of any AST facility, which becomes subject to these rules due to a change in use of any system, or a change in the use of the property, complies with these rules before instituting the changed use. Verify that the owner registers the facility with the Department. Verify that the owner of an AST system submits an amended registration to no

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	later than 30 days after taking an AST system out of service or removing or dismantling an AST system.
ST.5.3.NH. Petroleum ASTs owners must conduct monthly monitoring, meet applicable investigation requirements, and recordkeeping and reporting requirements (NHCAR Env-Wm 1402.09) [Added April 1998; Revised March 2006; Revised March 2007].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that, where any portion of the primary tank shell, primary piping, or both, is in contact with the ground, soil, or concrete foundation slab and does not have release detection, monthly inventory monitoring is conducted. Verify that separate written records are maintained for each AST or interconnected system, and that the owner certifies the accuracy of the inventory monitoring by signing the records. Verify that AST inventory control measurements are reconciled by comparing product measurements with shipments, deliveries, and internal transfers. Verify that the owner investigates and resolves the cause of any significant loss in inventory, such as any unexplained difference of 2.0 percent or more of throughput in one mo, as indicated by the recording and reconciliation of inventory records. Verify that, if an unexplained physical loss of oil is evident following the investigation, the owner notifies the Department.
ST.5.4.NH. [Deleted March 2009].	
ST.5.5.NH. Oil transfers into ASTs must meet specific requirements (NHCAR Env-Wm 1402.10) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that the operator of the cargo truck affecting the transfer is periodically trained to transport and handle hazardous materials. Verify that the direct transfer of oil from the cargo tank of a cargo truck to the cargo tank of another cargo truck does not occur, except during an emergency situation as authorized by emergency response personnel.
ST.5.6.NH. Petroleum ASTs with suspected discharges must meet specific testing requirements (NHCAR Env-Wm 1402.11(a) through (e)) [Added April 1998; Revised	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that, when a discharge of oil from an AST system or a leak in an interstitial space of an AST system is suspected or appears probable, the owner does the following:

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March 2006; Revised March 2007; Revised March 2009].	- verbally notifies the department within 24 hours of discovery - verifies the integrity of the suspect AST system through observation and testing of the suspected system component within 30 days. Verify that the owner notifies the Department of actions taken and the results of any testing performed within a reasonable amount of time not to exceed 60 days of its being performed. Verify that notification includes the following: - description of actions taken - location of the tested AST - date of the test - reason for the test - type of testing employed - the identity and qualifications of the person performing the test - results of the testing. Verify that testing is performed by or under the supervision of an individual certified by industry associations such as API, STI, International Code Council (ICC), or American Society of Mechanical Engineers.
ST.5.7.NH. Petroleum ASTs taken out of service must meet specific requirements (NHCAR Env-Wm 1402.12) [Added April 1998; Revised March 2006].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that if oil is not introduced to or removed from an AST system designed and intended for the throughput of oil for 36 mo or more, the tank system is taken out of service. (NOTE: Those AST systems intended solely for storage, such as back-up tanks for emergency power generation or long-term energy reserves, are considered out of service when the contents have remained at the lesser of the following for the previous 36 mo: - 1 percent of the total system capacity or less, or - less than 3 in. in depth.) Verify that the owner of an AST system taken out of service: - removes all oil from the AST and connected piping - secure the AST to prevent unauthorized entrance or tampering so that oil is not accidentally or intentionally introduced into the tank, by means such as securely bolting and locking all manways and valves or capping or plugging fill lines, gauge openings, or pump lines - thoroughly cleans the interior of the tank and all associated piping of all sludge, solids, and residual oil - disposes of all oily wastes removed from the AST system in accordance with all applicable state and federal requirements - renders the tank free of vapors sufficiently to avoid formation of an explosive atmosphere, and ensures the tank is vented to ensure the tank remains vapor

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	free. Verify that upon taking an AST system out of service, the owner: - notifies the Department of a change in use - prominently stencils on the tank the words "out of service" in large, easily visible block letters - prominently posts and securely affixes the tag described below at the fill pipe connection serving the out-of-service tank, or, if the fill pipe is also used to fill active tanks, at the first valve after the fill pipe connection used to divert flow to the out-of-service tank. Verify that tags used to signify an out-of-service tank system (provided by the Department) remain affixed to the AST system during the entire time the tank is out of service, and that the owner promptly replaces any mutilated, lost, illegible, or destroyed tag by contacting the Department.
ST.5.8.NH. Petroleum ASTs placed back into service must meet specific requirements (NHCAR Env-Wm 1402.13) [Added April 1998; Revised March 2006].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that an AST system that has been taken out of service is not placed back into service, nor is oil introduced into the system, until the owner certifies to the Department in writing that the system is in compliance with applicable rules. Verify that an AST system owner, who reactivates an AST system that has been out of service notifies the Department by amending the registration form no later than 30 days after putting the AST system back into service. Verify that prior to placing an AST system back into service, the owner thoroughly inspects and tests the AST system for evidence of the following conditions: - corrosion of the interior or exterior of the tank or associated piping - abnormal thinning of the tank walls or bottom - perforations through the tank walls or bottom - any other condition that would indicate a weakening of the structural integrity of the AST system or identify a situation that could result in a petroleum release from the AST system. Verify that all testing and inspections are conducted in accordance with the requirements listed in ST.5.6.NH. and ST.5.24.NH.
ST.5.9.NH. Removal of petroleum ASTs must meet specific requirements (NHCAR Env-Wm 1402.14) [Added April 1998; Revised	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that, unless the owner provides documentation to the department certifying that the AST system meets all standards for new AST systems, the AST system is

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March 2006; Revised March 2007; Revised March 2009].	cleaned and removed from the property no later than: - 10 years after the date on which a shop-fabricated AST system has not had oil introduced to or removed from it - 15 years after the date on which a field-erected AST system has not had oil introduced to or removed from it. Verify that an owner, who has dismantled and removed an AST system, notifies the Department no later than 30 days after beginning the planned removal by submitting an amended registration form. Verify that if, during the tank closure, there is evidence of soil or groundwater contamination from oil detected by assessment, observation, or analysis, the owner notifies the Department immediately and complies with all requirements of Env-Wm 1600 (see section PO.15.NH.).
ST.5.10.NH. Removal of petroleum ASTs must be followed by a site assessment (NHCAR Env-Wm 1402.15(a) and (g)) [Added April 1998; Revised March 2006].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that after the dismantling and removal an AST system in which any tank, valve, pump, or section of piping was in contact with the ground and which did not have impervious containment, or, where there is evidence that oil has been released from the AST system, the owner assesses the site to determine whether there is soil and/or groundwater contamination attributable to the AST system. Verify that results of the assessments are submitted to the Department within 60 days of the AST system dismantling.
ST.5.11.NH. Used petroleum ASTs must be managed according to specific standards (NHCAR Env-Wm 1402.16) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2010].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that a tank that has been removed is not reinstalled for the purpose of petroleum storage unless it meets all applicable standards for new tanks. Verify that, if a used tank meets the standards for new tanks, it is reinstalled for petroleum storage only after: - a thorough internal and external cleaning and inspection determines that it is free of pinholes, cracks, structural damage, or excessive corrosion - the tank is determined to be structurally sound by an API or STI certified inspector or professional engineer with knowledge of tank testing procedures. Verify that, if a shop-fabricated tank is to be disposed of as scrap, it is first tested for vapors, if necessary, and punched with holes to make it unfit for storage of liquids. Verify that tanks or AST systems are not reused for the storage of food or potable

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	water. Verify that a tank that has been designed for installation as an underground storage tank is not installed or used as an AST.
ST.5.12.NH. Plans for the construction or installation of new or replacement petroleum ASTs must be approved (NHCAR Env-Wm 1402.17(a), (d), (e), (f) and (i)) [Added April 1998; Revised March 2006; Revised March 2007].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that, at least 45 days prior to commencing construction or installation of a new or replacement AST system with an oil storage capacity of more than 660 gal, the owner submits to the Department complete plans and specifications that have been prepared and stamped by a professional engineer. Verify that construction does not begin unless written approval is received from the department. Verify that during construction, an owner does not allow a substantial design change that is not in accordance with the approved plans and all terms and conditions of the Department's approval. Verify that all substantial design changes are approved in writing by the design engineer of record and resubmitted for Department approval. Verify that the owner notifies the department to arrange for an inspection prior to introducing oil into a newly constructed AST system and prior to backfilling an underground piping system.
ST.5.13.NH. New petroleum ASTs must meet specific tank standards (NHCAR Env-Wm 1402.18) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2010].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all new ASTs that do or will contain oil are constructed of steel, and meet or exceed the following design or manufacturing standards, as applicable: - UL 142, for shop-fabricated steel tanks - API Standard 620, for field-constructed, low pressure steel tanks - API Standard 650, for shop-fabricated and field-constructed atmospheric steel tanks - UL 142 and UL 20802085, for fire resistant tanks - UL 2085, for protected tanks - UL 2245, for below-grade vaults - PEI/RP 200, for motor fuel dispensing facilities - PEI/RP 300, for vapor recovery systems at motor fuel dispensing facilities - PEI/RP 800, for bulk storage plants - API Standard 2610, for AST facilities and terminals. Verify that all new ASTs in contact with the ground are placed on an impermeable barrier.

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	Verify that the integrity of the barrier does not deteriorate due to exposure to the elements or soil in the presence of oil. Verify that tank barriers are constructed of: - an impermeable material such as a 60 mil high-density polyethylene or a material of similar or more stringent specifications, or - a double bottom with the annular space continually monitored for the presence of petroleum leakage. Verify that continuous corrosion protection is installed for any steel or other metal in contact with the ground. Verify that each AST, other than 55-gallon drums having no piping, is marked with information regarding the product stored and system specifications, as follows: - all lettering is at least 2 in. high and painted in a color contrasting with the color of the tank - the appropriate national fire rating system symbol as established by NFPA-704, Identification of the Fire Hazards of Materials for Emergency Response, 2001 - the tank number that corresponds to the tank number identified on the facility registration - the safe fill volume or safe fill height of the tank that corresponds to the height at which the high level alarm is activated, in the same units as indicated on the tank gauge.
ST.5.14.NH. New petroleum AST piping must meet specific standards (NHCAR Env-Wm 1402.19(a) through (d), (h), (i), (k) (m) and (n)) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all new piping associated with an AST system is constructed above ground where possible. Verify that piping systems not in contact with the soil are constructed in accordance with API 2610, NFPA 30, and as recommended by the manufacturer. Verify that all piping materials are compatible with the oil that is stored in the AST system, according to manufacturer's recommendations. Verify that all fill pipes leading to a pump-filled oil tank are equipped with a properly functioning check valve or equivalent device. Verify that each tank connection through which oil can normally flow is equipped with an operating valve to control flow unless the tank connection is located at a point higher than the highest liquid level in the tank, such as at the top of a horizontal tank.

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	Verify that the valve is located as close as practicable to the shell of the tank. Verify that all underground piping, fittings, and connections have secondary containment. Verify that all steel or metallic piping in contact with or completely surrounded by soil is cathodically protected by an impressed current system or sacrificial anode system. (NOTE: If metal pipe is totally electrically isolated from the soil via secondary containment sufficient to place the pipe in a non-corrosive environment, cathodic protection of the piping is not required.) Verify that copper tubing is not used in AST system applications requiring the use of either: - piping greater than 1/2 in. in diameter - piping to transfer oil under pressure, except for boiler return lines having no valves or obstructions and entering the top of the tank. Verify that copper tubing that is not completely exposed to the atmosphere is contained in a continuous non-metallic sleeve or otherwise protected from damage and corrosion.
ST.5.15.NH. New steel petroleum ASTs must have corrosion protection (NHCAR Env-Wm 1402.20) [Added April 1998; Revised March 2006; Revised March 2007].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that corrosion protection for AST bottoms in contact with the soil meet the following requirements: - consists of sacrificial anode system or an impressed current system designed, fabricated, and installed in accordance with API recommended practice 651 or NACE standard number RP-0285-2002 - designed and installed with oversight by a certified corrosion expert - designed to provide corrosion protection for the expected active life of the AST system or have provisions to allow for the periodic rehabilitation of the anode system - has a test station or other method of monitoring which enables the owner to confirm that the cathodic protection system is operating properly. Verify that sacrificial anode systems are tested within 6 mo of installation and every 3 yr thereafter by a cathodic protection tester. Verify that monitors for impressed current systems are checked monthly. (NOTE: Checks of impressed current systems may be performed by verifying that electrical current is continuing to flow through the system.) Verify that, if at any time the monitor or testing shows that the electrical current

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	necessary to prevent corrosion is not being maintained, the source of the failure is investigated and the system restored within 60 days. Verify that corrosion protection for piping systems is designed and constructed in accordance with NFPA 30, API 1615, API 1632, or NACE RP-0169, as applicable. Verify that the exterior surfaces of all tanks and exposed piping is painted or coated to prevent corrosion or other deterioration, and that the coatings are maintained in good condition.
ST.5.16.NH. New petroleum ASTs must have secondary containment that meets specific requirements (NHCAR Env-Wm 1402.21) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all new AST systems have secondary containment. Verify that new secondary containment is constructed so that spills will not permeate into the soil more than 1 ft in 72 h, or infiltrate or otherwise escape to the groundwater or surface waters before cleanup occurs. Verify that secondary containment consists of a combination of dikes, liners, pads, ponds, impoundments, curbs, ditches, sumps, receiving tanks, or other equipment capable of containing the product stored. Verify that the storage capacity of the secondary containment is of sufficient volume to contain the entire contents of the largest single tank and, if not covered to prevent the collection of stormwater, additionally contain the greater volume of the following: - 10 percent of the capacity of the largest tank within the enclosure - the volume of precipitation that would fall within the containment area within 24-h during a 10-yr storm event as determined by the rational method as described in the Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire, dated August 1992, for determining stormwater runoff, if the containment area is not roofed or otherwise protected from the accumulation of precipitation. Verify that secondary containment lining materials are constructed and maintained to meet permeability requirements for the operational life of the AST. (NOTE: The preceding provisions will not apply to any tank that is located inside a building, provided: - the installation of the tank complies with New Hampshire fire safety regulations - the entire floor of the room in which the tank and its associated piping is located is constructed of concrete or an impervious material - the floor does not have any floor drains, cracks, or openings that would permit the migration of oil through the floor

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	- a release of the total contents of the tank will remain confined to the room in which the system is situated.) (NOTE: A double-walled tank may be used in lieu of the preceding requirements, if the double-walled tank is installed with all of the following: - overfill protection - interstitial monitoring - a mechanically operated automatic fill shut-off valve located in the fill bung of the tank or an oil transfer pump with an independent high-level detection system that will automatically shut down the transfer pump and prevent flow of oil to the tank.) Verify that, if not roofed or otherwise protected from the accumulation of precipitation, the secondary containment area is equipped with a manually-controlled pump or siphon or a gravity drain pipe that has a manually-controlled valve, to remove stormwater that collects within the secondary containment system. Verify that all pumps, siphons, and valves are maintained in good condition to prevent stormwater water from leaking from the system. Verify that, if gravity drain pipes are used, all valves are locked in a closed position except when the operator is in the process of draining water from the area. Verify that gravity drain pipes are designed and constructed to prevent a release in the event of fire. Verify that all piping passing through secondary containment walls is sealed around the outside of the piping with an impervious compatible material to prevent the discharge of oil through the walls. Verify that secondary containment liners constructed of natural materials are tested and certified by a professional engineer during installation to ensure the permeability standard is met. Verify that tanks, installed after May 28, 2005 with vents that are located so that an overfill will not be contained within the secondary containment, have additional overfill protection. Verify that all tank fill connection points, installed after May 28, 2005 that are not otherwise within secondary containment, have covered spill containers with a minimum capacity of 5-gallons installed.
ST.5.17.NH. New piping for petroleum ASTs must have secondary containment (NHCAR Env-Wm 1402.22)	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all new underground piping has secondary containment such as:

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[Added April 1998; Revised March 2006; Revised March 2007; Revised March 2010].	- double-wall piping, or - an engineered piping trench system. Verify that all system piping extending over the surface waters of the state not regulated by the U.S. Coast Guard have double-wall piping as secondary containment. Verify that piping systems with secondary containment are continuously pitched to direct any leakage to s liquid tight containment sump monitored for leaks. Verify that dispenser systems installed after28 May 2005 that are supplied by underground or over water piping are equipped with a liquid-tight containment sump monitored for leaks.
ST.5.18.NH. Oil transfer pumps for petroleum ASTs must not be placed directly on the ground (NHCAR Env-Wm 1402.23) [Added April 1998; Revised March 2006].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that the base of oil transfer pumps is not placed directly on the ground surface. Verify that oil transfer pumps are secured to and separated from the ground surface by a concrete pad or other impermeable barrier and firmly secured to a foundation capable of supporting the weight of the pump and the mechanical stresses commonly associated with the operation of the pump.
ST.5.19.NH. Petroleum ASTs must be equipped with overfill protection (NHCAR Env-Wm 1402.24) [Added April 1998; Revised March 2006; Revised March 2007].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all AST systems are equipped with a mechanical gauge or other measuring device that accurately shows the level of product in the tank and is visible to the person controlling the transfer of oil. Verify that all AST systems have a high level warning alarm, operating independently of the tank gauge that is both audible and visible to the person controlling the transfer of oil. Verify that the high level warning alarm is activated: - for tanks with a storage capacity of 12,000 gal or less, when the tank is filled to 90 percent of the total capacity of the tank, or - for tanks with a storage capacity of greater than 12,000 gal, when the tank is filled to 3 percent less than the calculated maximum safe fill height. (NOTE: A vent alarm may be used in lieu of the requirements for a high level warning alarm in AST systems with an oil storage capacity of 660 gal or less, having a tight fill connection, and where the opening for the vent pipe is located no more than 10 ft from the fill pipe connection and is audible and visible to the

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	person controlling the transfer of oil.) (NOTE: The checklist item does not apply to the following containers when not connected to other containers: - drums less than 60 gallons in size - intermediate bulk containers or overpack drums.)
ST.5.20.NH. Interstitial spaces in new petroleum ASTs must be equipped with monitoring equipment (NHCAR Env-Wm 1402.25) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that any interstitial spaces, including but not limited to those located in double-walled tanks, double-walled piping, and double bottoms that are installed as part of new or upgraded AST facilities, are equipped with interstitial monitoring equipment. Verify that the interstitial monitoring equipment is capable of detecting a discharge of oil or intrusion of water into the interstitial space. Verify that the monitoring equipment is constructed so groundwater, rainfall, or soil moisture will not render the testing or sampling methods used inoperative. Verify that interstitial monitoring equipment for double-wall piping consists of a continuously operating sump sensor with alarm that is both visible and audible to the AST system operator. (NOTE: These requirements do not apply to double-walled tanks that are not in contact with the soil and that are completely surrounded by a dike or other means of secondary containment.)
ST.5.21.NH. Installation of petroleum ASTs must meet specific standards (NHCAR Env-Wm 1402.26(a) and (d) through (j)) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that AST systems are installed according to the manufacturer's requirements and national and industry codes based on plans approved by the Department. Verify that new AST systems are not constructed within the floodway portion of the 100-yr special flood hazard area. Verify that new ASTs and associated pipes and distribution equipment are not located along highway curves or otherwise exposed to traffic hazards without suitable protection. (NOTE: For the purposes of this rule, suitable protection means protection that will protect against an impact equal to the design speed of the roadway.) Verify that new AST systems are physically protected from vehicular collision by fencing, barriers, or bollards spaced no more than 4 ft apart.

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	Verify that all barriers are painted with a reflective paint or be partially covered with a reflective tape. Verify that before being placed in service, all tanks and piping, whether new or reconditioned, are tested for tightness and inspected in accordance with the requirements specified in API Standard 653 or NFPA 30. Verify that all new AST sites are located as follows: - for all gasoline AST systems, at least 500 feet from public water system wells and at least 250 feet from non-public water system wells - for all heating oil AST systems used only for on-premise heating of a structure and all non-gasoline AST systems used only for on-premise use emergency electrical generation, outside the sanitary protective area of public water system wells and at least 75 feet from non-public water system wells - for all other AST systems, at least 400 feet from public water system wells and at least 75 feet from non-public water system wells - for all AST systems, with the exception of marinas, hydro-electric facilities, and bulk storage terminals receiving oil by way of waterborne transportation, at least 75 feet from surface waters of the state. Verify that, at all existing AST sites, an AST system is not added, substantially modified, or replaced, within the sanitary protective area of a public water system well. Verify that at all existing AST sites, when an AST system is added, substantially modified, or replaced, and the minimum separation distance of 75 feet from a non-public water system well is not met, the separation distances are not decreased. (NOTE: Existing ASTs mean those ASTs installed before January 21, 2009.)
ST.5.22.NH. Petroleum AST transfer areas must be on an impermeable surface (NHCAR Env-Wm 1402.27) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all areas where oil is transferred from a cargo truck or railcar engaged in the transport of oil to an AST system are constructed of a concrete pad or other impermeable surface. Verify that all areas where oil is transferred from an AST system to a cargo truck or railcar engaged in the transport of oil are constructed of a concrete pad or other impermeable surface. Verify that the concrete pad or impermeable surface is constructed of sufficient size so that all connection points are situated over the impermeable area when the transfer of oil is occurring. Verify that all dispensing areas first used after April 23, 2005, where oil is transferred from an AST system to the fuel tank of a motor vehicle, are

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	constructed of a concrete pad or other impermeable surface. Verify that the concrete pad or impermeable surface meet the following requirements: - constructed of sufficient size so that all connection points are situated over the impermeable area when the transfer of oil is occurring - equipped with positive limiting barriers constructed and maintained to contain a volume of at least 5 gallons for each dispenser. Verify that dispensing nozzles do not extend beyond the positive limiting barriers.
ST.5.23.NH. Petroleum ASTs must meet release detection requirements (NHCAR Env-Wm 1402.28) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that an AST that is not completely raised above ground level has perforated gravity collection pipes or channels that can be monitored for the presence of a release beneath the AST. Verify that, beneath a vertical AST, a finished concrete pad that extends completely beneath the tank and has a series of channels measuring no more than 1.5 inches wide and 0.75 inches deep extending radically outward from the center of the pad to beyond the edge of the tank is provided. Verify that, all pressurized underground and over-water motor fuel dispenser piping systems installed April 23, 2005 are: - equipped with a UL-listed line leak detector capable of detecting a line leakage rate of 3 gallons per hour at 10 pounds per square inch - automatically shut-off or restricts product flow if the leakage rate is exceeded.
ST.5.24.NH. Petroleum AST owners must meet inspection requirements (NHCAR Env-Wm 1402.29) [Added April 1998; Revised March 2006; Revised March 2007; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that the owner of an AST facility inspect the facility at least monthly by: - inspecting exterior surfaces of tanks, secondary containment vessels, pipes, valves and other associated equipment for deficiencies such as leaks, surface wetting, discoloration, blistering, or evidence of corrosion, cracks, chime distortion, or other structural damage - inspecting for and identifying cracks, areas of wear, visible shell thinning, evidence of poor maintenance and operating practices, excessive settlement of structures, separation or swelling of tank insulation, malfunctioning equipment and structural and foundation weaknesses - inspecting visible system components, such as the alarm box, of all high-level alarms and monitoring all leak detection systems that may be in place at the facility.

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	Verify that the following AST system components are tested annually, and malfunctioning components repaired or replaced within 30 days: - overfill alarm system sensors and automatic fill shutoff devices - interstitial alarm sensors - line leak detectors. Verify that detailed inspections of AST tank interiors having a capacity of 5100 gal or more are performed in accordance with the following schedule: - for tanks where any part of the shell is in contact with the ground, the initial inspection for previously uninspected tank systems is performed when the tank is 10 years old - for tanks where the tank shell is entirely off the ground, such as tanks on racks or in cradles, the initial inspection for previously uninspected tank systems is performed when the tank is 20 years old - following the initial inspection, an inspection is performed at least every 5 years for tank systems containing gasoline, and at least once every 10 years for tank systems containing other motor fuels, heating oils, and fuel oils during the in-service life of the tank. Verify that detailed interior tank inspections for AST tank interiors having a capacity of 5100 gal or more consist of: - cleaning the tank so that all visible evidence of liquids, sludges, by-products, solids, and the like are removed and the interior surface of the tank is completely visible - removing, transporting and disposing of sludge in a manner consistent with all applicable state and federal requirements - entering the tank to determine its suitability for continued service - a tightness test of any connecting underground pipes. Verify that existing tanks greater than 5,100 gallons that are not equipped with a manhole or other manufactured means of accessing the interior of the tank have a means of entry installed and an initial detailed interior inspection by 2008. Verify that all detailed interior tank inspections are performed by an API or STI certified inspector or a professional engineer with knowledge of tank testing procedures. Verify that reports of each monthly inspection and detailed interior inspection are maintained and made available to the Department. Verify that, if any inspection reveals a leak, a tank or equipment deficiency, a deficiency in monitoring equipment, an indication that the thickness of the tank shell or floor has thinned beyond the minimum criteria, or any other deficiency which has caused a reasonable expectation that a discharge is imminent, the owner verbally notifies the department within 24 hours of discovery, and immediately implements measures to prevent a discharge, eliminate the leak, or correct the

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	deficiency. Verify that, if any inspection reveals that a discharge has occurred, the owner notifies the department and implements the preliminary response action. Verify that results of the inspections and testing are submitted to the department by the owner within 60 days of accomplishing the inspection or test:
ST.5.25.NH. Oil-filled electric equipment must be registered as ASTs (NHCAR Env-Wm 1402.32) [Added April 1998; Revised March 2006].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all oil-filled electrical equipment containing more than 660 gal of oil is registered with the Department. Verify that owners of facilities with oil-filled electrical equipment containing more than 660 gal of oil prepare and maintain a spill prevention control and countermeasure plan (see PO.5 in the U.S. TEAM Guide). Verify that all new facilities containing oil-filled electrical equipment greater than 660 gal have a method of preventing a release of oil from the equipment to surface waters or groundwater of the state that includes: - the installation of an impermeable barrier in the soil beneath equipment - the installation of a structure, such as a collection sump that conveys all liquids to an oil-water separator for treatment, or - some other engineered solution that will meet these performance standards.
ST.5.26.NH. Stormwater accumulated within petroleum AST secondary containment must be managed according to specific standards (NHCAR Env-Wm 1402.33) [Added April 1998; Revised March 2006].	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that stormwater which collects and is retained within a secondary containment area is removed by a manually-activated pump or siphon, or a gravity drain pipe. Verify that pumps, siphons, plugs, or valves are maintained in good condition. Verify that if gravity drains are used, valves are fixed and locked in the closed position except when a controlled discharge is occurring. Verify that stormwater or other controlled discharge from the oil transfer containment area or from within a secondary containment structure for a tank at a facility is free from an oil sheen before being discharged to the environment. Verify that stormwater which is contaminated with oil is treated prior to discharge. Verify that all stormwater discharges are performed in accordance with all

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	applicable local, state and federal requirements. Verify that accumulated stormwater is drained as soon as practical and frequently enough to ensure that sufficient containment volume is always available to contain a release from the largest tank being contained.

ST.5.27.NH. Owners of petroleum ASTs must meet specific recordkeeping requirements (NHCAR Env-Wm 1402.34) [Added April 1998; Revised March 2006; Revised March 2009].	(NOTE: See Appendix 10-2 for applicability and exemptions.)
	
	Verify that all required records are maintained in permanent form for the period specified below, and made available for inspection by the Department at the facility.
	
	Verify that, if records are not kept at the facility, they are available at the facility or other mutually agreed upon location within 5 working days.
	
	Verify that the owner maintains the following records:
	
	- for a period not less than 3 yr:
	  - results of monthly inspections of the facility
	  - copies of all correspondence from the Department, the New Hampshire state fire marshal, or the local fire Department relating to the facility
	  - records of the type of oil stored in each tank and the date of any applicable conversion
	  - records of inventory monitoring
	- on an ongoing basis:
	  - dates and description of replacement of permanent components and substantial modification to AST systems
	  - results of all tightness tests performed on piping associated the AST systems
	  - a copy of the facility registration and any amendments (if a facility registration form has not been amended within 10 yr, the most recent registration must be retained)
	  - copies of all approved plans for the facility
	  - closure assessment reports
	  - results of all detailed AST system inspections at the facility
	  - results of all cathodic protection system testing at the facility.
	
	Verify that, if the ownership of any AST facility changes, all documentation and any other records relating to the systems are transferred from the person conveying the facility to the person accepting ownership of the property at the time of transfer.

ST.5.28.NH. Petroleum ASTs must meet upgrading requirements (NHCAR Env-Wm 1402.35) [Added April	(NOTE: See Appendix 10-2 for applicability and exemptions.) Verify that all AST systems and all underground and over water piping have

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1998; Revised March 2006; Revised March 2007; Revised March 2009].	secondary containment. (NOTE: For systems installed prior to 28 May 2005, the secondary containment must be installed by 28 May 2008.) Verify that the upgrades are certified by a professional engineer as meeting the permeability and containment volume standards. Verify that plans for replacement of underground or over water piping are submitted to the department for approval. (NOTE: All on premise use heating oil systems existing as of 28 May 2005 that are newly regulated due to the exemption in Env-Wm 1402.02(b)(1) being changed to 1,320-gallons of capacity or less, must become compliant with this part by 29 May 2008.)
ST.5.29.NH. Temporary petroleum ASTs **s**ystems at construction sites must meet specific requirements (NHCAR Env-Wm 1402.37) [Added March 2007; Revised March 2010].	(NOTE: This checklist applies to temporary AST systems at construction sites existing only for the specific duration of the construction contract, where a single tank is larger than 660 gallons.) Verify that the temporary AST is registered, including the contract start and completion dates. Verify that the temporary AST is marked (see AE.5.13.NH.). Verify that the temporary AST has secondary containment. Verify that the temporary AST is equipped with a gauge (see AE.5.19.NH.) Verify that the temporary AST is equipped with either a high level warning alarm or a mechanically operated automatic fill shut-off valve.
ST.5.30.NH. Persons installing petroleum ASTs **s**ystems at construction sites must be certified (NHCAR Env-Wm 1402.38 (a)) [Added March 2007; Citation Revised March 2009].	Verify that any person supervising the installation of an AST system or AST system component is certified for AST installation and retrofitting by the International Code Council (ICC).
ST.5.31.NH. Mobile petroleum tankers must meet specific requirements (NHCAR Env-Wm 1402.39)	Verify that cargo trucks and trailers are not used for the purpose of on-site storage of oil at a facility. (NOTE: If normal facility operations require a cargo truck to be used to deliver

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[Added March 2007; Revised March 2010].	fuel to the fuel tanks of stationary equipment, off-road earthmoving equipment, military tactical vehicles, parked aircraft, or parked refrigeration trailers, then cargo use is authorized at the facility.) Verify that cargo trucks and trailers are not used for the purpose of refueling on-road motor vehicles. Verify that the use of cargo trucks by military personnel to support military vehicles in convoy is allowed provided that there is an applicable oil spill and response plan that includes: - the use of portable flexible containment areas - proper containment and disposal of any spilled oil.
ST.5.32.NH. AST systems containing oil that is a solid at atmospheric temperature and pressure must be registered (NHCAR Env-Wm 1402.31(a) and (b)) [Added March 2007; Citation Revised March 2008; Revised March 2009].	Verify that AST systems containing oil that is in the solid phase at atmospheric temperature and pressure are registered. Verify that AST systems containing oil that is in the solid phase at atmospheric temperature and pressure have markings (see AE.5.13.NH.) and a product level gauge. Verify that construction of new or replacement AST systems containing oil that is in the solid phase at atmospheric temperature and pressure obtain plan approval prior to construction of the AST system.

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ST.10. **EMISSIONS/ DISCHARGES FROM BULK GASOLINE TERMINALS**	
ST.10.1.NH. Bulk gasoline loading terminals must meet VOC emission control requirements (NHCAR Env-A 1204.40(a), (b) (1) through (6), and (c)) [Revised March 2003].	(NOTE: A bulk gasoline loading terminal meeting the definition here as of 1 January 1990 must comply with the requirements of Env-A 1204.40. Bulk gasoline loading terminal means a gasoline storage facility which: - receives gasoline from refineries primarily by pipeline, ship, or barge - delivers gasoline to bulk gasoline plants, to commercial or retail accounts within or outside New Hampshire, primarily by tank truck - has a daily throughput of 76,000 liters (20,000 gallons) or more of gasoline based on any consecutive 30-day period during the ozone season.) Verify that bulk gasoline terminal operations use the following control techniques: - VOC vapor emitted from tank truck loading operations at a bulk gasoline terminal is collected and controlled by equipment limiting the total nonexempt VOC emission rate from the controlled operations over any 1 h period to 80 mg VOC/ L (0.08 oz/ft^3) of gasoline loaded - all equipment such as pumps, tanks, couplings, hoses, and seals, used in loading gasoline trucks and controlling VOC emissions during loading, is maintained in leaktight condition, as determined through test and maintenance procedures specified in the following document published by USEPA: - *EVALUATION OF VAPOR LEAKS AND DEVELOPMENT OF MONITORING PROCEDURES FOR GASOLINE TANK TRUCKS AND VAPOR PIPING*, Document Number EPA-450/3-79-018, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency Research Triangle Park, NC 27711, April 1979. Verify that the bulk gasoline loading terminal is equipped with a vapor control system consisting of one of the following: - an adsorber or condensation system which processes and recovers at least 90 percent by weight of all vapors and gases from the devices being controlled - a vapor collection system which directs all vapors to a fuel gas system and destroys at least 90 percent by weight of all vapors and gases from the devices being controlled - a control system demonstrated to have control efficiency approved by the Director. Verify that all displaced vapors and gases are vented only to the vapor control system.

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	Verify that operations do not: - allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation - allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings. (NOTE: As an alternative to the control techniques specified in (b), above, a bulk gasoline loading terminal meeting the definition of Env-A 1204.03(k) may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)
ST.10.2.NH. Bulk gasoline loading terminals must limit loading of liquid products into specific types of gasoline trucks (NHCAR Env-A 1204.40 (a) and (c) (7), (8), and (14)) [Revised March 2003].	(NOTE: See ST.10.1 NH. for applicability.) Verify that loading of liquid product into gasoline tank trucks is limited to vaportight gasoline trucks, during which the terminal owner or operator will: - obtain the vapor tightness documentation from the tank truck driver for each gasoline tank truck that is to be loaded at the bulk gasoline terminal loading rack - require the tank identification number to be recorded as each gasoline tank truck is loaded at the terminal - cross-check each tank identification number with the file of tank vapor tightness documentation within 2 wk after the corresponding tank is loaded - notify the owner or operator of each nonvaportight gasoline tank truck loaded at the bulk gasoline terminal loading rack within 3 wk after the loading has occurred that the truck is not vapor tight - develop and follow procedures to assure that no gasoline tank truck deemed to be nonvaportight will be reloaded until vapor tightness documentation for that tank is obtained. Verify that the terminal takes measures to ensure that: - loadings of gasoline tank trucks at the bulk gasoline terminal loading rack are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system - the vapor collection systems of the terminal and tank truck are connected at the bulk gasoline tank truck at the bulk gasoline terminal loading racks during each loading. Verify that loading of outgoing gasoline tank trucks is restricted to the use of submerged fill.
ST.10.3.NH. Bulk gasoline loading terminal vapor collection and liquid loading equipment must meet specific	(NOTE: See ST.10.1 NH. for applicability.) Verify that the vapor collection and liquid loading equipment is designed and operated to prevent gauge pressure in the delivery tank from exceeding 4500 Pa,

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design and operating requirements (NHCAR Env-A 1204.40 (a) and (c) (9) through (14)) [Citation Revised April 1998; Citation Revised March 2003].	equivalent to 0.65 psi or 18 in. of water, during product loading. Verify that a pressure measuring instrument, such as a liquid manometer or equivalent, capable of measuring up to 500 mm Hg (20 in. water) gauge pressure, with a precision of 2.5 mm Hg (20 in. water) is calibrated and installed. Verify that the pressure-measuring instrument is connected to a pressure tap in the vapor collection system of the terminal, located as close as possible to the connection with the gasoline tank truck. Verify that during the performance test, gauge pressures are recorded at least once for each loading position according to the following procedure: - the pressure is recorded every 5 min during the loading of a gasoline tank truck - the highest instantaneous pressure that occurs during each loading is recorded. Verify that no pressure-vacuum vent in the bulk gasoline terminal's vapor collection system begins to open at a system pressure less than 4500 Pa, or 0.65 psi. Verify that at least once each calendar mo, the vapor collection system, vapor control system, and each loading rack handling gasoline are inspected for total liquid or vapor organic compound leaks during the loading of gasoline tank trucks. Visual, sound or odor detection methods are acceptable. Verify that each detection of a leak is recorded and the source of the leak repaired within 15 calendar days after it is detected.
ST.10.4.NH. Bulk gasoline plants must use specific VOC control techniques (NHCAR Env-A 1204.41) [Revised March 2003].	(NOTE: See ST.10.1 NH. for applicability.) Verify that bulk gasoline plants use the VOC control techniques specified below, depending on the facility's storage capacity or average daily throughput: Verify that all bulk gasoline plants, regardless of storage capacity or average daily throughput, use the following control techniques: - filling of storage tanks is restricted to the use of submerged fill - loading of outgoing gasoline tank trucks is restricted to the use of submerged fill. Verify that the bulk plant and each tank truck engaged in transfer operations at the bulk plant: - observes all transfer operations involving the subject tank truck - discontinues transfer immediately upon the observation of any vapor or liquid leaks associated with the transfer operation.

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	Verify that any bulk gasoline plant having an average daily throughput of 15,000 L (4000 gal) or more based on any consecutive 30-day period during the ozone season for the calendar yr 1989 or any subsequent yr is equipped with the following VOC control equipment:
	
	- a Stage I vapor balance system between each incoming gasoline tank truck and any gasoline storage tank having a capacity of more than 2082 L (550 gal)
	- a Stage I vapor balance system between each outgoing gasoline tank truck and any gasoline storage tank having a capacity of more than 2082 L (550 gal).
	
	Verify that Stage I vapor balance systems are vaportight, and automatically close upon disconnection.
	
	Verify that all Stage I vapor balance systems installed are designed to prevent any transfer of collected vapors between loading racks.
	
	Verify that any bulk gasoline plant having an average daily throughput of 15,000 L (4000 gal) or more based on any consecutive 30 day period during the ozone season ensures that the following VOC control procedures are observed during all transfer and storage operations:
	
	- the Stage I vapor balance system remains connected between the tank truck and storage tank
	- for storage tanks with a capacity of more than 2082 L (550 gal), tank openings, including inspection hatches and gauging and sampling devices, remain vapor tight when not in use
	- the gasoline tank truck compartment hatch cover remains closed during product transfer
	- gauge pressure cannot:
	  - exceed 450 mm (18 in.) of water in the gasoline tank truck
	  - exceed 150 mm (5.9 in.) of water in the vapor balance system vacuum during product transfer operations
	- compliance is determined by means of a pressure measuring device, such as a liquid manometer, magnehelic gauge, or equivalent instrument that:
	  - is capable of measuring 500 mm (20 in.) of water gauge pressure with a precision of 2.5 mm (0.098 in.)
	  - is calibrated and installed on the bulk gasoline plant vapor balance system at a pressure tap which is located as close as possible to the connection with the gasoline tank truck
	- no pressure vacuum relief valve in the bulk gasoline plant vapor balance system can begin to open at:
	  - a system pressure of less than 450 mm (18 in.) of water or
	  - a vacuum of less than 150 mm (5.9 in.) of water
	- loading of liquid product into gasoline tank trucks is limited to airtight tank trucks
	- at least once each calendar mo, the vapor balance systems required by and each loading rack used in loading gasoline tank trucks is inspected for liquid

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	or vapor leaks during product transfer operations (visual, sound or odor detection methods are acceptable) - each detection of a leak is recorded and the source of the leak repaired within 15 calendar days after it is detected. (NOTE: As an alternative to the control techniques and equipment specified, bulk plants may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)

ST.10.5.NH. Bulk gasoline plants and terminals must comply with specific recordkeeping requirements (NHCAR Env-A 904.06) [Revised April 1998; Revised March 2007; Revised March 2008].	Verify that for bulk gasoline loading terminals and bulk plants, the following information is recorded and maintained:
	
	- individual storage tank data, if applicable, including the following:
	  - tank capacity
	  - volume and type of VOL stored
	  - for storage tanks and bulk gasoline loading terminals, daily throughput, under a typical high ozone season day
	  - for VOL storage tanks, a record of the maximum true vapor pressure of the liquid as stored
	- for VOL storage tanks exempted but containing a VOL with a true vapor pressure greater than 7.0 kPa (1.0 psi):
	  - average monthly storage temperature
	  - type of liquid stored
	  - maximum true vapor pressure for any VOL with a true vapor pressure exceeding 7.0 kPa (1.0 psi)
	- air pollution control equipment information including:
	  - for VOL storage tanks, seal type and date of retrofit, if applicable
	  - for VOL storage tanks, records of malfunctions, visual leak inspection results, startups and shutdowns, including reports and results of inspections of roofs
	- records of VOC emission testing and all continuous emission monitoring data, including, for bulk gasoline loading terminals, records that document compliance with VOC emission limits.

ST.10.6.NH. [Deleted March 2007].	(NOTE: NHCAR Env-A 901.07 is reserved.)
ST.10.7.NH. [Moved March 2006].	(NOTE: NHCAR Env-A 904.06(a) and (b) moved to ST.20.7.NH., March 2006.)

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ST.15. **EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS**	
ST.15.1.NH. Cargo trucks must meet specific vapor control requirements (NHCAR Env-Wm 1404.05 (d), 1404.34 and 1404.29) [Revised March 2005].	(NOTE: This checklist item applies to any owner or operator of a cargo truck that meets the following conditions: - delivers gasoline to any gasoline dispensing facility or bulk gasoline plant which meets one of the applicability criteria for stage I (see ST.15.17.NH.) - receives gasoline from a bulk gasoline plant which meets the applicability criteria for stage I (see ST.15.17.NH.).) Verify that the owner or operator of a cargo truck disposes of the vapors at the bulk terminal by the vapor collection system and vapor destruction methods described in Env-A 1204.40(b)(3), (4) and (5) (see 10.1.NH). Verify that the owner of an applicable cargo truck complies with all of the following requirements for each cargo truck: - install, maintain, and operate a stage I system that is a certified vapor recovery system or a department approved alternative - the Stage I system recovers at least 95 percent of all gasoline vapors at the facility or be at least as efficient as the manufacturer's design efficiency, whichever is higher (this standard applies to each cargo truck during each applicable gasoline delivery) - all hoses and equipment on the cargo truck are compatible with and properly connected to the equipment on the storage tanks at the dispensing facility - coaxial systems use a separate coaxial coupling with a Stage I vapor recovery hose for each tank - for a two-point system where the tanks are manifolded, a minimum of one vapor return hose used for every 2 fill hoses in service - for a two-point system where the tanks are not manifolded, a separate vapor recovery connection at each tank being filled. - during loading and unloading, cargo trucks have a back pressure that does not exceed 10.4 oz/in.^{2} or 18 in. water column pressure or 3.4 oz/in.^{2} or 5.9 in. water column vacuum (if a cargo truck does not meet both of these criteria, it is to be repaired and retested within 15 days).
ST.15.2.NH. Cargo trucks must comply with Stage I system maintenance requirements (NHCAR Env-Wm 1404.30) [Revised March 2005].	(NOTE: See applicability in ST.15.1.NH.) Verify that Stage I equipment is maintained and properly operated as specified by the manufacturer. Verify that Stage I equipment is maintained to be leak-free and vapor tight.

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ST.15.3.NH. Cargo trucks must comply with Stage I system operational requirements (NHCAR Env-Wm 1404.31) [Revised March 2005].	(NOTE: See applicability in ST.15.1.NH.) Verify that no person unloads gasoline from a cargo truck to a gasoline storage tank at a gasoline dispensing facility unless a Stage I system or department approved alternative is utilized. Verify that no person delivers gasoline to or receive gasoline from a bulk gasoline plant unless the owner or operator of the plant and of the cargo truck has installed a stage I system or department approved alternative. Verify that no person deliberately or negligently vents any captured vapors to the atmosphere. Verify that no person deliberately or negligently mishandles gasoline such that it would result in evaporation into the atmosphere, including spilling, discarding into a sewer, or storing in an open container. Verify that all hatches cargo trucks are securely fastened and are open only during measurement of product level or maintenance.
ST.15.4.NH. Cargo trucks must comply with Stage I system-testing requirements (NHCAR Env-Wm 1404.32) [Revised March 2005].	(NOTE: See applicability in ST.15.1.NH.) Verify that the owner or operator of a cargo truck delivering to or receiving from a gasoline storage tank conducts an annual certification test in accordance with 40 CFR 63.425(e).
ST.15.5.NH. Cargo trucks must comply with Stage I system recordkeeping requirements (NHCAR Env-Wm 1404.35) [Revised March 2005].	(NOTE: See applicability in ST.15.1.NH.) Verify that owners or operators of cargo trucks maintain in the cargo truck at all times, and provide to the Division upon request: - documentation that the cargo truck has met the specifications of Env-Wm 1403.32 (see ST.15.4.NH.) and Method 27 of 40 CFR Part 60, Appendix A, including all of the information required pursuant to 40 CFR 60.505 - test results for both the pressure and vacuum tests - proof of compliance and the date of all tests conducted in accordance with the Stage I testing requirements for cargo trucks, which is displayed on the of cargo trucks.
ST.15.6.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.05 expired.)

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ST.15.7.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.06 expired.)
ST.15.8.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.07 expired.)
ST.15.9.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.08 expired.)
ST.15.10.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.10 expired.)
ST.15.11.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.20 expired.)
ST.15.12.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.21 expired.)
ST.15.13.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.22 expired.)
ST.15.14.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.23 expired.)
ST.15.15.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.25 expired.)
ST.15.16.NH. [Deleted March 2005].	(NOTE: NHCAR Env-A 1205.26 expired.)

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ST.15.17.NH. Gasoline storage tanks at either a gasoline dispensing facility or a bulk gasoline plant must comply with Stage I vapor recovery system equipment requirements (NHCAR Env-Wm 1404.05(a) and (f) and 1404.06(a)) [Added April 1998; Revised March 2005].	(NOTE: The owner or operator of a gasoline storage tank at either a gasoline dispensing facility or a bulk gasoline plant must comply with the stage I requirements if any of the following conditions are met: - the tank has a capacity equal to or greater than 1,100 gallons of gasoline - the total annual throughput of the facility or plant is equal to or greater than 120,000 gallons of gasoline per year. Once a facility or plant meets the applicability criteria, the owner or operator is to the stage I requirements even if a reduction in annual throughput occurs which would otherwise exempt the owner or operator from these requirements.) (NOTE: The owner or operator of a gasoline storage tank at either a gasoline dispensing facility or a bulk gasoline plant is exempt from these requirements if the system is also applicable to stage II requirements (see ST.15.24.NH.)) Verify that Stage I controls are installed to collect vapors during the delivery of gasoline to the storage tank at airports and marinas. Verify that the owner or operator of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant does the following: - install, maintain, and operate a stage I system that is a certified vapor recovery system or a department approved alternative - operate a stage I system to recover at least 95 percent of all gasoline vapors at the facility or be at least as efficient as the manufacturer's design efficiency, whichever is higher - label each PV vent cap with the cap's rated pressure and vacuum relief setting - position the PV vent cap label so that it is visible from ground level - equip a stage I system with a submerged fill tube - equip each vent pipe on an underground or aboveground gasoline storage tank with a PV vent cap - for a two-point system, install a poppetted dry break on the vapor return connection; and equip the poppetted dry break with a properly sealed adaptor cap attached at all times, except when gasoline is being delivered - install a fill adaptor cap with a properly sealed gasket attached at all times, except when gasoline is being delivered, on the stage I system.
ST.15.18.NH. Owners or operators of gasoline storage tanks at either a gasoline dispensing facility or a bulk gasoline plant with Stage I equipment must install PV vent caps (NHCAR Env-Wm 1404.06(b) through (d)) [Added March 2005; Citation	(NOTE: See ST.15.17.NH. for applicability and exemptions.) Verify that unless otherwise specified for a certified vapor recovery system, the owner or operator installs PV vent caps on an underground gasoline storage tank as follows: - for pressure, 13.8 inches water column pressure (8.0 oz/in2) - for vacuum, 0.9 inches water column vacuum (0.5 oz/in2)

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Revised March 2008].	Verify that any failed fill adaptor is replaced with a swivel adaptor.
	
	Verify that unless otherwise specified for a certified vapor recovery system, the owner or operator installs PV vent caps on an aboveground gasoline storage tank as follows:
	
	- for pressure, the lower of the following 2 values:
	  - a pressure setting of 10 percent of the maximum allowable working pressure of the tank
	  - a pressure setting of 13.9 inches water column pressure (8.0 oz/in2)
	- for vacuum, 3.0 inches water column vacuum (1.7 oz/in2).

ST.15.19.NH. Owners of operators of gasoline storage tanks at either a gasoline dispensing facility or a bulk gasoline plant must comply with Stage I system maintenance requirements (NHCAR Env-Wm 1404.07) [Added March 2005; Citation Revised March 2008].	(NOTE: See ST.15.17.NH. for applicability and exemptions.) The owner or operator of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant maintains and properly operate stage I equipment as specified by the manufacturer. Verify that stage I equipment, except PV vent caps, is leak free and vapor tight Verify that monthly maintenance inspections of all stage I equipment at the facility or plant are conducted (see Appendix 10-3 for requirements). Verify that annual maintenance inspections of all stage I equipment at the facility or plant are conducted (see Appendix 10-4 for requirements).
ST.15.20.NH. Stage I systems must meet operational requirements (NHCAR Env-Wm 1404.10) [Added March 2005].	(NOTE: See ST.15.17.NH. for applicability and exemptions.) Verify that no person transfers or allows the transfer of gasoline into a gasoline storage tank at a gasoline dispensing facility or into or out of a bulk gasoline plant unless the facility is operating with stage I system or department approved alternative. Verify that no person deliberately or negligently vents any captured vapors to the atmosphere Verify that no person deliberately or negligently mishandles gasoline such it would result in evaporation into the atmosphere, including spilling, discarding into a sewer, or storing in an open container.
ST.15.21.NH. Stage I systems must perform stage I tests (NHCAR Env-Wm 1404.11(a) and (b)) [Added	(NOTE: See ST.15.17.NH. for applicability and exemptions.) Verify that the owner or operator of a gasoline storage tank at a gasoline dispensing facility or bulk gasoline: plant performs stage I testing within 30 day of

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March 2005].	the following - failing to perform 2 monthly maintenance inspections - failing to perform the yearly maintenance inspection by September 30 - the stage I system is not functioning as designed. Verify that, if the system not successfully pass all of the criteria during a stage I test the owner or operator of a facility does the following: - perform a successful stage I retest within 30 days of the test failure - retest only those portions of the original test which failed the applicable criteria if the modifications performed to repair the facility or plant have not altered the portion of the system which passed the original test. (NOTE: See Appendix 10-5 for Stage I testing procedures.)

ST.15.22.NH. Stage I systems must comply with notification requirements (NHCAR Env-Wm 1404.11(c), 1403.13 and 1404.14) [Added March 2005].	(NOTE: See ST.15.17.NH. for applicability.)
	
	Verify that the owner or responsible official of any stage I system notifies the department in writing within the following time constraints:
	
	- no later than 15 days prior to performing the test of the planned test date, test time, and if applicable, the testing consultant being used
	- within 15 days of the completion of each test performed, as to the specific test results, and if a test failed, the specific actions to be taken to correct the problem and the next planned test time and date
	- 30 days prior to any construction, installation, or significant modification using Form Env-Wm 1404-A, Stage I Vapor Recovery Notification
	- within 10 days after a change in usage from gasoline to another product or another product to gasoline using Form Env-Wm 1404-A, Stage I Vapor Recovery Notification
	- within 10 days after a change in any item specified in Form Env-Wm 1404-A, Stage I Vapor Recovery Notification.
	
	Verify that the owner provides the following information on Form Env-Wm 1404-A, Stage I Notification Form:
	
	- the facility or plant's:
	  - name
	  - physical address
	  - mailing address
	  - telephone number
	  - facsimile number
	  - site number
	- the owner's:
	  - name
	  - physical address
	  - mailing address

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	- telephone number - facsimile number - e-mail address - contact person responsible for the stage I system at the facility or plant - name - physical address - mailing address - telephone number - facsimile number - e-mail address - a description of stage I equipment, including but not limited to, the two-point or coaxial stage I system - the number of gasoline storage tanks and the grade of gasoline in each tank - the date when construction, installation, or significant modification of the facility or plant occurred.
ST.15.23.NH. Owners or operators of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant must comply with Stage I system recordkeeping requirements (NHCAR Env-Wm 1404.15) [Added March 2005].	(NOTE: See ST.15.17.NH. for applicability.) Verify that the owner or operator of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant maintains on site current Env-Wm 1404 rules and provides to the department upon request the following records: - record of installation, indefinitely - all bulk liquid receipts - all information pertinent to equipment failures, repairs, and maintenance, for the preceding 3 yr - a record of each a monthly and annual maintenance inspection with a description of all repair work completed on the stage I system for the preceding 3 years - a copy of all stage I vapor recovery notification forms submitted to the department for the preceding 3 years Verify that the owner or operator of a gasoline storage tank at a gasoline dispensing facility or a bulk gasoline plant maintains on site the manual entitled, "New Hampshire Department of Environmental Services Gasoline Vapor Recovery Test Procedures and Inspection Manual". Verify that with the exception of facilities equipped with a stage II system, the owner or operator of a gasoline storage tank at a gasoline dispensing facility in Hillsborough, Merrimack, Rockingham, or Strafford county submits to the department facility throughput information for the previous calendar year by April 30 of each year.
ST.15.24.NH. Gasoline storage tanks at a gasoline dispensing facility must meet	(NOTE: The owner or operator of a gasoline storage tank at a gasoline dispensing facility complies with the stage II requirements if the facility: - meets the applicability criteria for a stage I system (see ST.15.17.NH.)

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Stage II vapor recovery requirements (NHCAR Env-Wm 1404.17 and 1404.18(a)) [Added March 2005].	- is located in Hillsborough, Merrimack, Rockingham, or Strafford county - meets one of the following criteria: - the facility has an annual throughput for any year which is equal to or greater than 420,000 gallons - the facility was constructed after November 15, 1990, regardless of the amount of throughput. Once a facility meets the applicability criteria the owner of operator is subject to the stage II requirements even if a reduction in annual throughput occurs which would otherwise exempt the owner or operator from these requirements.) (NOTE: Owners or operators exempt from these requirements include - the owner or operator of a facility servicing only motorized water vessels, airplanes, or agricultural equipment - the owner or operator can demonstrate to the department that 90 percent of the vehicles in the fleet are equipped with ORVR by submitting an annual report to the department demonstrating that the fleet continues to meet this criterion. Verify that the owner of an applicable gasoline tank or dispensing facility complies with all of the following requirements: - install, maintain, and operate a stage II system that is a certified vapor recovery system or a department approved alternative - recover at least 95 percent of all gasoline vapors at the facility or be at least as efficient as the manufacturer's design efficiency, whichever is higher - use a two-point system at all assist system facilities - label each PV vent cap with the cap's rated pressure and vacuum relief settings - position the label so that it is visible from ground level - equip a stage II system with a submerged fill tube - equip each vent pipe on an underground or aboveground gasoline storage tank with a PV vent cap. Verify that, unless otherwise specified for a certified vapor recovery system, the owner or operator installs a stage II system with a PV vent cap setting as follows: - for pressure, 3.0 inches water column pressure (1.7 oz/in2) - for vacuum, 8.0 inches water column vacuum (4.6 oz/in2). Verify that prior to performing the dynamic back pressure test, the owner or operator of each stage II facility permanently installs a test tee fitting at each dispenser. Verify that the test tee fitting is equipped with a plug securely threaded into the branch connection and is easily accessible to allow for testing of the vapor return piping.

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ST.15.25.NH. Stage II vapor recovery equipment must meet maintenance requirements (NHCAR Env-Wm 1404.19) [Added March 2005].	(NOTE: See applicability in ST.15.24.NH.) Verify that Stage II equipment is maintained and properly operated as specified by the manufacturer. Verify that Stage II equipment, except P/V relief valves, is lead free, vapor tight, and operates properly. Verify that monthly maintenance inspections of all stage II equipment at the facility or plant are conducted (see Appendix 10-3 for requirements). Verify that annual maintenance inspections of all stage II equipment at the facility or plant are conducted (see Appendix 10-4 for requirements). Verify that any gasoline dispenser nozzle is tagged as "Out of Order" if the nozzle connected to a stage II system is not operating as specified Verify that no person uses of a system or component marked "Out of order" until it has been repaired, replaced, or adjusted, as necessary. Verify that, for a balance system, the following maintenance routine is performed once per day: - remove each nozzle from its dispenser holder - extend the hose to create a straight section of sloping hose section between the high point of the hose and the nozzle - pull back the nozzle bellows to open the nozzle vapor valve - drain all residual liquid gasoline out of the vapor portion of the nozzle and hose into a container approved for gasoline storage.
ST.15.26.NH. Stage II vapor recovery equipment must meet operational requirements (NHCAR Env-Wm 1404.22) [Added March 2005].	(NOTE: See applicability in ST.15.24.NH.) Verify that no person transfers gasoline from a gasoline storage tank at a gasoline dispensing facility into motor vehicle fuel tanks unless the facility is operating with a stage II system or a department approved alternative. Verify that no person deliberately or negligently vents any captured vapors to the atmosphere. Verify that no person deliberately or negligently mishandles gasoline so that it would result in evaporation into the atmosphere, including spilling, discarding into a sewer, or storing in an open container. Verify that the owner or operator of a gasoline dispensing facility using a stage II system posts the following in a conspicuous location in the gasoline dispensing area: - a warning that topping off is prohibited because it could result in spillage or

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	return of gasoline into the gasoline storage tank - the department telephone number for reporting difficulties with stage II equipment and equipment malfunctions.
ST.15.27.NH. Stage II vapor recovery equipment must meet testing requirements (NHCAR Env-Wm 1404.23(a), (b), (f) through (i)) [Added March 2005].	(NOTE: See applicability in ST.15.24.NH.) Verify that stage II systems are tested at least once every 3 years. Verify that stage II tests are performed at the following times: - no later than 15 days after completion of installation of a new stage II system - no later than 15 days after completion of any significant modification to an existing stage II system - within 90 days prior to the expiration date of any stage II - no later than 30 days following an inspection by the department demonstrating that a facility does not meet the requirements of this section and the applicable stage II system or a department approved alternative in accordance with Env-Wm 1404.36. Verify that the following steps are completed for any facility that does not successfully pass all of the criteria in the applicable vapor recovery tests: - perform a successful stage II retest within 30 days of the test failure - retest only those portions of the original test which failed the applicable criteria if the modifications performed to repair the facility or plant have not altered the portion of the system which passed the original test. Verify that testing is only performed on non-holiday weekdays between the hours of 8:00 a.m. and 4:00 p.m., unless otherwise arranged with the Division. (NOTE: Tests conducted without oversight by the Division are invalid for purposes of certification.) Verify that testing for the purposes of certification is not conducted at facilities with incomplete Stage II installations or where backfill, pavement or cement work around Stage II components are not complete. Verify that testing at the facility is conducted only if all volumetric liquid gasoline measuring devices at each dispenser have been calibrated. (NOTE: See Appendix 10-5 for Stage II testing procedures.)
ST.15.28.NH. Gasoline storage tanks at a gasoline dispensing facility subject to Stage II vapor recovery rules	(NOTE: See applicability in ST.15.24.NH.) Verify that the owner meets the following notification deadlines to the department

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must meet notification requirements (NHCAR Env-Wm 1404.23(e) and 1404.25) [Added March 2005].	by facsimile, letter, or e—mail for Stage II testing:
	
	- at least 7 working days prior to any proposed test date, test time and testing consultant be using, if applicable.
	- within 30 days of the completion of the test, notifies the department of the specific test results and data collected during the testing
	- reports to the department any test failure within 24 hours, unless the cause is immediately determined and corrected and the failure did not result in a release of vapors to the environment
	
	Verify that when a transfer of ownership of any gasoline dispensing facility takes place, the new owner notifies the department to the department within 10 days of the transfer.
	
	Verify that the owner or operator notifies the department within 10 days after a change in any of the following items:
	
	- the facility or plant's:
	  - name
	  - physical address
	  - mailing address
	  - telephone number
	  - facsimile number
	  - site number
	- the owner's:
	  - name
	  - physical address
	  - mailing address
	  - telephone number
	  - facsimile number
	  - e-mail address
	- contact person responsible for the stage I system at the facility or plant
	  - name
	  - physical address
	  - mailing address
	  - telephone number
	  - facsimile number
	  - e-mail address
	- a description of stage II equipment, including but not limited to, the type of system, either balance or assist, and the type of vapor assist, if applicable
	- gasoline dispenser information, including but not limited to, the number of dispensers and number of nozzles at each dispenser
	- the number of gasoline storage tanks and the grade of gasoline in each tank
	- the date when construction, installation, or significant modification of the facility occurred.

ST.15.29.NH. Gasoline storage tanks at a gasoline	(NOTE: See applicability in ST.15.24.NH.)

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dispensing facility subject to Stage II vapor recovery rules must meet recordkeeping requirements (NHCAR Env-Wm 1404.26) [Added March 2005].	Verify that the owner or operator of a gasoline storage tank at a gasoline dispensing facility maintains and provides to the department within 48 hours upon the request of the department the following records : - all records of installation for the life of the system - current Env-Wm 1404 rules for the life of the system - bulk liquid receipts for 3 years - all information pertinent to equipment failures, repairs, and maintenance for the life of the system - a copy of the facility's current permit to operate, in a visible location for 3 years - as applicable, each daily balance system maintenance performed for 3 years - each monthly maintenance inspection, with a description of all repair work completed on the vapor recovery system for 3 years - each annual maintenance inspection or alternative with a description of all repair work completed on the vapor recovery system for the life of the system - a copy of all stage II gasoline vapor recovery notification forms submitted to the department for 3 years
ST.15.30.NH. Gasoline storage tanks at a gasoline dispensing facility subject to Stage II vapor recovery rules must be permitted (NHCAR Env-Wm 1404.27) [Added March 2005].	(NOTE: See applicability in ST.15.24.NH.) Verify that the owner or operator of a gasoline dispensing facility has a valid permit to operate. Verify that the permit to operate is displayed in a prominent place easily visible for inspection at the facility.

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ST.20. **EMISSIONS/ DISCHARGES FROM VOL STORAGE VESSELS**	
ST.20.1.NH. All vertical fixed-roof VOL storage tanks where storage capacity exceeds 150,000 L (40,000 gal) must control VOC emissions (NHCAR Env-A 1204.38) [Revised March 2004].	(NOTE: This checklist item applies to all vertical fixed-roof VOL storage tanks where capacity exceeds 150,000 L (40,000 gal) except for: - any tank having a storage capacity between 150,000 and 1,600,000 L (between 40,000 and 420,000 gal), which is used to store produced crude oil and condensate prior to lease custody transfer - any tank used to store a VOL with a maximum true vapor pressure of less than 10.5 kPa (1.52 lb/in.^{2} atmospheric) under actual storage conditions, as verified by records maintained consistent with the provisions of Env-A 903.) Verify that the tank is retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall. Verify that closure seals are maintained such that there are no visible holes, tears, or other openings in the seals or any seal fabric or materials. Verify that all openings, except stub drains, are equipped with covers, seals, or lids which are kept closed at all times except when in actual use. Verify that automatic bleeder vents remain closed at all times except when the roof is floated off or being landed on the roof leg supports. Verify that rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. Verify that, for a tank equipped with a single-seal system, visual inspections are conducted: - of the internal floating roof and its closure seal(s) through roof hatches at least once every 12 months - of the internal floating roof, seal(s), gaskets, slotted membranes, and sleeve seals at least once every 10 years or each time the tank is emptied and degassed, whichever occurs first. Verify that, for a tank equipped with a double-seal system, visual inspections are conducted either: - as specified for a tank equipped with a single-seal system or - of the internal floating roof, seal(s), gaskets, slotted membranes, and sleeve seals at least once every 5 years or each time the tank is emptied and degassed, whichever occurs first. (NOTE: As an alternative to the control techniques specified in (d), above, above-

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	ground, vertical fixed roof tanks meeting the applicability criteria of this section may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)
ST.20.2.NH. Storage tanks with external floating roof tanks where storage capacity between 150,000 L and 1, 6000,000 L must comply with VOC control requirements (NHCAR Env-A 1204.39) [Revised March 2004].	(NOTE: This checklist item applies to storage tanks with external floating roofs, where storage capacity exceeds 150,000 L (40,000 gal), except for: - any tank having a storage capacity between 150,000 and 1,600,000 L (between 40,000 and 420,000 gal), which is used to store produced crude oil and condensate prior to lease custody transfer - any tank used to store a VOL with a maximum true vapor pressure of less than 10.5 kPa (1.52 psia) under actual storage conditions, as determined by methods described in API Chapter 19.2, "Evaporative Loss From Floating Roof Tanks", first edition, April 1997, and as verified by records maintained consistent with the provisions of Env-A 903 - any tank used to store waxy, heavy-pour crude oil - any tank used to store VOL which: - has a maximum true vapor pressure of less than 27.6 kPa (4.0 psia) - is of welded construction - was equipped with one of the following prior to August 31, 1995: - a metallic shoe seal - a liquid-mounted foam seal - a liquid-mounted liquid-filled type seal - an EPA-approved closure equipment of demonstrated equivalence - any tank that: - is of welded construction - was equipped with one of the following prior to August 31, 1995: - a metallic-type shoe primary seal - a shoe-mounted secondary seal.) (NOTE: Exempt VOL storage tanks may be subject to ST.20.6.NH.) Verify that the tank is fitted with a rim-mounted secondary seal or a closure or other device that: - controls VOC emissions with an effectiveness equal to or greater than a rim-mounted secondary seal - is approved by the USEPA Administrator as a state implementation plan or Federal implementation plan revision. Verify that all seal closure equipment is maintained such that there are no visible holes, tears or other openings in the seals or seal fabric. Verify that the seals remain intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall. Verify that, for floating roofs equipped with vapor-mounted primary seals, the accumulated area of gaps exceeding 0.32 cm (0.125 in.) in width between the secondary seal and the tank wall cannot exceed 21.2 cm^2/m (1.0 $in.^2/ft$) of tank

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	diameter. Verify that all openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves are equipped with covers, seals, or lids in the closed position, except when the openings are in actual use, and have projections into the tank that remain below the liquid surface at all times. Verify that automatic bleeder vents remain closed at all times except when the roof is being floated off or being landed on the roof leg supports. Verify that rim vents are set to open when the roof is being floated off the leg supports or at the manufacturer's recommended setting. Verify that emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90 percent of the area of the opening. Verify that inspections are performed semiannually to ensure compliance. Verify that the secondary seal gap is measured annually when the floating roof is equipped with a vapor-mounted primary seal. (NOTE: Compliance is determined by the following: - physically measuring the length and width of all gaps around the entire circumference of the secondary seal in each place where a 0.32 cm (0.125 in.) uniform diameter probe passes freely, without forcing or binding against the seal, between the seal and the tank wall - summing the area of the individual gaps.) (NOTE: As an alternative to the control techniques specified above, an external floating roof tank meeting the applicability criteria of this section may satisfy the requirements of this section by complying with the RACT order provisions in Env-A 1204.05 and Env-A 1204.06.)

ST.20.3.NH. VOL storage tanks must comply with recordkeeping requirements (NHCAR Env-A 904.06) [Citation Revised April 1998; Revised March 2007; Revised March 2008].	Verify that, for fixed-roof or external floating-roof tank VOL storage, the following information is recorded and maintained:
	
	- individual storage tank data, if applicable, including the following:
	  - tank capacities
	  - volume and type of VOL stored
	  - for storage tanks and bulk gasoline loading terminals, daily throughput, under a typical high ozone season day
	- for VOL storage tanks, a record of the maximum true vapor pressure of the liquid as stored
	- for VOL storage tanks exempted but containing a VOL with a true vapor pressure greater than 7.0 kPa (1.0 psi):
	  - average monthly storage temperature
	  - type of liquid stored

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	- maximum true vapor pressure for any VOL with a true vapor pressure exceeding 7.0 kPa (1.0 psi) - air pollution control information, - for VOL storage tanks, seal type and date of retrofit, if applicable - for VOL storage tanks, records of malfunctions, visual leak inspection results, startups and shutdowns, including reports and results of inspections of roofs (fixed roof and eternal floating roof tanks) - records of VOC emission testing and all continuous emission monitoring data.
ST.20.4.NH. [Deleted March 2007].	(NOTE: NHCAR Env-A 901.07 is reserved.)
ST.20.5.NH. Fixed-roof tank VOL storage facilities must comply with specific VOC test methods 1204.11 (NHCAR Env-A 804.18) [Revised March 2007].	Verify that, when performing a visual inspection of the internal floating roof and its closure seal(s), the owner or operator of a fixed-roof VOC storage tank inspects for all of the following: - the cover is uniformly floating on or above the liquid - the surface of the cover has no visible defects - the cover has no accumulated liquid - the seal is intact and uniformly in place around the circumference of the cover between the cover and tank wall.
ST.20.6.NH. Exempt VOL storage tanks must meet specific VOC-related recordkeeping requirements (NHCAR Env-A 904.06 (a)(5) (5)) [Added March 2000; Citation Revised March 2008].	Verify that, for VOL storage tanks exempted from the requirements of ST.20.1.NH. and ST.20.2.NH., but containing a VOL with a true vapor pressure greater than 7.0 kilopascals (KPa) (1.0 pound per square inch atmospheric (psi)), maintain the following records: - average monthly storage temperature - type of liquid stored - maximum true vapor pressure for any VOL with a true vapor pressure exceeding 7.0 kPa (1.0 psi).
ST.20.7.NH. [Deleted March 2008].	(NOTE: These requirements were repeated in ST.10.5.NH. for bulk gasoline terminals and ST.20.3.NH. for VOL storage vessels.)

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ST.30. **UST STATE-SPECIFIC**	
ST.30.1.NH. Plans for the installation, construction, or substantial modification of a UST system must be approved (NHCAR Env-Wm 1401.20) [Citation Revised April 1998; Revised March 2006].	Verify that the owner submits plans and a completed application to the Department at least 90 days prior to commencing construction or installation of a new or replacement underground storage system or a substantial modification of an UST system. Verify that the plans are prepared and stamped by a registered professional engineer, licensed to practice in the state of NH. Verify that an owner does not cause or allow a change that is not in accordance with the approved plans and all terms and conditions of the Department's approval. (NOTE: An approval granted for construction or installation of a corrosion prevention system, or a new or replacement underground storage tank system, or a substantial modification of an underground storage tank system shall be valid for one year from the date of issuance. If construction of the installation is not completed within one year, the approval shall be void.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.30.2.NH. All UST facilities must have a permit issued by the Department before commencing operations (NHCAR Env-Wm 1401.07(a) through (c), (g), and (i)) [Revised April 1998; Revised March 2006].	Verify that no person operates an underground storage facility without a permit issued by the Division. Verify that the owner of an underground storage facility applies to the Department for a permit to operate. Verify that a permit is displayed in such a way as to be permanently affixed on the facility premises and visible to a department inspector. Verify that the owner applies for permit renewal by providing the information required at least 60 days prior to the permit expiration date. (NOTE: A permit is valid for 5 years and applies to all underground storage tanks at the facility.) (NOTE: If a written request for a permit is not received by the Department, the owner must cease operating the facility no later than the permit expiration date, and the owner shall close all systems at the facility.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.30.3.NH. UST facilities must be registered with the Department (NHCAR Env-Wm 1401.04 and 1401.06) [Revised April 1998; Revised March 2006].	Verify that the owner of an underground storage tank registers the facility with the Department: - the type of owner, such as federal government, state government, local government, commercial, or private - the type of facility, such as gas station, petroleum distributor, air taxi, aircraft owner, auto dealership, railroad, local government, state government, federal non-military, federal-military, commercial, industrial, contractor, trucking/transportation, utilities, farm or residential, or other - the number of tanks permanently closed, and the date of such closure for each tank - the number of tanks temporarily closed, and the date of such closure for each tank - the certification of compliance - change in ownership - proof of financial responsibility. Verify that the owner agrees to and signs the following: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete." Verify that this information is submitted on a form obtained from the Division. Verify that no person operates an underground storage facility that is not registered with the Division. Verify that owners report in writing any change in information on the form within 10 days of the change. Verify that, if UST ownership is disputed, the owner of the property on which the UST is located registers the UST. Verify that, for new systems or substantial modifications of existing systems, a new or amended registration form is filed with the Department at the time of final inspection of the system. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.30.4.NH. Owners must meet specific requirements upon the transfer of ownership of a UST (NHCAR Env-Wm 1401.08) [Citation Revised April 1998; Revised	Verify that the new owner files an amended registration form with the Division within 10 days of the transfer when a transfer of ownership of any UST, facility, or system takes place. Verify that the seller delivers to the buyer all documents and information related

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March 2006].	to the tanks, facility, or system regarding: - inventory - new installations - testing - closure or removals - lining - monitoring - sampling and analysis - site assessments - equipment maintenance - repairs - compliance history - any other records required to be maintained by these rules. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.30.5.NH. [Deleted April 1998].	
ST.30.6.NH. [Deleted March 2005].	(NOTE: NHCAR Env-Wm 1401.40 revised.)
ST.30.7.NH. [Deleted April 1998].	
ST.30.8.NH. UST owners must submit installation certification prior to placing the UST into service (NHCAR Env-Wm 1401.28 (am)) [Added March 2006].	Verify that, prior to the Department authorizing an UST system being placed into service, the owner submits to the Department a letter prepared and stamped by a New Hampshire licensed professional engineer stating that the installation has been completed in accordance with the department's approved plans and the requirements for positive limiting barriers at dispensing areas (1401.28(v)), bollards installed around free standing vents ((ag)), stormwater management ((ak) and (al)). (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.35. **NEW OR UPGRADED USTs**	
ST.35.1.NH. All new USTs must comply with specific tank manufacturing and design standards (NHCAR Env-Wm 1401.21(a) through (e) and (h)) [Revised April 1998; Revised March 2006].	Verify that all glass fiber reinforced plastic USTs designed for storing regulated substances are manufactured in accordance with standards of Underwriters Laboratories, Inc., UL 1316, or Underwriters Laboratories of Canada, ULC-S615-1998. Verify that all double-walled steel USTs designed for storing regulated substances are manufactured with outer jackets of a minimum of 10 gauge in thickness and in accordance with Underwriters Laboratories Inc., UL 58, Standard for Steel Underground Tanks for Flammable and Combustible Liquids. Verify that all composite USTs designed for storing regulated substances are manufactured in accordance with Underwriters Laboratories Standard 1746, or the Association for Composite Tanks ACT-100 or ACT 100-U. Verify that all USTs designed for storing regulated substances and constructed of steel are manufactured in accordance with one of the following standards: - Underwriters Laboratories of Canada, Inc. ULC-603-1992, Underground Steel Tanks - Underwriters Laboratories, Inc., USA, UL 58, Steel Underground Tanks for Flammable and Combustible Liquids - Code for Unfired Pressure Vessels Section VIII, Division I of the ASME Boiler and Pressure Vessel Code. Verify that all jacketed underground storage tanks designed for storing regulated substances are manufactured in accordance with Underwriters Laboratories Standard UL 1746 Part III or Underwriters Laboratories of Canada ORD-C58.10-1992, Underground Jacketed Steel Tanks. Verify that no alterations of any kind are made to the tank without the tank manufacturer's written approval. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.2.NH. All new USTs must provide secondary containment (NHCAR Env-Wm 1401.21(f) and (g) and 1401.23 [Revised April 1998; Revised March 2006].	Verify that all tanks are provided with secondary containment that encloses 360 degrees of the inner tank. Verify that the secondary containment wall or envelope is not in contact with the inner wall, such that a leak of the inner tank would not be detected due to restriction of product flow to the monitoring sump.

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	Verify that all secondary containment access ports are installed to permit access without the need for excavation and protected against unauthorized access and tampering.
ST.35.3.NH. New UST underground piping must meet secondary containment requirements (NHCAR Env-Wm 1401.24) [Revised April 1998; Revised March 2006].	Verify that, with the exception of vent piping, all underground storage piping systems that routinely contain regulated substances have secondary containment by utilizing double-wall piping. Verify that piping systems continuously slope at a minimum of 1/8 inch per foot to direct any leakage from the primary piping to a liquid-tight piping sump with a piping sensor. Verify that a piping sump is installed at each tank. Verify that a liquid-tight dispenser if installed directly beneath each dispenser to contain discharges. Verify that dispenser sumps have continuous leak detection monitoring by the piping sump sensor or the dispenser sump is equipped with a sump sensor. Verify that piping installed for the purpose of siphoning regulated substances is equipped with a liquid-tight piping sump and piping sensor at all interconnected tanks. Verify that all piping and dispenser sumps are maintained free of liquid and debris. Verify that all piping and dispenser sumps are liquid-tight to contain liquids and are installed to prevent the intrusion of groundwater or surface water runoff. Verify that all piping and dispenser sumps are equipped with liquid-tight penetration fittings for all sump entries. Verify that all piping and dispenser sump sensors are installed to respond to small accumulations of liquids within the sumps. Verify that dispenser sump sensors are installed in accordance with the manufacturer's requirements for installations. Verify that all remote fill pipes meet the following requirements: - have double-wall piping - the piping system continuously slopes at a minimum of 1/8 inch per foot to direct any leakage from the primary piping to a liquid-tight piping sump with a piping sensor - leak monitoring is continuously operated - sensors associated with leak monitoring is installed in accordance with the manufacturer's requirements and maintained in good working order.

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	(NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.4.NH. Leak monitoring must be installed and continuously operated for all new USTs (NHCAR Env-Wm 1401.26) [Revised April 1998; Revised March 2006].	Verify that leak monitoring is installed and continuously operated for all new tanks. Verify that double-walled tanks have continuous monitoring of the interstitial space for both the regulated substance and water. Verify that sensors associated with leak monitoring for new and existing tanks is installed in accordance with the manufacturer's requirements for installation and maintained in good working order to perform their original function. Verify that the interstitial space is free of debris, water, and the regulated substance. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.5.NH. New underground piping systems must be equipped with a leak monitoring system (NHCAR Env-Wm 1401.27) [Revised April 1998; Revised March 2006].	Verify that a UL-approved line leak detector is employed which will be capable of detecting a line leakage rate of at least 3 gal/h at 10 psi, and will shutoff, restrict product flow or otherwise notify the operator if the leakage rate is exceeded. Verify that the owner test each automatic line leak detector annually to confirm that it is operating according to manufacturer's recommendations. Verify that the interstitial space of the double wall piping or the annular space between the primary piping and the secondary containment system is continuously monitored to detect the presence of both water and the regulated substance. Verify that the piping sump has a leak monitor activated by liquid or by vapors of the regulated substance. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.6.NH. All new USTs must have a wear plate (NHCAR Env-Wm 1401.21(i)) [Citation Revised April 1998; Citation Revised March 2006].	Verify that all new tanks have a wear plate constructed of steel or glass fiber reinforced plastic installed under each tank opening covering an area of at least 144 square inches, for purposes of protecting the tank wall from abrasion or puncture. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.7.NH. All new USTs	Verify that new USTs bear a stencil, label or plate which contains the following

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must be labeled (NHCAR Env-Wm 1401.21(j)) [Citation Revised April 1998; Revised March 2006].	information: - the standard of design by which the tank was manufactured - the yr in which the tank was manufactured - the dimensions and capacity of the tank - the name of the manufacturer. Verify that a certificate which shows all of this information, and which also shows the date of installation and the regulated substances and percentages by volume of any additives that may be stored permanently and compatibly within, is conspicuously displayed and permanently affixed at the facility premises. Verify that the certificate is displayed in such a way as to visible to a Department inspector and permanently affixed on the facility premises. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.8.NH. Substances stored in new USTs must be compatible with the tank liner or wall (NHCAR Env-Wm 1401.21(m)) [Citation Revised April 1998; Citation Revised March 2006].	Verify that the regulated substance stored are compatible with the interior lining or wall of the tank and all components, gaskets, sealants, that will be in contact with the stored substance. (NOTE: If the regulated substance stored is changed, and it is not listed as a substance that is compatible with the tank, a written confirmation from the manufacturer will be obtained certifying the compatibility of the liquid with the system, prior to the change.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.9.NH. Owners/operators of new USTs must maintain specific documents (NHCAR Env-Wm 1401.21(l)) [Revised April 1998; Citation Revised March 2006].	Verify that documents describing manufacturer's warranties, equipment items, contractor, equipment maintenance, repairs or testing, and all other information pertinent to the tank installation and system components are kept at the facility for the life of the system. (NOTE: These records will be transferred to the new owners at the time of a transfer of facility ownership.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.10.NH. All new underground pipes, fittings, and connections must meet design and construction standards (NHCAR Env-Wm 1401.22) [Revised April	Verify that all new underground pipes, fittings, and connections are constructed of fiberglass reinforced epoxy, thermoplastic material extrusions, steel or copper and comply with the American Society of Mechanical Engineers, B313, Process Piping, and B 31.4, Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids.

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1998; Revised March 2006].	Verify that fiberglass reinforced epoxy piping meets ASTM Specification D-2996-71, Standard Specification for Filament Wound RTRP, Underwriters Laboratory Subject 971 "Listed nonmetal pipe" or Underwriters Laboratories of Canada Guide ULC- 107 "Glass Fiber Reinforced Plastic Pipe Fittings for Flammable Liquids"; ultimate sheer strength of adhesive and curing agent will be in compliance with ASTM D-2517-66T, as approved and supplied by manufacturer. Verify that thermoplastic extrusion flexible piping meets Underwriters Laboratories Standard for Non-Metallic Underground Piping for Flammable Liquids, Subject 971. Verify that steel or iron piping are Schedule 40 or heavier. Verify that underground metal piping systems have di-electric bushings installed to electrically isolate the piping system from the tank and the dispenser, or other end use point, and at any change in the metal type, such as at flexible connectors, except when cathodic protection is provided by impressed current. (NOTE: If metal pipe is totally isolated from the soil via secondary containment, cathodic protection of the piping is not required.) Verify that piping systems provide flexibility for movement at the tank end, dispenser end, and at piping direction changes to relieve stress. Verify that all new underground piping systems are designed, constructed, and installed with access and isolation points to permit independent pressure testing of the tank and piping without the need for excavation. Verify that pressure and temperature limitations meet ANSI B31, American National Standard Code for Pressure Piping or the manufacturer's requirements and recommendations. Verify that the piping system and all components, gaskets, sealants that will be in contact with the stored substance are compatible with the stored substance. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.11.NH. UST installation must be performed according to the manufacturer's requirements and national and industry codes (NHCAR Env-Wm 1401.28(a)) [Revised April 1998; Revised March 2006].	Verify that any person installing a tank or individual system components is certified for underground storage tank installation and retrofitting by the International Code Council (ICC). Verify that the certified tank installer is qualified by the equipment manufacturer for every component of the system and has an understanding of the national underground storage tank regulations and the industry codes of practice. Verify that, when requirements are not specified by the manufacturer, the certified tank installer installs the tank or individual system component according to the

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	Petroleum Equipment Institute, RP 100, Recommended Practices for Installation of Underground Liquid Storage Systems, American Petroleum Institute, API 1615, Installation of Underground Petroleum Storage Systems, and API 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems. Verify that the installer complies with safety and testing requirements according to NFPA 30, Flammable and Combustible Liquids Code, NFPA 30A, Motor Fuel Dispensing Facilities and Repair Garages and NFPA 329, Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.12.NH. [Deleted April 1998].	(NOTE: This checklist item moved to ST.45.2.NH.)
ST.35.13.NH. UST primary piping, secondary containment, vent piping, and stage II piping must meet installation requirements (NHCAR Env-Wm 1401.28(b), (c), (d), (e), (f), (g), and (h)) [Revised April 1998; Revised March 2006].	Verify that the certified tank installer performs a piping pressure test to the primary piping, secondary containment, vent piping, and stage II piping after installation and prior to backfill to determine tightness in accordance with the manufacturer's test requirements. Verify that, when no manufacturer's test requirements are specified, API, RP 1615 is used for testing. Verify that, when no manufacturer's test requirements are specified for the secondary containment piping, the certified tank installer performs the following: - pressurize flexible secondary containment piping at 5 psi and maintain the pressure for minimum period of 10 minutes before backfill - pressure nonflexible secondary containment piping at 10 psi and maintain the pressure for a minimum period of 10 minutes before backfill. Verify that all installed secondary piping is pressurized according to one of the above methods and the following requirements are met: - the required pressure is maintained for a minimum period of 2 hours after the backfill process was completed - remove all testing equipment to allow leak monitoring of piping. Verify that test gauge ranges conform with nationally recognized industry codes of practice. Verify that all piping joints and connections were soaped and observed for leaks for the duration of the piping pressure test. Verify that the installer certifies and files the results of the above tests before the

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	piping system was backfilled. Verify that the installer certifies and files the results of the pressurization with the facility owner within 20 days of the test. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.14.NH. UST installed sumps must meet tightness testing requirements (NHCAR Env-Wm 1401.28(i), (j), (k), (l), (m), and (n)) [Added March 2006].	Verify that the certified tank installer tests all installed sumps for tightness in accordance with the manufacturer's test requirements. Verify that, when no manufacturer's test requirements are specified, the installer performs with a hydrostatic test or a pneumatic test. Verify that the hydrostatic sump tightness test meets the following requirements: - performed after all seams, piping connections, and conduits to the sump have been completed and installed - at a level that is within 1 inch of the top of the sump or 12 inches above the highest penetration through the sump - by recording the liquid level measurement at the beginning and the end of the test - for a minimum of 3 hours - with no addition of liquid to the sump. Verify that the hydrostatic sump tightness test has no loss of liquid or observed leaks after the complete duration of the test. Verify that pneumatic sump test is performed at a pressure and duration required by the manufacturer of the testing equipment or nationally recognized industry codes of practice. Verify that the installer certifies and files the results with the Department and the owner at the time of the backfill inspection of the system. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.15.NH. UST installation must meet management and operational requirements (NHCAR Env-Wm 1401.28 (o), (s), (t), (u), (v), (w), (af), (ag), (ah), (ai), (ak), and (al)) [Added March 2006].	Verify that, for steel tanks, the tank coating is thoroughly inspected, and any scratches, gouges, voids, or other discontinuities found in the coating are repaired according to the manufacturer's requirements prior to installation. Verify that systems are not be installed in areas subject to flooding over the top of the tank unless provisions are made to ensure that the tank will not float and its contents do not escape during a flood. (NOTE: For areas where the ground surface is below the 100 yr flood elevation, special provisions for tank anchor and product containment will be provided to the

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	Division.) Verify that all new underground piping is laid out to minimize crossovers and, within construction limits, will run in a compact trench to the point of use. Verify that piping slopes continuously towards the tank at a minimum of 1/8 in. /ft. Verify that a concrete pad having positive limiting barriers is utilized at dispensing areas. Verify that the positive limiting barriers are constructed and maintained to contain a volume of at least 5-gallons for each dispenser. Verify that dispensing nozzles do not extend beyond positive limiting barriers. Verify that, when spill containment is installed within a secondary containment sump, the secondary containment sump is equipped with a sump sensor. Verify that spill containment equipment is tested for tightness in accordance with the manufacturer's requirements or nationally recognized industry codes of practice and the results are submitted to the Department at the time of inspection. Verify that bollards are installed around free standing vents to prevent damage. Verify that spill containment equipment is installed on all Stage I riser pipes. Verify that swivel adaptors are installed on all fill riser pipes. Verify that all line leak detectors are tested in accordance with the manufacturer's requirements and the passing test results are submitted to the Department before the product is used for consumption. Verify that storm water runoff from underground storage tank facilities are not discharged to the subsurface. Verify that storm water is not directed to flow over any tank pad or dispensing pad. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.16.NH. UST installation must meet notification and inspection requirements (NHCAR Env-Wm 1401.28 (x), (y), (z), (aa), and (ab)) [Added March	Verify that the owner notifies the Division of the completion of the installation of a new system at least 5 days prior to final backfilling, to arrange for an inspection. Verify that prior to final inspection by the Division, the owner submits a letter prepared and stamped by the design engineer or engineer of a record stating that the construction has been performed in accordance with the Division's approved plans and specification at least 8 Department working hours prior to an inspection

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2006].	by the Department. Verify that the new system is not backfilled or placed into service until final inspection has been performed by the Division. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.17.NH. UST systems must be located at minimum distances from surface water and water supply wells (NHCAR Env-Wm 1401.28 (ac), (ad), and (ae)) [Added March 2006].	Verify that at all new underground storage tank sites, the system is located no closer than the following: - for all gasoline UST system at lest 500 feet from a public water system well - for all regulated substances except gasoline UST systems at least 400 feet from a public water supply well - for all gasoline UST systems at least 250 feet from a non-public water supply well - for all regulated substances except gasoline UST systems at least 75 feet from a non-public water supply well. Verify that, whenever an underground storage tank system is replaced, an attempt is made to relocate the system so that any applicable water supply well protective separation distance is achieved. Verify that, with the exception of marinas, no UST system at any new site is located closer than 75 feet from surface waters of the state. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.18.NH. UST systems at fueling facilities dispensing fuels over water must meet specific equipment and management requirements (NHCAR Env-Wm 1401.35) [Added March 2006].	Verify that UST systems at fueling facilities dispensing fuels over water meet the requirements of these rules and National Fire Protection Association, NFPA 30, Flammable and Combustible Liquids Code; 2003 Edition and NFPA 30A, Motor Fuel Dispensing Facilities and Repair Garages; 2003 Edition. Verify that piping systems where tanks are at an elevation that produces a pressure due to gravity at the dispenser are equipped with an anti-siphon device installed adjacent to and downstream from a manually operated shutoff valve. Verify that the anti-siphon device and manual shutoff valve are located inside a liquid-tight collection sump at the tank. Verify that piping systems have continuous secondary containment or be equipped with liquid tight sumps at locations where continuous secondary containment is not possible. Verify that all liquid-tight sumps have a sump sensor. Verify that piping systems are equipped with flexible secondarily contained piping

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	between any floating structure and the shore. Verify that piping systems are equipped with the readily accessible shutoff valve located on the shore, and as close to the shoreline as possible. Verify that the shutoff valve is installed adjacent to and upstream from the location employing flexible piping from a floating structure and the shore. Verify that piping systems are protected from physical damage. Verify that dispensing nozzles are automatic closing type without a device that allows the dispensing nozzle to remain open. Verify that piping is not in contact with surface water. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.35.19.NH. UST systems sumps must be tightness tested (NHCAR Env-Wm 1401.36) [Added March 2006].	Verify that all new sumps are tested for tightness within 30 days from installation, in accordance with the manufacturer's requirements. Verify that, when no manufacturer's test requirements are specified for tightness testing of sumps, the owner performs either a hydrostatic or a pneumatic test. Verify that hydrostatic test procedures meets the following criteria: - conducted after all seams and fittings have been completed and all piping and conduits have been installed - a level that is within one inch of the top of the sump or 12 inches above the highest seam or fitting through the sump - by recording the liquid level measurements at the beginning and end of the test - for a minimum of 3 hours and with no addition of liquid to the sump. (NOTE: A passing hydrostatic test has no loss of liquid or observed leaks after the complete duration of the test.) Verify that a pneumatic test conducted to determine the tightness of a sump is performed at a pressure and duration required by the manufacturer of the testing equipment or nationally recognized industry codes of practice. Verify that, when a tightness test for a sump is performed, the owner submits a tightness test report to the Department no later than 30 days after the date of the test. Verify that the tightness test report includes the following: - the facility name and registration number - the test company name, address, and telephone number

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	- the name of the test technician - the method of testing and a copy of the field technician's testing records - any other information to accurately identify the tested components - a description of any piping, fittings, or connections that were tightened or repaired - the date of last calibration and maintenance of the tightness testing equipment, if applicable - for tests other than the hydrostatic test specified above, the test duration time. Verify that the technician performing the tightness test signs a test report that certifies: - the validity, method, and accuracy of the test - the test complies with requirements of these rules - the tester is qualified to perform the test. Verify that the sump tightness test is performed as specified by the test equipment manufacturer's specifications. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.45. **UST FILLING**	
ST.45.1.NH. All owners of UST facilities must comply with regulations pertaining to the transfer of regulated substances (NHCAR Env-Wm 1401.12) [Revised March 2006].	Verify that no transfers of regulated substances are made to facilities that are not registered or that does not have a valid permit to operate. Verify that the owner, operator, or product distributor determines that the tank has sufficient receiving capacity to hold the volume to be transferred before the transfer of regulated substances into a tank. Verify that no transfer is made to a tank that is not equipped with a stage I system as required by Env-Wm 1404. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.45.2.NH. All USTs must be equipped with spill containment and overfill protection devices (NHCAR Env-Wm 1401.25) [Revised March 2006].	Verify that all underground storage tanks are equipped with spill containment and overfill protection devices. Verify that liquid-tight spill containment equipment prevents the release of product to the environment when a transfer hose is detached from a fill or transfer pipe. Verify that spill containment equipment is maintained free of liquid and debris. Verify that spill containment equipment installed with drain valves on UST systems that store gasoline have the valve replaced annually permanently sealed. Verify that all spill containment equipment is maintained to be liquid tight and tests for tightness at installation using the manufacturer's requirements or nationally recognized industry codes of practice. Verify that the UST owner receives certified tightness test results within 30 days of the test. Verify that a primary overfill protection device is installed to restrict or stop the flow of a regulated substance during a delivery before the tank reaches full capacity so that none of the fittings located on the top of the tank exposed to the regulated substance due to overfilling. Verify that all new and replacement overfill protection devices are installed to allow access for inspection of proper operation. Verify that all spill containment equipment installed on an existing or new underground storage tank system meets the following requirements:

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	- has a minimum liquid capacity of 5 gal - installed to prevent product from entering the backfill surrounding the spill containment equipment - is installed in accordance with the manufacturer's requirements and are maintained in good working order to perform their original design function. Verify that the overfill protection primary overfill protection device installed on an existing or new underground storage tank system meets the following requirements: - alerts the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or by triggering a high level audible alarm - when gravity filling a tank, alerts the transfer operator 30 min prior to overfilling by restricting flow to an ultimate rate of 5 gal/min - automatically and completely shuts off flow into the tank when the tank is no more than 95 percent full. Verify that all new underground storage tank systems utilizing suction piping and an air eliminator are equipped with a high level visual and audible alarm or with a device that automatically and completely shut off flow into the tank. Verify that all new high level alarms have both visual and audible alarms and are clearly labeled as a tank overfill alarm. Verify that the alarm is clearly visible and audible to the transfer operator. Verify that, when a product is pumped to a new underground storage tank system, the system is only equipped with a high level visual and audible overfill alarm. Verify that all gauges, alarms, or automatic or mechanical devices associated with spill containment and overfill protection are maintained in good working order to perform their original design function. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.50. **UST CORROSION PROTECTION**	
ST.50.1.NH. UST owners must submit a corrosion protection plan prior to retrofitting an unprotected UST (NHCAR Env-Wm 1401.34 (a) through (f)) [Revised April 1998; Revised March 2006].	Verify that no alterations are made to an existing cathodic protection system. Verify that, when the existing cathodic protection system is changed, to an alternate method of cathodic protection, plans and an completed application are submitted to the Department at least 90 days prior to commencing construction or installation. Verify that the corrosion protection plan is prepared by a corrosion protection expert and includes: - the alternate proposed corrosion protection system to be installed - all structures to be corrosion protected. (NOTE: Within 90 days of submission of plans and specifications, the department shall approve plans that demonstrate compliance with the requirements of these rules, or issue a notice of incompleteness or disapproval for plans that do not demonstrate compliance with these rules.) Verify that the owner does not cause or allow a change which is not in accordance with the approved plans and all terms and conditions of the Department's approval. (NOTE: An approval granted for construction or installation of a corrosion prevention system, shall be valid for one year from the date of issuance. If construction of the installation is not completed within one year, the approval shall be void.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.50.2.NH. UST owners must meet specific requirements when repairing cathodic protection systems (NHCAR Env-Wm 1401.34 (g) through (f)) [Revised April 1998; Revised March 2006].	Verify that, when an existing cathodic protection system is repaired by the installation of a similar method of cathodic protection, the owner of an underground storage tank system addresses a repair to an existing corrosion protection system as follows: - no later than 30 days after the date of the corrosion protection test, submit to the Department the required test results - submit to the Department a report prepared and signed by a corrosion expert identifying the cause of the failure and the procedures required to repair the cathodic protection system. Verify that no later than 30 days following the repair to the cathodic protection

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	system, the owner submit to the following to the Department: - a record drawing of the repair - the required corrosion protection test information - a report prepared and signed by a corrosion expert certifying the cathodic protection system repair was conducted under the direction of a corrosion expert and the repaired underground storage tank system has adequate cathodic protection. Verify that, when a failed cathodic protection system is not repaired within 90 days of the cathodic protection test date, the owner permanently closes the UST system.
ST.50.3.NH. Steel USTs must meet corrosion protection requirements (NHCAR Env-Wm 1401.32) [Added March 2006].	Verify that all new underground storage tanks are protected from corrosion. Corrosion protection for new tanks comply with 40 CFR 280.20(a). Verify that all existing steel underground storage tanks comply with 40 CFR 280.21(b)(2) or (3). Verify that all new and existing cathodic protection systems are equipped with an accessible test connection or monitor. Verify that a cathodic protection tester tests sacrificial anode systems within 6 months of installation and every 3 years thereafter. Verify that a cathodic protection tester tests impressed current systems within 6 months of installation and every 3 years thereafter. Verify that the results of the cathodic protection test includes the following: - location and name, and registration number of the facility - date of the test - testing company name and telephone number - equipment used to conduct the test - test locations and test results - tester's International Code Council or NACE certification number - tester ‘s signed certification. Verify that, when a cathodic protection test is performed, the owner send the information specified above to the Department no later than 30 days after the date of the test. Verify that tank is cathodically protected by one of the following requirements is met: - negative cathodic potential of at least 850 mV with the cathodic protection applied, which is measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte

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	- minimum of 100 mV of cathodic polarization - requirements specified in NACE International approved criteria Standard RP0285- 2002, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection. Verify that, when a cathodic protection system cannot meet the requirements above, the owner submits documentation to the Department that the repair of the cathodic protection system was performed in accordance with Env-Wm 1401.34.
ST.50.4.NH. USTs piping must meet corrosion protection requirements (NHCAR Env-Wm 1401.33) [Added March 2006].	Verify that all new underground storage tanks are protected from corrosion. Corrosion protection for new tanks comply with 40 CFR 280.20(b). Verify that all existing steel underground storage tanks comply with 40 CFR 280.21(c). Verify that all new and existing cathodic protection systems are equipped with an accessible test connection or monitor. Verify that a cathodic protection tester tests sacrificial anode systems within 6 months of installation and every 3 years thereafter. Verify that a cathodic protection tester tests impressed current systems within 6 months of installation and every 3 years thereafter. Verify that the results of the cathodic protection test includes the following: - location and name, and registration number of the facility - date of the test - testing company name and telephone number - equipment used to conduct the test - test locations and test results - tester's International Code Council or NACE certification number - tester ‘s signed certification. Verify that, when a cathodic protection test is performed, the owner send the information specified above to the Department no later than 30 days after the date of the test. Verify that tank is cathodically protected by one of the following requirements is met: - negative cathodic potential of at least 850 mV with the cathodic protection applied, which is measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte - minimum of 100 mV of cathodic polarization - requirements specified in NACE International approved criteria Standard RP0285- 2002, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection.

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	Verify that, when a cathodic protection system cannot meet the requirements above, the owner submits documentation to the Department that the repair of the cathodic protection system was performed in accordance with Env-Wm 1401.34. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.55. **UST REPAIRS**	

ST.55.1.NH. UST system tank repairs must meet specific requirements (NHCAR Env-Wm 1401.37) [Revised April 1998; Revised March 2006].	Verify that a liner is not installed to repair an underground storage tank.
	
	Verify that an underground storage tank that discharges, leaks, spills, or releases a regulated substance to the environment is permanently closed.
	
	Verify that prior to repairing an underground storage tank the owner meets the following requirements:
	
	- provide a report to the department regarding the procedures on how the repair will be accomplished
	- and either:
	  - conducts a tightness test on the primary and secondary walls within 30 days of the proposed repair or manufacturer's recommendation for testing the primary and secondary wall to ensure that the tank is sound and free of holes or fractures that may cause leaks or releases
	  - conducts an assessment (in accordance with Env-Ws 412 and Env-Wm 1403) within 30 days of the proposed repair to ensure that the tank is sound and free of corrosion and other holes or fractures that may cause leaks or releases
	- provides documentation from the tank manufacturer authorizing the repair
	- provides the name and telephone number of the certified tank installer that performed the repair.
	
	Verify that following repairs to the tank and prior to adding regulated substance the owner submits to the Department a report including:
	
	- the cause and location of the failure
	- procedure to return the interstitial space to its original operating condition
	- documentation from the tank manufacturer certifying the repair
	- the name and telephone number of the certified tank installer that performed the repair.
	
	Verify that, within 30 days of the repair and prior to adding regulated substance, the tank is tightness tested or manufacturer's recommendation for testing the primary tank and interstitial space.
	
	Verify that the owner submits all reports and documents describing the types of the tests, contractor, date, materials, all technical testing data and any other information pertinent to the work performed to the Department no later than 30 day after the test.
	
	Verify that repairs are conducted and tested in accordance with Fiberglass Petroleum Tank and Pipe Institute, Recommended Practice T-95-02, Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage

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	Tanks and the Petroleum Equipment Institute's, RP 100, Recommended Practices for Installation of Underground Liquid Storage Systems. Verify that repairs to composite tanks are conducted in accordance with industry codes of practice developed by a nationally recognized association. Verify that repairs to steel tanks are conducted in accordance with industry codes of practice developed by a nationally recognized association. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

ST.55.2.NH. UST piping system repairs ad replacements must meet specific requirements (NHCAR Env-Wm 1401.38) [Revised April 1998; Revised March 2006].	Verify that, with the exception of vent piping, single wall systems that discharge, leak, spill, or release a regulated substance to the environment are permanently closed in accordance.
	
	Verify that, when a tank is removed and replaced, the entire piping system is also replaced, unless it meets the requirements for piping and secondary containment for piping for new USTs.
	
	Verify that, prior to the repair to an integral unit of piping of less than 25 feet, the owner submits to the Department the following information:
	
	- the name and telephone number of the certified tank installer to perform the repair
	- and either:
	  - results of an assessment performed in accordance with Env-Wm 1401.18 (g)(8)
	  - results of a piping pressure test performed in accordance with the manufacturer's test requirements
	  - when no manufacturer's test requirement are specified, results of a piping pressure test performed in accordance with nationally recognized industry codes of practice
	- written approval from the piping manufacturer allowing the repair.
	
	Verify that no later than 30 days after the date of the repair to the piping system, the owner submits to the Department a written report including the following:
	
	- the cause for the failure, the work performed, and any other procedures required to repair the piping system back to original condition
	- the name and telephone number of the certified tank installer that performed the repair
	- the date of the repair
	- a passing tightness test to confirm the effectiveness of the repair.
	
	(NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.55.3.NH. [Deleted March 2006].	(NOTE: NHCAR Env-Wm 1401.36 covers the testing of sumps and is found at ST.35.17.NH.)

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RELEASE DETECTION FOR USTS **ST.60.** **General**	
ST.60.1.NH. Each UST must meet inventory monitoring requirements (NHCAR Env-Wm 1401.11(a) and (b)) [Revised April 1998; Revised March 2006].	(NOTE: See Appendix 10-1 for USTs excluded from regulation.) Verify that inventory monitoring is conducted for each UST and records are maintained separately for each tank and interconnected system. (NOTE: An UST system is exempt for inventory monitoring when one of the following occurs: - the secondary containment of the UST is continuously monitored for both regulated substance and water - the underground storage tank contains Bunker C, no.4. no. 5. or no.6 fuel oil.) (NOTE: See ST.60.1.NH. through ST.60.8.NH. for additional requirements, ST.65.1.NH. through ST.65.4.NH. for requirements for specific kinds of petroleum tanks, and ST.75.1.NH. for USTs connected to emergency generators.)
ST.60.2.NH. [Deleted April 1998].	
ST.60.3.NH. Release detection for piping must be installed and operated according to specific requirements (NHCAR Env-Wm 1401.30) [Citation Revised April 1998; Revised March 2006].	(NOTE: On-premise-use heating oil systems that are otherwise subject to these rules are exempt from these requirements.) Verify that all pressurized piping without secondary containment and leak monitoring is monitored for releases. Verify that pressure tightness tests have a detection limit equivalent to 0.1 gallon per hour at 1.5 times operating pressure. Verify that groundwater or soil gas vapor monitoring wells are not installed as a release detection mechanism. Verify that all pressurized piping is equipped with an automatic line leak detector that restricts or stops the flow of the stored substance and triggers an audible or visual alarm upon detecting a leak at a rate of 3 gal/h at a pressure of 10 lbs psi line pressure within 1 hour and meet the requirements of 40 CFR 280.40(a)(3). Verify that automatic line leak detectors are tested annually to confirm that they are operating according to manufacturer's requirements and that the test results are

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	submitted to the Division no later than 30 days after the date of the test. Verify that failed line leak detector are repaired or replaced immediately and meet the above requirements for line leak detection. Verify that the affected piping system(s) is taken out of service until satisfactory repairs are made or the line leak detector is replaced. Verify that, when existing groundwater monitoring is used the owner monitors the groundwater monitoring wells for the presence of releases at least monthly. Verify that wells are monitored in accordance with one of the following: - by the use of a continuous monitoring device that detects the presence of regulated substance or sheen on top of the groundwater in the monitoring wells - by manual methods that are able to detect regulated substance or sheen on top of the groundwater in the monitoring wells. Verify that each existing monitoring well is sampled at least annually and the collected groundwater samples are submitted to a New Hampshire-certified laboratory for analysis for the presence of regulated substance. Verify that the monitoring well test results are submitted to the Department within 30 days of the test. Verify that the owner notifies the Department within 24 hours whenever a regulated substance is detected by observation, a continuous detection device, or laboratory analysis of groundwater well samples. Verify that, when soil gas vapor monitoring is used the owner notifies the Department within 24 hours whenever vapor monitoring devices detect any increase in concentration above background concentrations. Verify that, when annual line tightness testing is used, the owner submits test results to the Department no later than 30 days after the date of the test. Verify that release detection for systems with suction or atmospheric piping is one of the following: - performance of a line tightness test about once every 3 yr - groundwater monitoring - soil vapor monitoring. Verify that pipe pressure tightness test have a detection limit equivalent to 0.1 gallon per hour at 1.5 times operating pressure. Verify that, when line tightness testing is used for suction or atmospheric piping, the owner submits test results to the Department.

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	(NOTE: Release detection will not be required for suction or atmospheric piping that is demonstrated, by Department inspection or by plans submitted by the owner, to be designed and constructed to meet the following standards: - the piping operates at less than atmospheric pressure - the piping is continuously sloped so that the contents of the piping will drain back into the storage tank if the suction is released - no more than one check valve is included in each suction line - the check valve is located directly below and as close as practical to the suction pump.) Verify that tightness test failure indicated by a test result of 0.10 gallon per hour or greater or an inconclusive test is addressed as follows: - the owner performs an investigation into the cause of the failure to determine if a release has occurred - the investigation into the cause of an initial test failure is completed within 7 days - the owner submits a written report to the Department within 30 days of the failure that describes the work performed, the repairs made, and any other actions taken in response to the test failure - any piping system that has been repaired is retested for tightness to confirm the effectiveness of the repairs. Verify that, when the cause of the failure is unknown or there is a possible release to the environment, the owner notifies the Division within 24 h of the occurrence. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.60.4.NH. UST leak monitoring equipment and devices must meet maintenance, management, and investigation requirements (NHCAR Env-Wm 1401.31) [Revised April 1998; Revised March 2006].	Verify that the leak monitoring equipment and devices are maintained in good working order to continuously perform their original design function and are tested annually for proper operation. Verify that the interstitial space or annular space for both tanks and piping is maintained free of debris and water. Verify that the owner submits the annual leak monitor test results on a form obtained from the Department. Verify that the form is submitted to the Department no later than 30 days after the date of the test. Verify that leak monitoring devices are not shutoff or deactivated at any time and that any malfunction is repaired within 15 working days. (NOTE: If the devices cannot be repaired within 15 days, the affected systems will be temporarily closed until satisfactory repairs are made. Any deactivation of a monitor will be immediately reported to the Division by the operator.)

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	Verify that leak monitors employ an audible alarm and visual indicator, and are so located as to be readily heard and seen by the operator or other personnel during normal working hours. Verify that all monitoring devices are conspicuously marked or labeled as being monitoring devices and are secured against vandalism and incidental damage. Verify that all leak monitoring consoles identify the specific location of all leak monitoring sensors. Verify that a complete list of all the specified leak monitoring sensors is permanently affixed on the facility premises and visible to a Department inspector. Verify that, when a leak monitor indicates a possible leak, the owner performs an investigation into the cause of the indication to determine if a leak has occurred. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.60.5.NH. UST systems using tank tightness testing must meet specific protocol, record keeping, and reporting requirements (NHCAR Env-Wm 1401.13) [Revised April 1998; Revised March 2006].	(NOTE: These inventory monitoring and system tightness testing requirements are required for UST system for which inventory monitoring has not been performed in accordance with Env-Wm 1401.11 (see ST.60.1.NH.), or for which records have not been maintained.) Verify that the tank tightness testing protocol or method is tested and certified by an independent testing laboratory and is certified by the laboratory to meet the leak rate detection criteria below. Verify that a complete description of the method or protocol and a copy of the certification are filed with the owner. Verify that the owner retains the description and certification for the life of the facility. Verify that the owner sends a tightness test report to the Division no later than 30 days after the date of the test. Verify that the tightness test report includes: - the facility and tank registration number - system location - the name, address and telephone number of the system owner - tank capacity - the age of the tank - product stored - location of each system tested - a copy of field each of the technician's testing records - any other information to accurately identify each system

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	- a statement specifying that the piping was also tested - a description of any piping, fittings, or connections that were tightened or repaired - the length of any waiting periods after product delivery, topping, or vapor space disturbances - a description of the temperature measurement equipment and method used for the tightness test - a description of the releveling procedure used - the date of last calibration and maintenance of tightness testing equipment - test duration time - a description of the vapor pocket measurement and elimination procedure used. Verify that the technician performing the test signs a test report which certifies: - the validity, method, and accuracy of the test - that the test complies with requirements of these rules - that he or she is qualified to perform the test. Verify that the tightness test is capable of detecting a system leak rate of 0.10 gal/hr with a probability of detection of 0.95 and a probability of false alarm of 0.05, accounting for all variables including vapor pockets, thermal expansion of product, temperature stratification, evaporation, pressure, end deflection, water table, and tidal action. (NOTE: A leak or failure will be indicated by a test result of 0.10 gal/hr or greater or an inconclusive test result.) Verify that the test report and other documents describing the type of test, contractor, date, materials, all technician testing data and any other information pertinent to the work performed under this section is kept by the owner for the life of the system. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.60.6.NH. All persons conducting UST tank tightness tests must be certified technicians (NHCAR Env-Wm 1401.14) [Revised April 1998; Revised March 2006].	Verify that any person conducting tank tightness tests has an understanding of the variables which affect the test, is trained in the performance of the test, and is certified as qualified by the manufacturer of the equipment used in the testing protocol or method. Verify that the technician registers with the Department by submitting a manufacturer's training certificate. Verify that any person conducting tank tightness tests keeps current the manufacturer's certification and registration with the Department and notifies the Division of any change in employment status.

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	(NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.60.7.NH. When a UST fails a tightness test, specific investigation, reporting, and management requirements must be met (NHCAR Env-Wm 1401.15) [Citation Revised April 1998; Revised March 2006].	Verify that after a tightness test failure: - the owner or operator reports any failure to the Department within 24 h of receiving notice of the failure - the owner or operator performs an investigation into the cause of the failure to determine if the system is leaking - the investigation into the cause of an initial test failure is completed within 7 days and includes the performance of a second confirming tank tightness test - the owner submits a written report to the Department within 30 days of the failure which describes the work performed, the repairs made, and any other actions taken in response to the test failure - any underground storage system that fails a second, confirming test for tightness is completely emptied of regulated substance within 24 h of the second failure and is permanently closed within 30 days - any single wall underground storage system that fails a second confirming test for tightness is completely emptied of regulated substance within 24 hours of the second failure and permanently closed within 30 days. (NOTE: The owner may temporarily close the system within 7 days of the initial failure and permanently close the system within 30 days of the original test failure instead of conducting an investigation into the cause of the failure.) Verify that any system that has been repaired after a second tightness test failure is retested for tightness to confirm the effectiveness of the repairs. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.60.8.NH. UST operators must report unusual operating conditions to the Division (NHCAR Env-Wm 1401.16) [Citation Revised April 1998; Revised March 2006].	(NOTE: The following conditions warrant reporting of unusual system operating conditions: - erratic behavior of dispensing equipment - unexplained loss of regulated substance or the presence of regulated substance on the ground surface, surface water or groundwater at or near the facility - an increase of 2 in. or more of water in a tank over any 30 day or shorter period or a total water depth of 3 in. or more - recorded substance losses indicated by inventory control records on 18 operating days or more in any 30 day period - an indication by a leak monitor system of a possible leak - the presence near the facility of petroleum vapors or vapors of a hazardous substance - erratic behavior of the stage I or stage II system, as defined in ENV-Wm 1404.)

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	Verify that the operator reports any unusual system operating conditions to the Department within 24 h, unless the cause is immediately determined and corrected, and the operator determines that the unusual operating condition did not result in a release of a regulated substance. Verify that the operator initiates an investigation into the cause of any unusual system operating conditions within 7 days of the occurrence of the condition and submits a written report to the Department system delineating the investigation and its conclusions. Verify that, if unusual operating conditions occur, the owner conducts a tightness test to determine the tightness of the affected system(s) within 7 days of being notified by the Department that the test is required. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.60.9.NH. Release detection for UST tanks without secondary containment and leak monitoring must meet release detection and monitoring requirements (NHCAR Env-Wm 1401.29 (a) through (o)) [Added March 2006].	(NOTE: On-premise-use heating oil systems that are otherwise subject to these rules are exempt from these requirements.) Verify that owners of underground storage tanks without secondary containment and leak monitoring conduct automatic tank gauging for release detection. Verify that groundwater or soil gas vapor monitoring is not installed as a release detection mechanism. Verify that owners of system(s) with no release detection perform a full system tightness test (see ST.60.5.NH.) and submit to the Department results of the tightness test and assessment within 15 days of the completed work. Verify that, when automatic tank gauging is used for release detection, the gauge provides at least one passing test in a 30 day period for tank leakage. Verify that the automatic tank gauge operated daily in a leak detection mode in accordance with the manufacturer's requirements. Verify that the automatic tank gauge is capable of detecting at least a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product and meet the requirements of 40 CFR 280.40(a)(3). Verify that automatic tank gauging equipment and devices are maintained in good working order at all times to continuously perform their original design function and inspected and tested annually in accordance with the manufacturer's requirements for proper operation. Verify that the owner submits the annual automatic tank gauging test results on a form obtained from the department. Verify that automatic tank gauge devices are not turned off or deactivated for

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	more than 2 hours without prior notification by the operator to the Department. Verify that any malfunction is repaired within 30 working days. Verify that, if the device(s) cannot be repaired within 30 days, the affected system(s) is temporarily closed until satisfactory repairs are made. Verify that all release detection monitoring consoles are conspicuously marked or labeled as being monitoring devices. (NOTE: An automatic tank gauging leak, release or failure must be indicated by an inconclusive test or a test result of greater than 0.2 gallons per hour.) Verify that report any automatic tank gauging failure is reported to the Department immediately. Verify that an automatic tank gauging test result failure is addressed as follows: - an investigation is performed in accordance with Env-Wm 1401.16 (see ST.60.8.NH.) into the cause of the failure to determine if a release has occurred - if a possible release of regulated substance from the system has occurred, the owner complies with all requirements groundwater management requirements. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.60.10.NH. Release detection for UST tanks without secondary containment and leak monitoring using existing monitoring wells for release detection must meet specific requirements (NHCAR Env-Wm 1401.29 (p) through (w)) [Added March 2006].	Verify that existing monitoring wells are not used as a release detection method at facilities where releases have previously occurred or groundwater is contaminated with a regulated substance. Verify that existing monitoring wells are clearly marked and secured to avoid unauthorized access and tampering. Verify that the existing groundwater monitoring wells are monitored for the presence of releases at least monthly. Verify that the existing wells are monitored in accordance with one of the following: - by the use of a continuous monitoring device that detects the presence of regulated substance or sheen on top of the groundwater in the monitoring wells - by manual methods that are able to detect regulated substance or sheen on top of the groundwater in the monitoring wells. Verify that each existing monitoring well is sampled at least annually.

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	Verify that the collected groundwater samples are submitted to a New Hampshire-certified laboratory for analysis for the presence of regulated substance. Verify that the test results to the Department within 30 days of the test. Verify that the owner notifies the Department within 24 hours whenever a regulated substance is detected by observation, a continuous detection device, or laboratory analysis of groundwater well samples. Verify that existing soil gas vapor monitoring wells are monitored for the presence of releases at least monthly. Verify that the owner notifies the Department within 24 hours whenever vapor monitoring devices detect any increase in concentration above background concentrations. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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RELEASE DETECTION FOR USTS **ST.65.** **Petroleum USTs**	
ST.65.1.NH. Suction, return, or pressurized piping without secondary containment and leak detection for on-premises-use heating oil USTs must meet piping testing requirements (NHCAR Env-Wm 1401.11 (c), (d), (e), and (f)) [Added March 2006].	Verify that a piping tightness test is conducted once every 3 years in accordance with the piping manufacturer's requirements or nationally recognized industry standards codes of practice. Verify that the piping test results are submitted to the Department with in 30 days of the test date. Verify that, when piping fails a piping tightness test, the piping is permanently closed in accordance with Env-WM 1401,18 or is repaired and replaced according to Env-Wm 1401.38. Verify that, when the cause of the piping test failure is unknown or there is a possible release to the environment, the Department is notified within 24 hours of the occurrence. (NOTE: Piping tests are not required for on-premises-use heating oil USTs having suction or atmospheric piping without secondary containment and leak monitoring when it is demonstrated, by department inspection or by plans submitted by the owner, to be designed and constructed to meet the following standards: - piping operates at atmospheric pressure or at less than atmospheric pressure - piping is continuously sloped so that the contents of the piping will drain back into the storage tank if the suction is released - no more than one check valve is included in each suction line - the check valve is located directly below and as close as practical to the suction pump.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.65.2.NH. Operators of on-premise-use heating oil single wall USTs must meet inventory monitoring requirements (NHCAR Env-Wm 1401.11 (j), (k), (l), (m), (n), (o), (p), and (q)) [Added March 2006].	Verify that owners on-premise-use heating oil single wall USTs perform inventory monitoring by annual tank gauging in accordance with the following requirements: - the tank is filled to the maximum level allowed by the overfill prevention device - tank oil and bottom water level measurements are recorded at the beginning and end of an idle period of at least 30 days, during which no oil is added to or removed from the tank - all measurements are based on an average of 2 consecutive readings - the measurement equipment used are capable of measuring the level of oil over the full range of the tank's height to the nearest 1/8 of an inch

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	- if the results of the annual tank gauging indicate a change in water level of 2 inches or more, or a loss or gain of oil, the owner notifies the division within 24 hours - records of oil and water measurement data are maintained for a period of 3 years - a tightness test is performed, pursuant to Env-Wm 1401.13 (see ST.60.5.NH.), on any system with an unexplained gain or loss of oil, or a total water depth of 3 or more inches. (NOTE: Release detection methods as specified in Env-Wm 1401.29 and Env-Wm 1401.30 may be substituted for annual tank gauging as required by this section.) Verify that on-premise-use heating oil single wall USTs inventory forms includes the following: - facility registration number - tank number and volume - the type of substance being stored - measurement in inches of water and product with the date taken - owner signature certifying the accuracy of the annual tank gauging records. Verify that all records relating to inventory monitoring is kept for a period of 3 years. Verify that, when monthly tank gauging is substituted by release detection or tightness testing for inventory monitoring, the records for inventory monitoring include all the reporting requirements in Env-Wm 1401.29, 1401.30, and 1401.13. (NOTE: An UST system is exempt for inventory monitoring when one of the following occurs: - the secondary containment of the UST is continuously monitored for both regulated substance and water - the underground storage tank contains Bunker C, no.4. no.5. or no.6 fuel oil.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.65.3.NH. Single wall USTs containing motor fuel or bulk storage of oil must meet inventory monitoring requirements (NHCAR Env-Wm 1401.11 (g), and (h)) [Added March 2006].	Verify that the operator reconciles inventory data daily and monthly by measuring the stored liquid using on e of the following: - a gauge stick capable of measuring the level of the liquid in the tank to the nearest 1/8 inch - automatic tank gauging device of equivalent or better measuring accuracy. Verify that the Department is notifies within 24 hours if any of the following occurs: - the water in the tank changes by 2 inches or more over one month or any

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	shorter period - any tank contains a total water dept of 3 inches or more - the monthly reconciled inventory records show an unexplained gain or loss of regulated substance grater then 1.0 percent of the pump meter reading plus 130 gallons. Verify that all records relating to inventory monitoring is kept for a period of 3 years. Verify that a tightness test (see ST.60.5.NH.) is performed on any system with an unexplained gain or loss of regulated substance grater then 1.0 percent of the pump meter reading plus 130 gallons, or a change in water level of 2 inches or more in any one month, or total water dept of 3 inches or more. (NOTE: An UST system is exempt for inventory monitoring when one of the following occurs: - the secondary containment of the UST is continuously monitored for both regulated substance and water - the underground storage tank contains Bunker C, no.4. no.5. or no.6 fuel oil.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.65.4.NH. Motor fuel and bulk storage fuel oil UST inventory forms must meet specific requirements (NHCAR Env-Wm 1401.11 (i)) [Added March 2006].	Verify that the motor fuel and bulk storage fuel oil inventory form include the following information: - facility registration number - tank system number and volume - the type of substance being stored - measurement of the tank contents in gallons before each delivery - measurement of the tank contents in gallons after each delivery - delivery amount in gallons - total liquid gallons of sales or uses for each operating day - measurement in gallons of liquid stored for each operating day - monthly measurement in inches of water level - daily loss of gain of product in gallons for each operating day - total monthly gallons of loss or gain of product - total monthly liquid gallons of sales or use - monthly maximum gain or loss in product allowed by the Department before notification is required - operator signature certifying the accuracy of the monthly inventory records. (NOTE: An UST system is exempt for inventory monitoring when one of the following occurs: - the secondary containment of the UST is continuously monitored for both regulated substance and water - the underground storage tank contains Bunker C, no.4. no.5. or no.6 fuel oil.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.75. **USTs CONNECTED TO EMERGENCY GENERATORS**	
ST.75.1.NH. Emergency generator single wall USTs must meet inventory monitoring requirements (NHCAR Env-Wm 1401.11 (j), (k), (l), (m), (n), (o), (p), and (q)) [Added March 2006].	Verify that owners of emergency generator single wall USTs perform inventory monitoring by annual tank gauging in accordance with the following requirements: - the tank is filled to the maximum level allowed by the overfill prevention device - tank oil and bottom water level measurements are recorded at the beginning and end of an idle period of at least 30 days, during which no oil is added to or removed from the tank - all measurements are based on an average of 2 consecutive readings - the measurement equipment used are capable of measuring the level of oil over the full range of the tank's height to the nearest 1/8 of an inch - if the results of the annual tank gauging indicate a change in water level of 2 inches or more, or a loss or gain of oil, the owner notifies the division within 24 hours - records of oil and water measurement data are maintained for a period of 3 years - a tightness test is performed, pursuant to Env-Wm 1401.13 (see ST.60.5.NH.), on any system with an unexplained gain or loss of oil, or a total water depth of 3 or more inches. (NOTE: Release detection methods as specified in Env-Wm 1401.29 and Env-Wm 1401.30 may be substituted for annual tank gauging as required by this section.) Verify that emergency generator inventory forms includes the following: - facility registration number - tank number and volume - the type of substance being stored - measurement in inches of water and product with the date taken - owner signature certifying the accuracy of the annual tank gauging records. Verify that all records relating to inventory monitoring is kept for a period of 3 years. Verify that, when monthly tank gauging is substituted by release detection or tightness testing for inventory monitoring, the records for inventory monitoring include all the reporting requirements in Env-Wm 1401.29, 1401.30, and 1401.13. (NOTE: An UST system is exempt for inventory monitoring when one of the following occurs:

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	- the secondary containment of the UST is continuously monitored for both regulated substance and water - the underground storage tank contains Bunker C, no.4. no.5. or no.6 fuel oil.) (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.85. **DEFERRED USTS**	
ST.85.1.NH. Field-fabricated USTs must meet requirements for new USTs and be approved by the Department (NHCAR Env-Wm 1401.39) [Added April 1998].	Verify that field-fabricated USTs are not used unless the complete system is designed by a professional engineer licensed under RSA 310-A and manufactured and installed in accordance with standards of Underwriters Laboratories, Inc., UL 1316, Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures, or UL 58, Standard for Steel Underground Tanks for Flammable and Combustible Liquids. Verify that new field-fabricated tanks meet all requirements of these rules for new installations. Verify that the owner submits plans and specifications for the field fabrication to the Division in accordance with Env-Wm 1401.20 (see ST.30.1.NH.). Verify that the registered structural engineer certifies that: - a field fabricated tank is necessary because installation of a factory fabricated tank is not feasible - the design plans and specifications meet all requirements of these rules. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.90. **UST DOCUMENTATION**	
ST.90.1.NH. New UST must meet documentation requirements (NHCAR Env-Wm 1401.21 (l)) [Added March 2006].	Verify that documents or copies of documents describing manufacturer's warranties, equipment items, contractor, equipment maintenances, repairs or testing, and all other information pertinent to the tank installation and system components are kept at the facility for the life of the system(s). Verify that these records are transferred to the new owner at the time of a transfer of facility ownership. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.95. **CHANGES IN SERVICE OR CLOSURE OF USTS**	
ST.95.1.NH. UST systems that become subject to regulations due to a change in the use of the system must be registered (NHCAR Env-Wm 1401.05) [Citation Revised April 1998; Revised March 2006].	Verify that the owner of any facility that becomes subject to regulation due to a change in the use of any system at the facility registers the facility at least 30 days prior to changing the use of the system, and complies with all applicable regulatory requirements before instituting the changed use. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.95.2.NH. UST owner/operators must notify the Division of an existing, previously unknown UST and close the UST (NHCAR Env-Wm 1401.18(d)) [Revised April 1998; Revised March 2006].	Verify that, when an existing, previously unknown, UST system which is subject to Env-Wm 1401 is discovered, the owner registers the facility, and within 60 days from registration, closes the tank system in accordance with Env-Wm 1401.18. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.95.3.NH. USTs must comply with regulations pertaining to temporary closure (NHCAR Env-Wm 1401.17) [Revised April 1998; Revised March 2006].	Verify that temporary closure of underground tank storage systems is accomplished by removing all substances from the system so that no more than one inch of residue remains in the tank. Verify that all substances removed are handled and disposed of in accordance with applicable local, state, and federal rules. Verify that all openings, such as fill risers, are equipped with a lock to secure against unauthorized use or tampering. Verify that, within 30 days of temporary closure, the owner submits a new registration form to the Department indicating that the requirements of this section for temporary closure of the system have been met. Verify that any portion of a single wall underground storage tank system without secondary containment and leak monitoring that has been temporarily closed for more than 12 months are permanently closed in accordance within 30 days. Verify that a single wall underground storage tank or a single wall piping without secondary containment and leak monitoring that has been temporarily closed for less than 12 months, is not place back in service or nor used for regulated

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	substances until the owner complies with and certifies to the department that the system is in compliance with Env-Wm 1401.04 (registration), Env-Wm 1401.07 (permit), Env-Wm 1401.25 (spill containment and overfill protection), Env-Wm 1401.29 (release detection for tanks without secondary containment and leak detection), Env-Wm 1401.30 (release detection for piping), Env-Wm 1401.32 (corrosion protection for steel tanks), and Env-1401.33 (corrosion protection for piping) and Env-Wm 1404 (VOC) requirements. Verify that a double wall underground storage tank system with secondary containment and leak monitoring that has been temporarily closed for more than 90 days, is not place back in service or nor used for regulated substances until the owner complies with and certifies to the department that the system is in compliance with Env-Wm 1401.04 (registration), Env-Wm 1401.07 (permit),, Env-Wm 1401.25 (spill containment and overfill protection), Env-Wm 1401.26 (leak detection for new tanks), Env-Wm 1401.27 (leak monitoring for new USTs) Env-Wm 1401.32 (corrosion protection for steel tanks), and Env-1401.33 (corrosion protection for piping) and Env-Wm 1404 (VOC) requirements. Verify that systems with cathodic protection that are temporarily closed are equipped with an accessible test connector or monitor (Env- Wm 1401.32 (c)) and corrosion protection for piping (Env- Wm 1401.33). (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.95.4.NH. Permanent UST closure must be conducted according to specific standards (NHCAR Env-Wm 1401.18(e) through (j)) [Revised March 2006].	Verify that the owner notifies the Department at least 30 days prior to any scheduled underground storage tank system permanent closure. Verify that all product, liquid and sludge are removed from the systems and disposed of in accordance with applicable state and Federal rules. Verify that all piping is disconnected and removed to the greatest extent possible or permanently capped or plugged. Verify that the tanks are tested for hazardous or explosive vapors and rendered free of vapors. Verify that the systems are removed (if removal of a UST would serve to undermine the integrity of an overlying structures, or compromise the structural integrity of an adjacent UST, then the tank may be permanently closed in place). Verify that a system that is closed in place is filled to capacity, including all voids within each tank, with a solid inert material Verify that an assessment is performed to determine if any contamination is present using one of the following sampling methods for the assessment: - test pits are excavated in the immediate vicinity of the system, and representative soil or groundwater samples are obtained

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	- soil and, when encountered, groundwater samples are obtained from the excavations resulting from the removal of the tanks - existing release detection devices or subsurface monitoring locations are sampled - for tanks which will be closed in-place, soil samples are obtained at representative locations from beneath the tank, by cutting sampling access points through the tank wall - soil or groundwater samples are also be taken at locations adjacent to the system piping. Verify that the soil or groundwater samples are screened for contamination in the field, and submitted to an New Hampshire certified laboratory for analysis, as follows: - field screening of samples includes visual and olfactory observation and headspace analysis performed with a portable organic vapor meter (OVM) or portable gas chromatograph (GC) - laboratory analysis of samples includes tests for constituents of those substances stored in the system - results of the assessment performed above and the laboratory analysis of samples are submitted to the Division within 30 days of the closure. Verify that the Division is notified immediately if soil or groundwater contamination from the regulated substance is detected by observation or analysis during closure of an underground storage system. Verify that the excavation is not backfilled, nor is the closed tank removed from the site until the Division has inspected the site and approved the closure. Verify that documents pertaining to the closure of the tanks or system, including contractor's invoices, manifests for disposal of materials, testing and analytical reports, and any other documents generated from the closure are kept by the owner for 3 yr and transferred to the new owner at the time of a transfer of facility ownership. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.95.5.NH. All regulated metal underground storage tank systems without corrosion protection must be permanently closed (NHCAR Env-Wm 1401.18(a)) [Revised April 1998; Revised March 2006].	Verify that, with the exception of vent piping, all regulated metal underground storage tank systems without corrosion protection are permanently closed. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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ST.95.6.NH. Any USTs that have been removed that do not meet the standards for new tanks must not be reused as USTs for regulated substances (NHCAR Env-Wm 1401.19) [Revised April 1998; Revised March 2006].	Verify that a UST that has been removed that does not meet the standards for new tanks is not reused as a UST for regulated substances. Verify that a tank once used for regulated substances is not reused to store food products or water. Verify that all double-wall tanks that have been removed are recertified by the tank manufacturer and comply tank standards for new underground storage systems prior to reuse as underground storage tanks for regulated substances. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.95.7.NH. Hazardous substance UST systems without secondary containment and leak monitoring must be closed (NHCAR Env-Wm 1401.18(b)) [Added April 1998; Revised March 2006].	Verify that all hazardous substance underground storage tank systems without secondary containment and leak monitoring are permanently closed. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)
ST.95.8.NH. Persons conducting permanent UST closure must be certified (NHCAR Env-Wm 1401.18(f)) [Added March 2006].	Verify that any person permanently closing a system is certified in underground storage tank decommissioning by the International Code Council. Verify that the certified tank remover complies with safety and testing requirements such as described in the American Petroleum Institute publications: RP 1604, Closure of Underground Petroleum Storage Tanks, RP 1631, Interior Lining and Periodic Inspection of Underground Storage Tanks, and STD 2015, Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks. (NOTE: See Appendix 10-1 for USTs excluded from regulation.)

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USED OIL STORAGE TANKS **ST.139.** **State Specific Requirements**	
ST.139.1.NH. Used oil single wall USTs must conduct monthly tank gauging for inventory control (NHCAR Env-Wm 1401.11 (r) through (z)) [Added March 2006].	Verify that tank oil and water level measurements are recorded at the beginning and end of an idle period of at least 36 hours, during which no oil is added to or removed from the tank. Verify that all measurements are based on an average of at least 2 consecutive readings. Verify that the measurement equipment used is capable of measuring the level of oil over the full range of the tank's height to the nearest 1/8 of an inch. Verify that, if the results of the monthly tank gauging indicate a change in water level, or a loss or gain of oil, the owner notifies the division within 24 hours. Verify that records of oil and water measurement data are maintained for a period of 3 years. Verify that a tightness test is performed, pursuant to Env-Wm 1401.13 (see ST.60.5.NH.), on any system with an unexplained gain or loss of oil, or an unexplained change in water level. (NOTE: Release detection methods as specified in Env-Wm 1401.29 and Env-Wm 1401.30, or a tightness test specified in Env-Wm 1401.13 that monitors the single wall portion of the UST may be substituted for monthly tank gauging as required by this section.) Verify that inventory forms for used oil systems without secondary containment and leak monitoring for both tank and piping include the following: - facility registration number - tank number and volume - the type of substance being stored - measurement in inches of water and product with the date and time taken - operator signature certifying the accuracy of the monthly tank gauging records. Verify that, when monthly tank gauging is substituted by release detection or tightness testing for inventory monitoring, the records for inventory monitoring include all the reporting requirements in Env-Wm 1401.29, 1401.30, and 1401.13. (NOTE: When the Department determines that inventory monitoring was not conducted, the owner must perform a tightness test in accordance with Env-Wm 1401.13 (ST.60.5.NH.) on any UST for which inventory monitoring has not been

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	performed within 60 days of the determination.)

Appendix 10-1

USTs Excluded from Regulations

(Source: Env-Wm 1401.02) [Added March 2004; Revised March 2006]

These rules shall apply to all underground storage tank facilities having an individual tank capacity of greater than 110 gallons or of unknown size that store or have stored regulated substances with the following exclusions:

(a) Underground storage tank facilities that are used solely for residential heating use;

(b) Underground storage tank facilities having no tank with a storage capacity of more than 1,100 gallons and which are used solely for the storage of heating oil for on-premises use;

(c) Systems where less than 10 percent of the total volume of the tank(s) and associated piping is below the surface of the ground;

(d) Any system that is located in an underground room or vault if the system is totally above or upon the surface of the floor, and no portion of any tank is covered, surrounded, or buried with soil or stone or other material, and all system components can be visually inspected;

(e) Emergency spill or overflow containment systems that are emptied within 48 hours of the introduction of a regulated substance;

(f) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks;

(g) Oil-transmission pipelines subject to the Natural Gas Pipeline Safety Act of 1968 or the Hazardous Liquid Pipeline Safety Act of 1979;

(h) Oil/water separators at wastewater treatment facilities regulated by the Clean Water Act Section 402 or 307(b), and oil/water separators at oil and gas production facilities;

(i) Septic tank systems or floor drain collection tank systems that collect waste for the purpose of segregating such waste from septic systems;

(j) Flow-through process systems which form an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process systems shall not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or byproducts from the production process;

(k) Facilities containing radioactive material regulated under the Atomic Energy Act of 1954; and

(l) Underground storage tank facilities that store products containing concentrations of regulated substances that are less than the allowable drinking water standard for the regulated substances.

Appendix 10-2

Applicability of Regulations Concerning Aboveground Petroleum Storage Facilities

(Source: Env-Wm 1402.02) [Added March 2005; Revised March 2007; Revised March 2009; Revised March 2010]

(a) The rules in this section apply to the following above-ground oil storage facilities:

(1) facilities having a single tank system with an oil storage capacity of more than 660 gal, intended for storage, transfer, or distribution of oil

(2) facilities with a combined oil storage capacity of more than 1,320 gallons, intended for storage, transfer, or distribution of oil,

- the combined oil storage capacity is determined by adding together all tank systems with a nominal oil storage capacity of 55 gallons or more, intended for storage, transfer, or distribution of oil

(b) The following types of above-ground oil storage systems are not subject to the rules contained in this section:

(1) Any tank system(s), with a combined oil storage capacity of 1,320 gallons or less, containing heating oil used only for on-premise heating of structures;

(2) Any storage tank designed for and containing any liquid which is gaseous at atmospheric temperature and pressure;

(3) Any flow-through system which is integral to the operation of equipment, such as manufacturing process equipment, elevators, trash compactors, and vehicle lifts, through which there is a steady, variable, recurring, or intermittent flow of oil during the operation of the equipment, not including tank systems used for the storage of oil prior to the introduction of the oil into the production process or equipment or for the storage of finished products or by-products that contain oil;

(4) Oil-transmission pipelines subject to the Natural Gas Pipeline Safety Act of 1968 or the Hazardous Liquid Pipeline Safety Act of 1979;

(5) Any stormwater or wastewater collection, treatment, or discharge system;

(6) Any storage system where 10 percent or more of the total volume of the tank(s) and associated piping is in contact with soil and below the surface of the ground;

(7) Any storage tank containing radioactive material regulated under the Atomic Energy Act of 1954;

(8) Tanks that are used for emergency spill or overflow containment systems that are immediately emptied after introduction of oil;

(9) Non-stationary equipment that contains oils for operational purposes; and

(10) Cargo trucks engaged in transporting oil from one facility to another and which are required to meet applicable requirements of the United States Department of Transportation and the New Hampshire department of safety.

(c) The following types of above-ground oil storage systems shall not be subject to the rules contained in this part other than the requirements noted:

(1) Tank systems designed and used to store oil which is in the solid phase at atmospheric temperature and pressure, subject to the requirements listed in Env-Wm 1402.31.

(2) Oil-filled electrical equipment, subject to the requirements listed in Env-Wm 1402.32; and

(3) Any temporary AST system at a construction site meeting the applicability of Env-Wm 1402.02(a) and existing only for the specific duration of the construction contract for which it is used, subject to the requirements listed in Env-Wm 1402.37.

Appendix 10-3

Monthly Maintenance Inspection Requirements for Stage I and Stage II Facilities
(Source: Env-Wm 1404.08 and 1404.20) [Added March 2005]

Env-Wm 1404.08 Stage I Monthly Maintenance Inspections

(b) During a monthly maintenance inspection, the owner or operator shall:

(1) Check all vent risers for visible damage and repair as necessary;
(2) Check each PV vent cap and if the cap is missing or damaged, replace the cap;
(3) Remove and discard, in accordance with Env-Wm 1404.10(c) and Env-Ws 421, any gasoline, water, or debris present in each spill bucket as specified in Env-Wm 1401.25;
(4) Check each coaxial fill adaptor cap, two-point fill adaptor cap, and dry break adaptor cap for the presence of a gasket and tightness of fit;
(5) If any coaxial fill adaptor cap, two-point fill adaptor cap, or dry break adaptor cap can be easily rotated by hand when in place or if a gasket is missing or damaged, repair or replace the cap or gasket;
(6) Check each coaxial fill adaptor, two-point fill adaptor, and dry break adaptor for tightness and tighten with a wrench any adaptor that can be hand rotated; and
(7) For a two-point system:
   a. Check that the dry break adaptor gasket on the poppet valve of the dry break adaptor makes a continuous seal with the adaptors valve seat and if a continuous seal is not present, repair or replace the dry break adaptor; and
   b. Check that the poppet valve depresses evenly across the valve seat of the dry break adaptor and that it reseats properly and if not, repair or replace the dry break.

Env-Wm 1404.20 Stage II Monthly Maintenance Inspections

(b) During a monthly maintenance inspection, the owner or operator shall:
(1) Check all vent risers for visible damage and repair as necessary;
(2) Check each PV vent cap and if the cap is missing or damaged, replace the cap;
(3) Remove and discard, in accordance with Env-Wm 1404.22(c) and Env-Ws 421, any gasoline, water, and debris present in each spill bucket as specified in Env-Wm 1401.25;
(4) Check each coaxial fill adaptor cap, two-point fill adaptor cap, and dry break adaptor cap for the presence of a gasket and tightness of fit;
(5) If any coaxial fill adaptor cap, two-point fill adaptor cap, or dry break adaptor cap can be easily rotated by hand when in place or if the gasket is missing or damaged, replace or repair the cap or gasket;
(6) Check each coaxial fill adaptor, two-point fill adaptor, and dry break adaptor for tightness and if either adaptor can be hand rotated, tighten with a wrench;
(7) For a two-point system:
   a. Check that the dry break adaptor gasket on the poppet valve of the dry break adaptor makes a continuous seal with the valve seat of the adaptor and if a continuous seal is not present, repair or replace the dry break adaptor; and
   b. Check that the poppet valve depresses evenly across the valve seat and that it reseats properly and if not, repair or replace the dry break;
(8) For a balance system:
   a. Check each hose in and around each dispenser for tears, leaks, holes, or defects of any kind and replace any hoses containing any tear longer than a half inch or any hole greater than a quarter inch in diameter;
   b. Check each nozzle bellow for tears, leaks, holes, or defects of any kind and replace any bellows containing any tear longer than a half inch or any hole greater than a quarter inch in diameter; and
   c. Check each nozzle bellow's faceplate for continuity with a minimum of 3 quarters of the bellows faceplate sealed against the vehicle fill pipe during fueling operation and replace any bellows faceplate not meeting that criterion; and
(9) For an assist system:
   a. Check each hose for kinks or crimps and replace all defective sections;

b. Check each nozzle spout for looseness and tighten or replace as necessary;
c. Check each vapor return hole on the nozzle spout for blockage or obstruction and replace the nozzle or spout if the number of unobstructed holes does not meet the requirements for a specific stage II system; and
d. If a splash or vapor guard is required, check each splash or vapor guard for integrity and replace if the guard is missing or damaged.

Appendix 10-4

Yearly Maintenance Inspection Requirements for Stage I and Stage II Facilities
(Source: Env-Wm 1404.09 and 1404.21) [Added March 2005]

Env-Wm 1404.09 Stage I Yearly Maintenance Inspection.

(b) During the yearly maintenance inspection, the owner or operator shall:

(1) Perform all items specified in Env-Wm 1404.08(b), above;
(2) With the exception of swivel adaptors, remove all adaptors from their riser pipes, apply gasoline resistant thread sealant to cleaned threads, thread the adaptors back onto the riser pipe, and tighten in accordance with the manufacturer's recommendations;
(3) Replace or permanently plug each drain valve located in each spill bucket;
(4) Verify that adaptor caps and dust covers are not in contact with overlying access covers; and
(5) Measure the distance between the tank bottom and the submerged fill tube end to confirm compliance with Env-Wm 1404.04(a)(2) and if necessary, modify the submerged fill tube.

(d) If a stage I test is successfully performed in accordance with Env-Wm 1404.11 and Env-Wm 1404.12 within the calendar year for which a yearly maintenance inspection is due, then the department shall not require the owner or operator to comply with requirements of this section.

Env-Wm 1404.21 Stage II Yearly Maintenance Inspection.

(b) During the yearly maintenance inspection, the owner or operator shall:

(1) Perform all items specified in Env-Wm 1404.20(b), above;
(2) With the exception of swivel adaptors, remove all adaptors from their riser pipes, apply gasoline resistant thread sealant to cleaned threads, thread the adaptors back onto the riser pipe, and tighten in accordance with the manufacturer's recommendations;
(3) Replace or permanently plug each drain valve located in each spill bucket;
(4) Verify that adaptor caps and dust covers are not in contact with overlying access covers; and
(5) Measure the distance between the tank bottom and the submerged fill tube end to confirm compliance with Env-Wm 1404.04(b) and if necessary, modify the submerged fill tube.

(d) The owner or operator may substitute a successful pressure decay test performed in accordance with Env-Wm 1404.24 within the calendar year for which the yearly maintenance is due for the yearly maintenance requirements of this section.

Appendix 10-5

Testing Procedures for Stage I and Stage II Facilities
(Source: Env-Wm 1404.12 and 1404.24) [Added March 2005]

Env-Wm 1404.12 Stage I Testing Procedures.

(a) The owner or operator of a gasoline storage tank at a gasoline dispensing facility or bulk gasoline plant shall verify that stage I test procedures consist of the following:
(1) A PV vent cap test for pressure and vacuum as specified in (b), (c), and (d), below;
(2) A pressure decay test as specified in (e) and (f), below; and
(3) A submerged fill tube measurement as specified in (g), below.

(b) The owner or operator shall conduct a PV vent cap test for pressure and vacuum:
(1) That remotely subjects the PV vent cap to the pressure or vacuum setting of the PV vent cap;
(2) Uses testing apparatus that has a gauge capable of reading to 0.5 inches water column pressure and vacuum to measure the pressure or vacuum being imposed on each PV vent cap;
(3) For a pressure test, measures the point at which the PV vent cap opens and starts to vent the pressure; and
(4) For a vacuum test, measures the point at which the PV vent cap opens to draw air into the valve.

(c) The PV vent cap shall pass the pressure and vacuum tests specified in (b), above, if:
(1) The pressure relief point determined in (b)(3), above, occurs within 2.0 inches above or below the PV vent cap setting; and
(2) The vacuum relief point determined in (b)(4), above, occurs within 0.5 inches above or below the PV vent cap setting.

(d) If the PV vent cap fails either the pressure or vacuum test as specified in (b) and (c), above, the owner or operator shall replace the PV vent cap with a PV vent cap that passes both the pressure and vacuum tests.

(e) Following the PV vent cap test specified in (b), (c), and (d), above, the owner or operator shall perform a pressure decay test on the gasoline storage tank system in accordance with California Air Resources Board (CARB) Vapor Recovery Test Procedure, TP-201.3, as amended March 17, 1999, except as listed in (f), below.

(f) The owner or operator shall perform the pressure decay test required in (e), above:
(1) At 10 inches water column pressure; and
(2) With the minimum allowable final pressure after the system has been pressurized to 10 inches water column and held for 5 minutes as specified in table 1404-1, below:

Table 1404-1 Minimum Allowable Pressure

Ullage (gallons)	Minimum Allowable Pressure (inches water column)	Ullage (gallons)	Minimum Allowable Pressure (inches water column)
500	3.7	5,000	9.3
600	4.5	6,000	9.38
700	5.2	7,000	9.46
800	5.8	8,000	9.52
900	6.2	9,000	9.56
1,000	6.5	10,000	9.6
1,250	7.05	11,000	9.62
1,500	7.5	12,000	9.64
1,750	7.9	13,000	9.66
2,000	8.2	14,000	9.68
2,250	8.35	15,000	9.7
2,500	8.5	16,000	9.71
2,750	8.6	17,000	9.71
3,000	8.7	18,000	9.72

Ullage (gallons)	Minimum Allowable Pressure (inches water column)	Ullage (gallons)	Minimum Allowable Pressure (inches water column)
3,250	8.8	19,000	9.73
3,500	8.9	20,000	9.73
3,750	9	21,000	9.74
4,000	9.1	22,000	9.75
4,250	9.15	23,000	9.75
4,500	9.2	24,000	9.76
4,750	9.25	25,000	9.77

(g) The owner or operator shall install and document that the submerged fill tube distance between the tank bottom and the submerged fill tube end meets the requirements of Env-Wm 1404.04.

Env-Wm 1404.24 Stage II Testing Procedures.

(a) The owner or operator shall perform the following tests in accordance with the California Air Resources Vapor Board (CARB) Test Procedure TP 201.3 Pressure Decay dated March 17, 1999, TP 201.4 Dynamic Back pressure dated July 3, 2002, TP 201.5 Air to Liquid Ratio dated February 1, 2001 and Env-Wm 1404.37, or a department approved alternative as set forth in Env-Wm 1404.36:

(1) For a balance systems:
- a. The pressure decay test performed in accordance with TP 201.3; and
- b. The dynamic back pressure test performed in accordance with TP 201.4 on each nozzle;

(2) For bootless nozzle systems:
- a. The pressure decay test performed in accordance with TP 201.3;
- b. The dynamic back pressure test performed in accordance with TP 201.4 test tee fitting location described in Env-Wm 1404.18(c); and
- c. The air-to-liquid ratio (A/L) test performed in accordance with TP 201.5;

(3) For Healy Model 400 ORVR compatible booted nozzle system utilizing a central vacuum unit:
- a. The pressure decay test procedure performed in accordance with CARB executive order G-70-186 or G-70-187;
- b. The Healy vacuum integrity test; and
- c. The Healy fillneck vapor pressure regulation fueling test;

(4) For Healy Model 600 bootless or booted nozzle system and Healy Model 800 booted nozzle system with the Healy/Franklin VP 1000 vapor pump or equivalent shall undergo the testing specified below:
- a. The pressure decay test procedure performed in accordance with CARB G-70-191;
- b. The dynamic back pressure test at the test tee fitting location described in Env-Wm 1404.18(c); and
- c. The A/L test with a Healy A/L adaptor for booted nozzles performed in accordance with TP 201.5; and

(5) For Healy Model 600 bootless system utilizing a central vacuum unit:
- a The pressure decay test procedure performed in accordance with CARB G-70-165;
- b. The Healy vacuum integrity test; and
- c. The A/L test performed in accordance with TP 201.5.

(b) The owner or operator or the person conducting the pressure decay test shall verify that there are no product deliveries into or out of the gasoline storage tank within the 3 hours prior to the test or during the performance of this test of the certified vapor recovery system being tested as in accordance with the California Environmental Protection Agency Air Resources Board Vapor Recovery Test Procedure TP-201.3 "Determination of 2 Inch WC Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities."

(c) All A/L test equipment shall be calibrated once every 12 months as specified by the manufacturer or a department approved alternative in accordance with Env-Wm 1404.36.

(d) The owner or operator shall perform a submerged fill tube measurement on all gasoline storage tanks to confirm that the measured distance between the tank bottom and the submerged fill tube end meets the requirements of Env-Wm 1404.04 and if necessary, modify the submerged fill tube.

(e) The owner or operator shall perform the following changes to the test procedures listed in (a), above:
(1) Testing shall be conducted once every 3 years;
(2) The pressure decay tests shall be performed at 10 inches water column; and
(3) The minimum allowable final pressure after the system has been pressurized to 10 inches water column and held for 5 minutes shall be as specified in table 1404-2, below:

Table 1404-2 Minimum Allowable Pressure

Ullage (gallons)	**Minimum Allowable Pressure (inches water column)**	**Ullage (gallons)**	**Minimum Allowable Pressure (inches water column)**
500	3.7	5,000	9.3
600	4.5	6,000	9.38
700	5.2	7,000	9.46
800	5.8	8,000	9.52
900	6.2	9,000	9.56
1,000	6.5	10,000	9.6
1,250	7.05	11,000	9.62
1,500	7.5	12,000	9.64
1,750	7.9	13,000	9.66
2,000	8.2	14,000	9.68
2,250	8.35	15,000	9.7
2,500	8.5	16,000	9.71
2,750	8.6	17,000	9.71
3,000	8.7	18,000	9.72
3,250	8.8	19,000	9.73
3,500	8.9	20,000	9.73
3,750	9	21,000	9.74
4,000	9.1	22,000	9.75
4,250	9.15	23,000	9.75
4,500	9.2	24,000	9.76
4,750	9.25	25,000	9.77

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(f) The owner or operator shall verify that PV vent cap pressure and vacuum tests are performed as specified in (g) and (i), below.

(g) The owner or operator shall verify that each PV vent cap pressure test and vacuum test:
(1) Remotely subjects the PV vent cap to the pressure or vacuum setting of the cap;
(2) Uses testing apparatus that has a gauge capable of reading to 0.5 inches water column pressure and vacuum to measure the pressure or vacuum being imposed on each PV vent cap;
(3) For a pressure test, measures the point at which the PV vent cap opens and starts to vent the pressure; and
(4) For a vacuum test, measures the point at which the PV vent cap opens to draw air into the valve.

(h) The PV vent cap shall pass both the pressure and vacuum tests specified in (g), above, if:
(1) The pressure relief point determined in (g)(3), above, occurs within 0.5 inches above or below the PV vent cap setting; or
(2) The vacuum relief point determined in (g)(4), above, occurs within 2.0 inches above or below the PV vent cap setting.

(i) If the PV vent cap fails either the pressure or vacuum test as specified in (g) and (h), above, the owner or operator shall replace the PV vent cap with a cap that passes both the pressure and vacuum tests.

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

New Hampshire Supplement, March 2010S

This section covers the state requirements for Toxic Substances Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

NOTE

New Hampshire's asbestos regulations are entirely new for April 1998; the previous regulations have been repealed, and new regulations adopted at New Hampshire Code of Administrative Rules (NHCAR) Env-A Chapter 1800 and He-P Chapter 5000. All of the checklist items and definitions for this chapter are new for April 1998.

Adoption of Federal Regulations

The State of New Hampshire adopts as a rule Federal Regulation 40 CFR 61, Subpart M, as in effect on July 1, 2007, except for (NHCAR Env-A 1807.01) [Revised March 2007; Revised March 2009]:

- the definition of "facility" in 40 CFR 61.141; and
- the provisions of 40 CFR 61.145(c)(1)(i), 61.145(c)(1)(ii), 61.145(c)(1)(iv), 61.149(c)(2), 61.150(a)(4), 61.150(a)(5), 61.150(b)(3), 61.151 with respect to disposal sites not operated after July 9, 1981, 61.151(c), 61.152(b)(3), 61.154(c), 61.154(d), 61.155(a), and 61.157.

Definitions

- *Abatement* - any measure or set of measures designed to permanently eliminate lead-based paint hazards as defined in 40 CFR 745.223 (July 1, 1998 edition), including, but not limited to:
  (a) projects resulting in the permanent elimination of lead-based paint hazards, conducted by firms or individuals certified in accordance with He-P 1603, or
  (b) projects resulting in the permanent elimination of lead-based paint hazards, that are conducted in response to an order of lead hazard reduction, or other enforcement action undertaken by the commissioner pursuant to RSA 130-A:5 or RSA 130-A:7, or by a local health department, pursuant to RSA-130-A:11, II (NHCAR He-P 1602.01) [Added March 2000; Citation Revised March 2009].

- *AHERA* - Asbestos Hazard Emergency Response Act (NHCAR He-P 5002.01).

- *Asbestos* - amosite, chrysotile, crocidolite, or asbestiform tremolite, actinolite, or anthophyllite (NHCAR Env-A 1802.05) [Citation Revised March 2007; Citation Revised March 2009].

- *Asbestos Abatement* - any of the following activities (NHCAR Env-A 1802.06) [Citation Revised March 2009; Revised March 2010]:
  1. The wrecking or removal of any load-supporting structural member containing or covered by RACM (Regulated Asbestos-Containing Material)
  2. The encapsulation, coating, binding or resurfacing of structural members, walls, ceilings or other building surfaces, or ducts, pipes, boilers, tanks, reactors, furnaces or other vessels containing RACM for the purpose of minimizing the potential for fiber release
  3. The construction of airtight enclosures by the use of impact resistant materials to isolate surfaces coated or containing RACM
  4. The removal or stripping of RACM from structural members, walls, ceilings, or other building surfaces, or ducts, pipes, boilers, tanks, reactors, furnaces or other vessels

5. The repair of RACM to minimize the likelihood of fiber release from damaged areas. Repair may include, but shall not be limited to, application of duct tape, rewettable glass cloth, canvas, cement, or other suitable materials to seal exposed areas where asbestos fibers may be released, or repair of damaged, previously encapsulated, RACM with non-asbestos substitutes; and re-encapsulation or repair of enclosures around RACM.

- *Asbestos Abatement Project Designer* - a person who is certified pursuant to RSA 141-E:11 to conduct, plan, design, and develop procedures for asbestos abatement projects, or provide other substantive direction or criteria for asbestos abatement projects (NHCAR He-P 5002.01 and Env-A 1802.08) [Citation Revised March 2009].

- *Asbestos Abatement Supervisor* - any person who is certified to direct and control the asbestos abatement work of a certified asbestos abatement worker and who may also perform asbestos abatement work as an employee of an asbestos abatement entity (NHCAR He-P 5002.01).

- *Asbestos Abatement Worker* - any person who is certified to perform asbestos abatement work as an employee (NHCAR He-P 5002.01).

- *Asbestos Inspector* - a person who is certified pursuant to RSA 141-E:11 to identify and assess the condition of the asbestos containing material (ACM) (NHCAR He-P 5002.01).

- *Asbestos Management Planner* - a person who is certified pursuant to RSA 141-E:11 to assess the health hazard posed by the asbestos containing material, determine the appropriate response action, and develop a schedule for implementing response actions (NHCAR He-P 5002.01).

- *Asbestos-Containing Material (ACM)* - any material that contains any type of asbestos in an amount greater than one percent by weight, area, or volume, either alone or mixed with other fibrous or non-fibrous materials (NHCAR Env-A 1802.11) [Citation Revised March 2007; Revised March 2010].

- *Category I Nonfriable ACM* - asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos as determined using the methods specified in Appendix A, Subpart F, 40 CFR Part 763, section 1, Polarized Light Microscopy (NHCAR Env-A 1802.18) [Citation Revised March 2007; Citation Revised March 2009].

- *Category II Nonfriable ACM* - any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. (NHCAR Env-A 1802.19) [Revised March 2009].

- *Certified* -any person who has received a currently valid certificate from the commissioner and has complied with all certification requirements set forth in this chapter (NHCAR He-P 1602.07) [Added March 2000; Citation Revised March 2009].

- *Child* - a person or persons 72 months of age or less (NHCAR He-P 1602.08) [Added March 2000; Citation Revised March 2009].

- *Dwelling* - a structure used or intended for human habitation, including interior and exterior surfaces, and may include common areas and all other property, including land and other structures, located within the same lot. (NHCAR He-P 1602.16) [Added March 2000; Citation Revised March 2009].

- *Dwelling Unit* - any room, group of rooms or other interior area of a dwelling or other structure, all or part of which is offered or made available for human habitation, and may include all common areas of the unit and exterior surfaces (NHCAR He-P 1602.17) [Added March 2000; Citation Revised March 2009].

- *Emergency Asbestos Abatement Project* - any asbestos abatement project requiring immediate action due to public health reasons or safety reasons or economic hardship, which was not planned but results from a sudden, unexpected event. The term includes projects necessitated by non-routine failures of asbestos-containing equipment, the repair of which would require asbestos abatement (NHCAR Env-A 1802.25) [Citation Revised March 2007; Citation Revised March 2009; Revised March 2010].

- *Friable Asbestos Material* - any material that contains more than one percent of asbestos by weight, area, or volume and that can be crumbled, pulverized, or reduced to powder when dry by hand pressure (NHCAR Env-A 1802.32) [Revised March 2009].

- *Glovebag* - a sealed compartment with attached inner gloves used for the handling of asbestos-containing materials (NHCAR Env-A 1802.33) [Citation Revised March 2007; Citation Revised March 2009].

- *In-Place Management* - the use of maintenance or administrative controls, including specialized cleaning and periodic monitoring, to prevent lead base substances from becoming lead exposure hazards (NHCAR He-P 1602.23) [Added March 2000; Citation Revised March 2009].

- *Interim Controls* - a set of measures designed to reduce temporarily human exposure or likely exposure to lead exposure hazards, including regular cleaning, repairs, maintenance, painting, or temporary containment, and the establishment and operation of management and resident education programs. "Interim controls" may include in-place management (NHCAR He-P 1602.25) [Added March 2000; Citation Revised March 2009].

- *Lead Based Substance* –
  (a) When present in a dried film of paint or other coating on walls, woodwork or other surfaces, or in plaster, putty or other substances:
    (1) The presence of lead equal to or greater than 1.0 milligram of lead per square centimeter of surface area as measured on site by a portable x-ray fluorescence analyzer, or
    (2) The presence of lead equal to or greater than 0.5 percent lead by weight as determined by laboratory analysis.
  (b) When present in soil, the presence of lead equal to or greater than 1,000 parts per million of lead, unless otherwise established by the United States Environmental Protection Agency, in which case the United States Environmental Protection Agency standard shall prevail.
  (c) When present in surface dust and quantified as an area or mass concentration:
    (1) The presence of lead on floors, equal to or greater than 200 micrograms of lead per square foot
    (2) The presence of lead on windowsills, equal to or greater than 500 micrograms of lead per square foot
    (3) The presence of lead in window wells, equal to or greater than 800 micrograms of lead per square foot, or
    (4) As established by the United States Environmental Protection Agency, in which case the federal standard shall prevail (NHCAR He-P 1602.26) [Added March 2000; Citation Revised March 2009].

- *Lead-Containing Waste Material* - any waste, debris, dust, or material intended for disposal, including but not limited to disposable equipment and clothing, that contains lead and was generated by lead based substance activities regulated under this chapter (NHCAR He-P 1602.27) [Added March 2000; Citation Revised March 2009].

- *Major Asbestos Abatement Project -- Class N* - any asbestos abatement project involving 260 linear feet, 160 square feet, or 35 cubic feet, or more of RACM (NHCAR Env-A 1802.37) [Citation Revised March 2007; Citation Revised March 2009].

- *Major Asbestos Abatement Project -- Class S Demolition* - any asbestos abatement project involving less than 260 linear feet, 160 square feet, or 35 cubic feet of RACM, and which occurs within the context of a demolition as defined by this part (NHCAR Env-A 1802.38) [Citation Revised March 2007; Citation Revised March 2009].

- *Major Asbestos Abatement Project -- Class S Renovation* - any asbestos abatement project involving less than 260 linear feet, 160 square feet, or 35 cubic feet of RACM, but more than 10 linear feet, 25 square feet or 3 cubic feet, and which occurs within the context of a renovation as defined by this part (NHCAR Env-A 1802.39) [Citation Revised March 2007; Citation Revised March 2009].

- *Minor Asbestos Abatement Project* - any asbestos abatement renovation activity which encompasses not more than 10 linear feet, 25 square feet, or 3 cubic feet of RACM. The term does not include larger projects that are divided into smaller segments (NHCAR Env-A 1802.41) [Citation Revised March 2007; Citation Revised March 2009].

- *Regulated Asbestos-Containing Material (RACM)* - (NHCAR Env-A 1802.46) [Citation Revised March 2007; Citation Revised March 2009]:
  1. Friable ACM;
  2. Category I nonfriable ACM that has become friable;
  3. Category I nonfriable ACM that will be or has been subjected to sanding, grinding, sawing, or abrading; or
  4. Category II nonfriable ACM that will likely become or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

- *Removal* - the striping of any RACM from surfaces or components within a facility (NHCAR Env-A 1802.47) [Citation Revised March 2007; Citation Revised March 2009].

- *Renovation* - altering a facility or one or more facility components in any way, including the stripping or removal or RACM from any facility (NHCAR Env-A 1802.48) [Citation Revised March 2007; Citation Revised March 2009].

TOXIC SUBSTANCES MANAGEMENT GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS	
	REFER TO CHECKLIST ITEMS:
PCB Management	
PCB Missing Checklist Items	T1.2.1.NH.
Asbestos Management	
Asbestos Missing Checklist Items	T2.2.1.NH.
Renovation and Demolition of Asbestos-Containing Structures	T2.5.1.NH. through T2.5.9.NH.
Asbestos Personnel Training/Certification	T2.10.1.NH. and T2.10.2.NH
Asbestos Disposal	T2.15.1.NH. through T2.15.8.NH.
Asbestos in Schools	T2.20.1.NH.
Radon Management	
Radon Missing Checklist Items	T3.2.1.NH.
Lead Based Paint Management	
All Federal Facilities	T4.1.1.NH. through T4.1.3.NH.
LBP Missing Checklist Items	T4.2.1.NH.
Notification Requirements	T4.10.1.NH. through T4.10.3.NH.
Training Requirements	T4.15.1.NH.
Work Practice Standards	T4.20.1.NH. and T4.20.2.NH

GUIDANCE FOR APPENDIX USERS	
REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
11-1	Asbestos Work Practices

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
PCB MANAGEMENT **T1.2.** **Missing Checklist Items**	
T1.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
ASBESTOS MANAGEMENT **T2.2.** **Missing Checklist Items**	
T2.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
T2.5. **RENOVATION AND DEMOLITION OF ASBESTOS CONTAINING STRUCTURES**	
T2.5.1.NH. Facilities must provide prior notification of asbestos activities (NHCAR Env-A 1801.02, 1801.03, and 1803.01 through 1803.05, and 1803.07) [Revised March 2007; Revised March 2009].	Verify that the facility provides written notification to the Department and to the city or town health officer at least 10 working days before asbestos abatement activity begins at any major asbestos abatement project (see definitions). (NOTE: Notification to the Department is not required for any minor asbestos abatement projects.) Verify that the facility provides written notification to the Department and to the city/town health officer at least 10 working days before any demolition activity begins. (NOTE: This notification is required regardless of the amount of ACM, if any, that is contained in the facility.) (NOTE: In the event that a facility is expected to undergo a Class S major asbestos abatement, the operator may file an annual notification to cover the period from 1 January of a calendar year to 31 December of the same year. After filing the annual notification, the owner or operator provides the department with quarterly reports of activities performed under the annual notification.) Verify that asbestos abatement activities do not occur outside the starting and completion dates listed in the notification unless a revised notification is received by the department. Verify that for emergency asbestos abatement projects, the facility: - notifies the Division as early as possible prior to abatement or, if prior notice is not possible, within 24 hr of the beginning of each emergency asbestos abatement activity with information required under this checklist item - if notification is provided orally, provides written notification in accordance with this part to the Division no later than 48 hr after the beginning of an emergency asbestos abatement. (NOTE: Env-A 1800, Asbestos Management and Control, applies to the following persons, facilities, and activities: - any person who owns or operates any facility that has regulated asbestos-containing material (RACM) on the premises - any person involved in asbestos abatement activities, including analytical laboratories, consultants, asbestos abatement contractors, and asbestos abatement workers - any source, other than an inactive waste disposal site that ceased operating by

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	July 10, 1981, subject to 40 CFR 61, Subpart M - any structure, installation, or building previously subject to this chapter, regardless of its current use or function - training, licensure, and certification of persons who engage in: - asbestos abatement activities - school asbestos abatement planning activities - activities involving the disturbance of asbestos at asbestos disposal sites - provisions for inspection, compliance monitoring, and enforcement by the department.) (NOTE: The owner of a private, single-family residence occupied by the owner who performs asbestos abatement activities on that residence is not subject to Env-A 1800 provided: - the owner personally performs the work - the work is not done within 6 months of selling the home. However, the owner of a private, single-family residence occupied by the owner who performs asbestos abatement activities on that residence must comply with, asbestos removal procedures (Env-A 1805.07) and disposal procedures (Env-A 1805.08(a) and (b)), excluding the notification requirements (see appendix 11-1.).)
T2.5.2.NH. Facilities must provide inspections prior to demolitions or renovations (NHCAR Env-A 1804.01 (a)) [Revised March 2007; Revised March 2009].	(NOTE: See T2.5.1.NH. for applicability.) Verify that, prior to undertaking any demolition or renovation, the affected portions of the facility are inspected by an asbestos inspector for the presence of ACM.
T2.5.3.NH. Asbestos abatement projects must comply with documentation requirements (NHCAR Env-A 1804.02) [Revised March 2007; Revised March 2009].	(NOTE: See T2.5.1.NH. for applicability.) Verify that the following documents are maintained on-site for the duration of the asbestos abatement project: - a current copy of these rules - copies of the decontamination procedures used for the decontamination enclosure system or any other procedures which have been established to prevent contamination of areas outside the work area - copies of procedures to be followed during medical or fire emergencies, including phone numbers of the nearest emergency facilities - copies of all licenses, certificates and proof of training held by all supervisors and workers engaged in the asbestos abatement project - records of all project-related air sampling results - a copy of any written notification concerning the asbestos abatement project submitted to the department.

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T2.5.4.NH. Asbestos abatement projects must comply with recordkeeping requirements (NHCAR Env-A 1804.03 and 1804.04) [Citation Revised March 2007; Revised March 2009].	(NOTE: See T2.5.1.NH. for applicability.) Verify that the facility records and maintains the following information for each project: - the name, title, address, and social security number of each supervisor and worker participating in the project - the address of the project - the work plan for the project - the estimated amount of RACM involved in the project - the scheduled and actual starting and completion dates, and, if an actual date differs from the date originally scheduled, a statement of reasons for the difference - documentation of compliance with all applicable requirements of this chapter - copies of all asbestos-related correspondence with the Division and other state and federal agencies concerning the project, including but not limited to building or demolition permits, notices of violation, or other documents relating to permits - the name and address of the asbestos disposal facility to which the RACM was taken - the methodology and results of all air sampling conducted during the abatement process, the name and address of any consultant hired to perform such sampling, and the name and address of any analytical service employed to analyze such samples - descriptions of worksite accidents and unplanned or planned exposures to asbestos. Verify that records are not destroyed unless they are more than 30 years old, dated from the completion of the asbestos abatement project.
T2.5.5.NH. Major abatement activities must meet specific requirements (NHCAR Env-A 1805.01 through 1805.07 and 1806.02 (e)) [Revised March 2007; Revised March 2009].	(NOTE: This checklist item applies to major asbestos abatement activities.) Verify that, prior to the start of the major abatement activity, the owner or operator follows the work practices as listed in Appendix 11-1. Verify that no work using an alternative procedure begins without the written approval or abstention of EPA Region I and the department.
T2.5.6.NH. Management of asbestos prior to transport for disposal must meet specific requirements (NHCAR Env-A 1805.08) [Revised March 2007; Citation Revised March 2009].	(NOTE: See T2.5.1.NH. for applicability.) Verify that RACM is placed wet into water-tight containers for transport to a landfill. (NOTE: Double impermeable bags of at least 6 mil thickness each, which can be securely sealed may be used.)

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	Verify that large components or structural members removed intact are wrapped air-tight in 2 layers of 6 mil sheeting secured with tape. Verify that all containers, including bags, drums, and wrapped components, are labeled and manifested in accordance with 40 CFR 61.150. Verify that, within 30 days after delivery of RACM to the disposal site, an owner or operator provides a copy of the waste shipment record to the department.
T2.5.7.NH. Minor asbestos abatement projects must meet specific requirements (NHCAR Env-A 1805.13) [Revised March 2007; Citation Revised March 2009; Revised March 2010].	(NOTE: See T2.5.1.NH. for applicability.) Verify that personnel involved in minor asbestos abatement projects are certified. Verify that all persons performing a minor asbestos abatement project take the following precautions at a minimum to prevent the release of asbestos fibers into the ambient air: - barriers including glovebags are installed to assure that fibers released during abatement activities are contained within the work area - all RACM is wetted prior to being disturbed, and is kept wet until it is containerized - HEPA vacuum equipment and wet cleaning techniques are used to clean up the work area following abatement until no visible residue is observed - prior to disposal, RACM is containerized in air-tight containers and labeled in accordance with 40 CFR 61.150 - the containerized waste is transported to and disposed of in accordance with Env-Sw 900 (see T2.15 below).
T2.5.8.NH. The use of glovebags must meet specific requirements (NHCAR Env-A 1806.01) [Revised March 2007; Revised March 2009].	(NOTE: See T2.5.1.NH. for applicability.) Verify that glovebags are only used under such conditions that their use will not threaten any release of fibers at locations outside of the glovebag. Verify that, following completion of a glovebag procedure or series of glovebag procedures in a contiguous area, clearance air sampling is conducted. Verify that glovebag procedures conform to the requirements of 29 CFR 1926.1101(g)(5)(ii)(B)(1) through (8), July 1, 2007.
T2.5.9.NH. The enclosure and encapsulation of RACM must meet specific requirements (NHCAR Env-A 1805.11 and 1805.12) [Added	Verify that when an owner or operator chooses to enclose RACM, the owner or operator does the following: - prior to enclosure, removes loose and hanging RACM - ensures that enclosures are airtight and that the area being enclosed is

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March 2 007; Revised M arch 2009].	inaccessible - prior t o c ommencing work, wet a ll R ACM th at has t he p otential to b e disturbed during the installation of hangers, brackets or other portions of the enclosure - designate enclosures for RACM by signs, labels, color coding, or some other mechanism t o warn i ndividuals who may b e r equired to d isturb th e enclosure. Verify that, when an owner or operator chooses to encapsulate RACM, the owner or operator does the following: - insures that f iller material applied to g aps in e xisting material c ontains no asbestos, ad heres well to t he substrate, a nd p rovides a s uitable b ase for t he encapsulant - prior to encapsulation, removes loose and hanging RACM - applies encapsulants us ing only l ow p ressure a irless s pray e quipment with nozzle pressure an d tip size s et according to the manufacturer's recommendation - specifically designates encapsulated RACM by signs, labels, color coding, or some other m echanism t o w arn individuals w ho m ay i n the f uture be required to disturb the material.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
T2.10. **ASBESTOS PERSONNEL TRAINING**	
T2.10.1.NH. Personnel involved in major asbestos abatement projects must be licensed and certified (NHCAR He-P 5008.02, 5008.10 through 5008.14 and Env-A 1805.02) [Citation Revised March 2007; Revised March 2009].	Verify that the contractor(s) and personnel involved in a major asbestos abatement project are licensed and certified, respectively. Verify that no individual engages in any on-site supervision of asbestos abatement workers during an asbestos abatement project without first being certified as an asbestos site supervisor. Verify that no individual performs any asbestos inspections of schools, as defined by AHERA, without first being certified as an asbestos inspector. Verify that no individual functions as an asbestos management planner for schools without first being certified as an asbestos management planner. Verify that no individual functions as an asbestos project designer for schools without first being certified as an asbestos project designer. (NOTE: The following are exempt: - the owner of a single family private residence who is personally performing asbestos abatement within the confines of his private residence is exempt - any person or entity, other than maintenance personnel, who performs only minor asbestos abatement projects is exempt from licensing and site supervisor requirements provided that they comply with Env-A 1800 (see section T2.5.NH.) and hold a valid asbestos abatement certificate - any person or entity working only as an asbestos inspector, asbestos management planner, asbestos abatement project designer, or a combination of these, is exempt from licensing requirements provided these services are not provided to schools.) (NOTE: Maintenance personnel are exempt from licensing and certification requirements for asbestos abatement site supervisors and workers provided that: - these employees are performing only operations, maintenance, and repair activities that are: - of small-scale, short-duration as defined in 40 CFR 763, Subpart E, and - limited to less than or equal to 3 linear ft of asbestos surface on pipes and ducts, or 3 square ft of asbestos containing building material on surface structures other than pipes or ducts - maintenance personnel who work in buildings that contain asbestos containing building material receive 16 hours of initial training as described in 40 CFR Subpart E 763.92 (a)(1) and (2) - maintenance personnel receive 4 hours of refresher training one time every 2 years.)

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T2.10.2.NH. Personnel who disturb asbestos at a landfill must meet training, certification and licensing requirements (NHCAR He-P 5011.01, 5011.02, 5011.03, 5012.02, and 5012.03) [Added March 2001; Revised March 2002].	(NOTE: Moved from T2.15.6.NH, March 2007.) Verify that employers and self-employed individuals that disturb asbestos at asbestos disposal sites are licensed and hold a valid certificate. Verify that employees and other individuals that disturb asbestos at asbestos disposal sites are trained and certified to do so. (NOTE: The following are exempt from this requirement: - individuals identified in RSA 141-E:10, I(a), namely individuals certified pursuant to He-P 5012 who perform the work for a contractor, employer or other individual holding a valid license issued pursuant to this part - owners of single-family owner occupied properties who, on said property only, personally perform the work, subject to the following conditions: - the owner is trained and certified pursuant to He-P 5012 - the work is done in a manner that precludes the release of asbestos fibers and in accordance with other federal, state, and local requirements, including the requirements identified in He-P 5001.01(b) - entities and individuals undertaking a small-scale, short duration disturbance of asbestos at an asbestos disposal site, subject to the following conditions: - the entity or individual is not under license suspension or revocation pursuant to these rules - the quantity of material disturbed does not exceed one cubic foot - the area of disturbance does not exceed 3 square feet - the work is completed within 2 hours of being initiated - the entity or the individual assures that the local health officer is notified before the work commences and that the local health officer, the department, and department of environmental services are provided access to the work site for inspection - the work is done in a manner that precludes the release of asbestos fibers and in accordance with other federal, state, and local requirements, including the requirements identified in He-P 5001.01(b) - the work is not part of a larger project that is being segmented into small scale, short duration tasks - entities and individuals removing non-friable asbestos only from the ground surface to a container for disposal, subject to the following conditions: - the activity does not involve excavation below the ground surface - the activity does not involve contact with friable asbestos or asbestos that exhibits friable characteristics - the work is done in a manner that precludes the release of asbestos fibers and in accordance with other federal, state, and local requirements.)

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T2.15. **ASBESTOS DISPOSAL**	

T2.15.1.NH. Collected asbestos waste must meet specific handling requirements (NHCAR Env-Sw 901.01 and 901.02(d) through (f)) [Revised March 2007].	Verify that asbestos waste is stored only in areas:
	
	- restricted from public access
	- protected from the elements, specifically including wind and water
	- regularly monitored to assure site security
	- conspicuously posted with legible signs imprinted with the following:
	  - "Danger"
	  - "Asbestos waste storage area"
	  - "Dust, cancer and lung disease hazard"
	  - "Authorized personnel only."
	
	Verify that the facility notifies local fire officials as to the establishment and location of an asbestos storage facility requiring a standard permit, in order to alert responding fire personnel of the potential hazard in the event of a fire.
	
	Verify that asbestos waste is transferred only to facilities authorized to receive asbestos waste.
	
	(NOTE: The requirements in this category apply to:
	- the management of asbestos waste, both friable and non-friable
	- the management of material having the potential to be asbestos waste based on its visual appearance, form, function and other available information, unless testing in accordance with the analytical procedures in 40 CFR 61 determines the waste to be non-asbestos based
	- wastes and materials that are combined or mixed with asbestos waste
	These requirements apply from the point of waste origination to the point of waste disposal.)

T2.15.2.NH. Disposal of asbestos wastes must meet general requirements (NHCAR Env-Sw 901.08(b) through (e)) [Citation Revised March 2007].	(NOTE: See T2.15.2.NH. for applicability.) Verify that asbestos waste is not intentionally combined or mixed with other waste types prior to disposal. Verify that asbestos waste is not incinerated. Verify that asbestos waste and waste mixtures are not composted. Verify that asbestos waste and waste mixtures are not land applied.

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T2.15.3.NH. Asbestos waste landfills must meet specific operating and recordkeeping requirements (NHCAR Env-Sw 901.04 and 2601.08(b) through (e)) [Citation Revised March 2007].	(NOTE: See T2.15.2.NH. for applicability.) Verify that asbestos waste is landfilled at authorized facilities only. Verify that asbestos waste that is friable or exhibits friable characteristics is not landfilled prior to being: - treated to minimize releases - packaged and labeled. Verify that solid waste disposal facilities that landfill asbestos waste are equipped and staffed to manage the asbestos in conformance with the solid waste rules, including: - personnel protective equipment - staff training - equipment for wetting asbestos - decontamination equipment. Verify that prior to receiving asbestos waste, the landfill operator prepares a disposal area within the permitted footprint to allow the asbestos waste to be placed and immediately covered without release of asbestos fibers to the air and without direct contact between the asbestos waste and personnel and equipment. Verify that containers of asbestos waste are unloaded at landfills in a manner to prevent: - release of asbestos fibers - personal exposure to asbestos fibers - direct contact with asbestos fibers by personnel and equipment. Verify that non-rigid containers that have been exposed to asbestos waste are disposed with the asbestos waste. Verify that following placement in the disposal area, asbestos waste is immediately covered with at least 3 ft of non-asbestos waste or 18 in. of soil. Verify that an asbestos waste disposal facility compiles records (pursuant to 40 CFR 61), to include a map or diagram of the disposal area identifying the location, depth, area and quantity of asbestos waste landfilled at the facility.
T2.15.4.NH. Asbestos wastes must meet specific transport, packaging, and labeling requirements (NHCAR Env-Sw 901.06(c) through (i)) [Citation Revised	(NOTE: See T2.15.2.NH. for applicability.) Verify that bags used for disposal of friable asbestos waste are made of at least 6 mil polyethylene or a functional equivalent, and not reused. Verify that containers receiving bulk unwrapped asbestos waste are lined with at least 20 mil polyethylene or its functional equivalent, and that the liner is not

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March 2007].	reused. Verify that a waste shipment record accompanies all asbestos waste when transported, pursuant to the provisions of 40 CFR 61. Verify that asbestos waste transporters notify the receiving landfill prior to delivering a shipment of asbestos waste, so as to provide the landfill operator with the opportunity to properly prepare the disposal area.
T2.15.5.NH. Spills of asbestos wastes during transport must be tested and reported (NHCAR Env-Sw 901.07) [Citation Revised March 2007].	(NOTE: See T2.15.2.NH. for applicability.) Verify that, if during transportation, a person spills one pound or more of asbestos waste that is friable or exhibits friable characteristics, the person immediately reports the incident by telephone to the following agencies and entities: - the Department's Air Resources Division and Waste Management Division - the hazardous material team at the Department of Safety - the National Response Center. Verify that the analytical testing procedures specified in 40 CFR 61 are used to determine whether a waste is asbestos waste.
T2.15.6.NH. [Moved March 2007]	(NOTE: Moved to T2.10.2.NH., March 2007.)
T2.15.7.NH. Written notification must be provided to the department of asbestos transport and disposal (NHCAR Env-A 1803.08) [Added March 2007; Revised March 2009].	Verify that each person hired by an owner or operator solely to transport and dispose of ACM provides written notification to the department. Verify that, prior to transport, the following information is provided to the department: - the person's name, mailing address, and daytime telephone number, and, if available, an e-mail address - the owner or operator's name and address - the physical address where the ACM is located - the date when ACM will be picked up - the name and physical address of the disposal site - the quantities of ACM to be disposed. Verify that, within 30 days after delivery to the disposal site, a copy of the waste shipment record is provided to the department.

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T2.15.8.NH. Prior to packaging, storage or disposal, asbestos waste that is friable or exhibits friable characteristics must be treated to limit the potential for release of asbestos fibers (NHCAR Env-Sw 901.03 (b)) [Added March 2007].	Verify that prior to packaging, storage or disposal, asbestos waste that is friable or exhibits friable characteristics is treated to limit the potential for release of asbestos fibers using one or more of the following methods: - spray with water or amended water - cover with an encapsulant or sealant, using an airless or electrostatic sprayer if the material is hydrophobic - another method determined to be functionally equivalent to the above.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
T2.20. **ASBESTOS IN SCHOOLS**	
T2.20.1.NH. Certification is required for school asbestos inspectors, abatement designers and management planners (NHCAR He-P 5008.01 (b) and Env-A 1804.01 (b)) [Citation Revised March 2007; Revised March 2009].	Verify that individuals who intend to conduct asbestos inspections of schools, or provide services as an asbestos management planner or project designer for schools, apply to the Division for certification as either an Asbestos Inspector, Asbestos Management Planner, or as an Asbestos Project Designer. Verify that, for an inspection of a school building, the inspection is performed by an asbestos inspector who is certified to perform asbestos inspections.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
RADON GAS **T3.2.** **Missing Checklist Items** **T3.2.1.NH.** Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
LEAD BASED PAINT **T4.1.** **All Federal Facilities**	
T4.1.1.NH. [Moved M arch 2005].	(NOTE: Moved to T4.15.1.NH., March 2005.)
T4.1.2.NH. [Moved M arch 2005].	(NOTE: Moved to T4.20.1.NH., March 2005)
T4.1.3.NH. [Moved M arch 2005].	(NOTE: Moved to T4.20.20.NH., March 2005)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
LEAD-BASED PAINT **T4.2.** **Missing Checklist Items** **T4.2.1.NH.** Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
LEAD-BASED PAINT **T4.10.** **Notification Requirements**	
T4.10.1.NH. Abatement activities must meet specific record keeping requirements (NHCAR He-P 1605.01 and 1605.07 (a) through (d)) [Added March 2005; Revised March 2009].	(NOTE: NHCAR He-P, Lead Poisoning Prevention and Control Rules, apply to all persons performing any activity as lead abatement. Such activities do not include: - renovation, remodeling, landscaping, or other activities, when such activities are not designed to permanently eliminate lead-based paint hazards, but are designed to repair, restore, or remodel a given structure or dwelling, even though these activities might incidentally result in a reduction or elimination of lead-based paint hazards - interim controls, operations and maintenance activities, or other measure and activities designed to temporarily, but not permanently reduce lead-based paint hazards.) Verify that written records are prepared and maintained, for a minimum of 5 years after completion of the project, by the owner or the lead abatement contractor, for each lead hazard reduction project. (NOTE: When an order has been issued, the owner retains written records for the life of the abatement methods used to control each given hazard.) Verify that the written records include the following: - the start-up date and the projected or actual completion dates of the abatement project - the names, addresses, and copies of certificates valid at the time of abatement for all lead abatement supervisors and all lead abatement workers who were involved in the project - a copy of the lead abatement contractor's license valid at the time of abatement - when applicable, a copy of the written lead exposure hazard reduction plan (LEHRP) prepared for the project - the name and address of each laboratory conducting clearance or monitoring analysis during the project - the date and all the results of all laboratory monitoring and analysis conducted, the sampling locations, and the name of the person performing the analysis - a written description of the lead hazard reduction activities completed to date, including the abatement methods used and the locations of the rooms and components where lead hazard reduction activities occurred - any waste management, transportation and disposal records - copies of any orders of lead hazard reduction, notices of violation or administrative fines or consent agreements issued in regard to the lead abatement project.

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T4.10.2.NH. Records must be maintained at the project site for the duration of the lead abatement project (NHCAR He-P 1605.07(e)) [Added March 2005; Revised March 2008].	(NOTE: See T4.10.1.NH. for applicability.) Verify that the following written records are maintained at the project site for the duration of the lead abatement project: - a 24-hour contact number for the lead abatement contractor or for the owner is posted at the entrance of the work site at all times - a written description of procedures to be followed during medical emergencies, including the phone numbers and locations of the nearest hospital or rescue squad - copies of any written respiratory programs - copies of currently valid certificates and licenses of the contractor and all employees engaged in the lead hazard reduction work - a current copy of He-P 1600 and RSA 130-A - a copy of the lead exposure hazard reduction plan, developed specifically for the lead reduction activities of this project - an access control log for persons who have entered any lead abatement work area.

T4.10.3.NH. A licensed contractor must prepare a written lead hazard reduction report for the owner (NHCAR He-P 1605.07 (f) and (g)) [Added March 2005; Revised March 2008].	(NOTE: See T4.10.1.NH. for applicability.)
	
	Verify that, when a licensed contractor is hired to perform the lead hazard reduction work, the contractor prepares a written lead hazard reduction report for the owner which includes:
	
	- the start and completion dates of the lead hazard reduction
	- the name and address of the firm and/or licensed lead abatement contractor under which the abatement is being conducted
	- the name and certificate number of each supervisor and worker assigned to the abatement project
	- a detailed written description of the work that was performed including:
	  - the lead hazard reduction methods used
	  - the locations of rooms and/or components where lead hazard reduction occurred
	  - any required monitoring of encapsulants or enclosures
	- any waste management, transportation and disposal records.
	
	Verify that the written records are retained by the lead abatement contractor or the owner for a minimum of 5 years after the completion of the project.
	
	Verify that, when an order has been issued, the owner retains written records of the methods used to control each given hazard for the life of the abatement.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
LEAD-BASED PAINT **T4.15.** **Training Requirements**	
T4.15.1.NH. Lead inspections, lead base substance abatement, in-place management, or interim controls must be performed by certified individuals (NHCAR He-P 1605.03 and NHRSA 130-A:9) [Added March 2000; Revised March 2005; Revised March 2008].	(NOTE: Moved from T4.1.1.NH, March 2005.) Verify that no person performs or causes to be performed lead inspections, lead base substance abatement, in-place management, or interim controls in a dwelling or dwelling unit, or in any child care facility, except by persons trained, licensed and/or certified to do so. (NOTE: The following lead-based substance abatement activities may be performed by any person: - surface preparation prior to the application of encapsulants - application of encapsulants - installation of exterior siding - installation of interior carpeting or other floor covering where paint is not disturbed - enclosure of bare soil using asphalt or concrete. Verify that abatement activities are only performed when a certified lead abatement supervisor, licensed lead abatement contractor, or owner who qualifies is present at the site. (NOTE: Lead abatement contractors, lead abatement supervisors, lead abatement workers, lead inspectors, and risk assessors who have been granted certification or licensure by another state or by the EPA will be granted reciprocity, provided that the reciprocity applicant submits an application that meets the requirements for approval.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
LEAD-BASED PAINT **T4.20.** **Work Practice Standards**	
T4.20.1.NH. Abatement activities must meet specific requirements (NHCAR He-P 1605.04(a)(2) and (a)(4)) [Added March 2000; Revised March 2005; Revised March 2008].	(NOTE: Moved from T4.1.2.NH., March 2005.) Verify that all persons entering the work area or lead containment use appropriate personal protective equipment appropriate for their given task or work environment in accordance with OSHA 29 CFR 1926.62. Verify that all work areas where employees perform lead abatement activities are arranged, equipped, operated and conducted in a manner that prevents lead based substances or lead contaminated materials from escaping from the work areas. (NOTE: Specific work method requirements are set forth in He-P 1605.08 (Abatement Methods), He-P 1605.09 (Encapsulants), He-P 1605.10 (Preparation of Interior Work Areas), He-P 1605.11 (Preparation of Exterior Work Areas), He-P 1605.12 (Cleanup Requirements), and He-P 1605.13. (Soil Abatement Standards), and He-P 1605.15 (Clearance Inspections)
T4.20.2.NH. Wastes from lead abatement activities must be disposed of as hazardous waste (NHCAR He-P 1605.14) [Added March 2000].	(NOTE: Moved from T4.1.3.NH., March 2005.) Verify that all wastes generated by abatement activities, including wastes generated during clean-up, and preparation, are tested, stored, transported, managed and disposed of in compliance with Federal and state hazardous waste and solid waste regulations. Verify that all waste material generated by abatement activities are locked in a contained area at the end of each work period. Verify that each owner or lead abatement contractor engaged in a lead abatement project remove all lead-containing waste material from the site not later than 48 h after completion of the final cleanup.

Appendix 11-1

Asbestos Work Practices

(Source: NHCAP Env-A 1805.04 through 1805.07 and 1805.09)
[Added March 2007; Revised March 2009]

Env-A 1805.04. Site Preparation

Prior to the start of the abatement, the owner or operator shall:

(a) Post telephone numbers of the nearest emergency facilities within 3 feet of the nearest telephone;
(b) Isolate contaminated areas from uncontaminated areas with air-tight barriers over all openings between the work area and uncontaminated areas, including but not limited to windows, doorways, elevator openings, corridor entrances, ventilation openings, drains, ducts, grills, grates, diffusers and skylights, but excluding the decontamination enclosure system doorways, using a minimum of 6 mil sheeting;
(c) Post warning signs at all entrances to the work area;
(d) Remove all movable objects from the work area;
(e) Clean or dispose of as asbestos waste all contaminated items that are removed from the work area;
(f) Clean all non-movable objects in the work area, then cover with a minimum 4 mil sheeting secured into place;
(g) Install sheeting as follows:
  (1) All uncontaminated floors, walls, and ceiling surfaces in the work areas shall be completely covered with sheeting, sized and installed so as to minimize seams;
  (2) No sheeting seams shall be located at any floor/wall or ceiling/wall corners;
  (3) Floor sheeting shall consist of 2 layers of 6 mil sheeting, extending at least 12 inches up each wall;
  (4) Wall sheeting shall consist of one layer of 4 mil sheeting, extending at least 12 inches across the floor;
  (5) Ceiling sheeting shall consist of one layer of 4 mil sheeting, and shall extend at least 12 inches down each wall; and
  (6) All intake and exhaust openings and any seams in HVAC system components shall be sealed with sheeting of at least 6 mil or tape; and
(h) Turn off all HVAC systems in or passing through the work area, and take measures to prevent accidental start-ups.

Env-A 1805.05. Work Area Ventilation

(a) The work area shall be served by a sufficient number of negative pressure ventilation units with HEPA filtration to provide one containment area air change every 15 minutes.
(b) The unit(s) shall be operated to maintain a static pressure differential of 0.02 inches water gauge from the time that barrier construction is completed through the time acceptable final clean air monitoring results are obtained.
(c) The negative pressure ventilation units shall exhaust filtered air to the outside of the facility wherever practical.
(d) If exhausted to interior spaces, the exhaust shall be monitored for fiber release by:
  (1) Using a continuous, direct reading instrument equipped with a chart recorder located at the exhaust; or
  (2) Taking daily air samples at the exhaust and having them analyzed, as described in Env-A 1805.08(e), as expeditiously as practical, but no more than 24 hours after sampling.

Env-A 1805.06. Worker Decontamination Enclosure System

(a) Each asbestos abatement site shall have a worker decontamination enclosure system.
(b) The worker decontamination enclosure systems shall consist of a clean room, shower room, and equipment room, each separated from each other by doorways with at least 2 overlapping sheets.
(c) The shower room shall have running water that is at least 85° F or can be mixed at the tap to achieve 85° F.
(d) Shower waste water shall be collected and disposed of as asbestos waste or filtered through a 5 micron filter.
(e) Except for the doorways, the worker decontamination enclosure system shall be airtight.

(f) All entrances to and exits from the work area shall be through the decontamination enclosure system.
(g) Each worker exiting from the work area shall thoroughly shower so as to remove all asbestos fibers before entering the clean room.
(h) No asbestos-contaminated individual or item shall enter the clean room.

Env-A 1805.07. Asbestos Removal Procedures

(a) All RACM shall be thoroughly wetted before removal and maintained wet during and after removal until placed into leak-tight containers for disposal.
(b) All RACM shall be carefully lowered to the ground or floor, not dropped or thrown.
(c) Structural members not previously stripped of RACM shall be removed intact or in large sections whenever possible and carefully lowered to the floor.
(d) RACM that is not associated with structural members shall be removed in small sections and not be allowed to accumulate on the floor.
(e) Following removal, the owner or operator shall perform cleanup procedures using repeated HEPA vacuuming and wet cleaning techniques until no visible residue is observed in the work area

Env-A 1805.09. Clearance Testing

(a) At the completion of an asbestos abatement project, but prior to dismantling the containment and decontamination system, the O/O shall obtain the services of an independent industrial hygienist to conduct clearance air sampling.
(b) Prior to clearance sampling, the independent industrial hygienist shall conduct a thorough visual inspection of the work area for the presence of visible residue.
(c) If visible residue is found by the independent industrial hygienist, the O/O shall continue cleaning the work area in accordance with Env-A 1805.07(e).
(d) After determining that no visible residue remains in the work area, the independent industrial hygienist shall take sufficient volumes of air for clearance sampling to accurately determine, to a 95 percent probability, fiber concentrations to 0.01 fibers/cubic centimeter (f/cc) of air.
(e) Clearance air sampling shall be done no sooner than the earlier of 6 hours from the time the cleanup procedures of wet wiping and HEPA vacuuming are completed, or such time as all surfaces in the work area have dried. If all work area surfaces are dry at the completion of the cleanup procedures, no waiting period shall be required prior to beginning air sampling.
(f) Aggressive sampling shall be used:
    (1) To ensure that any fibers deposited on surfaces within the work area are included in the sample; and
    (2) For all clearance sampling in schools and school buildings.
(g) Except for schools and school buildings, non-aggressive sampling shall be used in areas where all uncontaminated wall, ceiling, and floor surfaces in the work area are not covered with sheeting.
(h) The containment and worker decontamination system shall not be dismantled until clearance air sampling demonstrates the presence of no more than 0.01 fibers of length greater than 5 microns per cubic centimeter of air as determined by phase contrast optical microscopy, performed as described in "Asbestos and Other Fibers by PCM: Method 7400, Issue 2", National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods (NMAM), Fourth Edition, 8/15/94.
(i) The industrial hygienist shall provide copies of the clearance air sampling results to the department within 30 days of the date of clearance air sampling.

SECTION 12

WASTEWATER MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Wastewater Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Agronomic Rate* - the sludge application rate that is designed to (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010]:
  1. Provide the amount of nitrogen or other nutrients(s) needed by the crop or vegetation; and
  2. Minimize the amount of nitrogen that passes below the root zone of the crop or the vegetation to the groundwater.

- *Beneficial Reuse* - taking advantage of the nutrient content and/or soil conditioning properties of sludge by supplying agronomic or soil conditioning benefits such as the nitrogen, phosphorus, micronutrients, or organic matter needs for a crop, forested land, or establishing a vegetative cover for reclamation sites; or land applying the sludge in accordance with these rules so as to not pose a significant risk to public health or the environment (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Best Available Technology* - the best proven technology, treatment techniques or other means which are commercially available for the treatment of wastewater (NHCAR Env-Wq 402) [Citation Revised March 2000; Citation Revised March 2010].

- Biosolids - means "biosolids" as defined by RSA 485-A:2, XXII, namely "any sludge derived from a sewage wastewater treatment plant that meets the standards for beneficial reuse specified by the department" (NHCAR Env-Wq 802) [Added March 2010].

- *Certificate* - certificate of competency issued pursuant to these rules stating that the operator has met the particular requirements of the operator classification grade specified on the document (NHCAR Env-Ws 901.03) [Revised April 1998; Revised March 2007].

- *Class A Biosolids* - biosolids derived from human waste which is class A with respect to pathogens under 40 CFR part 503.32(a) and which meets one of the vector attraction reduction requirements of 40 CFR part 503.33(b)(1) through (b)(8) (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Class B Biosolids* - biosolids derived from human waste which is class B with respect to pathogens under 40 CFR part 503.32(b) and which meets one of the vector attraction reduction requirements of 40 CFR part 503.33(b)(1) through (b)(11) (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Closure* - the procedures used to cease the use of a facility, or a portion thereof, in a manner that will minimize future risks of environmental damage, and includes all required post-closure inspection, monitoring, and maintenance activities (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Community* - any city or town that is included as part of, and is served by, the Winnipesaukee river basin system and includes, but is not limited to, portions of Laconia, Franklin, Meredith, Gilford, Tilton, Belmont, Northfield, Sanbornton, and the Bay District (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Cooling Water* - the clean wastewater from air conditioning, industrial cooling, condensing, and similar apparatus and from hydraulically-powered equipment which is sufficiently clean, uncontaminated, and unpolluted that it can be discharged, without treatment or purification, to a natural open stream or watercourse, subject to the conditions of an NPDES permit (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Department* - the Department of Environmental Services (NHCAR Env-Wq 1202) [Added April 1998; Citation Revised March 2009; Citation Revised March 2010].

- *Department* - the New Hampshire department of environmental services (NHCAR Env-Wq 1202 and Env-Ws 904.03) [Added March 2006; Citation Revised March 2007; Citation Revised March 2010].

- *Discharge* - disposal, addition, placement or injection of any water, wastewater, septage or sludge onto or into the ground or groundwater, including a leak, spill, land treatment, or other intended release (NHCAR Env-Wq 402) [Citation Revised March 2000; Revised March 2010].

- *Disposal* - the final discharge, deposit, injection, or dumping, spilling, leaking, incinerating, or placing of septage into or onto any land so that such septage or any constituent thereof may enter the environment, be emitted into the air, or be discharged into any surface water or groundwater. Disposal includes land application (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2010].

- *Disposal* - the final discharge, deposit, injection, dumping, mixing, spilling, leaking, incinerating, or placing of sludge into or onto any land so that such sludge or any constituent of it may enter the environment, be emitted into the air or be discharged into any surface water or groundwater. Disposal includes land application (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Domestic Wastewater* - wastewater from human sanitary uses including, but not limited to, bathing, clothes washing and toilets (NHCAR Env-Wq 402) [Citation Revised March 2000; Citation Revised March 2010].

- *Facility* - a location or system for storing septage or for the processing, treatment, or disposal of septage, other than land application. Facilities include, but are not limited to, lagoons, septage treatment facilities, transfer stations, and sites where septage is treated or mixed with other septage or other material for shipment off site. Facilities do not include septage-holding tanks (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2010].

- *Facility* - a location or system for storing sludge for longer than 8 mo; or for the processing, treatment or disposal of sludge, other than land application. Facilities include, but are not limited to, lagoons, sludge treatment facilities, sludge monofills, sludge transfer stations, and sites where sludge is treated or mixed with other sludge or other material for shipment off site (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Garbage* - the animal and vegetable waste resulting from the handling, preparation, cooking, and serving of foods (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Generator* - the person who holds title to the water or wastewater treatment facility that produced the sludge or the facility where sludge is mixed or treated to produce another material (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Grease* - volatile and non-volatile residual fats, oils, fatty acids, soaps, waxes, mineral oils, and other similar materials (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Grit* - heavy inorganic matter such as stone, gravel, cinders, sand, silt, ashes, and heavy particulate matter such as bone chips and coffee grounds (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Groundwater Discharge Zone* - the subsurface volume in which groundwater contamination associated with the discharge of domestic wastewater is contained (NHCAR Env-Wq 402) [Citation Revised March 2000; Citation Revised March 2010].

- *Hauler* - any person engaged in the removal or transportation of septage (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2010].

- *Hauler* - any person engaged in the removal or transportation of sludge (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *In-Bulk* - a sludge that is distributed in a container of greater than 100 lb (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Indirect Discharge* - the introduction of pollutants into the POTW from any industrial source regulated under Section 307(b), (c), or (d) of the Federal Water Pollution Control Act (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Industrial Discharge* - means "industrial waste" as defined in RSA 485-A:2, VI, namely "any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade or business or from development of any natural resources." For purposes of these rules, "industrial discharge" does not include sewage (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Industrial Discharge Permit or IDP* - a regulatory document issued by the WRBP designed to control the discharge of pollutants from industrial users into the public sewer as authorized by the provisions set forth in RSA 485-A:45-54 and its federal NPDES permit (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Industrial User* - a person who discharges industrial wastes to the POTW (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Industrial Waste* - any liquid, gaseous or solid waste substance resulting from any process of industry manufacturing trade or business or from development of any natural resources (NHCAR Env-Ws 904.03) [Citation Revised March 2007; Citation Revised March 2010].

- *Industrial Wastewater* - wastewater generated from a commercial or industrial process (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Interference* - a discharge which, alone or in conjunction with discharges by other sources (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010]:
  a. Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal;
  b. Causes a violation of any requirement of the WRBP's NPDES permit; or
  c. Prevents sewage sludge use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder, or any more stringent state or local regulations:
     1. Section 405 of the Clean Water Act;
     2. The Solid Waste Disposal Act, including Title II commonly referred to as RCRA;
     3. The Clean Air Act;
     4. The Toxic Substance Control Act;
     5. The Marine Protection, Research, and Sanctuaries Act;
     6. Standards for Sewage Use and Disposal, 40 CFR 503;
     7. Septage disposal rules, Env-Wq 1600;
     8. Sludge disposal rules, Env-Wq 800;
     9. Groundwater protection rules, Env-Wq 402 and Env-Wm 1403; and
     10. Solid waste rules and hazardous waste rules, Env-Wm 100-3700.

- *Lagoon* - a pit or excavation designed to receive septage (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Lagoon* - a lined or unlined pit or excavation designed to receive sludge (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Land Application* - the placement of septage on the ground surface for beneficial use, whether or not the material is incorporated or injected into the surface soil (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Land Application* - the placement of quality-certified sludge on the ground surface for beneficial use, whether or not the material is incorporated or injected into the soil (NHCAR Env-Wq 802) [Revised March 2000; Revised March 2010].

- *Local Limit* - a pollutant concentration which numerically limits the amount of each specified pollutant that can be discharged to the POTW in accordance with RSA 485-A:5, IV or 40 CFR 403.5(c) (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Locally Accessible Place* - a location, in the town or municipality where the septage management activity is proposed, that has public access. The term includes the town hall, school building, selectmen's office or the public library (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Locally Accessible Place* - a location to which the public has access in the town or municipality where the sludge management activity is proposed. The term includes the town or city halls, schools, selectmen's office and public libraries (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Management Or Manage* - the practice of supervising, controlling, or undertaking any septage activities regulated under these rules, including transporting, land applying, stockpiling, treating, processing or otherwise disposing (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Management Or Manage* - the practice of supervising, controlling, or undertaking any activities regulated under Env-Wq 800, including transporting, land applying, stockpiling, treating-processing (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *National Categorical Pretreatment Standard* - any regulation that contains pollutant discharge limits promulgated by EPA in accordance with Section 307(b) and (c) of the Clean Water Act and amendments thereto which apply to a specific category of industrial users and which are found at 40 CFR Chapter I, Subchapter N, parts 405 through 471 (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Noncontact Cooling Water* - water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Operator* - means "operator" as defined in RSA 485-A:2, VII-a, namely (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010]:
  1. The individual who has full responsibility for the daily operation of a wastewater treatment plant or pollution control facility;
  2. The individual normally responsible for the operations shift; or
  3. Individuals who perform important operating functions."

- *Operator* - the person responsible for managing the sludge activity(ies) at a site, facility, or wastewater treatment facility (NHCAR Env-Wq 802) [Added March 2008; Citation Revised March 2010].

- *Other Wastes* - means "other wastes" as defined in RSA 485-A:2, VIII, namely "garbage, municipal refuse, decayed wood, sawdust, shavings, bark, lime, ashes, offal, oil, tar, chemicals and other substances other than sewage or industrial wastes, and any other substance harmful to human, animal, fish or aquatic life (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Pass Through* - the discharge of pollutants through the POTW into surface waters in quantities or concentrations which, alone or in conjunction with discharges from other sources, causes a violation of any requirement of the WRBP's NPDES permit, including an increase in the magnitude or duration of a violation of applicable water quality criteria (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Permit* - the written document issued by the department which authorizes the holder to manage the site or facility or to use the identified tank and vehicle to remove and transport septage according to the terms of the document (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Permit* - the written document issued by the Department which authorizes the holder to manage the site or facility identified in the document or to use the vehicle identified in the document to remove and transport sludge according to the terms of the document (NHCAR Env-Wq 802) [Revised March 2000; Revised March 2010; Citation Revised March 2010].

- *Permittee* - any individual, partnership, corporation, trust, or other entity to whom an IDP or commercial discharge permit has been issued by the department (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Person* - means "person" as defined in RSA 485-A:2, IX, namely "any municipality, governmental subdivision, public or private corporation, individual, partnership, or other entity" (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Pollutant* - means "pollutant" as defined in 40 CFR 122.2 (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Poorly Drained Soil* - a type of soil where water is removed so slowly that the soil is wet at shallow depths periodically during the growing season or remains wet for long periods. The occurrence of internal free water is shallow or very shallow and common or persistent. Free water is commonly at or near the surface long enough during the growing season so that most mesophytic crops cannot be grown, unless the soil is artificially drained. The soil is not continuously wet directly below plow depth. Free water at shallow depth is usually present (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010; Citation Revised March 2010].

- *Pretreatment* - the application of physical, chemical, and biological processes, either single or in combination, to reduce the amount of pollutants in or alter the nature of the pollutant property in a waste prior to discharging such waste into publicly-owned treatment works (NHCAR Env-Ws 904.03) [Citation Revised March 2007; Citation Revised March 2010].

- *Pretreatment* - the application of physical, chemical, and/or biological processes to reduce the amount of pollutants in or alter the nature of the pollutant property in a waste prior to discharging such waste into a publicly owned treatment works (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Pretreatment Requirement* - any substantive or procedural requirement related to pretreatment imposed on an industrial user, other than a pretreatment standard (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Pretreatment Standards* - established prohibited discharge standards, standards specified in 40 CFR Chapter I, Subchapter N, Parts 405-471, and local limits as specified in RSA 485-A:5 (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Processing* - any activity to reduce the volume of septage or alter its chemical, biological, or physical state through methods such as thermal treatment, composting, blending, and pH adjustment. Processing does not include pH adjustment of septage for odor control or pathogen reduction, or screening to remove plastics and other foreign objects or dewatering of septage at its Source (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Processing* - any activity to reduce the quantity of sludge, or alter its chemical, biological, or physical state. Processing does not include the alteration of a sludge's chemical, biological, or physical state solely for the purpose of odor control (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Prohibited Discharge Standards* - absolute prohibitions against the discharge of certain substances as specified in Env-Wq 1203.09 General Sewered Waste Restrictions (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Properly Shredded Garbage* - garbage that has been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than ½ inch in any dimension (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Publicly Owned Treatment Works (POTW*) - a wastewater treatment facility that is owned by a municipality or other governmental agency or subdivision (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Publicly Owned Treatment Works or POTW* - a "treatment works" as defined by Section 212 of the Clean Water Act as amended, the components of which are owned by the department or a community, including the WRBP treatment plant, major interceptor, interceptor sewers, pumping stations, any devices or systems used in the collection, storage, treatment, recycling or reclamation of sewage or industrial wastes of a liquid nature, any conveyances which convey wastewater to the treatment plant, and appurtenant facilities essential to the operation of the entire system (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Reclamation* - the addition of organic matter and nutrients to improve and/or promote establishment or vegetation on soils that have been severely disturbed or that do not support vegetation enough to prevent erosion (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Screening Level* - that concentration of a pollutant in water which would cause a threat to personnel exposed to the pollutant, or would cause a threat to the structures of the POTW (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Septage* - septage as defined by RSA 485-A:2,IX-a, namely material removed from septic tanks, cesspools, holding tanks, or other sewage treatment storage units, excluding sewage sludge from public treatment works and industrial waste and any other sludge. Septage includes material from septage lagoons (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2010].

- *Septage* - septage as defined by RSA 485-A:2, IX-a, namely "material removed from septic tanks, cesspools, holding tanks, or other sewage treatment storage units, excluding sewage sludge from public treatment works and industrial waste and any other sludge (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Sewage* - the water-carried waste products from buildings, public or private, together with such groundwater infiltration and surface water as may be present (NHCAR Env-Ws 904.03) [Citation Revised March 2007].

- *Sewage* - sewage as defined in RSA 485-A:2, X, namely "the water-carried waste products from buildings, public or private, together with such groundwater infiltration and surface water as may be present" (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Significant Industrial User (SIU)* - significant industrial user as defined in 40 CFR 403.3(t) (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Site* - contiguous land area(s) owned by the same person, on which septage is land applied, even if the land area is divided by a highway, rail bed, water body or boundary of a political subdivision (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Site* - contiguous land areas owned by the same person(s), on which quality-certified sludge is stockpiled for 8 mo or less or land applied, even if the land area is divided by a highway, railroad bed, water body, or boundary of a political subdivision (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Sludge* - sludge as defined by RSA 485-A:2, XI-a, namely the solid or semisolid material produced by water and wastewater treatment processes, excluding domestic septage; provided, however, sludge which is disposed at solid waste facilities permitted by the department shall be considered solid waste and regulated under RSA 149-M. Sludge also includes industrial sludge and sludge mixed with another sludge or another material (NHCAR Env-Wq 802) [Revised March 2000; Citation Revised March 2010].

- *Sludge Derived From Human Waste* - sludge produced by the treatment of wastewater that contains human fecal material. Sludge is considered derived from human waste if any portion of the influent wastewater contains human fecal material (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Slug Discharge* - any discharge of water or wastewater in which the concentration of any given pollutant or the quantity of flow exceeds, for any period of duration longer than 15 minutes, more than 5 times the average 24-hour concentration or flow during normal operation, or which adversely affects the POTW (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Stockpiling* - the storage of sludge (NHCAR Env-Wq 802) [Added March 2000; Citation Revised March 2010].

- *Storage* - the placement of septage in or on land (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].

- *Surface Water* - surface waters of the state as defined by RSA 485-A:2, XIV, namely perennial and seasonal streams, lakes, ponds and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses and other bodies of water, natural or artificial. Surface water includes wetlands, but does not include non-tidal drainage ditches that were designed, built, and used to convey wastewater or stormwater. It also does not include constructed wetlands, lagoons, and other treatment systems designed and built solely as wastewater or stormwater treatment systems provided such facilities were not initially constructed in waters of the state or were not constructed to serve other mitigation purposes (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Suspended Solids* - solids that either float on the surface of, or are in suspension in, water, sewage, or other liquids, and which are removable by laboratory filtering (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Transfer/Storage Area* - a place where septage from more than one hauler is accumulated for collection and subsequent removal to a permitted site or facility without processing (NHCAR Env-Wq 1602) [Added March 2000; Citation Revised March 2008; Revised March 2009; Citation Revised March 2010].

- *Treatment Plant* - wastewater treatment plant as defined by RSA 485-A: XVI-a, namely "the treatment facility or group of treatment devices which treats domestic or combined domestic and industrial wastewater through alteration, alone or in combination, of the physical, chemical, or bacteriological quality of the wastewater and which dewaters and handles sludge removed from the wastewater" (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Treatment Works* - any device or system used in the collection, storage, treatment, recycling or reclamation of sewage or industrial waste and includes all collection sewers, interceptor sewers, pumping stations, treatment and appurtenant facilities essential to the operation of an entire system (NHCAR Env-Wq 904.03).

- *Upset* - an exceptional incident in which there is unintentional and temporary noncompliance with pretreatment standards because of factors beyond the control of the user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *Very Poorly Drained Soil* - a type of soil where water is removed from the soil so slowly that free water remains at or very near the ground surface during much of the growing season. The occurrence of internal free water is very shallow and persistent or permanent. Unless the soil is artificially drained, most mesophytic crops cannot be grown. The soils are commonly level or depressed and frequently ponded. If rainfall is high or nearly continuous, slope gradients can be greater (NHCAR Env-Wq 802) [Added March 2000; Revised March 2010].

- *Wastewater Treatment Facility* - a plant or group of devices provided for (NHCAR Env-Wq 802 and Env-Wq 1602) [Revised March 2004; Citation Revised March 2008; Citation Revised March 2010]:
  1. the treatment of domestic or industrial wastewater, or both;
  2. the dewatering and handling of sludge removed from such wastewater;
  3. the treatment of septage; or
  4. any combination of 1 through 3 above.

- *Wastewater Treatment Plant* - the treatment facility or group of treatment devices which treats domestic or combined domestic and industrial wastewater through alteration, alone or in combination, of the physical, chemical, or bacteriological quality of the wastewater and which dewaters and handles sludge removed from such wastewater (NHCAR Env-Ws 901.03) [Revised April 1998; Revised March 2007].

- *Wastewater Treatment Plant Operator* or *Operator* - any of the following (NHCAR Env-Ws 901.03) [Added April 1998; Revised March 2007]:
  1. The individual who has full responsibility for the daily operation of a wastewater treatment plant or a pollution control facility
  2. The individual who normally has charge of an operating shift
  3. Individuals who perform important operating functions

- *Winnipesaukee River Basin Program (WRBP)* - an operating bureau of the department charged with implementing RSA 485-A:45-54 (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

- *WRBP System* - that portion of the POTW that is owned by the WRBP, including the treatment plant, major interceptors, interceptor sewers, pumping stations, and appurtenant facilities essential to the operation of the system (NHCAR Env-Wq 1202) [Added March 2006; Citation Revised March 2010].

WASTEWATER MANAGEMENT
GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	WA.2.1.NH.
Discharges to the Environment	WA.5.1.NH. through WA.5.3.NH.

(NOTE: See section HM.5, HM.5.1.NH. through HM.5.4.NH., in the *Hazardous Materials Management* chapter for requirements related to the prevention of spills or discharges from potential contamination sources.)

NPDES	[Deleted]
State Permits	WA.15.1.NH. through WA.15.7.NH.
Treatment Works	WA.20.1.NH. through WA.20.3.NH.
Discharges to a POTW/FOTW	
General	WA.25.1.NH.
Industrial Users	WA.35.1.NH. and WA.35.2.NH.
Documentation/Reporting to the POTW	WA.40.1.NH. through WA.40.6.NH.
Individual Sewage Systems	WA.100.1.NH. through WA.100.13.NH.
Land Application of Sludge	
General	WA.105.1.NH. through WA.105.4.NH.
Notifications	WA.115.1.NH.
Monitoring	WA.120.1.NH. and WA.120.2.NH.
Recordkeeping and Reporting	WA.125.1.NH. through WA.125.5.NH.
State-Specific Requirements	WA.130.1.NH. through WA.130.6.NH.
Other Sewage/Sludge Management	WA.148.1.NH. through WA.148.16.NH.
Watershed Protection Programs/Recharge Programs	WA.150.1.NH.

GUIDANCE FOR APPENDIX USERS

REFER TO APPENDIX NUMBERS:	**REFER TO APPENDIX TITLES:**
12-1	Minimum Nitrate Setback Distance to Property Line
12-2	Buffer Distances for Sludge
12-3	[Deleted]
12-4	Maximum Daily Concentration for Pollutants in the WEBS
12-5	Minimum Separation Distances for ISDS components

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WA.2. **MISSING CHECKLIST ITEMS**	
WA.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WA.5. **DISCHARGES TO THE ENVIRONMENT**	
WA.5.1.NH. All wastewater containing harmful or coliform bacteria must be disinfected before discharging to a receiving water body (NHCAR Env-Wq 712.01, 712.02 and 712.04(a)) [Revised April 1998; Revised March 2008].	Verify that all wastewater containing harmful or coliform bacteria is disinfected before discharging to a receiving water body. Verify that only these disinfectant methods are used for wastewater discharges: - sodium or calcium hypochlorite - ultraviolet irradiation. Verify that dechlorination to reduce free and combined chlorine residuals in WWTP effluent, if required by permit, uses sulfite salt solutions.
WA.5.2.NH. [Deleted April 1998].	(NOTE: Combined with WA.5.1.NH.)
WA.5.3.NH. Certain discharges to the ground or groundwater are prohibited (NHCAR Env-Wq 402.07) [Revised March 2000; Revised March 2010].	Verify that the facility does not discharge any of the following to the ground or groundwater: - a nondomestic wastewater discharge that contains regulated contaminants and does not receive treatment by best available technology - a nondomestic wastewater discharge that contains a regulated contaminant which exceeds the ambient groundwater quality standards - a discharge from a floor drain in the area where a regulated contaminant is used or stored - any water, wastewater, or other liquid that causes an exceedance of any of the surface water quality standards specified in Env-Wq 1700 - any water, wastewater, or other liquid that causes any chemical or constituent in the subsurface soils or bedrock to be mobilized and cause exceedances of any ambient groundwater quality standard - any water, wastewater, or other liquid that causes an exceedance of any of the groundwater quality criteria set forth in Env-Wq 402 to be violated at any point beyond the boundary of the groundwater dischargezone established pursuant to Env-Wq 402.21. .

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WA.10. **PERMITS** **WA.10.1.NH.** [Deleted March 2008]. **WA.10.2.NH.** [Deleted March 2008].	

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WA.15. **STATE PERMITS**	
WA.15.1.NH. Permits are required for certain groundwater discharges (NHCAR Env-Wq 402.10) [Revised March 2000; Citation Revised March 2010].	Verify that a groundwater discharge permit has been obtained for: - the construction and operation of an unlined wastewater, septage or sludge lagoon - land treatment of wastewater - the discharge of nondomestic wastewater which contains a regulated contaminant and which has received treatment by best available technology before discharge - the discharge of domestic wastewater from a subsurface disposal system with a design flow equal to or greater than 20,000 gal per day - the discharge of domestic wastewater from subsurface disposal system with aggregate design flows equal to or greater than 1000 gal per day for a single lot if the minimum nitrate setback distances, specified in Appendix 12-1, to the property line are violated. (NOTE: Temporary discharge permits, not to exceed 4 mo, may be issued by the Division.) (NOTE: A groundwater discharge permit is not required for the following activities or facilities: - a discharge of domestic wastewater from a subsurface disposal system installed after July 1, 1988, and in compliance with WA.100.7.NH., which meets nitrate setback distances set forth in Appendix 12-1 - a discharge of domestic wastewater from a subsurface disposal system: - installed prior to July 1, 1988, or - installed after June l, 1965, for properties on islands, July 1, 1967, for properties within 1000 ft of surface water, and July 1, 1971, for all other properties - which is in compliance with WA.100.7.NH., provided that the discharge does not pose a health threat - a discharge of domestic wastewater from a subsurface disposal system installed prior to June 11, 1965, for properties on islands, July 1, 1967, for properties within 1000 ft of surface water, and July 1, 1971, for all other properties provided that the discharge does not pose a health threat - land application of sludge or septage that is in compliance with the requirements of Env-Wq 800 or Env-Wq 1600 (see sections WA.100.NH. through WA.130.NH.) - nondomestic wastewater discharge that does not contain a regulated contaminant provided that the discharge is registered - a discharge associated with an approved remedial action plan provided a groundwater management permit has been issued for the site - a discharge associated with a pumping test provided that the source water meets ambient groundwater quality standards as specified in Appendix 13-4 in the *Water Quality Management* chapter

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	- a discharge associated with agricultural operations which are conducted in compliance with all applicable chapters of RSA Title XL and best management practices developed, administered, and enforced by the New Hampshire Department of Agriculture.)
WA.15.2.NH. Groundwater discharges must be treated prior to discharge (NHCAR Env-Wq 402.22) [Revised March 2000; Citation Revised March 2010].	Verify that domestic wastewater receives primary treatment by settling of solids in subsurface disposal systems and secondary treatment before discharge to the ground or groundwater. Verify that municipal wastewater receives treatment in compliance with RSA 485-A:5. before discharge to the ground or groundwater. Verify that nondomestic wastewater is treated by best available technology before discharge to the ground or groundwater, and that no such discharge contain regulated contaminants in a concentration greater than the ambient groundwater quality standards (see Appendix 13-4 in the *Water Quality Management* chapter). Verify that no discharge causes the groundwater quality criteria set forth in Appendix 13-4 to be violated at any point beyond the boundary of a groundwater discharge zone. Verify that no discharge causes degradation that results in a violation of surface water quality standards in any surface water body (see the "Surface Water Quality" subsection in WQ.115.NH. in the *Water Quality Management* chapter).
WA.15.3.NH. [Deleted April 1998].	
WA.15.4.NH. Groundwater dischargers must meet notification and response requirements (NHCAR Env-Wq 402.23) [Revised March 2000; Citation Revised March 2010].	Verify that if a regulated contaminant is detected by monitoring at a concentration which violates groundwater quality standards, the facility notifies the Division within 10 days and prepares a written response plan to ensure that groundwater quality criteria is not violated at the boundary of the groundwater discharge zone. Verify that the response plan includes, but is not limited to: - inspection and audit of activities and procedures at the facility to determine the source of contamination - further investigation - modification of facility operation - treatment of the waste stream - source remediation - groundwater restoration - facility closure.

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	Verify that the response plan is submitted to the Division within 60 days of notification of the groundwater degradation at the monitoring points, and implemented within 30 days of Department approval.
WA.15.5.NH. Certain facilities must apply for a groundwater release detection permit (NHCAR Env-Or 703.01) [Citation Revised March 2000; Revised March 2008].	Verify that the following facilities have applied for and obtained a groundwater release detection permit: - hazardous waste disposal facilities - lined solid waste landfills - lined wastewater facilities - facilities for processing soils contaminated with petroleum products. Verify that a groundwater release detection permit is obtained for the following activities in a Class GAA wellhead protection area: - the siting or operation of a solid waste composting facility - the siting or operation of a resource recovery facility - the outdoor storage of road salt or other deicing chemicals in bulk - the operation of an existing junk or salvage yard - the operation of an existing snow dump. (NOTE: A groundwater release detection permit is not required for a facility or activity permitted under a groundwater discharge permit or a groundwater management permit.)
WA.15.6.NH. Certain facilities must apply for a groundwater management permit (NHCAR Env-Or 607.01) [Citation Revised March 2000; Citation Revised March 2008].	Verify that the facility applies for and obtains a groundwater management permit for: - a site where the discharge of a regulated contaminant at that site has caused and continues to cause groundwater quality criteria (see section WQ.115.NH. for water quality criteria) to be violated, or - unlined solid waste landfills. (NOTE: The groundwater management permit will include the following: - a groundwater management zone - implementation of measures to restore groundwater quality within the zone to meet groundwater quality criteria - restrictions on the use of groundwater within the zone - monitoring of the effectiveness of remedial measures and groundwater quality within the zone.)
WA.15.7.NH. Facilities that discharge nondomestic	Verify that a discharge registration is obtained by the owner of the facility for the

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wastewater that does not contain a regulated contaminant must register the discharge with the Division (NHCAR Env-Wq 402.31) [Revised March 2000; Revised March 2008; Citation Revised March 2010].	following activities where the discharge is to occur: - the discharge of nondomestic wastewater onto or into the ground which does not contain a regulated contaminant, including but not limited to, underground injection - the discharge of a fluid, such as aquifer recharge or heat pump discharge, via underground injection. Verify that the facility owner notifies the Department in writing when the registered discharge has ceased.

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WA.20. **TREATMENT WORKS**	
WA.20.1.NH. Operators of wastewater treatment plants must be certified (NHCAR Env-Ws 901.04 and 901.21) [Citation Revised March 2007].	Verify that a wastewater treatment plant is not operated without a certified operator in responsible charge. Verify that the operator certification class matches the class of the wastewater treatment plant. (NOTE: There are four grades of operators to parallel the classification of plants.)
WA.20.2.NH. Wastewater treatment plants (WWTP) must meet management and safety requirements when handling hazardous chemicals (NHCAR Env-Wq 706.19) [Added March 2007].	Verify that the materials used for storage, piping, valves, pumping, metering, and splash guards are compatible with the physical and chemical characteristics of each hazardous or corrosive chemical that will be used at the WWTP. Verify that chemical storage areas are enclosed in dikes or curbs that will contain the stored volume. Verify that eye wash fountains and deluge showers using potable water are: - provided in the laboratory and on each floor or work location involving hazardous or corrosive chemical storage, mixing or slaking, pumping, metering, or transportation loading - as close as practicable to possible chemical exposure sites - fully usable during all weather conditions. Verify that all piping containing or transporting corrosive or hazardous chemicals are identified with labels every 10 feet and with at least 2 labels in each room, closet, or pipe chase. Verify that pipes containing hazardous or corrosive chemicals are not located above shoulder level except where continuous drip collection trays and coupling guards will eliminate chemical spray or dripping onto personnel. Verify that all pumps, feeders, connections, and couplings for hazardous or corrosive chemicals have guards that will effectively prevent spray of chemicals into space occupied by personnel.
WA.20.3.NH. Wastewater treatment plants (WWTP) must have laboratories and meet design requirements (NHCAR Env-Wq 706.20)	Verify that all WWTPs include a laboratory and the equipment needed for wastewater analysis, process control tests, discharge permit tests, and quality control analysis checks. (NOTE: If the owner chooses to not include a laboratory in the WWTP, the

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[Added March 2007].	owner contracts with an outside laboratory for all testing services.) Verify that laboratories are ventilated properly with external air supply for 100 percent makeup volume. Verify that laboratory floor surfaces are slip-resistant and fire-resistant, as well as highly resistant to acids, alkalis, solvents, and salts. Verify that the laboratory has at least 2 exit doors, with glass windows for easy visibility, to allow for straight egress. Verify that plumbing is based on the types of substances that may be discarded in the drain lines, with acid- or chemical- resistant waste drain lines being installed as needed.

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DISCHARGES TO A POTW/FOTW **WA.25** **General**	

WA.25.1.NH. Discharges to the Winnipesaukee River basin system (WRBP) sewer system are restricted (NHCAR Env-Wq 1203.09 (a), (d) through (g)) [Added March 2006; Citation Revised March 2010].	Verify that no person discharges or causes or allows to be discharged to the POTW any stormwater or other surface water, groundwater, roof run-off, sub-surface drainage, uncontaminated cooling water, or unpolluted industrial process waters.
	
	Verify that no person discharges or causes or allows to be discharged any of the following described waters or wastes to any sewers:
	
	- any gasoline, benzene, naptha, fuel, oil, or other flammable or explosive liquid, solid, or gas
	- any industrial wastes, including oxygen-demanding wastes at a flow rate and/or concentration which would:
	  - cause interference with the POTW
	  - constitute a hazard to humans or animals
	  - create a public nuisance
	  - exceed any applicable national categorical pretreatment standard or local limit
	- any waters or wastes having a pH lower than 5.5 or higher than 12.0 or having any other corrosive property capable of causing damage or hazard to structural components, equipment, or personnel of the POTW
	- solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewer system such as, but not limited to:
	  - ashes
	  - cinders
	  - sand
	  - mud
	  - straw
	  - shavings
	  - metal
	  - glass
	  - rags
	  - feathers
	  - tar
	  - plastics
	  - wood
	  - unground garbage
	  - whole blood
	  - paunch manure
	  - hair and fleshings
	  - entrails
	  - paper dishes, cups, or milk containers

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	- any liquid or vapor having a temperature higher than 150 degree F, or otherwise sufficiently hot to cause damage to the POTW or to cause the influent at the WRBP treatment plant headworks to exceed 104 degree F or cause inhibition of biological activity in the treatment plant
	- any water or wastes containing fats, wax, grease, or oils, whether emulsified or not, in excess of 250 mg/l for animal/vegetable origin and 50 mg/l for petroleum oil, nonbiodegradable oils, or products of mineral origin
	- any waters or wastes which would interfere with the POTW or the WRBP treatment plant treatment process
	- any waters or wastes containing heavy metals, solvents, or toxic substances to such degree that any such material discharged to the public sewer exceeds the limits established by the community, the department, or the EPA for such materials pursuant to requirements in 40 CFR 403
	- any pollutant exceeding the maximum daily concentration in Appendix 12-4
	- any discharge of pollutants exceeding the fume toxicity screening limits in accordance with 40 CFR 403.5(b)
	- any radioactive wastes or isotopes of such half-life or concentration that exceed the limits established by state and federal rule or regulations
	- any slurry solutions of suspended or dissolved inert materials
	- any solutions of dissolved inert materials, such as, but not limited to:
	  - sodium chloride
	  - sodium sulfate
	- any materials which exert or cause:
	  - discoloration such as is caused by dye wastes and vegetable tanning solutions
	  - BOD, chemical oxygen demand, or chlorine requirements in such quantities as to constitute an impact on the WRBP treatment plant
	  - a volume of flow or concentration of wastes or both constituting a slug discharge
	  - odors
	- waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed, or are amenable to treatment only to such degree that the WRBP treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over the WRBP treatment plant's discharge to receiving waters
	- garbage which has not been properly shredded
	- waters or wastes which, by interaction with other water or wastes in the POTW:
	  - release dangerous or noxious gases
	  - form suspended solids which interfere with the operation of the collection system
	  - create a condition deleterious to structures and treatment processes.
	
	Verify that no person discharges or causes or allows to be discharged any substances, materials, waters, or wastes that can harm the POTW, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or otherwise endanger life, health, or public property or constitute a nuisance.
	
	Verify that no person meets or attempts to meet requirements of these sewer rules

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	by diluting wastes. (NOTE: The WRBP and the community shall, through applicable legal processes, set limitations lower than the limitations established in (a) through (e), above, if more stringent limitations are necessary to meet applicable federal and state laws.)

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DISCHARGES TO A POTW/FOTW **WA.35** **Industrial Users**	
WA.35.1.NH. Industrial discharges to the Winnipesaulee River basin system (WRBP) sewer system are restricted (NHCAR Env-Wq 1203.09(b) and (c)) [Added March 2006; Citation Revised March 2008; Citation Revised March 2010].	Verify that pollutants introduced into the POTW by an industrial user do not pass through or interfere with the operation or performance of the WRBP treatment plant or cause the WRBP to violate either Env-Wq 1703 or its NPDES permit. Verify that storm water and all other unpolluted drainage are discharged to such storm drain(s) or natural outlet(s) as are specifically approved by the local authority having jurisdiction over such discharges. Verify that industrial cooling water or process water has a NPDES permit prior to discharge to a storm drain or natural outlet. Verify that, if the industrial cooling water or process waters does not meet the established NH water quality standards in Env-Wq 1703 for discharge to a storm drain, the user applies for a discharge permit.
WA.35.2.NH. Industrial dischargers to the Winnipesaulee River basin system (WRBP) sewer system must be permits and/or meet pretreatment rules (NHCAR Env-Wq 1205.01(a) and (b), 1205.02 (a), and 1205.12) [Added March 2006; Citation Revised March 2010].	Verify that all industrial waste is pretreated in accordance with federal and state rules and regulations to the extent required by applicable national categorical pretreatment standards, state pretreatment standards, or standards established by these rules, whichever is more stringent. Verify that all SIUs discharging industrial wastes to the POTW comply with applicable requirements of federal and state industrial pretreatment rules and regulations in addition to the requirements of Env-Wq 1200. Verify that no SIU discharges any industrial process waste to the POTW without a valid industrial discharge permit (IDP). (NOTE: The WRBP shall notify SIUs of applicable categorical pretreatment standards.) Verify that compliance with categorical pretreatment standards is achieved within 3 years of the date such standards become effective, unless a shorter compliance time is specified in the standards. Verify that an SIU subject to categorical pretreatment standards does not discharge wastewater directly or indirectly to the POTW after the compliance date of such standards unless an amendment to its IDP that reflects the standards has been issued by the WRBP. Verify that, within 120 days after the effective date of a categorical pretreatment

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	standard, an SIU subject to such standards submits a discharge permit application for a new IDP or an amendment to the existing IDP.

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DISCHARGES TO A POTW/FOTW **WA.40 Documentation/Reporting to the POTW**	
WA.40.1.NH. Limited duration discharges to the Winnipesaulee River basin system must be approved (WRBP) (NHCAR Env-Wq 1203.10) [Added March 2006; Citation Revised March 2010].	Verify person proposing to discharge, as a one-time or otherwise limited duration discharge, waters or wastes to the public sewers that contain the substances or possess the enumerated characteristics enumerated (see WA.25.2.NH.) and which might have a deleterious effect upon the POTW, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, requests permission from the WRBP to discharge the waters or waste. Verify that the following information is provided: - the nature of the waters or wastes to be discharged - the estimated duration of the discharge and the anticipated start of the discharge. (NOTE: If it is necessary to fully characterize the proposed discharge, more information is required.)
WA.40.2.NH. Significant industrial users (SIU) must have a (WRBP) industrial discharge permit (NHCAR Env-Wq 1205.03 and 1205.06) [Added March 2006; Citation Revised March 2010].	Verify that any SIU proposing to begin or recommence discharging industrial waste to the POTW files a discharge permit application to obtain an industrial discharge permit prior to the beginning or recommencing of such discharge. Verify that the discharge permit application is filed at least 60 days prior to the date upon which any discharge will begin or recommence. (NOTE: Each IDP shall indicate the specific date upon which it will expire.) Verify that any SIU proposing a new discharge or a change in quantity of its existing discharge obtains a new discharge permit application from the community in which the discharge is proposed and submit the completed application to the WRBP at least 60 days prior to the commencement of such discharge. Verify that, if the new or modified/increased discharge requires the construction and installation of additional treatment devices, the SIU submits to the WRBP plans and specifications of the proposed pretreatment facility stamped by a professional engineer licensed to practice in the state of New Hampshire. Verify that any SIU proposing a change in quality of its existing discharge obtains a new discharge permit application from the WRBP and submit the completed application at least 60 days prior to the commencement of such modified

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	discharge.
WA.40.3.NH. WRBP significant industrial users (SIU) must meet record keeping requirements (NHCAR Env-Wq 1205.10) [Added March 2006; Citation Revised March 2010].	Verify that all SIUs subject to IDP reporting requirements maintain all records of information resulting from monitoring activities required to prepare such reports. Verify that records include the following for each sample taken: - the date, method, location, and time of sampling and the name(s) of the person(s) taking the sample - the dates on which analyses were performed - the dates on which results of the analyses were received by the user - the name and address of the laboratory performing the analyses - the analytical techniques and methods used - the results of all analyses. Verify that the above records are maintained for a minimum of 3 years and are made available for inspection and copying by the WRBP.
WA.40.4.NH. Violation of the Industrial Discharge Permit must be reported (NHCAR Env-Wq 1205.11) [Added March 2006; Citation Revised March 2010].	Verify that, if sampling performed by an SIU indicates that a violation of its IDP has occurred, the SIU meets the following requirements: - notifies the WRBP within 24 hours of becoming aware of the violation - within 5 business days, submit a noncompliance report fully describing the noncompliance, its causes, and the measures taken or to be taken to avoid recurrence. Verify that the SIU also immediately repeats the sampling and analysis and submits the results of the repeat analysis to the WRBP within 30 calendar days after becoming aware of the violation. (NOTE: The SIU shall not be required to resample if: - the WRBP performs sampling at the SIU at a frequency of at least once per month - the WRBP performs sampling at the SIU between the time when the SIU performs its initial sampling and the time when the SIU receives the results of this sampling indicating that the violation occurred.)
WA.40.5.NH. WRBP users must report bypass, slug discharge, and upset and meet certain requirements (NHCAR Env-Wq 1205.14) [Added March 2006; Citation Revised March 2010].	Verify that the user immediately calls and notifies the WRBP in the event of a spill, slug discharge, pretreatment upset, or bypass. Verify that the user instructs all employees of the requirement to immediately notify the WRBP in the event of a spill, slug discharge, pretreatment upset, or bypass. Verify that a permanent notice which includes the Wrap's telephone number is

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	posted in a location that is plainly visible to the user's personnel responsible for managing wastewater discharges. (NOTE: A user may allow a bypass as defined in Env-Wq 1202.05 to occur, provided the bypass: - does not cause pretreatment standards or requirements to be violated - is unavoidable. Verify that, if a user knows in advance of the need for a bypass, the user submits a written notice to the WRBP at least 10 days before the date of the bypass. (NOTE: A bypass shall be deemed to be unavoidable if: - the bypass was necessary to prevent loss of life, personal injury, or severe property damage as defined in Env-Wq 1202.59 - there were no feasible alternatives to the bypass, such as the use of one of the following: - auxiliary treatment facilities - a retention tank for untreated wastes - maintenance during normal periods of equipment downtime.) (NOTE: The "no feasible alternative" provision is not satisfied if back-up equipment could have been installed to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.) (NOTE: If necessary to comply with 40 CAR 403.8(f)(2)(v), the WRBP will require the user to develop, submit to the WRBP for approval based on those provisions, and implement an accidental discharge or slug discharge control plan.) Verify that, if required, an accidental discharge or slug discharge control plan is submitted to WRBP. Verify that users control all discharges to the extent necessary to maintain compliance with pretreatment standards upon reduction, loss, or failure of its treatment facility or loss of the primary source of power to the facility until the facility or power thereto is restored or an alternate method of treatment is provided.
WA.40.6.NH. Discharge violations, unanticipated bypass or slug discharge, or upset that exceeds applicable pretreatment standards must be reported (NHCAR Env-Wq 1205.15) [Added March 2006; Citation Revised March 2010].	Verify that the user provides notice to the WRBP in accordance with this section in the event of any of the following: - a discharge violation detected through analysis - unanticipated bypass or slug discharge - upset that exceeds applicable pretreatment standards. Verify that the users provides the following: - oral notice by telephone within 24 hours of the time the user becomes aware of the event - a written report within 5 business days of the time the user becomes aware of

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	the noncompliance. Verify that the written report includes the following: - a description of the event and its cause - the duration of the event, including exact dates and times - if the event has not been corrected, the anticipated time it is expected to continue - steps taken or planned to reduce, eliminate, and prevent recurrence of the event.

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WA.100. **INDIVIDUAL SEWAGE SYSTEMS**	
WA.100.1.NH. Septic tanks must meet specific size requirements (NHCAR Env-Wq 1010.01 (a), (e) and (f) and 1010.02) [Revised March 2009].	Verify that the minimum septic tank capacity for residential buildings having no more than two bedrooms is 1000 gal. (for each additional bedroom up to ten, tank size is increased by 250 gal per bedroom). Verify that, if a garbage grinder is, or will be used, in the structure served by the tank, the tank size is increased by 50 percent. Verify that, where raw sewage is pumped, the tank volume is twice the volume otherwise required (this will be accomplished by tank duplication or compartmentalization). Verify that the liquid capacity for septic tanks serving commercial structures and residences with more than 10 bedrooms are as follows: - for flows of 300 GPD to less than 600 GPD, the septic tank size is the same as that for an equivalent residential sewage load - for flows of at least 600 GPD but less than 1,500 GPD, the volume is 2 times the daily sewage flow - for flows of 1,500 GPD or more, the volume is 2,000 gallons plus 70 percent of the daily flow.
WA.100.2.NH. Septic tanks must meet specific construction requirements (NHCAR Env-Wq 1010.03 through 1010.13 and 1011.01) [Revised March 2000; Revised March 2009].	Verify that septic tanks are watertight and constructed of materials not subject to corrosion or decay, such as concrete, or fiberglass. Verify that a concrete tank is sealed so as to be watertight. Verify that backfill around septic tanks is made in thin layers and compacted in a manner that will not damage the structural integrity of the tank. Verify that access is provided to each compartment of a septic tank for inspection and cleaning by means of a removable cover or a manhole. Verify that both the inlet and the outlet baffles are accessible. Verify that septic tanks are accessible by truck to within 125 feet of the nearest road or driveway. Verify that, for normal locations in grass areas where the tank is not subject to heavy loads from vehicles and the like, the concrete slab top cover is at least 3 in. thick reinforced with No. 6 gauge wire mesh, 4 in. on center both ways.

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	Verify that vehicles or construction equipment such as tractors or bulldozers is not permitted to travel over any septic tank unless the tank has an AASHTO rating of H-20 or better. Verify that the outlet baffle is a vented tee that extends to a distance below the surface equal to 40 percent of the liquid depth. Verify that the outlet and inlet baffle will extend above the liquid line to not less than 1in. from the top of the tank. Verify that vented inlet tee diverts the incoming sewage downward, and penetrates at least 6 in. below the liquid level, but in no case will the penetration be greater than the depth of the outlet baffle. Verify that pipes leading to and exiting from septic tanks will be sealed with either nonshrink mortar, thick plastic cement, or other sealant. Verify that for tanks having straight, vertical sides, the distances from between the top of the tank and the liquid line will be equal to approximately 20 percent of the liquid depth. Verify that the liquid depth will not exceed 5 ft for septic tanks of less than 3000 gal capacity and will not exceed 6 ft for larger tanks (deeper tanks may be used, but the volume will be calculated on the basis on the liquid depth established by this rule). Verify that, when tanks are separated into 2 compartments, the first compartment equals 2/3 of the total volume. Verify that, when tanks that have more than one compartment, the following applies: - an access manhole is provided to each compartment - venting between compartments is provided to allow free passage of gas - inlet and outlet baffles are proportioned as for a single tank - the same allowance is made for storage above the liquid line as in a single tank. Verify that, where large septic tanks are needed, and 2 tanks are used in series, the first tank is at least 2/3 of the required size. Verify that, if an aeration tank is used as a substitute for a septic tank, an effluent disposal area designed in accordance with state regulations will be used to dispose of the effluent.
WA.100.3.NH. Septic tanks must meet inspection and pumping requirements	Verify that septic tanks are inspected for accumulation of sludge and surface scum at a frequency sufficient to allow the tank to be pumped by a licensed septage hauler when the combined thickness of the sludge and surface scum equal 1/3 or

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(NHCAR Env-Wq 1023.01) [Added April 1998; Revised March 2009].	more of the tank depth. Verify that septage and effluent are discharged from a septic tank only to: - an approved or grandfathered effluent disposal area - a licensed septage hauling vehicle.
WA.100.4.NH. Certain wastes must not be disposed of in individual sewage disposal systems (NHCAR Env-Wq 1023.02 and 1023.03) [Added April 1998; Revised March 2009].	Verify that grease and bulky wastes are not flushed or otherwise introduced into the individual sewage disposal system (ISDS). Verify that toxic and hazardous materials are not flushed or otherwise introduced into the ISDS.
WA.100.5.NH. Indications of individual sewage disposal system (ISDS) failure must be investigated and specific actions must be taken (NHCAR Env-Wq 1023.05 and 1003.22 (a)) [Added April 1998; Revised March 2009].	Verify that, if wet areas appear on the ground surface above the distribution lines or leach field, or if disagreeable odors occur, the system is inspected for the source of these problems, and action taken to correct the source of the problem. Verify that the owner of an ISDS in failure stops using the EDA so as to prevent any wastewater from flowing onto or into the ground or to the EDA, either by: - vacating the premises served by the ISDS - having a licensed septage hauler pump out the septic tank at sufficient frequencies to prevent wastewater from otherwise exiting the septic tank. Verify that, if the owner elects to pump the tank in lieu of vacating the premises, the owner notifies the department and the local health officer and retains all pumping receipts for inspection by department staff or the health officer.
WA.100.6.NH. Certain individual sewage disposal systems (ISDS) must have grease traps (NHCAR Env-Wq 1012.01 through 1012.03) [Added April 1998; Revised March 2000; Revised March 2009].	Verify that a grease trap is used in the ISDS serving: - any commercial facility in which any food handling and preparation occurs - any dwelling where food handling and preparation is undertaken for any business purpose. Verify that the grease trap size is based on a minimum hydraulic detention time of 36 hours and minimum tank size of 1,000 gallons. Verify that the outlet is protected with a baffle that extends downward and terminates 6 inches from the inside bottom of the grease trap. Verify that floor drains are not used.

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WA.100.7.NH. Installation of an individual sewage disposal system must be approved, and installation conducted by permitted installers (NHCAR Env-Wq 1003.02, 1003.14 1003.11 (c), and 1004.06 (a)) [Added March 2000; Revised March 2009].	Verify that there is no construction of a sewage or waste disposal system prior to submission of 2 copies of plans and specifications for the system to the Department's division of water, subsurface systems bureau for approval. (NOTE: The plan for an ISDS approved by the department shall be the final plan.) Verify that a new application is submitted for approval for an ISDS if either: - the bed is not installed in the same footprint and at the same elevation shown on the approved plan - a pump has been added. Verify that any subsurface sewage or waste disposal systems are installed only by permitted installers. Verify that the department inspects the ISDS before it is covered and placed in operation. (NOTE: A new application is not required for an ISDS if amended plans, approved and stamped by the permitted designer who prepared the original approved plan, are available prior to final inspection and: - the location of the bed has not changed but any other component of the ISDS has been moved - changes have been made to the ISDS during installation that include the elimination of a pump - if the designer of the approved plan specified a particular brand for any ISDS component, a different brand of that component has been substituted by the installer.)
WA.100.8.NH. Individual sewage disposal systems must meet minimum separation distance requirements (NHCAR Env-Wq 1008.04 (a)) [Added March 2009].	Verify that minimum separation distances found in Appendix 12-5 are met.
WA.100.9.NH. Sewage pumps must have alarms (NHCAR Env-Wq 1013.01) [Added March 2009].	Verify that each sewage pump has a visual or audible alarm, or both, that signals if the pump fails for any reason. Verify that the alarm signals in a centrally-located area that is used daily. Verify that the pump(s) and the alarm system(s) are on separate electronic circuits.

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WA.100.10.NH. Privies must meet specific requirements (NHCAR Env-Wq 1022.01 (a) and (c)) [Added March 2009].	Verify that no privy is located within 75 feet of drinking water wells, surface waters, or foundations on abutting lots. Verify that, if the bottom of the privy pit is less than 4 feet above the seasonal high water table or impermeable substratum or ledge, the pit is sealed.
WA.100.11.NH. Mini-dry wells for gray water must meet specific requirements (NHCAR Env-Wq 1022.02) [Added March 2009].	(NOTE: A mini-dry well is used for the disposal of gray water only if there will be no running water to, or other wastewater discharge from, the structure to be served.) Verify that no mini-dry well for gray water is within 75 feet of drinking water wells or surface waters. Verify that a mini-dry well for gray water is a hole up to 18 inches in diameter and 12 inches deep, filled with stone or gravel.
WA.100.12.NH. Holding tanks must meet specific requirements (NHCAR Env-Wq 1022.03)) [Added March 2009].	(NOTE: Holding tanks or closed systems shall not be approved except in the following instances: - as a replacement for an existing system in failure when no other means of disposal is practical, or - when the structure proposed to be served by the holding tank will be connected to a municipal sewer within one year of approval of the holding tank application.) Verify that holding tanks are water-tight and provided with an alarm system to indicate when the tank is full and requires pumping. Verify that the owner of the property on which a holding tank has been installed retains all receipts for pumping services and submits copies of the receipts to the local health officer on a quarterly basis. Verify that past receipts are retained for a period of 2 years.
WA.100.13.NH. Disposal of residential water treatment backwash must meet specific requirements (NHCAR Env-Wq 1022.04)) [Added March 2009].	Verify that residential water treatment backwash is discharged only to an individual sewage disposal systems that is sized to accommodate the volume of backwash generated or an alternative disposal system. Verify that, if an alternative disposal system is used for residential water treatment backwash, it meets the following: - infiltrates on the property served by the water treatment system - does not cause soil erosion, siltation, or overland run-off

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	- does not discharge to any surface water or wetland - accepts residential water treatment backwash only - is located so as to minimize any influence on water supply wells and ISDS on the property served or on adjacent properties - does not cause any violation of the ambient groundwater quality standards on adjacent properties. (NOTE: An alternative disposal system such as a mini-dry well, small leaching pit, or trench with perforated pipe shall be used only if it meets the parameters listed above.) (NOTE: An alternative disposal system meeting the parameters listed above does shall not require approval from the department.)

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LAND APPLICATION OF SLUDGE **WA.105.** **General**	
WA.105.1.NH. Sludge management facilities and application sites must meet permitting and quality certification requirements (NHCAR Env-Wq 804.02 and 804.03) [Revised March 2000; Citation Revised March 2010].	Verify the there is no sludge management at any place which does not have: - a site or facility permit - a wastewater treatment facility permit - a solid waste facility permit. Verify that a site permit is obtained for: - all sludge land application sites - all sludge mixing sites where the resultant sludge is to be used on site - all sludge stockpile sites where sludge will be stockpiled for 8 mo or less and where the stockpile location is not on a site permitted as a land application or sludge mixing site. Verify that a facility permit is obtained for: - the processing, treatment, or disposal, other than land application, of sludge - all sludge mixing sites where the resultant sludge is to be used off-site - all sludge stockpile sites where sludge will be stockpiled for greater than 8 mo - the construction, operation, and closure of sludge lagoons and monofills - the construction, operation, and closure of sludge transfer stations. (NOTE: A facility permit is not required for the processing of sludge for the sole purpose of odor control at a site permitted for land application.) (NOTE: Persons whose land applies class A sludge from a generator with a valid sludge quality certification are be exempt from the requirement to obtain a site permit.) Verify that the facility does not land apply, distribute for land application, sell, or give away any sludge or sludge mixture, in bulk, unless it possesses a valid sludge quality certification. (NOTE: A sludge quality certification is not required for sludge produced at a facility where each constituent sludge has a quality certification, or for sludge which is not for land application.)
WA.105.2.NH. Sludge management or land	Verify that a management plan is prepared and implemented for each sludge

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application facilities must prepare a management plan (NHCAR Env-Wq 806.01, 806.07, 808.01 and 808.07) [Revised March 2000; Citation Revised March 2010].	management facility and land application site. Verify that the management plan for land application sites includes: - the normal hours of operation of the site - proposed route(s) of access to the site - the method of application, if land applying - stockpiling management provisions, if applicable - the name of the generator(s) and its corresponding sludge quality certification number(s) for any sludge which will be received at the site - the quantity of sludge, in wet tons, expected on a periodic basis, such as daily, weekly or monthly, and the estimated annual tonnage - the quantity of sludge, in wet tons, expected over the entire life expectancy of the site - a description of all sludge mixing activities which are proposed for the site - a description of the record keeping procedures - a detailed odor control plan - a nutrient management plan, for the final sludge mixture to be land applied for each field, specific for each crop or vegetation type - any other best management practice(s) that will be implemented at the site to ensure compliance with these rules. Verify that the management plan for sludge management facilities includes: - the normal hours of operation of the site - storage or stockpiling provisions, if applicable - the name of the generator(s) and its corresponding sludge quality certification numbers, if applicable - the quantity of sludge, in wet and dry tons, expected on a periodic basis, such as daily, weekly or monthly - the quantity of sludge, in wet and dry tons, expected over the entire life expectancy of the facility, if applicable - additional on-site measures to be taken to control vectors - a detailed odor control plan - a copy of the facility contingency plan describing course(s) of action to be followed in case of emergency or other special conditions.
WA.105.3.NH. The co-disposal of wastes with sludge is prohibited (NHCAR Env-Wq 801.03) [Added April 1998; Revised March 2000; Citation Revised March 2010].	Verify that no solid or hazardous wastes are disposed of at a sludge disposal site. (NOTE: Wood ash certified for land application, and certified waste derived products may be co-disposed with sludge.)

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WA.105.4.NH. The land application of Class A sludge must meet specific requirements (NHCAR Env-Wq 810.01) [Added March 2000; Citation Revised March 2010].	Verify that all when class A sludge is applied: - if the sludge is not certified as low-metals sludge, the application rate does not exceed the annual application limits stated on the label - sludge is not applied within 35 ft of surface water. Verify that all persons who land apply class A sludge on a contiguous area of more than 5 acres: - obtain and follow the nutrient recommendation from UNH cooperative extension, USDA, NH department of agriculture, NRCS, or other certified agricultural or crop advisors, for the application area - maintain sludge stockpiles to minimize the amount of water running on, off, or through the stockpile.

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LAND APPLICATION OF SLUDGE **WA.115.** **Notifications**	
WA.115.1.NH. Sites applying sludge must comply with specific notification requirements (NHCAR Env-Wq 803.02 and 806.12(a)) [Revised March 2000; Citation Revised March 2010].	Verify that at least 14 days prior to commencement of each yearly sludge land application activity, the permit holder submits the following information to the department for each site: - the site name and address - the name of permit holder - the sludge quality certification numbers of the sludge(s) to be land applied - the permit number for the site - an updated nutrient management plan. Verify that notice is published at least 14 days before the intended date of the first annual land application. Verify that notice is published in a newspaper of general circulation in the municipality where the land application of sludge will occur. Verify that a copy of the notice is posted continually at the entrances to the site beginning no later than 3 days prior to the application and ending no earlier than 3 days after application.

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LAND APPLICATION OF SLUDGE **WA.120.** **Monitoring**	
WA.120.1.NH. Land application sites must meet sampling requirements (NHCAR Env-Wq 806.10(d) through (g)) [Revised April 1998; Revised March 2000; Citation Revised March 2010].	Verify that soil samples from each field upon which sludge has been applied are collected within 3 mo prior to the end of the permit term or at the cessation of land application. Verify that the soil samples are analyzed by a laboratory certified to analyze water for metals for the following constituents: - arsenic, measured as mg/kg - cadmium, measured as mg/kg - chromium, measured as mg/kg - copper, measured as mg/kg - lead, measured as mg/kg - mercury, measured as mg/kg - molybdenum, measured as mg/kg - nickel, measured as mg/kg - selenium, measured as mg/kg - zinc, measured as mg/kg. Verify that soil samples from each field used for sludge land application are collected on a yearly basis no more than 90 days prior to the initial application for that yr and analyzed by UNH analytical services, or by a laboratory using a method that produces similar results to those produced by UNH analytical services, for: - soil acidity, measured as PH - buffer PH - texture - calcium - magnesium - potassium - phosphorus - organic matter.
WA.120.2.NH. Specific facilities and sites must meet groundwater monitoring requirements (NHCAR Env-Wq806.10(d) through (g), and 806.06(n)) [Added March	Verify that groundwater is monitored at sludge monofills, sludge lagoons, reclamation sites, and those sludge management activities conducted at facilities, such as outside sludge stockpiles or compost piles containing leachable constituents, which, if not properly managed, might result in contamination of groundwater. (NOTE: For sludge not generated in New Hampshire, groundwater monitoring

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2000; Citation Revised March 2010].	will be required for sludge management activities which would require groundwater monitoring in the state of origin.)

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LAND APPLICATION OF SLUDGE **WA.125.** **Recordkeeping and Reporting**	
WA.125.1.NH. Land application sites must meet specific recordkeeping requirements (NHCAR Env-Wq 806.11) [Revised April 1998; Revised March 2000; Revised March 2008; Citation Revised March 2010].	Verify that a site permit holder maintains records of each load of sludge received at the site, including identification of: - the date received - the hauler delivering the load - the generator and the weight of the sludge received, in wet tons - the sludge quality certification number, if the activity relates to sludge - the date applied and the amount spread on each field. Verify that, except for sites where only sludge certified as low metals sludge is applied, every site permit holder maintains records of the annual and cumulative metal loadings for the site on a field-by-field basis. (NOTE: In the calculation of annual metals loadings, the permit holder will use the highest concentration of each metal observed on a dry weight basis, based on testing performed by the generator(s) during the previous 12 mo.) Verify that site plans, management plans, and records are maintained by the permit holder for at least 5 yrs after the expiration of the permit to which they relate, and are available to the Department for review during business hours.
WA.125.2.NH. Land application sites must meet specific reporting requirements (NHCAR Env-Wq 806.12(b)) [Added March 2000; Citation Revised March 2010].	Verify that every site permit holder submits an annual report for each site to the department by the last business day of January for each calendar yr in which the permit is valid, regardless of whether or not the site received or processed sludge during the previous calendar yr. Verify that the annual report contains: - the site location, including address and town - the permit number - the owner's name - the crops grown for each field and the crop disposition - the name and sludge quality certification number, if applicable, of each generator - the quantity of sludge, in wet and dry tons, applied to each field, from each generator - the total quantity of sludge, in wet and dry tons, applied to the entire site, from each generator - except for sites where only sludge certified as low metals sludge is applied,

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	the annual metals' loading and cumulative metals' loading to date for each field - for reclamation sites, the groundwater monitoring report. (NOTE: If any of the information differs from that previously supplied to the Department concerning the activity, the permit holder will note those differences in the annual report.)
WA.125.3.NH. Sludge management facilities must meet specific recordkeeping requirements (NHCAR Env-Wq 808.11 and 808.12(a)) [Added March 2000; Revised March 2008; Citation Revised March 2010].	Verify that any person who manages sludge maintains records of each load of sludge received at each site, including identification of: - the date received - the hauler delivering the load - the quantity of each load of sludge received by the generator, in wet tons and percent solids - the sludge quality certification number. Verify that site plans, facility plans, management plans, closure plans and records are maintained by the permit holder or the person undertaking the activity for 5 yr after the cessation of the activity. Verify that the permit holder reports all complaints orally within 24 hours and, in writing within 5 days of the complaint, to the Department, including a description of the complaint, including exact dates, times, and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the concern.
WA.125.4.NH. Sludge management facilities must submit annual reports to the Department (NHCAR Env-Wq 808.12(b) through (d)) [Added March 2000; Revised March 2008; Citation Revised March 2010].	Verify that every facility permit holder submits an annual report for each by the last business day of January for each calendar yr in which the permit is valid, regardless of whether or not the facility received or processed sludge during the previous calendar yr. Verify that the annual report contains the following information: - the name and address of the facility - the permit number - the name of the permit holder - the total quantity of sludge, in wet and dry tons, received at the facility from each generator and their sludge quality certification number - the quantities of all material distributed, in wet and dry tons. (NOTE: If any of the information differs from that previously supplied to the Department concerning the activity, the permit holder will note those differences in the annual report.)
WA.125.5.NH. Generators of	Verify that a generator of class A sludge submits to the Department with the

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Class A sludge must meet specific reporting requirements (NHCAR Env-Wq 810.02 and 810.03) [Added March 2000; Citation Revised March 2010].	application for a sludge quality certification, and annually with the annual report, a proposed label for the Class A sludge that includes: - the name, address, and telephone number of the generator - a brief description of the product, including the process employed to treat or stabilize the sludge - recommended uses and appropriate application rates - average nutrient analysis for nitrogen, phosphorus, and potassium based upon the analytical results from the previous yr - average metals concentration based upon the analytical results from the previous yr. Verify that the generator records the name and address of all persons receiving at one time more than 20 yd^3 of sludge.

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LAND APPLICATION OF SLUDGE **WA.130.** **State Specific Requirements**	
WA.130.1.NH. Septage haulers must meet permitting, transport, recordkeeping, reporting, and spill response requirements (NHCAR Env-Wq 804.01, 805.06(a), 805.08, 808.10, 808.11 and 808.12) [Revised March 2000; Citation Revised March 2010].	Verify that there is no transport of sludge derived from human waste which is not class A on public roads without first obtaining a sludge hauler permit for the Department. (NOTE: A sludge hauler permit is not required for the interstate transportation of sludge which is not generated, processed, transferred, stored, used, or disposed of in New Hampshire. Also, a sludge hauler permit is not required for transporting sludge from a stockpile location at a permitted site to fields at the same site where the sludge is being land applied.) Verify that a copy of the sludge hauler permit is retained in the vehicle at all times. Verify that sludge derived from human waste that is not class A, being transported to a land application or stockpile site meets class B requirements. Verify that all sludge receives a sludge quality prior to being transported to a site. Verify that all containers used for transporting sludge are covered during transport to minimize odors. Verify that containers transporting sludge are not placed for longer than 24 hr at a place that does not have a site or facility permit. Verify that all containers are inspected by the driver prior to transport on public roads to ensure that sludge will not leak, spill, or run out of the container during transfer or transportation. Verify that each sludge hauler permit holder records the following information, on a form provided by the Department, for each load of sludge: - the date the sludge is transported from the generator's site or facility - the generator'(s) name, address, and telephone number - the quantity of sludge, in wet tons - the type of sludge, such as domestic or industrial - the name, address, and telephone number of the hauler permit holder and driver of the motorized vehicle - the name, address, and telephone number of the site(s), facility(ies), solid waste facility(ies), or wastewater treatment facility to which the sludge is to be delivered - the date delivered to the site or facility.

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	Verify that this information is maintained in the vehicle used to transport the sludge when the sludge is being transported, and that all records are maintained for a minimum of 5 yr after expiration of the hauler permit. Verify that each hauler provides this information monthly to the operator of the site, facility, solid waste facility or wastewater treatment facility, to which the sludge is delivered by no later than the 15th of the following mo. Verify that, in the event of an accidental release of sludge, the permit holder: - immediately takes action to contain the spill, minimize the environmental impact, and begin clean up procedures - notifies the Department within 24 hr of the release. (NOTE: Notification to the Department is not required if all of the following conditions are met: - the discharge is less than 25 gal (or 5 ft^3 if the sludge contains greater than 10 percent solids) - the discharge is immediately contained - the discharge is completely removed within 24 hr - there is no impact to groundwater or surface water.)
WA.130.2.NH. All sludge land application sites must comply with minimum operating standards (NHCAR Env-Wq 806.08(a) through (j)) [Revised March 2000; Citation Revised March 2010].	Verify that sludge is land applied at rates that conform to the approved nutrient management plan for the site permit. Verify that no spreading of sludge is done on frozen or snow-covered ground or when the ground is saturated due to precipitation or flooding. Verify that no sludge is spread on agricultural land that has a slope greater than 15 percent, that is, a 15 ft rise in 100 ft. Verify that sludge spread on agricultural land that has a slope greater than 8 percent contains a minimum of 15 percent solids or be subsurface injected. Verify that sludge is spread in an even layer so as not to result in ponding or runoff of material. Verify that sludge that is to be land applied is processed to minimize visible or identifiable plastics or other non-biodegradable solids. Verify that no spreading of sludge is done on very poorly drained soils. Verify that no spreading of sludge is done in the floodway (defined as the stream channel plus that portion of the overbanks that must be kept free from encroachment in order to discharge the one percent annual chance flood without increasing flood levels by more than one foot, which is adopted into a local floodplain management ordinance). Verify that animals are not grazed on land on which sludge has been land applied

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	until 45 days after the last application of sludge unless methods to reduce adherence to the crop or vegetation are used in conformance with the approved management plan. Verify that, unless otherwise required, sludge is incorporated into the soil within 48 hr of spreading unless it is used for top dressing.
WA.130.3.NH. All sludge land application sites must meet sign posting requirements (NHCAR Env-Wq 806.08(k)) [Added March 2000; Citation Revised March 2010].	Verify that reclamation and forest sites are posted, for the life of the permit, with signs which: - contain the name and telephone number of the operator - state "This is a sludge land application site" - are printed with block letters no less than 2 in. in height, and with the name and address of the owner or lessee of the property - are posted not more than 100 yd apart on all sides and also at gates, bars, and commonly used entrances.
WA.130.4.NH. Sludge land application sites must not exceed lifetime cumulative pollutant loading rates (NHCAR Env-Wq 806.08(l) and (m)) [Added March 2000; Citation Revised March 2010].	Verify that, except for sites where only sludge certified as low metals is applied, all sludge and mixtures of sludge to be land applied do not exceed any of the following lifetime cumulative pollutant loading rates: - for arsenic, 10 kg/hectare or 9 lb/acre - for cadmium, 5 kg/hectare or 4.5 lb/acre - for chromium, 300 kg/hectare or 268 lb/acre - for copper, 300 kg/hectare or 268 lb/acre - for lead, 200 kg/hectare or 178.6 lb/acre - for mercury, 5.6 kg/hectare or 5.0 lb/acre - for molybdenum, 18 kg/hectare or 16 lb/acre - for nickel, 100 kg/hectare or 89.3 lb/acre - for selenium, 100 kg/hectare or 89 lb/acre - for zinc, 500 kg/hectare or 446.5 lb/acre. (NOTE: For sludge not generated in New Hampshire, the rate of sludge application will conform to the application rate allowed by the state of origin or these requirements, whichever results in the lower loading rate.)
WA.130.5.NH. Sludge land application sites must comply with buffer area restrictions (NHCAR Env-Wq 806.08(o)) [Added March 2000; Citation Revised March 2010].	Verify that the land application site does not land apply or store sludge within the buffer areas specified in Appendix 12-2.

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WA.130.6.NH. Sludge facilities must meet closure plan requirements (NHCAR Env-Wq 808.09(a), (c) and (e)) [Added March 2000; Citation Revised March 2008; Citation Revised March 2010].	Verify that all sludge facilities that have not closed as 26 March 1999 submitted a closure plan to the Department by 22 July 1999. Verify that at least 60 days prior to the planned cessation of facility operations, the permittee provides the Department and the municipality in which the facility is located, with written notice of the intent to close the facility. Verify that the permittee notify the Department and the municipality in which the facility is located when closure is complete.

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
OTHER SEWAGE/SLUDGE MANAGEMENT **WA.148.** **Septage Management**	
WA.148.1.NH. The co-disposal of wastes with septage is prohibited (NHCAR Env-Wq 1601.03) [Added March 2000; Citation Revised March 2008].	Verify that no solid or hazardous wastes are disposed of at a septage disposal site. (NOTE: Wood ash certified for land application, and certified waste derived products may be co-disposed with sludge.)
WA.148.2.NH. Septage management facilities and application sites must meet permitting and quality certification requirements (NHCAR Env-Wq 1601.02, 1603.01, and 1603.02) [Added March 2000; Revised March 2008].	(NOTE: This checklist item applies to the following: - the processing and storage of septage - the land application of septage - the removal and transportation of septage. This checklist item does not apply to any septage management activity incidental to the operation of a wastewater treatment facility for which a surface water or a groundwater discharge permit has been issued by the Department.) Verify the septage management facility does not manage septage at any place which does not have: - a site or facility permit - a wastewater treatment facility permit - a solid waste facility permit - a groundwater release detection permit or a groundwater management permit. Verify that the septage management facility does not land apply septage without first obtaining a site permit from the Department. Verify that a facility permit is obtained for: - the processing, treatment, or disposal, other than land application, of septage - all septage mixing sites where the resultant septage is to be used off-site - all sites where septage will be stored in a septage storage tank - the construction, operation, and closure of septage lagoons - the construction, operation, and closure of transfer stations. (NOTE: A facility permit is not required for: - alkaline stabilization of septage within a permitted septage hauling vehicle or at a site permitted for septage land application - screening of septage at a site permitted for septage land application

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
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	- a septage holding tank
	- screening of septage at a site permitted for septage land application
	- dewatering of septage at its source where the filtrate is returned to the septic tank and the solids are removed off site
	- the following septage hauling activities:
	  - the interstate transportation of any septage which is not generated, processed, transferred, stored, used, or disposed of in New Hampshire
	  - the transportation of EQ solids or EQ filtrate
	  - the transportation of marine sanitation waste on public roads within a trailered boat or the transportation of portable toilet waste in a recreational vehicle
	- the land application of EQ solids or EQ filtrate.)

WA.148.3.NH. Permitted haulers with septage holding tanks meet permit by notification requirements for the holding tank (NHCAR Env-Wq 1606.02) [Added March 2000; Revised March 2008].	Verify that any permitted hauler who wishes to install or use a septage holding tank applies for a permit-by-notification. Verify that any hauler who, prior to the 2005 amendments of these rules, installed a septage holding tank for the hauler's own use and registered the tank in accordance with rules in effect at the time of installation applies for a permit-by-notification within 5 years of the 2005 amendments of these rules. Verify that any hauler who has a septage holding tank who does not wish to obtain a permit-by-notification notifies the department within 30 days, in writing, of the discontinuance of use of said tank and the final disposition of the tank.
WA.148.4.NH. Septage land application facilities must meet annual notification requirements (NHCAR Env-Wq 1604.02) [Added March 2000; Citation Revised March 2008].	Verify that any facility who will be land applying septage provides notice at least 14 days before the intended date of the first annual land application of septage. Verify that the notice is published in a newspaper of general circulation in the municipality where the land application of septage will occur. Verify that a copy of the notice is posted continually at the entrances to the site beginning no later than 3 days prior to the application and ending no earlier than 3 days after the application.
WA.148.5.NH. [Deleted March 2008].	
WA.148.6.NH. Land septage application sites must meet specific recordkeeping requirements (NHCAR Env-	Verify that site permit holders maintain records of each load of septage received at the site, including identification of: - the date received

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Wq 1608.14) [Added March 2000; Citation Revised March 2008].	- the name and permit number of the hauler delivering the load - the volume of each load of septage received in gal - the name and address of the person from which the material originates - the date land applied and the amount spread on each field. Verify that site plans, management plans, and records are retained for a minimum of 5 yr after the expiration of the site permit to which they relate.
WA.148.7.NH. Land septage application sites must meet specific reporting requirements (NHCAR Env-Wq 1608.15) [Added March 2000; Revised March 2008].	Verify that, at least 10 days prior to commencement of each yearly septage land application activity, the permit holder submits the following information to the Department for each site: - the permit number for the site - an updated nutrient management plan - a copy of the published notice. Verify that every site permit holder submits an annual report for each by the last business day of January for each previous yr in which the permit is valid, regardless of whether or not the site received or processed septage within the previous calendar yr. Verify that the annual report contains the following: - the site location, including address and town - the permit number - the owner's name - the crops grown for each field and the crop disposition - the quantity of septage applied to each field - for reclamation sites, the groundwater monitoring report. (NOTE: If any of the information differs from that previously supplied to the Department concerning the activity, the permit holder will note those differences in the annual report.)
WA.148.8.NH. Septage management facilities must meet specific recordkeeping requirements (NHCAR Env-Wq 1609.12) [Added March 2000; Citation Revised March 2008].	Verify that every facility permit holder maintains records of each load of septage received at the facility, including identification of: - the date received - the name of the hauler and the permit number of the hauler delivering the load - the volume of each load of septage received, in gallons - the disposition of the material. Verify that facility plans, management plans, closure plans, and records are maintained by the permit holder, and available to the Department for review

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	during all reasonable business hours. Verify that facility plans, management plans, closure plans, and records are retained for a minimum of 5 yr after closure of the facility.
WA.148.9.NH. Septage management facilities must meet specific reporting requirements (NHCAR Env-Wq 1609.13) [Added March 2000; Citation Revised March 2008].	Verify that the permit holder reports all complaints to the Department orally within 24 h of receipt of a complaint, and in writing within 5 days of the complaint. Verify that every facility permit holder submits an annual report for each facility to the Department by the last business day of January for each previous calendar yr in which the permit is valid, regardless of whether or not the facility received or processed septage during the previous calendar yr. Verify that the annual report contains the following information: - the name and address of the facility - the permit number - the name of the permit holder - the total volume of septage, in gal, received at the facility, from each hauler - the disposition of all material that was received for example: total volume, in gallons, delivered to permitted land application sites, or the total volume processed or treated. (NOTE: If any of the information differs from that previously supplied to the Department concerning the activity, the permit holder will note those differences in the annual report.)
WA.148.10.NH. Septage tank usage must meet specific operating requirements (NHCAR Env-Wq 1606.01) [Added March 2000; Citation Revised March 2008].	Verify that a septage holding tank is used only as temporary storage for septage under the following conditions: - when access to a permitted site, facility, or wastewater treatment facility is not immediately available and the septage hauling vehicle is needed to service a client of the hauler - to accumulate septage to be land applied - for pH adjustment of septage prior to land application.
WA.148.11.NH. Land septage application sites must meet specific operating standards (NHCAR Env-Wq 1608.09(a) through (i)) [Added March 2000; Citation	Verify that the operation of all sites that manage septage through land application comply with the federal regulations as specified in 40 CFR part 503 (see sections WA.105 through WA.145 in the TEAM Guide). Verify that there is no spreading of septage on frozen or snow covered ground or when the ground is saturated due to precipitation or flooding.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
Revised March 2008].	Verify that septage is not spread on agricultural land which has a slope greater than 15 percent, that is, a 15 ft rise in 100 ft. Verify that septage spread on agricultural land or forested land that has a slope greater than 8 percent is applied in no fewer than 4 separate applications, each of which is no more than 25 percent of the total agronomic rate, at least 48 hr apart. Verify that septage is spread in an even layer so as not to result in ponding or runoff of material. Verify that septage is processed to minimize visible or identifiable plastics or other non-biodegradable solids. Verify that spreading of septage is not done on very poorly drained solids. Verify that there is no spreading of septage in the floodway. (NOTE: Floodway is defined as the stream channel plus that portion of the overbanks that must be kept free from encroachment in order to discharge the one percent annual chance flood without increasing flood levels by more than one foot, which is adopted into a local floodplain management ordinance). Verify that animals are not grazed on land on which septage has been land applied until 45 days after the last application of septage unless methods to reduce adherence to the crop or vegetation are used in conformance with the approved management plan.
WA.148.12.NH. Land septage application sites must meet sign posting requirements (NHCAR Env-Wq 1608.09(j)) [Added March 2000; Citation Revised March 2008].	Verify that reclamation and forest sites are posted, for the life of the permit, with signs which: - contain the name and telephone number of the operator and which state: "This is a septage land application site" printed with block letters not less than one in. in height - also contain the name and address of the owner or lessee of the property - are posted not more than 100 yd apart on all sides and also are posted at gates, bars, and commonly used entrances.
WA.148.13.NH. [Deleted March 2008].	
WA.148.14.NH. Septage storage must meet specific requirements (NHCAR Env-Wq 1608.11) [Added March	Verify that any person stockpiling septage containing greater than 15 percent solids for longer than 7 days covers the stockpile with an odor control material, such as lime, wood ash which has been approved for such use, or cement kiln

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
2000; Citation Revised March 2008].	dust, to minimize odors. Verify that storage or stockpiling of septage is maintained to minimize water run-on and run-off. Verify that storage or stockpiling of septage is not permitted for greater than 48 h on the 100-yr flood plain (as defined and delineated by the flood insurance rate maps published by the US Department of Housing and Urban Development or the Federal Emergency Management Agency). Verify that septage is not stored or stockpiled on any poorly or very poorly drained soils. Verify that septage containing 15 percent solids or less is stored or stockpiled in a tank or lagoon.
WA.148.15.NH. Septage facilities must meet closure requirements (NHCAR Env-Wq 1609.10(c) and (e)) [Added March 2000; Revised March 2008].	Verify that at least 60 days prior to the planned cessation of facility operations, the permittee provides the Department and the municipality in which the facility is located, with written notice of the intent to close the facility. Verify that the permittee notifies the Department and the municipality in which the facility is located, when closure is complete.
WA.148.16.NH. Septage haulers must meet permitting, transport, recordkeeping, reporting (NHCAR Env-Wq 1605.01, 1605.02, 1605.07(a), 1605.09, 1605.11, 1605.12, and 1605.13) [Added March 2000; Citation Revised March 2008].	Verify that septage haulers that transport septage on public roads first obtain a septage hauler permit from the Department. Verify that a copy of the septage hauler permit is retained in the vehicle at all times. Verify that all tanks are inspected by the driver prior to transport on public roads to ensure that septage will not leak, spill, or run out of the tank. Verify that all vehicles used to transport the tanks are equipped, at all times, with spill control or absorbent materials and disinfectant materials such as lime. Verify that each septage hauler permit holder maintains the following information in the vehicle used to transport the tanks whenever the vehicle is in transit to a site, facility, or wastewater treatment facility: - the name, address, and phone number of the client(s) from where the septage was transported - the volume of septage, in gallons, received from the client - the site, facility, or wastewater treatment facility to which the septage is to be delivered.

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	Verify that every septage hauler permit holder maintains the following records of each load of septage transported, and provides the information monthly to the operator of the site, facility, wastewater treatment facility to which the septage is delivered by no later than the 15th of the following mo: - the date received or picked up - the name and address of the client(s) - the volume of the septage transported, in gal - the site, facility, or wastewater treatment facility to which the load was discharged - the date on which the load was discharged. Verify that records are retained for a minimum of 5 yr after the expiration of the permit to which they relate. Verify that, in the event of an accidental release of septage, the permit holder: - immediately takes action to contain the septage, minimize the environmental impact, and begin clean-up procedures - notifies the Department of the release within 24 hr of the release. (NOTE: Notification to the Department is not required if all of the following conditions are met: - the discharge is less than 25 gal - the discharge is immediately contained - the discharge is completely removed within 24 hr - there is no impact to groundwater or surface water.)

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WA.150. **WATERSHED PROTECTION PROGRAMS/ RECHARGE PROGRAMS**	
WA.150.1.NH. Watershed protection standards must be met for regulated watersheds (NHCAR Env-Ws 386.01 through 386.69) [Added April 1998; Revised March 2007].	(NOTE: The purpose Env-Ws 386 is to recognize the importance of those surface water supplies that are used as sources of public water supply and to provide methods for reasonable watershed management so as to maintain high levels of water quality.) Verify that restriction on activities beyond the shoreline setback are followed. Verify that applicable watershed protection standards are followed for regulated watersheds. (NOTE: Waivers to watershed protection standards may be allowed by the Division.) (NOTE: New Hampshire has standards for protecting certain regulated watersheds. If the facility is located within one of the following regulated watersheds, check for applicable surface watershed protection regulations (found in NHCAR Env-Ws 386) from the environmental office: - Bradley Lake and Its Watershed - Albany Brook and Its Watershed - The Upper Ammonoosuc River Godfrey Dam and Its Watershed - Canaan Street Lake and Its Watershed - Whitewater Brook, Rice Reservoir and Dole Reservoir and Their Watersheds - Penacook Pond and Its Watershed - Whittle Brook and Goffstown Reservoir and Its Watershed - Tobey Reservoir and Its Watershed - Camp Brook Including the Upper & Lower Hanover Reservoir and Hanover Center Reservoir and Their Watersheds - Loon Lake and Its Watershed - Bear Pond and Its Watershed - Woodward Pond, Roaring Brook, Babbidge Reservoir and Their Watershed - Lake Winnipesaukee and Paugus Bay - Garland Brook and Its Watershed - The Water of the North Branch of the Gale River - The Water of the South Branch of the Gale River - The Water of Lake Massabesic and Its Tributaries - The Water of Lake Waukewan and Its Watershed - Pennichuck Brook and Its Watershed - Mountain Pond, Gordon Hill Reservoir and Their Watershed - Follett Brook and Its Watershed - The Water of Gilman Pond and Its Watershed in the Town of Unity - Berry Pond and Its Watershed

COMPLIANCE CATEGORY: WASTEWATER MANAGEMENT New Hampshire Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
	- The Bellamy Reservoir and Its Watershed - Round Pond and Rochester Reservoir and Their Watersheds - Berry's River and Its Watershed - Canobie Lake and Its Watershed - Lake Sunapee and Its Watershed - Fassett Brook Reservoir - Upper Beech Pond and Its Watershed.)

Appendix 12-1

Minimum Nitrate Setback Distance to Property Line (ft)
(Source: NHCAR Env-Wq 402.10, Table 402-1)
[Citation Revised March 2008; Citation Revised March 2010]

Design Flow (gpd) for each system	Hydraulically Downgradient	Hydraulically Sidegradient	Hydraulically Upgradient
0 - 1,000	50	25	12
1,001 - 1,100	55	28	14
1,101 - 1,200	60	30	15
1,201 - 1,300	65	33	17
1,301 - 1,400	70	35	18
1,401 - 1,500	75	38	19
1,501 - 1,600	80	40	20
1,601 - 1,700	85	43	22
1,701 - 1,800	90	45	23
1,801 - 1,900	95	48	24
1,901 - 2,000	100	50	25
2,001 - 2,100	105	53	27
2,101 - 2,200	110	55	28
2,201 - 2,300	115	58	29
2,301 - 2,400	120	60	30
2,401 - 2,500	125	63	32
2,501 - 3,000	150	75	37
3,001 - 3,500	175	88	44
3,501 - 4,000	200	100	50
4,001 - 4,500	225	113	57
4,501 - 5,000	250	125	63
5,001 - 6,000	275	138	69
6,001 - 7,000	300	150	75
7,001 - 8,000	320	160	80
8,001 - 9,000	340	170	85
9,001 - 10,000	350	175	88
10,001 - 15,000	435	213	107
15,001 - 19,999	500	250	125

NOTE: If the setback distances for two or more leachfields overlap, the leachfields shall be considered one system and the setback distance shall be determined by the combined flow of the leachfields.

Appendix 12-2

Buffer Distances for Sludge (in ft)
(Source: NHCAR Env-Wq 806.08(o) and (p))
[Revised March 2000; Citation Revised March 2008; Citation Revised March 2010]

	Distance (ft)
For Land Application:	
Surface Water	125{a}
Non-Tidal Drainage Ditch	33
Community Wells	400{b}
Other Wells	300
Surface Drinking Water Source	500
Property Lines	100{c}
Public Roads other than federal Interstate Highways	25
Federal Interstate Highways	10
Onsite Occupied Dwelling	100
Offsite Occupied Dwelling --	
If used for top dressing:	500{d}
If incorporated within 48 h:	200{d}
Bedrock/Restrictive Layer	2
Groundwater Depth (at time of application)	
Reclamation:	4{e}
Land Application:	4{e}
For Stockpiling or Storage:	
Surface Drinking Water Source	500
Nearest Occupied Dwelling	500{f}
Nearest Well	500{g}
Property Line	100{c}
Bedrock/Restrictive Layer	4
Groundwater Depth	2{1}
Surface Water	250{h}
Non-tidal Drainage Ditch	100

{a} indicate that the distance to surface waters may be reduced from 125 ft to 75 ft if the material is incorporated within 48 hr and the slope is less than 8 percent.
{b} indicates those community public water supply wells which withdraw greater than 57,600 gal over a 24-hr period.
{c} indicates that the distance to property lines may be reduced through written agreement with affected party(ies).
{d} indicates that the distance to an off-site occupied dwelling may be reduced to 100 ft through written agreement with affected parties.
{e} indicates that this shall be the distance to the groundwater at the time of application of sludge.
{f} indicates that the distance to the nearest occupied dwelling shall be as far as practical beyond 500 ft, but can may be reduced below 500 ft with the occupant's prior written consent.
{g} indicates that the distance to the nearest well shall be as far as practical, but in no case closer than 500 ft.

{h} indicates that the distance to surface water may be reduced to 125 ft if the slope of the land to the surface water is less than 5 percent and a vegetated buffer strip of at least 25 ft is maintained between the stockpile and the surface water.
{i} indicates that the distance is to the seasonal high water table.

Appendix 12-3

Buffer Distances for Septage (in ft)
[Deleted March 2008]

Appendix 12-4

Maximum Daily Concentration for Pollutants in the WEBS
(Source: NHCAR Env-Wq 1203.09) [Added March 2006; Citation Revised March 2010]

Table 1201-1 - Local limits

Pollutant	Numerical Limit (mg/L)
Aluminum	125
Arsenic	0.04
Cadmium	0.03
Chloride	9100
Chromium	0.63
Copper	1.40
Cyanide	0.45
Iron	25.0
Lead	0.85
Manganese	5.00
Mercury	0.019
Molybdenum	0.06
Nickel	1.00
Selenium	0.05
Silver	0.40
Zinc	3.27

Appendix 12-5

Minimum Separation Distances for ISDS components
(Source: NHCAR Env-Wq 1008.04) [Added March 2009]

(a) The minimum separation distance in feet between components of an ISDS and the identified receptors shall be as specified in Table 1008-2, subject to the provisions of (b) through (h), below:

Table 1008-2 Minimum Separation Distances (in Feet)

Receptor	Septic Tank	Effluent Disposal Area	Sewer Line
Surface Water	75	75	
Poorly Drained Jurisdictional Wetland	50	50	
Very Poorly Drained Jurisdictional Wetland	75	75	
Open Drainage	75	75	
Culvert, Tight Pipe	10	25	
Culvert Opening	50	75	
Catch Basin	35	35	
Interceptor Drains Below Finished Grade of Effluent Disposal Area	10	25	10
Interceptor Drains Above Finished Grade of Effluent Disposal Area	10	10	5
Private Wells, on-site	75	75	
Private Wells, off-site	75	75	
Community Wells	200	200	
Reservoirs	75	75	
Municipal Wells	400	400	400
Water Lines, pressure	10	25	10
Water lines, suction	50	50	50
Property lines	10	10	10
Foundation, any type, with Foundation Drains	5	15	
Foundation, full cellar, without Foundation Drains	5	10	

Receptor	Septic Tank	Effluent Disposal Area	Sewer Line
Foundation, slab, without Foundation Drains	5	5	
Foundation Drains Outfall Pipe (Solid)	5	5	
Foundation Drain Outfall(Discharge)	25	25	
Top of Natural Embankment or Natural Steep Slope	5	20	

(b) In-ground swimming pools shall not be located within 35 feet down-slope of an EDA or within 10 feet in any direction of an EDA.

(c) The distance between a septic tank and surface water, open drainage, or a private on-site well may be reduced to 50 feet if pipe having an SDR of 26 or equivalent is used and the tank is sealed and grouted to prevent infiltration and exfiltration.

(d) The distance between a septic tank or EDA and open drainage may be reduced to 35 feet where the open drainage and associated culverts, such as a roadside ditch, does not intercept the seasonal high groundwater.

(e) The distance between a water line and an EDA may be reduced to 10 feet, and the distance from a water line to a septic tank may be reduced to 5 feet, if the waterline is sleeved in continuous length SDR 35 pipe or equivalent, to the distance specified in Table 1008-2.

(f) For any well for which a wellhead protection area has been established pursuant to RSA 485-C, the distance between the well and the septic system components shall be as established in Env-Ws 378 or successor rules in subtitle Env-Dw.

(g) For purposes of approving an ISDS to replace an existing residential ISDS on a lot created after September 1, 1989, where the ISDS components cannot be installed in accordance with Table 1008-2, above, due to the residence being constructed in other than the location shown when the original approval was issued, the separation distances shall be as close to the specified distance as possible.

SECTION 13

WATER QUALITY MANAGEMENT

New Hampshire Supplement, March 2010

This section covers the state requirements for Water Quality Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Active Well* - a well which is used for water supply production (NHCAR Env-We 101.02) [Added March 2009].

- *Acute Toxicity* - an adverse effect such as mortality or debilitation caused by an exposure of 96 h or less to a toxic substance (New Hampshire Code of Administrative Rules (NHCAR) Env-Wq 1702.01) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Agriculture Water User* - all entities using water for operations at a farm as defined by RSA 21:34-a (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Ambient Groundwater Quality Standards* - maximum concentration levels for regulated contaminants in groundwater which result from human operations or activities, as delineated in RSA 485-C:6 (NHCAR Env-Or 602.02) [Added April 1998; Citation Revised March 2000; Citation Revised March 2007; Citation Revised March 2009].

- *Automatic Irrigation System* - an interconnected network of pipes, pumps, valves, and emitters designed to provide water to growing plant material, that is operated by a remote control valve controlled by a mechanical or electronic clock programmed to operate at specified times (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Benthic Community* - the community of plants and animals that live on over, or in the substrate of the surface water (NHCAR Env-Wq 1702.04) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Benthic Deposit* - any sludge, sediment or other organic or inorganic accumulations on the bottom of the surface water (NHCAR Env-Wq 1702.05) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Bottled Water* - a supply of water delivered in discrete containers as licensed by the New Hampshire Department of Health and Human Services, Division of Public Health Services (NHCAR Env-Ws 301.05).

- *Bulk Water* - water intended for potable uses which is transported in containers greater than 10 gallons for the purpose of treatment, packaging or human consumption (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Chronic Toxicity* - an adverse effect such as reduced reproductive success or growth, or poor survival of sensitive life stages, which occurs as a result of prolonged exposure to a toxic substance (NHCAR Env-Wq 1702.10) [Added April 1998; Revised March 2000; Citation Revised March 2009].

- *Class A and B Waters* - those waters that are legislatively classified as Class A or B waters pursuant to RSA 485-A:8, I, II and III (NHCAR Env-Wq 1702.11) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Coagulation* - a process using coagulant chemicals and mixing by which colloidal and suspended materials are agglomerated into flocs (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Community* - one or more populations co-occurring in surface waters (NHCAR Env-Wq 1702.13) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Community Water System* - a public water system which services at least 15 service connections used by yr-round residents or regularly serves at least 25 yr-round residents (NHCAR Env-Ws 387.02, Env-Ws 388.02 and Env-Wq 2101.03) [Added March 2002].

- *Compliance Period* - a 3 yr calendar period beginning in 1 January 1993. The first compliance period runs from 1 January 1993 to 31 December 1995, the second from1 1 January 1996 to 31 December 1998, and so on (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Compliance Cycle* - a 9 yr calendar yr cycle consisting of three, 3 yr compliance periods, during which public water systems monitor for the factors identified in other portions of Chapter Env-Ws 300 (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Consecutive Water System* - a public water system that buys or otherwise receives some or all of its finished water from one or more wholesale systems for at least 60 days per year (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Contact Cooling Water* - water used to reduce temperature that comes into direct contact with a raw material, intermediate product, waste product other than heat, or finished product and thus becomes classified as process wastewater (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Consumer Confidence Report (CCR)* - an annual report supplied by a community water system owner to customers which contains information on the quality of their drinking water (NHCAR Env-Ws 352.02) [Added March 2002].

- *Contaminant* - any physical, chemical, biological or radiological substance or matter in water (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Corrosion Inhibitor* - a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Conventional Filtration* - a series of processes including coagulation, flocculation, sedimentation, and filtration resulting in particulate removal (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Criterion* - a designated concentration of a substance or a narrative statement concerning that substance(s) that when not exceeded, will protect an organism, a population, a community, or a prescribed water use (NHCAR Env-Wq 1702.14) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Cultural Eutrophication* - the human-induced addition of wastes containing nutrients to surface waters which results in excessive plant growth and/or a decrease in dissolved oxygen (NHCAR Env-Wq 1702.15) [Added April 1998; Revised March 2000; Citation Revised March 2009].

- *Department* - the Department of Environmental Services (NHCAR Env-Wq 1702.16 and Env-We 101.11) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *DES* - the New Hampshire Department of Environmental Services (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Designated Uses* - those uses specified in water quality standards for each waterbody or segment whether or not such uses are presently occurring (NHCAR Env-Wq 1702.17) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Director* - the director of the water division of the department of environmental services (NHCAR Env-We 101.12) [Added March 2009].

- *Discharge*:
  1. The addition, introduction, leaking, spilling, or emitting of a pollutant to surface waters of the state, whether done intentionally, unintentionally, negligently or otherwise; or (NHCAR Env-Ws 401.03) Revised March 2009].
  2. The placing of a substance in a location where the substance is likely to enter the waters of the state (NHCAR Env-Wq 1702.18) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].
  3. The release or addition of any regulated contaminant to land, groundwater, surface water, or subsurface utility (NHCAR Env-Or 602.09) [Added April 1998; Revised March 2000; Citation Revised March 2009].

- *Disinfectant* - any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone, added to water in any part of the treatment or distribution process that is intended to kill or inactivate pathogenic microorganisms (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Disinfection* - a process which inactivates pathogenic organisms in water by chemical oxidants or equivalents agents (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Dissolved Oxygen* or *D.O.* - the oxygen dissolved as a gas in sewage, water or other liquid expressed in milligrams per liter (mg/l), parts per million (ppm), or percent saturation (NHCAR Env-Wq 1702.19) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Distribution System* - that portion of the public water system which includes pipes, storage facilities, pressure booster facilities, and all measuring and control devices used to convey potable water to the system users (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Division* - the division of water of the department of environmental services (NHCAR Env-We 101.13) [Added March 2009].

- *Downgradient Area* - the area where water taken by the withdrawal would flow if the withdrawal did not operate (NHCAR Env-Ws 387.02 and 388.02) [Added March 2002].

- *Epilimnion* - the upper, well-circulated warm layer of a thermally stratified lake (NHCAR Env-Wq 1702.22) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Existing Uses* - those uses which actually occurred in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards (NHCAR Env-Wq 1702.23) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Facility* - a fixed facility as defined in (j), below, or a mobile facility as defined in (n) below, or any combination thereof, depending on context (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Final Report* - the report submitted to the department after the pumping test and water quality testing program is conducted at the proposed well site material (NHCAR Env-Dw 301.03 and 302.03) [Added March 2008].

- *Fixed Facility* - an identifiable geographic location where water is withdrawn, treated, discharged, or otherwise used, whether at a single point or a number of individual points, at a single parcel of real property or place of business (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Groundwater* - subsurface water that occurs beneath the water table in soil and geologic formations (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Groundwater Contamination* - a violation of groundwater quality criteria of Table Env-Or 603(see Appendix 13-4) (NHCAR Env-Wq 402.03) [Added April 1998; Citation Revised March 2000; Citation Revised March 2007; Citation Revised March 2009].

- *Groundwater Release Detection Permit* - a permit issued under RSA 485- C:13 and Env-Or 700 to a facility owner for detection of any release of a regulated contaminant associated with the activities for which the permit was issued (NHCAR Env-Or 702.13) [Added March 2000; Citation Revised March 2007; Revised March 2009].

- *Groundwater Management Permit* - a permit issued pursuant to RSA 485- C:4, VIII and Env-Or 607 to a site owner or responsible party to establish a groundwater management zone, manage the use of contaminated groundwater, and monitor remedial progress (NHCAR Env-Or 602.12) [Added April 1998; Revised March 2000; Citation Revised March 2007; Revised March 2009].

- *Inactive Well* - a well which is not in use for water supply production (NHCAR Env-We 101.18) [Added March 2009].

- *Incoming Water* - water received at a facility through withdrawal and transfers in to the facility (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Industrial, Commercial, and Institutional (ICI) Water Users* - all water users that are not: (NHCAR Env-Wq 2101.03) [Added March 2009]:
  1. Serviced by a community water system; or
  2. An agriculture water user.

- *Industrial Waste* - "industrial waste" as defined in RSA 485-A:2, VI, namely "any liquid, gaseous or solid waste substance resulting from any process of industry, manufacturing trade or business or from development of any natural resources" (NHCAR Env-Wq 1702.25) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Initial Compliance Period* - the first full 3 yr compliance period which begins 1 January 1993 (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Intermittent Water Use* - a water use by a mobile facility for time-limited but recurring activities, including but not limited to construction or repair of roads, dust suppression, hydroseeding, and filling pools (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Large Bedrock Production Well* - a production well that produces a permitted production volume equal to or greater than 57,600 gallons in a 24- hour period and which is exposed to and draws water from any type of consolidated material (NHCAR Env-Dw 302.03) [Added March 2008].

- *Large Community Water System* - a community water system which serves 1,000 persons or more or any community water system that provides fire protection material (NHCAR Env-Dw 302.03 and Env-Wq 2101.03) [Added March 2008].

- *Large Overburden Production Well* - a production well that produces a permitted production volume of equal to or greater than 57,600 gallons in a 24- hour period which is exposed to and draws water from any type of unconsolidated material, including but not limited to, sand and gravel deposits. The term includes dug wells, tubular wells, well points, and naturally developed gravel wells material (NHCAR Env-Dw 302.03) [Added March 2008].

- *Large Production Well* - a wellhead that produces 57,600 gal or more per 24-h for a community water system (NHCAR Env-Ws 388.02) [Added March 2002].

- *Large Production Well* - a production well that produces a permitted production volume of equal to or greater than 57,600 gallons in a 24-hour period material (NHCAR Env-Dw 302.03) [Added March 2008].

- *Large Withdrawal* - any yr-round or seasonal withdrawal of groundwater from a wellhead installed after July 1998, not associated with a temporary short-term use such as contaminated site remediation or construction de-watering, and where the maximum 24-h withdrawal is 57,600 gal or more(NHCAR Env-Ws 387.02 and 388.02) [Added March 2002].

- *Loam* - a loose friable topsoil that combines relatively equal parts of sand, clay, and silt and that is generally free from stones, lumps, stumps, roots, weeds, or similar objects larger than 2 inches. (NHCAR) [Added March 2009].

- *Manmade Beta Particle and Photon Emitters* - all radionuclides which emit beta particles and/or photons listed in Maximum Permissible Body Burdens and Maximum Permissible Concentration of Radionuclides in Air or Water for Occupational Exposure, NBS Handbook 69, except the daughter products of thorium-232, uranium-235, and uranium-238 (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Maximum Contaminant Level or MCL* - the maximum permissible level of a contaminant in water which is delivered to the free flowing outlet of the ultimate user of a public water system, except in the case of turbidity where the maximum permissible level is measured at the point of entry to the distribution system. Contaminants added to the water under circumstances controlled by the user, except those resulting from corrosion of piping and plumbing caused by water quality, are excluded from the definition (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Maximum Contaminant Level Goal or MCLG* - the maximum level of a contaminant in water at which no known or anticipated adverse effects on the health of consumers occur and which allows an adequate margin of safety, as determined by federal and state agencies. Maximum contaminant level goals are nonenforceable health goals (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Mixing Zone* - a defined area or volume of the surface water surrounding or adjacent to a wastewater discharge where the surface water, as a result of the discharge, might not meet all applicable water quality standards (NHCAR Env-Wq 1702.27) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Mobile Facility* - a tanker truck or other container that is used to transport water from one location to another (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Monitoring Well* - a well used to observe or sample groundwater (NHCAR Env-We 101.22) [Added March 2008; Citation Revised March 2009].

- *Municipality* - a city, town or other public body created by or pursuant to State law, or an Indian tribal organization authorized by law (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Naturally Occurring Conditions* - conditions which exist in the absence of human influences (NHCAR Env-Wq 1702.29) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Nephelometric Turbidity Unit* or *NTU* - a standard used to measure the optical property that causes light to be scattered and absorbed rather than transmitted in straight lines through water, as measured by a nephelometer (NHCAR Env-Wq 1702.30) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *New Hampshire Drinking Water Rule* - any rule contained in Env-Ws 300 (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *New Production Well* - any well without current design approval in accordance with Env-Ws 370, Env-Ws 372, or Env-Ws 374, or successor rules in subtitle Env-Dw, or any well that has been inactive and has not been regularly sampled under the system's chemical monitoring program or any well that is deepened,

hydrofractured, or otherwise improved to increase its approved yield (NHCAR Env-Dw 302.03) [Added March 2008].

- *New Small Community Production Well* - a well that produces a permitted production volume of less than 57,600 gallons in any 24-hour period and can be described by any of the following: (NHCAR Env-Dw 301.03) [Added March 2008]
  1. Any newly constructed well for a small community water system.
  2. Any existing well that is not an active well for a small community water system, where approval in accordance with Env-Ws 372, or successor rules in Env-Dw, was not obtained;
  3. Any existing well for a small community water system where design approval has expired in accordance with Env-Ws 372.02(f) or successor rules in Env-Dw;
  4. Any existing well that has been removed from monitoring responsibility in accordance with Env-Ws 321.17 or successor rules in Env-Dw; or
  5. Any existing bedrock well that has been hydrofractured or deepened to increase its approved well capacity or to expand the water system.

- *Non-Contact Cooling Water* - water used to reduce temperature that does not come into contact with a raw material, intermediate product, waste product other than heat, or finished product (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Operator* -the individual who has direct management responsibility for the routine supervision and operation of a public water system or of a water treatment plant or collection, treatment, storage, or distribution facility or structure that is a part of a system (NHCAR Env-Ws 302) [Revised March 2007].

- *Outgoing Water* - water leaving a facility through discharge and transfers out of the facility (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Person* -any individual, partnership, company, public or private corporation, political subdivision or agency of the state, Department, agency or instrumentality of the United States, or any other legal entity (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Picocurie (pCi)* - the quantity of radioactive material producing 2.22 nuclear transformations per minute (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Point-of-Entry Treatment Device* - a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Point-of-Use Treatment Device* - a treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that one tap (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Point Source* - a discernible, confined, and discrete conveyance from which pollutants are or might be discharged, excluding return flows from irrigated agriculture or agricultural stormwater runoff, and including but not limited to a pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft. (NHCAR Env-Wq 1702.38) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Population* - a group of individuals of one species co-occurring in time and space (NHCAR Env-Wq 1702.41) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Population Served* - the determination of population for the classification of a water distribution system by using an equivalent of 100 gal per capita per day (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Public Water System* -a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least

60 days out of the year. Such term includes (1) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (2) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Any water system which meets all of the following conditions is not a public water system (NHCAR Env-Ws 302) [Added March 2002; Revised March 2007]:

1. consists only of distribution and storage facilities (and does not have any collection and treatment facilities);
2. obtains all of its water from, but is not owned or operated by, a public water system; and
3. does not sell water to any person.

- *Radionuclide* - a radioactive atomic nucleus specified by its atomic number, atomic mass and energy state (NHCAR Env-Wq 1702.43) [Added April 1998; Citation Revised March 2009].

- *Recycled Water* - that volume of water that is re-circulated at a fixed facility as part of one or more water-using processes (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Rem* - the unit of dose equivalent from ionizing radiation to the total body or any internal organ or organ system. A “millirem (mrem)” means 1/1000 of a rem (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Reliably and Consistently Below the MCL* - for a particular contaminant, each water quality test result is less than 80 percent of the appropriate MCL based on sampling for at least four consecutive quarters (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Replacement Well* - as defined in RSA 485-C:2, XIII-a, namely "a new well installed to replace or back-up an existing well that operates and impacts water users and water resources in substantially the same manner as the well that is being replaced." material (NHCAR Env-Dw 301.03 and 302.03) [Added March 2008; Citation Revised March 2009].

- *Running Annual Average* - a calculation made to determine compliance with an MCL where all water quality data taken within a 1 yr period are averaged and that number compared to the respective MCL, in which the average is recalculated by considering each new data point and dropping from consideration those data points that are more than 1 yr old (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Sanitary Survey* - on-site inspection of the water source, facilities, equipment, operation and maintenance of a public water system for the purpose of evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Secondary Maximum Contaminant Levels or SMCLs* - as defined in 40 CFR 143.2(f), which are for contaminants that primarily affect the aesthetic qualities of drinking water which in turn affect public acceptance of the drinking water (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Short Term Use* - the one time occurrence of a withdrawal at a specific geographical location over a period of one yr or less, except for contaminated site remediation, where the duration of the withdrawal extends for the time necessary to complete the objectives of the remediation (NHCAR Env-Ws 387.02 and 388.02) [Added March 2002].

- *Small Bedrock Production Well* - a production well with a permitted production volume of less than 57,600 gallons in any 24-hour period and which is exposed to and draws water from any type of consolidated material (NHCAR Env-Dw 301.03) [Added March 2008].

- *Small Community Water System* - a public water system serving a population of 25-1,000 persons without street hydrant fire protection (NHCAR Env-Dw 301.03 and Env-Wq 2101.03) [Added March 2008].

- *Small Production Well* - a well that produces a permitted production volume of less than 57,600 gallons in any 24-hour period which is installed in either bedrock or overburden (NHCAR Env-Dw 301.03) [Added March 2008].

- *S.N.A.R.L. or Suggested No Adverse Response Level* - contaminant guidance levels suggested by EPA to prevent unnecessary health risk to consumers of public water systems (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Source* - either a groundwater or surface water supply subject to a withdrawal by a water user, or a facility from which water is transferred to a water user (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Stop and Waste Valve* - the valve between the water distribution system and the service customer's premises which controls the flow of water to the premises (NHCAR Env-Ws 361.01) [Added March 2007].

- *Surface Water* - any lake, pond, river, stream, wetland, or tidal waters (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Tainting Substance* - any material that can impart objectionable taste, odor, or color to the flesh of fish or other edible aquatic organisms (NHCAR Env-Wq 1702.47) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Tie Location Records* - records showing the precise detailed dimensional measurements of all buried water supply lines, valves, and other components (NHCAR Env-Ws 361.01) [Added March 2007].

- *Total Trihalomethanes or TTHM* - the sum of the concentration in milligrams per liter of the trihalomethane compounds (trichloromethane (chloroform), dibromochloromethane, bromodichloromethane and tribromomethane (bromoform), rounded to two significant figures (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Transfer* - any conveyance of water from one real property or place of business to another or incorporation into a product for subsequent distribution (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Trihalomethane or THM* - one of the family of organic compounds, named as derivatives of methane, wherein three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure (NHCAR Env-Ws 302) [Citation Revised March 2007].

- *Unaccounted-For Wate*r - water for which a specific use cannot be determined due to accounting procedure errors, data processing errors, meter inaccuracies, authorized water use that does not pass through meters, leaks, seepage, overflow, evaporation, theft, unauthorized water use, or malfunctioning distribution controls (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Underground Injection* - the surface emplacement of fluids through a well. (NHCAR Env-Ws 384.02) [Added March 2004].

- *Vulnerable to Asbestos* - a system which has potential for asbestos contamination of the water source; and/or uses asbestos-cement pipe for finished water distribution and the water is corrosive (NHCAR Env-Ws 326.21).

- *Waste* - "industrial waste" as defined in RSA 485-A:2, VI, and "other wastes" as defined in RSA 485-A:2, VIII (NHCAR Env-Wq 1702.51; Citation Revised March 2000) [Added April 1998; Citation Revised March 2009].

- *Water Conservation* - any beneficial reduction in water losses, waste, or use (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Water Quality Standard* - the combination of designated uses of surface waters and the water quality criteria for such surface waters based upon such uses (NHCAR Env-Wq 1702.52) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Water User* - the owner of a facility where an average of 20,000 gallons of water or more per day is used in any 7-day period or 600,000 gallons is used in any 30-day period (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Water Well Construction* - includes the industry, procedure, and all operations engaged in by any person, full or part time, for compensation or otherwise, to obtain water from a well by drilling, digging, developing including hydrofracturing, or other method, for any purpose or use (Env-We 101.37 and RSA 482-B:2) [Added March 2004; Citation Revised March 2009].

- *Well* - a hole or shaft sunk into the earth to observe, sample, or withdraw groundwater (NHCAR Env-Ws 387.02 and 388.02) [Added March 2002].

- *Well* - a hole or shaft sunk into the earth which is deeper than it is wide to observe, sample, or withdraw groundwater (RSA 482-B:2) [Added March 2004].

- *Well* - either: (NHCAR Env-Ws 384.02) [Added March 2004]
  1. A bored drilled, or driven shaft whose depth is greater than the largest surface dimension;
  2. A dug hole whose depth is greater than the largest surface dimension;
  3. An improved sinkhole; or
  4. A subsurface fluid distribution system as defined in 40 CFR 144.3.

- *Well* - any conveyance used to capture or withdraw water from the ground material (NHCAR Env-Dw 302.03 and Env-Wq 2102.03) [Added March 2008].

- *Wellfield* - a combination of 2 or more wells that supply water from the same aquifer where the horizontal distance between any wellhead and at least one other wellhead does not exceed 100 feet (NHCAR Env-Wq 2102.03) [Added March 2009].

- *Wellhead* - the conveyance or conveyances through which, and location where, groundwater reaches the land surface such as the well casing, wellfield collector, or spring collection box (NHCAR Env-Ws 387.02 and 388.02) [Added March 2002].

- *Well Log* - a written description of the unconsolidated earth materials, rock types, water bearing zones, and depth intervals encountered during the well drilling operation (NHCAR Env-We 101.40) [Added March 2009].

- *Wetland* - an area that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas as delineated in accordance with Wt. 301.01 (NHCAR Env-Wq 1702.53) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].

- *Wholesale System* - a public water system that treats source water and then sells or otherwise delivers finished water to another public water system (NHCAR Env-Wq 2101.03) [Added March 2009].

- *Withdrawal* - the removal of groundwater for any purpose (NHCAR Env-Ws 387.02 and 388.02) [Added March 2002].

WATER QUALITY MANAGEMENT
GUIDANCE FOR NEW HAMPSHIRE CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:
Missing Checklist Items	WQ.2.1.NH.
State Specific Requirements	
Permits/Notifications/Exemptions	WQ.5.1.NH. through WQ.5.4.NH.
Sampling / Analysis	[Deleted]
Operations	WQ.8.1.NH. through WQ.8.8.NH.
Management / Administrative	WQ.9.1.NH.
Public Water Systems	
General	WQ.10.1.NH. through WQ.10.18.NH.
Monitoring/Sampling	WQ.15.1.NH. through WQ.15.6.NH.
Lead and Copper	WQ.25.1.NH.
Notification and Reporting Requirements	WQ.30.1.NH. through WQ.30.15.NH.
Community Water Systems	
Standards	WQ.35.1.NH. through WQ.35.12.NH.
Monitoring/Sampling	WQ.40.1.NH. through WQ.40.18.NH.
Notification and Reporting Requirements	WQ.45.1.NH. through WQ.45.7.NH.
Noncommunity Water Systems	
Standards	WQ.60.1.NH. through WQ.60.7.NH.
Notification and Reporting Requirements	WQ.75.1.NH. and WQ.75.2.NH.
Nontransient Noncommunity Water Systems	
Standards	WQ.76.1.NH. through WQ.76.9.NH.
Monitoring/Sampling	WQ.77.1.NH. through WQ.77.12.NH.
Notification and Reporting Requirements	WQ.79.1.NH.
State-Specific Categories of Water Systems	WQ.80.1.NH. through WQ.80.3.NH.
Drinking Water Well	WQ.90.1.NH. through WQ.90.25.NH.
Miscellaneous Wells	WQ.100.1.NH. through WQ.100.5.NH.
Underground Injection Control (UIC)	WQ.109.1.NH.
Water Quality Standards	WQ.115.1.NH. through WQ.115.17.NH.
Water Use Permits	WQ.120.1.NH. through WQ.120.7.NH.

GUIDANCE FOR APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:
13-1	Average Annual Concentrations Assumed to Produce a Total Body or Organ Dose of 4 mrem/yr
13-2	Secondary MCLs
13-3	Acceptable Devices for Types of Hazards
13-4	Ambient Groundwater Quality Standards
13-5	Water Quality Criteria for Toxic Substances
13-6	[Deleted]

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WQ.2. **MISSING CHECKLIST ITEMS**	
WQ.2.1.NH. Federal facilities are required to comply with all applicable state regulatory requirements not contained in the checklist (a finding under this checklist item will have the citation of the applied regulation as a basis of findings).	Determine whether any new regulations have been issued since the finalization of the manual. Determine whether the Federal facility has activities or facilities that are regulated but not addressed in the checklists. Verify that the Federal facility is in compliance with all applicable and newly issued regulations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
STATE SPECIFIC REQUIREMENTS **WQ.5.** **Permits/ Notifications/ Exemptions**	
WQ.5.1.NH. Community or nontransient noncommunity (NTNC) public water systems must obtain an operating permit (NHCAR Env-Dw 501.01 and 501.04) [Revised March 2010].	Verify that any community or NTNC public water system has a valid permit which is renewed annually. Verify that the permit holder updates the contact information on file with the Department to ensure that the information is current at all times. Verify that the permit is displayed on the premises of the public water system in a clearly visible location.
WQ.5.2.NH. All coatings or surfaces in contact with drinking water and all chemicals added to drinking water must be approved by the Division (NHCAR Env-Ws 305.01) [Revised March 2007].	Verify that all such chemicals, coatings and surfaces that may come into contact with drinking water are tested and certified in accordance with the Direct and Indirect Additives Standards Number 60 and 61 of the National Sanitation Foundation, International.
WQ.5.3.NH. Large public water systems must notify the Division prior to initiating construction or expansion of a public water system (NHCAR Env-Ws 374.02) [Revised March 2007].	Verify that prior to initiating construction of a new public water system or increasing the capacity of an existing public water system, the water system submits detailed plans of the proposed construction to the department and securing its approval.
WQ.5.4.NH. Small community water systems and those NTNC water systems important to public health must have design approval (NHCAR Env-Ws 372.02 and 372.33) [Added March 2007].	(NOTE: This checklist applies to all small community water systems (serving 25 or more but less than 1000 without fire protection provided by street hydrants) and those NTNC water systems whose reliability is directly important to public health, such as schools or other facilities that are used as shelters during public emergencies.) Verify that a public water system is not constructed until all required state and local approvals, including water system design approval, have been obtained.

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	Verify that detailed measurements are made of the exact location of all buried water distribution piping and related service connections, gate valves, and blow-offs, and recorded on as-built plans or record drawings. Verify that the water system owner files a copy of the as-built plan or record drawing of the water distribution piping system with the Department.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
STATE SPECIFIC REQUIREMENTS **WQ.7.** **Sampling / Analysis** **WQ.7.1.NH.** [Deleted March 2009].	(NOTE: NHCAR Env-Ws 325.40 was repealed.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
STATE-SPECIFIC REQUIREMENTS **WQ.8.** **Operations**	
WQ.8.1.NH. Point of entry (POE) treatment devices must comply with monitoring and water quality requirements (NHCAR Env-Ws 308.02) [Revised March 2007].	Verify that point-of-entry (POE) treatment is used only where: - there are no non-contaminated sources reasonably available - centralized treatment is not feasible. Verify that the public water system owner operates and maintains each POE treatment unit. Verify that the public water system develops a monitoring plan and obtains Department approval for that plan before installing any POE device. Verify that the POE treatment remains a permanent part of the supply and is not separated by sale, lease, or other conveyance of the property.
WQ.8.2.NH. Point of use (POU) treatment devices must comply with monitoring and water quality requirements (NHCAR Env-Ws 308.03 and 308.06 (c) and (d)) [Revised March 2007].	Verify that point-of-use (POU) treatment is used only where: - there are no non-contaminated sources reasonably available - centralized treatment or POE is not feasible - absorption of the contaminant(s) through the skin is not a significant exposure pathway. Verify that POU treatment is not used at new community water systems. Verify that the public water system operates and maintains the POU treatment system. Verify that the public water system develops a monitoring plan and obtains department approval for the plan before installing POU treatment devices. Verify that, if bacterial presence occurs, the water system owner uses frequent backwashing, post contactor disinfection, heterotrophic plate count monitoring, or any combination of these techniques to ensure that the microbiology safety of the water is not compromised. Verify that all POU devices have a mechanical warning indicator showing the treatment capacity remaining. Verify that, if a certification for the POU device is available from the National Sanitation Foundation or the Water Quality Association, the devices are certified.

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	Verify that all consumers are equally protected where POU treatment is allowed. Verify that, if POU treatment is used, it remains a permanent part of the supply and is not separated by sale, lease, or other conveyance of the property.
WQ.8.3.NH. The use of bottled water must meet specific requirements (NHCAR Env-Ws 308.11(a)) [Revised March 2007].	Verify that public water systems develop a monitoring program for bottle water and receives Division approval prior to using bottled water. Verify that the public water system monitors a representative sample of the use of bottled water during the first quarter that it supplies the bottled water to the public, and annually thereafter. Verify that the public water system provides the results of the monitoring program to the Division within 10 days after the beginning of the first quarter in which bottled water is provided and annually thereafter. Verify that the public water system receives a certification from the bottled water company that the bottled water supplied has been taken from a "NH-approved source of bottled water" and the bottled water does not exceed any MCLs, and provides the certification to the Division within 10 days after the beginning of the first quarter in which bottled water is provided and annually thereafter.
WQ.8.4.NH. Point of use (POU) treatment devices must meet sampling requirements (NHCAR Env-Ws 308.07) [Added March 2007].	Verify that a sample of treated and untreated water is collected annually in the sampling quarter designated by the department and analyzed for the contaminant(s) for which the POU device is treating. (NOTE: Samples from up to 5 devices may be composited by the laboratory.) Verify that, if composite samples are tested, samples from the same POU devices are composited during each future sampling event. Verify that, if the results of a composite sample show contaminant levels greater than the expected treatment efficiency of the device, each individual POU device is sampled within 14 days of receipt of the composite sample data results. Verify that a treated water sample is taken within 14 days of the connection whenever any new device is installed or when a new service customer is connected to the system.
WQ.8.5.NH. If a violation of MCL occurs when using a point of use (POU) treatment device specific requirements must be met (NHCAR Env-	Verify that, if an MCL violation occurs at a system using POU treatment, the system does the following: - immediately provides the standard MCL violation notice to the customer(s) having the exceedance

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Ws 308.08) [Added March 2007].	- provides alternate water as soon as possible but no greater than 3 days after receipt of the data - makes repairs to the device within 7 days. Verify that the repaired device is retested. Verify that alternate water continues to be supplied until the results of a retest show that the MCL is being met.
WQ.8.6.NH. Ongoing user education requirements must be met if point of use (POU) treatment devices are used (NHCAR Env-Ws 308.09) [Added March 2007].	Verify that, where POU treatment is used, written educational materials are given to water users every 6 months concerning the importance of using POU treated water for drinking water consumption and food preparation. Verify that all new residents are given this educational notice within 15 days of the beginning of water service. Verify that the educational wording includes the following: "Periodic Educational Notice - the (name of system) public water system has chosen to use a point-of-use treatment concept to reduce the concentration of (name of contaminant) in the water system serving (name of users). In a point-of-use concept, a small treatment device is installed on only one faucet in each unit served by the water system, rather than using a large central treatment process at the source of water. The treatment device typically is placed on the kitchen faucet. The water at all other faucets in your home/office exceeds the maximum contaminant level (MCL) for (contaminant) and should not be used for consumption or used in any food preparation - the average concentration of the (contaminant) in untreated water is (concentration) parts per million (ppm). The State of New Hampshire's MCL for (contaminant) in drinking water is (concentration) ppm. There is no health concern relative to using untreated water for dish washing, clothes washing, personal hygiene, and other non-consumptive uses from other faucets in your home. For further information, please call (name of water system contact) at (telephone number)."
WQ.8.7.NH. A new or existing water system owned by a landlord who supplies water only to tenants and includes water service in a rental fee must establish water conservation by installing meters for users and sources by conducting a comprehensive leak detection	Verify that a new or existing water system owned by a landlord who supplies water only to tenants and includes water service in a rental fee completes either: - meets the metering and water accounting requirements for existing large community water systems (seeWQ.40.15.NH. and WQ.40.16.NH.) - conducts a comprehensive leak detection survey of the distribution system every 2 years. Verify that, if the water system elects to conduct a comprehensive leak detection survey, the water system completes the survey in accordance with procedures and

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survey. (NHCAR Env-Wq 2101.05 (b), (c), (d) and (g)) [Added March 2009].	protocols described in Chapter 3 and 4 of the "Manual of Water Supply Practices, Water Audits and Leak Detection" document identification number AWWA M36, American Water Works Association, 1999. Verify that the water system repairs all identified leaks within 60 days of detection unless a waiver is obtained. Verify that all activities are completed by water system personnel under the supervision of a certified operator.
WQ.8.8.NH. A new or existing water system owned by a landlord who supplies water only to tenants and includes water service in a rental fee must implement pressure reduction within one year of obtaining approval of a new source of water (NHCAR Env-Wq 2101.06 (e)) [Added March 2009].	Verify that a new or existing water system owned by a landlord who supplies water only to tenants and includes water service in a rental fee implements pressure reduction within one year of obtaining approval of a new source of water when: - technically feasible - consistent with water system industry standards and regulations - consistent with other public health and safety considerations.

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STATE SPECIFIC REQUIREMENTS **WQ.9. Management / Administrative**	
WQ.9.1.NH. A new or existing water system owned by a landlord who supplies water only to tenants and includes water service in a rental fee must complete a water conservation educational outreach initiative (NHCAR Env-Wq 2101.06 (f)) [Added March 2009].	Verify that a new or existing water system owned by a landlord who supplies water only to tenants and includes water service in a rental fee completes a water conservation educational outreach initiative using materials prepared by the department.

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PUBLIC WATER SYSTEMS **WQ.10.** **General**	
WQ.10.1.NH. [Deleted April 1998].	
WQ.10.2.NH. All laboratory tests must be processed by a certified laboratory (NHCAR Env-Ws 310.02) [Revised April 1998].	Verify that a state certified laboratory analyzes all samples (except for turbidity, pH and carbon dioxide).
WQ.10.3.NH. [Deleted April 1998].	(NOTE: This checklist item moved to WQ.30.8.NH. and revised; April 1998.)
WQ.10.4.NH. All public water systems must have a cross connection backflow prevention program (NHCAR Env-Ws 364.02, 364.09, 364.10, and 364.11) [Revised April 1998; Revised March 2007].	Verify that public water systems have an approved cross connection control program if they meet either of the following conditions: - serves 1000 or more persons -serves an entity that poses a cross connection hazard. Verify that systems serving fewer than 1000 persons take appropriate action to prevent backflow and cross connections. (NOTE: Systems serving fewer than 1000 persons may operate without an approved plan.) Verify that each public water system maintains records pertaining to its cross-connection control program including a list of high degree and low degree of hazard cross-connection locations and records of the frequency of inspection and testing of each backflow prevention device and the results of inspections and tests. (NOTE: See reporting requirements in WQ.30.14.NH.)
WQ.10.5.NH. Backflow prevention devices must meet inspection requirements	Verify that public water suppliers do not allow any cross-connection at any point within the water system unless approved pursuant to a permit specifically issued

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(NHCAR Env-Ws 364.04) [Revised April 1998].	by the supplier for the cross-connection. Verify that public water suppliers require any backflow prevention device installed in the system to be an approved backflow prevention device. Verify that public water suppliers require backflow prevention devices to: - be installed where required - be tested for proper functioning upon completion of installation - be inspected and tested at least semi-annually in high degree of hazard situations - be inspected and tested at least annually in low degree of hazard situations - meet applicable performance standards. Verify that public water suppliers require a certified backflow prevention device inspector to perform all testing and inspection duties. Verify that public water suppliers require the customer or property owner to repair, overhaul, or replace the backflow prevention device whenever it is found to be defective. Verify that public water suppliers evaluate records of inspections, tests, repairs, and overhauling and retain the records for a period of at least 5 years. Verify that public water suppliers establish a time for completion of necessary corrections or removal of actual or potential cross-connections, taking into consideration the degree of hazard involved and the time required to obtain and install the needed equipment. Verify that public water suppliers ensure that necessary corrections are made by: - requesting the owner of the cross-connection to voluntarily correct the deficiencies - physically separating the public water supply from the on-site piping system in such a manner that the 2 systems cannot again be connected by an unauthorized person. Verify that public water suppliers deny water service to any premises where cross-connections exist until corrective action is taken. (NOTE: The supplier and the customer or property owner have joint responsibility to ensure that the backflow prevention devices installed at all cross-connections are tested and inspected.)
WQ.10.6.NH. Water supply systems must notify the Division whenever there is an impairment of service	Verify that the owner of a community or non-community, non-transient water system notifies the department within 24 hours after discovery of the following: - actual or suspected tampering, sabotage, security breach, or any suspicious

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(NHCAR Env-Ws 360.01) [Revised March 2007].	incident at the water system - interruption in the treatment of a public water supply due to flood, storm or other cause - damage or depletion in the source of the supply which impairs the quality or sufficiency of the supply. Verify that the notifications are made by telephone, fax, e-mail, messenger or whatever other means of confirmable, rapid communication is available.
WQ.10.7.NH. Each public water system is required to have an operations manual (NHCAR Env-Ws 360.05) [Revised March 2007].	Verify that all existing public water systems have an operations manual. Verify that, for new public water systems, the system builder provides an operations manual to the system owner prior to the start-up date of the system and a copy to the Department. (NOTE: The operations manual is subject to inspection at the time of the final certified inspection.) Verify that the operations manual includes: - a description of how the system functions - performance specifications and a description of how of each equipment component functions - a description of the maintenance action and frequency of maintenance required for each equipment component - maintenance logs on which the date and type of maintenance activity performed can be recorded - appropriate forms for reporting production and treatment. Verify that the operations manual is updated whenever: - a new facility, source, or treatment process is added to the system - modifications to the facility, source, or treatment process render the existing manual obsolete.
WQ.10.8.NH. Public water systems must make routine inspections (NHCAR Env-Ws 360.13) [Revised April 1998; Revised March 2007].	Verify that source pumping stations and booster stations with no treatment are inspected at least once per month. Verify that facilities such as pressure reducing vaults and air release valves are inspected at least once every 6 mo. Verify that health-related nonacute single function treatment processes of chemical addition are inspected at least once every 2 days. Verify that bacterial health-related single function treatment processes, where contaminants exist above the MCL, are inspected at least once per day

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	Verify that treatment processes related to nitrate/nitrite are inspected at least once per week. Verify that full surface water filtration facilities, except for slow sand filtration facilities, are inspected each day. Verify that nonhealth related treatment facilities other than slow sand filter facility are inspected at least once a week. Verify that the individual conducting the inspection has knowledge of the facilities and functions requiring action or maintenance. (NOTE: This individual is not required to be the certified operator.) Verify that records of all inspections are maintained.
WQ.10.9.NH. Public water systems must be flushed on a periodic basis (NHCAR Env-Ws 361.04 and 361.05) [Revised April 1998; Revised March 2007].	Verify that all distribution system gate valves are fully turned at least once every 12 months. Verify that the distribution system is flushed annually, or more frequently if needed. Verify that, for systems serving less than 100 customers, the owner gives written notice of scheduled flushing by first class mail or hand-delivery to each customer, at least one week in advance of the intended flushing date. Verify that, for systems serving 100 or more customers, the owner gives notice at least one week in advance of the intended flushing date by: - providing written notice by first class mail or hand-delivery to each customer - publishing a copy of the notice in a newspaper of general circulation for that area. Verify that the flushing continues for a sufficient amount of time to clean the distribution system of poor quality water and sediment. Verify that flushing flow rates are not less than 2.5 feet per second.
WQ.10.10.NH. Public water systems must inspect and maintain storage tanks (NHCAR Env-Ws 361.08) [Revised March 2007].	Verify that the insides of all storage tanks are inspected once every 5 yr and evaluated for structural strength, corrosion, and other factors related to water quality. Verify that the metal surfaces of storage tanks are painted or protected as necessary.

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WQ.10.11.NH. Public water systems must provide bottled water during failures to meet MCLs (NHCAR Env-Ws 310.02(d)) [Added April 1998].	Verify that a public water system provides a reasonable amount of bottled water to customers for consumptive needs when it fails to meet the specified inorganic, organic, and radiological MCLs for so long as the failure exists.
WQ.10.12.NH. Public water systems must maintain the operational readiness of the system (NHCAR Env-Ws 360.11) [Added April 1998; Citation Revised March 2007].	Verify that public water system owners take all appropriate actions to promptly repair and fully maintain the operational readiness of the system, including: - the preparation and implementation of a preventative maintenance program - the prompt repair of failed or impaired facilities.
WQ.10.13.NH. Public water systems must maintain updated distribution records (NHCAR Env-Ws 361.07) [Added April 1998; Revised March 2007].	Verify that the public water system updates, on an annual basis, their overall distribution system map. Verify that a revised copy of updated distribution plan is submitted to the Division once every 5 yr, with the next submittal occurring before 31 December 1998. Verify that each community water system annually reviews and updates, as needed, the tie location records of the following: - gate valves - stop and waste valves - fittings, including: tee connections, diameter change fittings, elbows, offset fittings, and caps. (NOTE: The water system is not required to submit tie location records to the department, but must make the records available for review at the time of the field sanitary survey.)
WQ.10.14.NH. Large public water systems must meet specific requirements for chemical additives (NHCAR Env-Ws 374.03(a)) [Added April 1998].	Verify that no chemical is introduced into a large public water supply without the specific written approval of the Division.

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WQ.10.15.NH. Public water systems must have a maintenance schedule (NHCAR Env-Ws 361.02(a)) [Added March 2007].	Verify that that public water system has a maintenance schedule for each of the following components of the system: - wells, reservoirs, and intakes - pump stations - electrical equipment and controls - water storage tanks - distribution system - water treatment plants.
WQ.10.16.NH. Public water systems must have a priority repair arrangement when in house system repair capability does not exist (NHCAR Env-Ws 360.09) [Added March 2007; Citation Revised March 2008].	Verify that, when in house system repair capability does not exist, the water system owner establishes separate repair agreements for the distribution piping system and pumps and controls. Verify that the agreements require the repair company to prioritize the repair of a damaged public water system before other types of business.
WQ.10.17.NH. Public water systems must take required actions after mechanical breakdown or other failure of a system (NHCAR Env-Ws 360.12) [Added March 2007].	Verify that, if the water system experiences a mechanical failure, water main break, or power failure or experiences an unexplained change in the water quality in the distribution system, the owner initiate some or more of the following actions, as appropriate to the situation: - disinfection - bacterial testing - flushing - public notice to consumers.
WQ.10.18.NH. Bulk water used as an emergency supply for a public water system must meet source requirements (NHCAR Env-Dw 304.03(a) and (d)) [Added March 2010].	(NOTE: The purpose of Env-Dw 304 is to establish requirements for the use of bulk water as an emergency source of water by public water systems (PWS).) (NOTE: For this checklist item: - "approved source" means a source of water that is either: - a community water system (CWS) source approved by the department - a bottled water source approved by the department - a CWS source or bottled water source approved by another state acting under the authority of the U.S. Environmental Protection Agency - another source approved by the department - "bulk water" means water that is delivered to a PWS in discrete loads using a tanker truck.) Verify that bulk water provided to a PWS is finished water obtained only from an approved source, and that surface water that is not an approved source is not used

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	as a source of bulk water.

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PUBLIC WATER SYSTEMS **WQ.15.** **Monitoring/ Sampling**	
WQ.15.1.NH. Public water systems must collect bacterial samples (NHCAR Env-Ws 325.01).	Verify that the water system has developed a written sample sampling plan identifying sites representative of water throughout the distribution system. Verify that the system collects total coliform samples in accordance with the plan.
WQ.15.2.NH. Public water systems must meet general monitoring requirements (NHCAR Env-Ws 321.09, 321.10 and 321.18) [Added March 2002; Revised March 2005].	Verify that each public water system owner monitors at the time designated by the department within each compliance period in accordance with the system's sampling schedule provided by the department. (NOTE: Unless otherwise noted, a system owner using a combination of groundwater and surface water shall monitor as if it was a surface water supply.) Verify that a system owner conducts minimum monitoring if the water supply meets the following criteria: - the department reduced the monitoring frequency to the minimum sampling - the system is designed or intended to be used as a public water system where there are less than 15 service connections and less than 25 people being serviced - the system is providing bottled water for human consumption on a temporary basis due to the inability of the current water supply to meet the chemical standards. Verify that minimum monitoring consists of the following: - quarterly bacteriological analysis - annual nitrate analysis and nitrite analysis every 3 years - analysis for Volatile Organic Compounds (VOC), Inorganic Compounds (IOC), Synthetic Organic Compounds (SOC), and radionuclides every 3 years as appropriate for the system classification.
WQ.15.3.NH. Public water systems must adhere to general sampling requirements (NHCAR Env-Ws 321.11 and 321.12) [Added March 2002].	Verify that the system owner collects each sample at the same sampling point designated by the department in the sampling schedule. Verify that the system owner collects one sample from each sampling point. Verify that composite samples are not conducted.

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	(NOTE: If a system draws water from more than one source and the sources are combined before distribution, the system owner may take a combined or blended sample to satisfy that system's chemical monitoring requirements.) Verify that each source has a separate sampling tap except where conditions, such as vacuum manifold, prevent such tap installation. Verify that where treatment is in use, a separate sampling tap is installed prior to and after treatment.
WQ.15.4.NH. Public water systems must adhere to specialized turbidity monitoring standards (NHCAR Env-Ws 325.06) [Added March 2002].	Verify that the owner of a public water system using surface water or groundwater under the direct influence of surface water and does not practice filtration, collects at least one sample near the first service connection each day the turbidity level of the source water exceeds one NTU. Verify that the sample is analyzed for turbidity and for the presence of total coliforms. Verify that when one or more turbidity measurements in any day exceed one NTU, the system owner collects a coliform sample within 24 h of the first exceedance, unless the department determines that the system cannot have the sample analyzed within 30 h of collection. (NOTE: Sample results from this coliform monitoring are included in determining compliance with the MCL for total coliforms.
WQ.15.5.NH. Public water systems must adhere to repeat monitoring requirements if any sampling tests positive for bacteria (NHCAR Env-Ws 325.07) [Added March 2002].	Verify that if a routine sample is total, fecal or E. coli coliform-positive, the public water system owner collects a set of repeat samples within 24 h after being notified by the department of the positive result. Verify that system owners who collect more than one routine sample/mo collects at least 3 repeat samples for each total, fecal, or E coli coliform-positive sample found. Verify that system owners who collect one routine sample/mo or less collects at least 4 repeat samples for each total, fecal or E coli coliform-positive sample found. Verify that the system owner collects one repeat sample from the following locations: - the sampling tap where the original total, fecal, or E. coli coliform-positive sample was collected - a tap within 5 service connections upstream of the original sampling site - a tap within 5 service connections downstream of the original sampling site - if required, at another distribution location chosen by the system owner.

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	Verify that the system owner collects all repeat samples on the same day. (NOTE: A system owner with a single service connection may: - collect the required set of repeat samples over a 4 day period - collect a larger volume repeat sample(s) in one or more sample containers of any size, as long as the total volume collected is at least 400 ml.) Verify that if one or more repeat samples in the set is total, fecal, or E. coli coliform-positive, the public water system owner: - collects an additional set of repeat samples in the manner specified above - repeats this process until either total coliforms are not detected in one complete set of repeat samples, or the system owner determines that the MCL for total coliforms has been exceeded - notifies the department of the results - collects the samples within 24 h of being notified of the positive result unless the department extends the limit. Verify that if a system owner collecting less than 5 routine samples per mo has one or more total coliform-positive samples and the department does not invalidate the sample(s), the system owner collects at least 5 routine samples during the next mo the system provides water to the public.
WQ.15.6.NH. System owners must meet monitoring requirements when the MCL of regulated inorganics is exceeded (NHCAR Env-Ws 326.07) [Added March 2002].	Verify that a system owner who exceeds the MCL monitors quarterly beginning in the next quarter after the violation occurs. Verify that the system owner collects raw water samples prior to the treatment system for as long as the treatment is used to reduce levels of a regulated inorganic. Verify that the samples are collected at the same time the scheduled monitoring samples are required and the results are submitted with the compliance results.

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PUBLIC WATER SYSTEMS **WQ.25.** **Lead and Copper**	
WQ.25.1.NH. Samples for lead and copper analysis must meet specific requirements (NHCAR Env-Ws 381.16(b)) [Added March 2007].	(NOTE: NHCAR 381.16 is equivalent to 40 CFR 141.86 except for the following item.) Verify that each first-draw tap sample for lead and copper is one liter in volume and has stood motionless in the plumbing system of each sampling site for at least 6 hours but no longer than 10 hours.

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PUBLIC WATER SYSTEMS **WQ.30.** **Notification and Reporting Requirements**	
WQ.30.1.NH. Records for all requirements of the New Hampshire Drinking Water Rules including tests, measurements and analyses performed on each public water system to determine compliance must be maintained (NHCAR Env-Ws 304.01 through 304.03, 304.05 through 304.09 and 304.11, 304.32, 304.40, 303.41, and 304.42) [Revised April 1998; Revised March 2007].	Verify that records for all requirements including tests, measurements and analyses performed on each public water system to determine compliance with applicable provisions of the drinking water rules is maintained by each system for review by all customers. Verify that the following records are maintained for the required time frame: - records of microbiological analyses, including repeat or special samples: not less than 5 years - each system using surface water in part or in whole, turbidity measurements for not less than1 years - records of disinfection measurements for at least 10 years - asbestos for 10 years - lead, copper and corrosion testing records for 12 years - records of lead service line replacement for at least 10 years - for systems using acrylamide/epichlorohydrin for 10 years - records of analyses for other than microbiological contaminants, including residual disinfection concentration, temperature and pH measurement or turbidity for at least 10 years - records of other chemical treatments for 3 years - monitoring waivers, most recent copy on record for 2 years - sanitary surveys for 10 years - records of public notices for at least 3 years.

WQ.30.2.NH. Acute violations of drinking water standards require public notice (NHCAR Env-Ws 351.03) [Revised March 2002].	Verify that for acute violations, the owner of a public water system notifies persons served by the system with in 24 hrs as follows:
	
	- electronic notice to customers or consumers within 72 h by furnishing a copy of the public notice to the radio and television stations serving the area served by the public water system as soon as possible
	- written notice to system customers or consumers within 14 days as specified below:
	  - if the area is served by a daily newspaper of general circulation, by publication in 3 consecutive issues
	  - if the area served by the system is not served by a daily newspaper of general circulation, by mail delivery or by door-to-door hand delivery for each customer or consumer served by the water system.

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	Verify that within 21 days proof of public notification is submitted to the Division. (NOTE: Acute violations are defined as: - any violation specified by the Division as posing an acute risk to human health - violation of the MCL for total coliforms, when fecal coliforms or E. coli are present in the water distribution system - a failure to test for fecal coliform or E. coli when any sample tests positive for total coliform - violation of the MCL for nitrate, nitrite, or total nitrate and nitrite - failure to collect a confirmation sample of nitrate, nitrite, or total nitrate and nitrite within 24 h of the water system's receipt of the first sample results showing an exceedance of the nitrate or nitrite MCL - occurrence of a waterborne disease outbreak - violation of the turbidity MCL if the system owner fails to consult with the department within 24 h of learning of the violation - violation of a treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit of 5 nephelometric turbidity units (NTU) if the system owner fails to consult with the department within 24 h of learning of the violation - violation of the chlorine dioxide MRDL where: - the required samples were not collected in the distribution system - one or more samples collected in the distribution system the day following an exceedance of the MRDL at the entrance of the distribution system exceed the MRDL - an occurrence of a waterborne emergency, including, but not limited to: - a failure or significant interruption in key water treatment processes - a natural disaster that disrupts the water supply or distribution system - a chemical spill into the source water that significantly increases the potential for drinking water contamination.)
WQ.30.3.NH. Failure to comply with applicable standard MCL or treatment technique requires public notice (NHCAR Env-Ws 351.04, 351.07(a) through (c), 351.08, and 351.11) [Revised March 2002].	Verify that the owner of a community water system who fails to comply with an applicable standard MCL, MRDL, treatment technique, or monitoring requirement notifies persons served by the system within 30 days of learning of the violation or situation by mailing or delivering the public notice door-to-door to each consumer receiving a bill and to other service connections to which water is delivered. Verify that within 10 days of providing notice to its customers, each owner of a public water system submits to the department a certification. Verify that if the water system owner elects to provide public notice by door-to-door delivery, notice by door-to-door delivery is repeated at least every 3 mo for as long as the violation exists. Verify that if a water system owner is unable to provide public notice within 30 days as specified, the water system owner submits in writing to the department a request for an extension.

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	Verify that if the owner of a public water system for which a variance or exemption has been granted notifies the persons served by the system as follows: - gives notice within 3 mo of the granting of a variance or exemption by publication in a daily newspaper of general circulation in the area served by the system - if the area served by a public water system is not served by a daily newspaper of general circulation, notice is instead given by publication in a weekly newspaper of general circulation serving the area. Verify that the owner of the public water system gives notice of the existence of a variance or exemption every 3 mo for as long as the variance or exemption remains in effect. Verify that the owner of a community water system in an area that is not served by a daily or weekly newspaper of general circulation gives notice, within 3 mo of the granting of the variance or exemption, by hand delivery or by continuous posting in conspicuous places within the area served by the system. Verify that the posting continues for as long as the violation exists or a variance or exemption remains in effect. Verify that notice by hand delivery is repeated at least every 3 mo for as long as the violation exists or a variance or exemption remains in effect. Verify that the owner of a community gives a copy of the most recent public notice for any outstanding violation of any MCL, MRDL, treatment technique requirement, monitoring violation, or any variance or exemption schedule to all new billing units or new hookups prior to or at the time service begins. Verify that the owner of rental property provides a copy of any notification received from the water system to the renter occupying the property.
WQ.30.4.NH. [Deleted March 2002].	(NOTE: This checklist item has been deleted.)
WQ.30.5.NH. [Deleted March 2002].	(NOTE: This checklist item has been deleted.)
WQ.30.6.NH. [Deleted March 2002].	(NOTE: This checklist item has been deleted.)

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WQ.30.7.NH. [Deleted March 2002].	(NOTE: This checklist item has been deleted.)
WQ.30.8.NH. Results of any test measurement or analysis must be reported to the Department within two business days of the analysis (NHCAR Env-Ws 322.10) [Added April 1998; Revised March 2002].	(NOTE: This checklist item moved here from WQ.10.3.NH. and revised; April 1998.) Verify that, unless a different time frame is noted in the operating permit, the water supplier reports monitoring results to the Department within 2 business days of the analysis being completed. Verify that, except where a different reporting period is specified, the water system owner reports to the Department within 2 business days the failure to comply with any primary drinking water rule, including failure to comply with monitoring requirements. (NOTE: The supplier of water is not required to report analytical results to the Department in cases where the DES laboratory services unit performs the analysis and reports the results to the Division staff.)
WQ.30.9.NH. Public water systems providing treatment must submit monthly production and performance reports (NHCAR Env-Ws 360.08) [Added April 1998; Revised March 2007].	Verify that public water systems providing treatment report monthly on the system's production and performance of the treatment process. Verify that the reportable factors for the treatment process include: - the type of chemical(s) used - the total quantity of chemical(s) used daily - a description of all analytical tests determining the concentration of any additive(s) - total gallons produced daily. Verify that the owner submits the reports to the department on or before the 10th day of the month following the month covered by the report.
WQ.30.10.NH. Public water systems that test positive for fecal coliform or E coli must meet certain notification requirements (NHCAR Env-Ws 325.11 and 325.13) [Added March 2002].	Verify that if any routine or repeat sample is total coliform positive, the system analyzes that total coliform-positive culture medium to determine if fecal coliforms are present, except that the system may test for E. coli in lieu of fecal coliforms. Verify that if fecal coliforms or E. coli are present, the system owner: - notifies the department by the end of the day when the system owner is notified of the test result, unless the system owner is notified of the result after the department office is closed, in which case the system notifies the department before the end of the next business day

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	- issues a boil order advising all consumers that the water should be vigorously boiled for not less than 2 minutes before human consumption. Verify that public water system owners who have exceeded the MCL for total, fecal or E. coli coliforms, reports the violation to the department as soon as it learns of the violation but within 24 h and notifies the public. Verify that public water system owners who have failed to comply with a coliform monitoring requirement, including the sanitary survey requirement, reports the monitoring violation to the department as soon as it learns of the violation and notify the public Verify that the boil order: - clearly explains the need to boil water for a minimum of 2 minutes for any purpose associated with human and animal consumption, which includes, but is not limited to, brushing teeth, washing vegetables, food preparation, dishwashing, making infant formula, or making ice - provides the name, title, and telephone number of the public water system contact who can address any questions or concerns - states that further notification will be issued when the boil order has been lifted. Verify that for all systems, the boil order is posted in a conspicuous place in areas frequented by the public. (NOTE: The boil order is lifted by the system owner when: - a minimum of 2 consecutive samples show an absence of total, fecal, or E. coli coliform bacteria - the source of contamination has been identified and corrected - the department notifies the system owner that the boil order may be rescinded.)
WQ.30.11.NH. Public notice must follow certain procedures (NHCAR Env-Ws 351.09) [Added March 2002].	Verify that each public notice is displayed in a conspicuous manner where it is printed or posted and does not contain unduly technical language, unduly small print, nor be formatted in a way which nullifies the purpose of the notice. Verify that where more than 20 percent of the water system users do not speak English, the public notice contains the telephone number and address, in the appropriate language, where a translated notice or further information regarding the notice can be obtained. Verify that when public notice is to be issued to children or to adults of impaired understanding, the notice is given to the legal guardian of the users.
WQ.30.12.NH. Owners of consecutive systems must	Verify that the owner of any public water system who sells or otherwise provides drinking water to a subsequent water system, known as a consecutive system,

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meet public notice procedures (NHCAR Env-Ws 351.12) [Added March 2002].	gives public notice to the owner of the consecutive system. Verify that the owner of the consecutive system provides public notice to the persons it serves.
WQ.30.13.NH. Public water system owners must meet certification requirements (NHCAR Env-Ws 351.13) [Added March 2002].	Verify that the owner of a public water system submits to the department a certification stating that they have fully complied with the public notice requirement. (NOTE: The certification consists of: - a representative copy of each type of public notice made available to the public, including any initial and repeat notices - a statement signed by the water system owner certifying when, where, how, and by whom public notice was given.) Verify that if a water system provides public notice by publication in a newspaper, the water system owner also submits to the department the complete newspaper page that includes the newspaper name and publication date of each of the 3 consecutive issues. Verify that the water system owner submits a re-certification to the department for any repeat public notices. Verify that the public water system owner retains a copy of the public notice and accompanying certification for at least 3 yr after issuance.
WQ.30.14.NH. Public water systems must meet specific reporting requirements if there are any cross connections within the water system (NHCAR Env-Ws 364.05) [Added March 2007].	Verify that a public water system with cross-connection control program submits an annual inspection and testing report to the department no later than April 1st of the year following the inspection year. Verify that the annual inspection and testing report provides the following information for each backflow prevention device: - the permit number of the backflow prevention device - the name of the owner of the backflow prevention device - the location of the backflow prevention device - the date of each inspection and test performed during the year of reporting - the name, certifying organization, and certification number of the certified backflow prevention device inspector who performed the inspection and test on the device - the result of each inspection and test - if the inspection or test result is unsatisfactory, the date at which the backflow prevention device was found to be satisfactory following a subsequent inspection and test in that calendar year period.

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WQ.30.15.NH. Public water systems must notify the department whenever a change of personnel occurs (NHCAR Env-Ws 360.02) [Added March 2007].	Verify that the public water system notifies the department whenever a change occurs in any of the following: - staff personnel having responsibility for ensuring compliance with state or federal drinking water requirements - any firm providing service to the system which may affect compliance with state or federal drinking water requirements. Verify that the notice is made not later than 10 days following the change.

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COMMUNITY WATER SYSTEMS **WQ.35.** **Standards**	
WQ.35.1.NH. The MCL for beta particles and photon radioactivity from manmade radionuclides is 4 mrem/yr (NHCAR Env-Ws 312.02) [Citation Revised March 2007].	Verify that the annual concentration of beta particle and photon radioactivity from manmade radionuclides in drinking water does not produce an annual dose greater than 4 mrem/yr (see Appendix 13-1) to the total body or to any internal organ. Verify that the MCLs identified in Appendix 13-1 for radionuclides are not exceeded. Verify that, for all other manmade radionuclides, the concentration causing an annual dose of 4 mrem/yr is calculated on the basis of a 2 L/day drinking water intake using 168 h data. Verify that if 2 or more radionuclides are present, the sum of their annual dose does not exceed 4 mrem/yr.
WQ.35.2.NH. [Deleted March 2007].	(NOTE: Env-Ws 325.65 through 325.66 deleted.)
WQ.35.3.NH. Community water systems must meet specific limitations for special treatment chemicals (NHCAR Env-Ws 315.05) [Revised March 2007; Citation Revised March 2008].	Verify that community systems comply with the MCLs by limiting certain treatment chemicals as follows: - for acrylamide, a 0.05 percent dose at 1 mg/L - for epichlorohydrin, a 0.01 percent dose at 20 mg/L.
WQ.35.4.NH. Community water systems must meet secondary MCLs for specific contaminants (NHCAR Env-Ws 316.01) [Citation Revised March 2008].	Verify that secondary MCLs identified in Appendix 13-2 are not exceeded.
WQ.35.5.NH. Community water systems must meet	Verify that each community water system prepares an emergency plan to address

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emergency plan requirements (NHCAR Env-Ws 360.15) [Revised March 2003; Revised March 2007].	emergency situations. (NOTE: An emergency situation includes, but not be limited to: - a failure or significant unplanned or emergency interruption in key water treatment processes - a natural disaster that disrupts the water supply distribution system - spill of chemical or biological substances into the source water that significantly increases the potential for drinking water contamination.) Verify that the emergency plan includes the following: - an organizational chart identifying the individuals responsible for making decisions and describing the responsibilities of each individual during an emergency situation - a description of how the department, local officials, water system customers, and the general public will be notified of an emergency situation - the mailing address, emergency telephone number, and non-emergency telephone number of local officials and agencies: - the emergency and non-emergency telephone numbers of the state agencies - the names and emergency and non-emergency telephone numbers for local service and repair contractors that might be needed in an emergency - the name and emergency and non-emergency telephone numbers for each service customer with unique water supply needs and a description of how the water supply needs of these service customers will be met - a list of the community water system's primary component - an up-to-date single sheet, scaled plan of the water system - a description of the community water system - a description of short-term measures the community water system could use during an emergency situation - a description of long-term measures the community water system could implement to address an emergency situation - a description of follow-up action and responsibility for returning to regular system operation. Verify that the owner of a community water system in existence prior to April 6, 2002, submitted an emergency plan to the department no later than April 6, 2003. Verify that the owner of a community water system created after April 6, 2002 but before December 1, 2005, submitted an emergency plan to the department no later than January 1, 2006. Verify that the water system owner and primary operator annually reviews the emergency plan, and updates the plan as necessary to reflect current information. Verify that the most recent emergency plan is filed with the Department at least once every 6 years. Verify that the emergency plan is available for review during each scheduled sanitary survey.

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	Verify that the emergency plan for a community water system serving 501 or more persons includes the following: - the name, address, emergency and non-emergency telephone numbers of the following: water system superintendent; local newspaper(s); and local radio station(s) - a list of major equipment available to repair the system - a description of existing information relative to the hydraulic connection of all wells to estimate the extent to which a contamination event would affect total production capacity, if available.
WQ.35.6.NH. Community water systems must have a certified operator (NHCAR Env-Ws 367.14) [Revised March 2001].	Verify that each community water system: - designates a primary water system operator, who is a certified operator - has a certified operator available whenever the system is in operation - ensures that any operating personnel making process control decisions about water quality or quantity are certified operators - notifies the Department in writing within 10 days of a change in the designated primary operator. Verify that the water system states the designation of the primary water system operator in writing and submits a copy of the statement to the department.
WQ.35.7.NH. Wells serving community water systems must be pump tested (NHCAR Env-Ws 361.03) [Added April 1998; Citation Revised March 2007].	Verify that wells serving community water systems are pump tested every 5 yr to verify the safe yield and confirm the proper operation and sizing of the pump.
WQ.35.8.NH. [Deleted March 2007].	(NOTE: NHCAR Env-Ws 361.07 applies to all public water systems. Requirements found in WQ.10.8.NH.)
WQ.35.9.NH. Community water systems must comply with additional limitations for inorganic contaminants (NHCAR Env-Ws 316.01(b) and (d)) [Added March 2003].	Verify that MCL of 4 mg/L for fluoride is not exceeded. Verify that, after 22 January 2004, the arsenic MCL for existing community water systems of 0.01 mg/L is met. (NOTE: See the U.S. TEAM Guide for additional monitoring requirements.)

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WQ.35.10.NH. All small community water systems must meet specific requirements for pumps and auxiliary equipment (NHCAR Env-Ws 372.22) [Added March 2007].	(NOTE: This checklist applies to all small community water systems (serving 25 or more but less than 1000 without fire protection provided by street hydrants).) Verify that an alarm system is provided to note failure of pumps and low water levels in the atmospheric storage tank(s). Verify that each alarm function is labeled and equipped with a silencing mechanism. Verify that, in instances where the pumphouse is not easily seen, the alarm system is an auto dialer for telephone, radio, or audio signal to insure that the alarmed condition is communicated to nearby occupied residences or other locations acceptable to the department where action can be initiated. Verify that a water meter is installed on each incoming source line before the water enters the storage tank(s). Verify that pressure gauges are installed with gauge cocks for isolation and of suitable range for the expected pressure range. Verify that the water system is capable of receiving an immediate addition of a disinfectant. Verify that the pump controls have a manual "off/on" switch to control pump operations. Verify that, where an air compressor is provided for air which will be in direct contact with drinking water, the air compressor is of the oil-less type.
WQ.35.11.NH. All small community water systems must meet specific requirements for wells (NHCAR Env-Ws 372.23) [Added March 2007].	(NOTE: This checklist applies to all small community water systems (serving 25 or more but less than 1000 without fire protection provided by street hydrants).) Verify that no well, installed after June 4, 1997, is placed inside a pumphouse or building being served by the water system. Verify that well casings project at least one foot above finished grade. Verify that a tight seal is provided around all entry ports into the well. Verify that all well sources are capable of being separately sampled for water quality before entering storage tank(s). Verify that wells have an appropriately-sized air tube or alternative provisions for electronic drawdown probes permanently installed in the well so as to allow determination of the static and drawdown water levels. (NOTE: Wells existing as of November 1, 2005 must conform with this requirement when the well pump is replaced or when well pump repair work is

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	next done.)
WQ.35.12.NH. All small community water systems must meet requirements for operation and maintenance manuals (NHCAR Env-Ws 372.29) [Added March 2008].	Verify that the builder of the public water system prepares an operation and maintenance manual for the water system owner to submit to the department. Verify that the manual is bound so as to provide a permanent document for the water system owner and a ready reference for the water system operator. (NOTE: The operation and maintenance manual must include: - schematic drawing of the treatment process, which shall identify each unit of the treatment equipment by: - Type - Size - Model number - Any appurtenances - an original or a photocopy of the description of the treatment equipment from the manufacturer's catalogue - a separate schematic drawing of the treatment process in the normal production configuration, which shall include: - written description of the process, which shall reference the schematic drawing and show flow direction - approximate expected values, settings or feed rates for pumps, gauges, gate valves and controllers in the production mode - separate schematic drawing of the treatment process in the normal backwash or regeneration configuration, which shall include: - a written description which references the schematic drawing, showing the backwash or regeneration process functions which shall include: - the flow rate of backwash or regeneration and its temperature dependency where applicable - the duration of backwash or regeneration - the frequency of anticipated backwashes or regenerations - the approximate expected values, settings, or feed rates for pumps, gauges, gate valves and controllers in the backwash mode - recommended short- and long-term maintenance schedules for each piece of equipment - description of common operational problems and proposed corrective operator responses - a description of how the operator can maximize the efficiency of the treatment process relative to: - Energy use - Chemical use - Maximizing the net treated water production volume - Minimizing the volume of waste and by-products produced - a blank copy of the compliance and oversight operational form that is required by Env-Ws 360.07 to be submitted to the department when a water system performs treatment.)

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COMMUNITY WATER SYSTEMS **WQ.40.** **Monitoring/ Sampling**	
WQ.40.1.NH. [Deleted April 1998].	
WQ.40.2.NH. Community water systems must monitor for unregulated inorganic contaminants (NHCAR Env-Ws 326.60(e)) [Revised April 1998; Revised March 2007].	Verify that community water systems monitor for sulfate unless the requirement is waived by the Division.
WQ.40.3.NH. Inorganic sample concentrations greater than 50 percent of the MCL must be resampled (NHCAR Env-Ws 326.06).	Determine whether a sample contains a concentration of any inorganic chemical in excess of 50 percent of the MCL. Verify that, when inorganic sample results exceed 50 percent of the MCL, a confirmation sample is taken under the same contributing conditions within 14 days. Verify that analysis of the confirmation sample is made within 14 days of collection. Verify that, if the resample concentration exceeds 50 percent of the MCL, quarterly sampling is conducted until the concentration is reliably and consistently below the MCL.
WQ.40.4.NH. New community water systems or existing systems using a new source of supply must monitor for radionuclides (NHCAR Env-Ws 324.06) [Revised April 1998; Revised March 2002; Revised March 2005].	Verify that the owner of a new community water system or an existing community water system using a new source of supply collects and analyzes quarterly samples for compliance gross alpha combined radium-226 and radium-228, radon, and uranium. Verify that initial monitoring begins within the first quarter that the new system or source first provides water to the system.
WQ.40.5.NH. Specific	Verify that a system owner collects 4 consecutive quarterly samples to determine

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samples must be collected and monitored for radionuclides (NHCAR Env-Ws 324.07) [Revised April 1998; Revised March 2002; Revised March 2005; Revised March 2007].	compliance gross alpha, combined radium-226 and radium-228, and uranium at all sampling points between December 8, 2003 and December 31, 2007 in accordance with 40 CFR 141. Verify that each public water system owner monitors in the quarters designated by the department during each compliance period. (NOTE: An owner of a public water system may use historical monitoring data to comply with the initial monitoring requirements for compliance gross alpha, combined radium-226 and radium-228, and uranium provided that: - a minimum of 2 samples were collected at each entry point to the distribution system - the radium-228 samples were collected at least 5 months apart - all data were collected prior to December 8, 2003.)
WQ.40.6.NH. Radionuclide compliance must be determined (NHCAR Env-Ws 324.15) [Revised April 1998; Revised March 2002; Revised March 2005].	Verify that, if a system is monitoring annually or less frequently and one sampling point exceeds an MCL, the system owner collects a confirmation sample within 14 days. Verify that the confirmation sample complies with the following: - is a new sample collected under the same contributing conditions as the original sample - is analyzed within 45 days of collection. (NOTE: The results of the confirmation sample are averaged with the initial sample results and the average are used to determine compliance.) (NOTE: If the system is monitoring more than once a year, compliance with the MCL is determined by a running annual average at each sampling point and if any sample result causes the running average to exceed the MCL, the system is considered to be out of compliance with the MCL immediately.) Verify that the system owner includes all samples taken and analyzed to determine compliance, even if that number is greater than the minimum required. (NOTE: If the system owner does not collect all required samples, compliance is based on the running average of the samples that were collected.)
WQ.40.7.NH. [Deleted April 1998].	
WQ.40.8.NH. Monitoring for synthetic organic contaminants must meet	Verify that 4 consecutive quarterly samples are taken during the initial compliance period.

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certain requirements (NHCAR Env-Ws 327.40 through 327.42) [Citation Revised April 1998; Revised March 2002].	Verify that, for groundwater systems, a sample is taken at every entry point to the distribution system. Verify that, for surface water systems, a sample is taken at points in the distribution system that are representative of each source or each entry point after treatment. Verify that each sample is collected at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant. Verify that each water system owner monitors for synthetic organics on an annual basis.
WQ.40.9.NH. Samples for endrin analysis must be collected during certain times of the yr (NHCAR Env-Ws 327.53(a) through (d)).	Verify that, for all community water systems using surface water sources, samples are collected during the period of the yr June through September. Verify that, when near areas where endrin has been used, these analyses are repeated no less frequently than at 3 yr intervals. Verify that, for community water systems using only groundwater sources, analyses for endrin are completed where there has been usage of endrin within that well's recharge area. Verify that, if the endrin level exceeds the MCL, 3 additional analyses are made within 1 mo.
WQ.40.10.NH. Community water systems must monitor for regulated secondary MCLs at a specific frequency (NHCAR Env-Ws 329.03) [Revised March 2002].	Verify that system monitor once every 3 yr for the contaminants listed in Appendix 13-2. Verify that systems which exceed the secondary maximum contaminant level monitor quarterly beginning in the next calendar quarter after the violation occurred and continuing for 3 additional quarters.
WQ.40.11.NH. [Deleted March 2008].	(NOTE: Env-Ws 319, Regulated Secondary Maximum Contaminant Levels (SMCLS) expired.)
WQ.40.12.NH. System owners must meet endrin monitoring requirements after public notification when endrin levels exceed the MCL	Verify that the monitoring after public notification continues until the MCL has not been exceeded in 2 successive samples or until a monitoring schedule as a condition to a variance, exemption or enforcement action becomes effective.

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(NHCAR Env-Ws 327.53(f)) [Added March 2002].	
WQ.40.13.NH. New community water systems must establish water conservation by installing meters for users and sources. (NHCAR Env-Wq 2101.04 (a), (b), (e), and (f)) [Added March 2009].	(NOTE: NHCAR Env-Wq 2101.04, Requirements for New Community Water Systems, applies to community water systems established after May 14, 2005.) Verify that water meters are installed for all of the following: - public sector water users except firefighting - private water users - all sources of water. Verify that the water meters are read for the public and private water users at least once every 90 days. Verify that the water meters for all sources of water are read at least once every 30 days.
WQ.40.14.NH. New community water systems must establish water conservation through a water audit and leak detection program (NHCAR Env-Wq 2101.04 (g), (i) through (m)) [Added March 2009].	(NOTE: NHCAR Env-Wq 2101.04, Requirements for New Community Water Systems, applies to community water systems established after May 14, 2005.) Verify that a water audit and leak detection program is implemented. Verify that the water system repairs all leaks identified, within 60 days of discovery unless a waiver is obtained. Verify that the water system estimates the volume and percentage of unaccounted-for water once every year. Verify that the water system submits a response plan to the department within 60 days if the percentage of unaccounted for water in the water system calculated, exceeds 15 percent of the total water introduced to the water system. Verify that the response plan identifies how the water system intends to reduce the percentage of unaccounted-for water to below 15 percent within 2 years, except for leaks that have been identified which must be repaired. Verify that the water system implements the response plan in accordance with the approved schedule from the department.
WQ.40.15.NH. Existing large community water systems must establish water conservation by installing	Verify that, within 3 years of obtaining approval for a new source of water, existing large community water system install water meters for all of the following:

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meters for users and sources. (NHCAR Env-Wq 2101.05 (b), (e), and (f)) [Added March 2009].	- public sector water users except firefighting - private water users - all sources of water. Verify that the water meters are read for the public and private water users at least once every 90 days. Verify that the water meters for all sources of water are read at least once every 30 days.
WQ.40.16.NH. Existing large community water system must establish water conservation through a water audit and leak detection program (NHCAR Env-Wq 2101.05 (g) through (m) and (q)) [Added March 2009].	Verify that a water audit and leak detection program is implemented for an existing large community water system. Verify that all leaks identified by the leak detection program are repaired within 60 days of discovery unless a waiver is obtained Verify that the water system estimates the volume and percentage of unaccounted-for water once every year. Verify that the water system submits a response plan to the department within 60 days if the percentage of unaccounted for water in the water system calculated, exceeds 15 percent of the total water introduced to the water system. Verify that the response plan identifies how the water system intends to reduce the percentage of unaccounted-for water to below 15 percent within 2 years, except for leaks that have been identified which must be repaired. Verify that the water system implements the response plan in accordance with the approved schedule from the department. Verify that all activities are completed by water system personnel under the supervision of a certified operator.
WQ.40.17.NH. Existing small community water systems must establish water conservation by installing meters for users and sources. (NHCAR Env-Wq 2101.05 (b), (c), (d) and (g)) [Added March 2009].	Verify that an existing small community water system complete either: - meets the metering and water accounting requirements for existing large community water systems (see WQ.40.15.NH. and WQ.40.16.NH.) - conducts a comprehensive leak detection survey of the distribution system every 2 years. Verify that, if the water system elects to conduct a comprehensive leak detection survey, the water system completes the survey in accordance with procedures and protocols described in Chapter 3 and 4 of the "Manual of Water Supply Practices, Water Audits and Leak Detection" document identification number AWWA M36, American Water Works Association, 1999.

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	Verify that the water system repairs all identified leaks within 60 days of detection unless a waiver is obtained. Verify that all activities are completed by water system personnel under the supervision of a certified operator.
WQ.40.18.NH. Existing small community water system must implement pressure reduction within one year of obtaining approval of a new source of water (NHCAR Env-Wq 2101.06 (e)) [Added March 2009].	Verify that the small community water system implements pressure reduction within one year of obtaining approval of a new source of water when: - technically feasible - consistent with water system industry standards and regulations - consistent with other public health and safety considerations.

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COMMUNITY WATER SYSTEMS **WQ.45.** **Notification and Reporting Requirements**	
WQ.45.1.NH. Community systems that exceed the secondary MCL for fluoride must notify the public (NHCAR Env-Ws 359.01).	Verify that community water systems that exceed the secondary maximum contaminant level for fluoride but do not exceed the maximum contaminant level of fluoride provide notice to all billing units annually, all new billing units at the time service begins, and to the New Hampshire public health officer.
WQ.45.2.NH. Community systems that exceed the MCL for endrin must notify the Department (NHCAR Env-Ws 327.53(d)) [Revised March 2002].	Verify that community water systems that exceed the endrin MCL notify the Department within 7 days.
WQ.45.3.NH. Community systems that exceed the MCL for endrin must notify the public (NHCAR Env-Ws 327.53(e)) [Added March 2002].	Verify that when the average of 4 analyses, rounded to the same number of significant figures as the MCL, exceeds the MCL, the system owner reports it to the department and gives notice to the public.
WQ.45.4.NH. Community water systems must meet consumer confidence report requirements (NHCAR Env-Ws 352.03 and 352.18) [Added March 2002].	Verify that the community water system owner: - mails or directly delivers one copy of the CCR to each customer by the date specified - provides a copy of the CCR to any other agency or clearinghouse upon request - provides a copy of the CCR to the public upon request. Verify that the CWS owner makes a good faith effort to provide a copy of the CCR to customers who do not receive water bills. (NOTE: A good faith effort to reach such customers includes, but is not limited to, one or more of the following: - posting the CCR on the internet - mailing the CCR to postal patrons in metropolitan areas

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	- advertising the availability of the CCR in the news media - publishing the CCR, or notice of its availability, in a newspaper of general circulation - posting the CCR, or notice of its availability, in public places such as cafeterias or lunch rooms of public buildings - delivering multiple copies of the CCR for distribution by single-bill customers such as apartment buildings or large private employers - delivering the CCR to community organizations.) Verify that a community water system owner serving 100,000 or more persons posts the most current CCR on a publicly-accessible site on the Internet. Verify that the CWS owner retains the CCR for at least 3 yr. Verify that by 1 July 2002, and annually thereafter, each CWS owner provides a copy of the CCR to the department. Verify that by 1 October 2002, and annually thereafter, a CWS owner certifies to the department that: - the CCR has been distributed to customers - the information in the CCR is correct and consistent with the compliance monitoring data previously submitted to the department. Verify that the owner of a new CWS files the first CCR by July 1 of the yr after its first full calendar yr in operation and annually thereafter. Verify that a CWS owner who sells water to another CWS provides the buyer with applicable information required in this part to the consecutive system: - no later than April 1 of each yr, or - on a date mutually agreed upon by the seller and the purchaser, and specifically included in a contract between the parties.
WQ.45.5.NH. New community water systems must complete a water conservation educational outreach initiative (NHCAR Env-Wq 2101.04 (p)) [Added March 2009].	(NOTE: NHCAR Env-Wq 2101.04, Requirements for New Community Water Systems, applies to community water systems established after May 14, 2005.) Verify that the water system completes a water conservation educational outreach initiative using materials prepared by the department.
WQ.45.6.NH. Existing large community water system must complete a water conservation educational outreach initiative (NHCAR Env-Wq 2101.05 (p))	Verify that the existing large community water system completes a water conservation educational outreach initiative using materials prepared by the department.

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[Added March 2009]. **WQ.45.7.NH.** Existing small community water system must complete a water conservation educational outreach initiative (NHCAR Env-Wq 2101.06 (f)) [Added March 2009].	Verify that the small community water system completes a water conservation educational outreach initiative using materials prepared by the department.

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NONCOMMUNITY WATER SYSTEMS **WQ.60.** **Standards**	
WQ.60.1.NH. Noncommunity systems must not exceed MCLs for microbiological contaminants (NHCAR Env-Ws 313.01) [Revised April 1998; Citation Revised March 2007].	Verify that systems that collect 40 or more bacteriological samples per mo have no more than 5 percent of the samples collected during a mo that are total coliform positive. Verify that systems that collect less than 40 bacteriological samples per mo have no more than one sample collected per mo that is total coliform positive. Verify that there are no fecal coliform-positive routine or repeat samples, or E. coli- positive routine or repeat sample, or any total coliform-positive repeat sample, following a fecal coliform-positive or E. coli-positive routine sample. (NOTE: For purposes of the public notification requirements, this violation is deemed to pose an acute risk to health.)
WQ.60.2.NH. [Deleted March 2007].	(NOTE: NHCAR Env-Ws 315.31 was deleted.)
WQ.60.3.NH. Non-community water systems must have acceptable sources of water supply (NHCAR Env-Ws 373.09) [Added March 2007; Revised March 2008].	Verify that surface water is not used as a source by any non-community water system. Verify that, where the residential-equivalent units exceed 45, a minimum of 2 wells are completed. Verify that, if connection to a municipal water system is proposed, the applicant submit a letter of confirmation to the department from the supplying water system owner.
WQ.60.4.NH. Non-community water systems must have an operation and maintenance manual (NHCAR Env-Ws 373.23) [Added March 2007].	Verify that the builder of the public water system prepares an operation and maintenance manual for the water system owner to submit to the department. Verify that the manual is bound. Verify that the operation and maintenance manual includes: - a schematic drawing of the treatment process - an original or a photocopy of the description of the treatment equipment from

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	the manufacturer's catalogue - a separate schematic drawing of the treatment process in the normal production configuration - a separate schematic drawing of the treatment process in the normal backwash or regeneration configuration - recommended short- and long-term maintenance schedules for each piece of equipment - a description of common operational problems and proposed corrective operator responses - a description of how the operator can maximize the efficiency of the treatment process - a blank copy of the compliance and oversight operational form to be submitted to the department when a water system performs treatment.
WQ.60.5.NH. Non-community water treatment facilities must meet specific requirements (NHCAR Env-Ws 373.20) [Added March 2007].	Verify that water treatment processes at non-community water systems comply with the following: - maximize the effectiveness of treatment - have sufficient controls and monitors to identify treatment performance and aid in operation - support reliability and flexibility of operations - easily repaired - sized and configured consistent with the practices and standards of the professional water treatment industry. Verify that each water system owner who wishes to install or modify a treatment process notifies the department in writing.
WQ.60.6.NH. Non-community water storage tanks must meet specific requirements (NHCAR Env-Ws 373.19) [Added March 2007].	Verify that all water storage tanks at all non-community water systems have drains. Verify that all water storage tanks installed outdoors are totally backfilled to minimize damage to the tank coating. Verify that all atmospheric water storage tanks have a downward-turned "U" vent with fine mesh screening to prevent the entry of small living things. Verify that all water storage tanks, larger than 500 gallons and installed after January 1, 1996, have a name plate identifying the following: - year of manufacture - size - pressure rating. Verify that atmospheric water storage tanks are equipped with a capped filler pipe, which are lockable if located on the exterior of the tank, to accommodate tank

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	truck water delivery. (NOTE: Atmospheric water storage tanks existing as of January 1, 1996 must have filler pipes installed by January 1, 2007.)
WQ.60.7.NH. Proposed non-community well construction and water systems must be approved (NHCAR Env-Ws 373.04) [Added March 2008].	Verify that no well construction or water system design commences on a proposed non-community water system until a concept approval is issued by the Department.

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NONCOMMUNITY WATER SYSTEMS **WQ.75.** **Notification and Reporting Requirements**	
WQ.75.1.NH. Failure to comply with applicable standard MCL or treatment technique requires public notice (NHCAR Env-Ws 351.05, 351.07(d), 351.08, and 351.11) [Added March 2002].	Verify that the owner of a non-community water system who fails to comply with an applicable standard MCL, MRDL, treatment technique, or monitoring requirement notifies the persons served by the system within 30 days of learning of the violation or situation by mailing or by hand delivering the public notice to each customer receiving a bill and other to service connections to which water is delivered. Verify that within 10 days of providing notice to its customers, each owner of a non-community water system submit to the department a certification. Verify that if the water system owner elects to provide public notice by posting the notice, posting continues for as long as the violation exists but in no case less than 7 days. Verify that if the water system owner elects to provide public notice by door-to-door hand delivery, notice by hand-delivery is repeated at least every 3 mo for as long as the violation exists. Verify that the owner of a noncommunity water system gives notice, within 3 mo of the violation or the granting of the variance or exemption, by hand delivery or by continuous posting in conspicuous places within the area served by the system. Verify that the posting continues for as long as the violation exists or the variance or exemption remains in effect. Verify that notice by hand delivery is repeated at least every 3 mo for as long as the violation exists or a variance or exemption remains in effect. Verify that the owner of a noncommunity water system gives a copy of the most recent public notice for any outstanding violation of any MCL, MRDL, treatment technique requirement, monitoring violation, or any variance or exemption schedule to all new billing units or new hookups prior to or at the time service begins. Verify that the owner of rental property provides a copy of any notification received from the water system to the renter occupying the property.
WQ.75.2.NH. Public notice must follow certain	Verify that each public notice is displayed in a conspicuous manner where it is printed or posted and does not contain unduly technical language, unduly small

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procedures (NHCAR Env-Ws 351.09) [Added March 2002].	print, nor be formatted in a way which nullifies the purpose of the notice. Verify that where more than 20 percent of the water system users do not speak English, the public notice contains the telephone number and address, in the appropriate language, where a translated notice or further information regarding the notice can be obtained. Verify that when public notice is to be issued to children or to adults of impaired understanding, the notice is given to the legal guardian of the users.

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NONTRANSIENT NONCOMMUNITY WATER SYSTEMS **WQ.76.** **Standards**	
WQ.76.1.NH. NTNC water systems must comply with additional limitations for inorganic contaminants (NHCAR Env-Ws 316.01(b) and (d)) [Revised March 2003; Revised March 2007].	Verify that MCL of 4 mg/L for fluoride is not exceeded. Verify that the arsenic MCL for existing non-transient non-community water systems of 0.01 mg/L is met. (NOTE: See the U.S. TEAM Guide for additional monitoring requirements.)
WQ.76.2.NH. NTNC water systems must meet specific limitations for certain treatment chemicals (NHCAR Env-Ws 315.05) [Citation Revised March 2008].	Verify that NTNC systems comply with the MCLs by limiting certain treatment chemicals as follows: - for acrylamide, a 0.05 percent dose at 1 mg/L - for epichlorohydrin, a 0.01 percent dose at 20 mg/L.
WQ.76.3.NH. [Deleted March 2008].	(NOTE: Env-Ws 319, Regulated Secondary Maximum Contaminant Levels (SMCLS) expired.)
WQ.76.4.NH. NTNC water systems must meet specific MCLs for microbiological contaminants (NHCAR Env-Ws 313.01) [Revised April 1998; Citation Revised March 2007].	Verify that systems, which collect at least 40 bacteriological samples per mo have no more than 5 percent of the samples collected during a mo that are total coliform positive. Verify that systems, which collect less than 40 bacteriological samples per mo have no more than one sample collected per mo that is total coliform positive. Verify that there are no fecal coliform-positive routine or repeat samples, or E. coli- positive routine or repeat sample, or any total coliform-positive repeat sample, following a fecal coliform-positive or E. coli-positive routine sample. (NOTE: For purposes of the public notification requirements, this violation is deemed to pose an acute risk to health.)

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WQ.76.5.NH. [Deleted March 2007].	(NOTE: NHCAR Env-Ws 315.31 was deleted.)
WQ.76.6.NH. NTNC water systems must have a certified operator (NHCAR Env-Ws 367.14) [Revised March 2001].	Verify that each NTNC water system: - designates a primary water system operator, who is a certified operator - has a certified operator available whenever the system is in operation - ensures that any operating personnel making process control decisions about water quality or quantity are certified operators - notifies the Department in writing within 10 days of a change in the designated primary operator. Verify that the water system states the designation of the primary water system operator in writing and submits a copy of the statement to the department.
WQ.76.7.NH. NTNC water system important to public health must meet requirements for storage tanks (NHCAR Env-Ws 372.24) [Added March 2007].	(NOTE: This checklist applies those NTNC water systems whose reliability is directly important to public health, such as schools or other facilities that are used as shelters during public emergencies.) Verify that all water storage tanks at all non-community water systems have drains. Verify that all water storage tanks installed outdoors are totally backfilled to minimize damage to the tank coating. Verify that all atmospheric water storage tanks have a downward-turned "U" vent with fine mesh screening to prevent the entry of small living things. Verify that atmospheric water storage tanks are equipped with a capped filler pipe, which are lockable if located on the exterior of the tank, to accommodate tank truck water delivery. (NOTE: Atmospheric water storage tanks existing as of January 1, 1996 must have filler pipes installed by January 1, 2007.) Verify that all water storage tanks, larger than 500 gallons and installed after January 1, 1996 have a name plate identifying the following: - year of manufacture - size - pressure rating.
WQ.76.8.NH. NTNC water system important to public	(NOTE: This checklist applies those NTNC water systems whose reliability is directly important to public health, such as schools or other facilities that are used

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health must meet specific requirements for pumps and auxiliary equipment (NHCAR Env-Ws 372.22) [Added March 2007].	as shelters during public emergencies.) Verify that an alarm system is provided to note failure of pumps and low water levels in the atmospheric storage tank(s). Verify that each alarm function is labeled and equipped with a silencing mechanism. Verify that, in instances where the pumphouse is not easily seen, the alarm system is an auto dialer for telephone, radio, or audio signal to insure that the alarmed condition is communicated to nearby occupied residences or other locations acceptable to the department where action can be initiated. Verify that a water meter is installed on each incoming source line before the water enters the storage tank(s). Verify that pressure gauges are installed with gauge cocks for isolation and of suitable range for the expected pressure range. Verify that the water system is capable of receiving an immediate addition of a disinfectant. Verify that the pump controls have a manual "off/on" switch to control pump operations. Verify that, where an air compressor is provided for air which will be in direct contact with drinking water, the air compressor is of the oil-less type.
WQ.76.9.NH. NTNC water system important to public health must meet specific requirements for wells (NHCAR Env-Ws 372.23) [Added March 2007].	(NOTE: This checklist applies those NTNC water systems whose reliability is directly important to public health, such as schools or other facilities that are used as shelters during public emergencies.) Verify that no well, installed after June 4, 1997, is placed inside a pumphouse or building being served by the water system. Verify that well casings project at least one foot above finished grade. Verify that a tight seal is provided around all entry ports into the well. Verify that all well sources are capable of being separately sampled for water quality before entering storage tank(s). Verify that wells have an appropriately-sized air tube or alternative provisions for electronic drawdown probes permanently installed in the well so as to allow determination of the static and drawdown water levels. (NOTE: Wells existing as of November 1, 2005 must conform with this requirement when the well pump is replaced or when well pump repair work is

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	next done.)

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NONTRANSIENT NONCOMMUNITY WATER SYSTEMS **WQ.77. Monitoring/Sampling**	
WQ.77.1.NH. NTNC water systems must monitor for unregulated inorganic contaminants (NHCAR Env-Ws 326.60(e)) [Revised April 1998; Citation Revised March 2007].	Verify that NTNC water systems monitor for sulfate unless the requirement is waived by the Division.
WQ.77.2.NH. Inorganic sample concentrations greater than 50 percent of the MCL must be resampled (NHCAR Env-Ws 326.06).	Determine whether a sample contains a concentration of any inorganic chemical in excess of 50 percent of the MCL. Verify that, when inorganic sample results exceed 50 percent of the MCL, a confirmation sample is taken under the same contributing conditions within 14 days. Verify that analysis of the confirmation sample is made within 14 days of collection. Verify that, if the resample concentration exceeds 50 percent of the MCL, quarterly sampling is conducted until the concentration is reliably and consistently below the MCL.
WQ.77.3.NH. [Deleted April 1998].	
WQ.77.4.NH. NTNC water systems that use a disinfectant must monitor for total trihalomethanes (NHCAR Env-Ws 327.71) [Revised March 2002].	Verify that NTNC water systems utilizing surface water sources in whole or in part, and for NTNC water systems utilizing only groundwater sources, monitors for total trihalomethanes at quarterly intervals on at least 4 water samples for each treatment plant used by the system. Verify that at least 25 percent of the samples are taken at locations within the distribution system reflecting the maximum residence time of the water in the system and the remaining 75 percent are taken at representative locations in the

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	distribution system. Verify that the results of all analyses per quarter are arithmetically averaged and reported to the Department within 30 days of the system's receipt of such results.
WQ.77.5.NH. NTNC water systems must monitor for radioactivity (NHCAR Env-Ws 324.06 (c)) [Revised March 2002; Revised March 2005].	Verify that the owner of a new non-transient, non-community water system or an existing non-transient, non-community water system using a new source of supply collects and analyzes one sample for compliance gross alpha, combined radium-226 and radium-228, radon, and uranium prior to use of the new source.
WQ.77.6.NH. [Deleted March 2005].	(NOTE: NHCAR Env-Ws 325.60, 325.80 and 325.81 were repealed.)
WQ.77.7.NH. [Deleted March 2005].	(NOTE: NHCAR Env-Ws 325.61 and 325.80 were repealed.)
WQ.77.8.NH. Asbestos monitoring must meet certain requirements (NHCAR Env-Ws 326.20 through 326.24) [Revised March 2005].	(NOTE: These requirements are similar to the Federal monitoring requirements for asbestos for community water systems, with the addition of the resampling requirements for systems that exceed 50 percent of the MCL.) Verify that NTNC systems monitor during the 3 yr compliance that it begins operation (NOTE: A waiver may be sought if the owner believes the system is not vulnerable to asbestos.) Verify that systems vulnerable to asbestos are sampled at the following locations: - a system vulnerable to asbestos contamination due solely to corrosion of asbestos-cement pipe, take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur - a system vulnerable to asbestos contamination due solely to source water monitor in accordance with the provisions of Env-Ws 326.01 through Env-Ws 326.11 (monitoring of regulated inorganics) - a system vulnerable to asbestos contamination both to its source raw water supply and corrosion of asbestos-cement pipe take one sample at a tap served by asbestos-cement pipe and under conditions where asbestos contamination is most likely to occur.

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	Verify that the systems confer with the division on the location of the sampling point. Verify that when a sample exceeds the MCL for asbestos, the system monitors quarterly. Verify that the quarterly monitoring begins the next calendar quarter after the initial violation and continues until otherwise notified by the Department. Verify that, if an asbestos sample exceeds 50 percent of the MCL, a second sample is collected at the same location and under the same conditions within 2 weeks.
WQ.77.9.NH. Monitoring for synthetic organic contaminants must meet certain requirements (NHCAR Env-Ws 327.40 through 327.42) [Citation Revised April 1998; Revised March 2002].	Verify that 4 consecutive quarterly samples are taken during the initial compliance period. Verify that, for groundwater systems, a sample is taken at every entry point to the distribution system. Verify that, for surface water systems, a sample is taken at points in the distribution system that are representative of each source or each entry point after treatment. Verify that each sample is collected at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant. Verify that each water system owner monitors for synthetic organics on an annual basis.
WQ.77.10.NH. NTNC water systems must be monitored for regulated secondary MCLs at a specific frequency (NHCAR Env-Ws 329.03) [Revised March 2002].	Verify that system monitor once every 3 yr for the contaminants listed in Appendix 13-2. Verify that systems which exceed the secondary maximum contaminant level monitor quarterly beginning in the next calendar quarter after the violation occurred and continuing for 3 additional quarters.
WQ.77.11.NH. [Deleted March 2008].	(NOTE: Env-Ws 319, Regulated Secondary Maximum Contaminant Levels (SMCLS) expired.)
WQ.77.12.NH. [Deleted	(NOTE: This checklist item has been deleted.)

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NONTRANSIENT NONCOMMUNITY WATER SYSTEMS **WQ.79.** **Notification and Reporting Requirements**	
WQ.79.1.NH. NTNC systems that exceed the secondary MCL for fluoride must notify the public (NHCAR Env-Ws 359.01).	Verify that NTNC water systems that exceed the secondary maximum contaminant level for fluoride but do not exceed the maximum contaminant level of fluoride provide notice to all billing units annually, all new billing units at the time service begins, and to the New Hampshire public health officer.

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WQ.80. **STATE-SPECIFIC CATEGORIES OF WATER SYSTEMS**	
WQ.80.1.NH. [Deleted March 2002].	(NOTE: This checklist item has been deleted.)
WQ.80.2.NH. Transient, noncommunity systems must meet specific MCLs for microbiological contaminants (NHCAR Env-Ws 313.01) [Revised April 1998; Citation Revised March 2007].	Verify that systems, which collect at least 40 bacteriological samples per mo have no more than 5 percent of the samples collected during a mo that are total coliform positive. Verify that systems, which collect less than 40 bacteriological samples per mo have no more than one sample collected per mo that is total coliform positive. Verify that there are no fecal coliform-positive routine or repeat samples, or E. coli- positive routine or repeat sample, or any total coliform-positive repeat sample, following a fecal coliform-positive or E. coli-positive routine sample. (NOTE: For purposes of the public notification requirements, this violation is deemed to pose an acute risk to health.)
WQ.80.3.NH. [Deleted March 2007].	(NOTE: NHCAR Env-Ws 315.31 was deleted.)

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WQ.90. **DRINKING WATER WELL**	
WQ.90.1.NH. [Deleted April 1998].	(NOTE: Regulation revised.)
WQ.90.2.NH. [Deleted March 2001].	(NOTE: Regulation revised.)
WQ.90.3.NH. Active wells must be maintained (NHCAR We 603.01) [Added April 1998; Revised March 2001; Revised March 2009].	Verify that active wells are maintained as follows: - well casings are not cut off below ground surface (unless the well installer demonstrates compliance with the requirements of NHCAR We 602.12) - wells with a casing inside diameter of 4 to 12 in. are equipped with a well cover which provides an o-ring, gasket or other seal to prevent the entrance of insects or other foreign matter into the well - wells with a casing inside diameter less than 4 inches are fitted with a secure cap or plug - dug wells are equipped with a concrete cover or are enclosed in a locked structure specifically designed to house the well (where a well house is provided, covers other than concrete are permitted) - all monitoring wells are fitted with a locking well cap. (NOTE: This is repeated in 100.2.NH.)
WQ.90.4.NH. Inactive wells must be maintained or decommissioned (NHCAR We 603.02, 603.04, 604.02, 604.04, and 604.05) [Added April 1998; Revised March 2001; Revised March 2009].	Verify that wells that are no longer in use and that have not been abandoned are maintained (see WQ.90.3.NH.), and are not terminated below the ground surface. Verify that abandoned wells are sealed. Verify that wells are decommissioned only by licensed New Hampshire water well contractors holding a valid water well contractor license. (NOTE: Private wells constructed for noncommercial farming or domestic supply may be decommissioned by the well owner on the owner's permanent residence provided that the well is sealed in accordance with these rules.) Verify that abandoned dug wells are filled and sealed by placing clean fill material free of organic matter into the well, with the upper 2 ft filled with impervious material such as clay or hardpan.

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	Verify that abandoned drilled wells penetrating bedrock or unconsolidated materials are sealed by filling or grouting the entire length of the well. Verify that abandoned drilled wells that have been contaminated due to a construction deficiency or continue to cause an environmental hazard including salt contaminated wells are sealed by the pressure grout method, using a conductor pipe (otherwise known as a tremie pipe), from the bottom of the well to the top with a grout mixture of Portland cement. Verify that all pumping equipment, piping and wire, and any debris observed in the well, are removed from the well prior to sealing. (NOTE: This is repeated in 100.3.NH.)
WQ.90.5.NH. Minor withdrawals from drinking wells must meet permit requirements (NHCAR Env-Ws 387.03) [Added March 2002].	Verify that all minor withdrawals are permitted. (NOTE: A withdrawal is a minor withdrawal when: - the maximum 24-h withdrawal is at least 57,600 gal - the maximum average-day withdrawal in a 30 day period is less than 144,000 gal per day - available information indicates that the withdrawal does not result in adverse impacts to water resources and other water users identified - the withdrawal is not in a high use area as determined by the department.)
WQ.90.6.NH. Minor withdrawals from drinking water wells must meet notification requirements (NHCAR Env-Ws 387.10(a) and (b)) [Added March 2002].	Verify that the applicant submits one copy of the minor large designation request to each municipality and public water supplier in the study area. (NOTE: Notification of municipalities and public water suppliers downgradient of the recharge area for withdrawals in a river valley-aquifer or similar environment may be limited to those within 1000 ft of the river bank.)
WQ.90.7.NH. Major withdrawals from drinking wells must meet permit requirements (NHCAR Env-Ws 388.03, 388.04, 388.10, and 388.26(a)) [Added March 2002].	Verify that a major withdrawal permit is attained when: - the maximum average-day withdrawal in a 30 day period is equal or exceeds more than 144,000 gal per day - the maximum, 24-h withdrawal is 57,600 gal per day or more, but the maximum average day withdrawal in a 30 day period is less than 144,000 gal per day and the department has denied, suspended, or revoked minor withdrawal designation. Verify that the major withdrawal permit is attained prior to the start of all large withdrawals not granted minor designation and to renew a major withdrawal permit. Verify that the permittee submits an application for permit renewal at least 90

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	days prior to its expiration date.
WQ.90.8.NH. Major withdrawals from drinking wells must meet public notification requirements (NHCAR Env-Ws 388.11) [Added March 2002].	Verify that the applicant submits one copy of the major permit application to each municipality and public water supplier in the study area delineated. (NOTE: Notification of municipalities and public water suppliers downgradient of the recharge area for withdrawals in a river valley-aquifer or similar environment may be limited to those within 1000 ft of the river bank.) Verify that if a public hearing is requested, the notice is posted in 2 public places at least 7 days before the public hearing at each of the following locations: - the municipality in which the proposed withdrawal is located - the municipality in which the entity requesting the public hearing is located.
WQ.90.9.NH. Permittees of major withdrawals from drinking wells must meet impact monitoring and reporting requirements (NHCAR Env-Ws 388.19(a) and 388.20) [Added March 2002].	Verify that the permittee reports to the department within 5 days after discovering an unmitigated adverse impact that is occurring or has occurred Verify that a permittee conducts a impact monitoring and reporting program when: - available information is not sufficient to verify that adverse impacts from the large withdrawal will not occur, provided the available information does not suggest that an impact is irreversible or will occur immediately - it is necessary to ensure that impact mitigation is effective in preventing adverse impacts from the withdrawal. Verify that the monitoring and reporting program monitors representative sites where the data collected can be used to ensure adverse impacts do not occur to water resources or users identified. Verify that where wetlands monitoring and reporting is conducted, it is completed as follows: - an initial survey is conducted by a person who by education and experience is able to qualitatively and quantitatively assess wetland ecosystems - monitoring of the characteristics of the wetland identified in the initial survey is performed during the growing season. Verify that when groundwater monitoring and reporting is necessary, the monitoring includes the following: - monitoring of water levels at the wellhead and at other observation points necessary at a frequency sufficient to complete an evaluation of potential impacts associated with the withdrawal - monitoring of the volumes withdrawn from the permitted withdrawal at a frequency appropriate to assess the potential impacts associated with a

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	withdrawal - monitoring of the operating parameters of other water uses that might be contributing to impacts to water resources within the study area including: - water levels at wellheads - operating schedules - withdrawal amount. Verify that when surface water monitoring and reporting is necessary, the monitoring includes an initial survey that incorporates the following: - an initial inventory and mapping of aquatic flora and fauna species and habitat - identification of factors which control the elevation of water levels - a general description of anticipated seasonal fluctuations in temperature profiles and nutrient balances - a procedure for long term monitoring of surface waters, including: - monitoring of water levels in lakes or ponds at a frequency that is adequate to assess the potential occurrence of impacts to these water bodies as a result of the withdrawal - measurement of changes in stream discharge across a representative reach influenced by the major withdrawal at a frequency that is adequate to assess the potential occurrence of impacts to these water bodies as a result of the withdrawal using methods that are accurate and technically defensible - monitoring of instream or other submerged habitat to identify the health of aquatic ecosystems. Verify that the monitoring results are presented in a tabular and graphic format and interpreted by a person who by education and experience is able to quantitatively analyze and interpret hydrology. (NOTE: The impact monitoring and reporting program is a condition of the withdrawal permit.) Verify that the monitoring results are reported as specified by permit conditions.
WQ.90.10.NH. Permittees of major withdrawals must meet mitigation requirements (NHCAR Env-Ws 388.19(d) and 388.21) [Added March 2002].	Verify that the permittee designs and implements mitigation measures when an adverse impact occurs as a result of the withdrawal. Verify that the permittee immediately implements an impact mitigation program for withdrawals when: - a withdrawal permit requires mitigation from the start of operation to prevent adverse impacts anticipated during the permit application process - an impact monitoring and reporting program reveals the potential occurrence of an adverse impact - the department determines that a report of unanticipated or adverse impact is valid.

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	Verify that the permittee performs the following activities once an adverse impact is verified: - submits a description of the impact based on observations to the department within 14 days of adverse impact notification - submits an impact mitigation program description for department approval within 60 days of adverse impact notification - where the impact mitigation program is a condition of the permit and meets adverse impact thresholds identified in the permit, immediately begins the impact mitigation program designed for permit approval. Verify that the mitigation program includes one or more of the following: - implementation of additional water conservation measures - reduction in withdrawal volumes, including cessation of the withdrawal except where necessary for fire protection or residential drinking water - replacement of sources for adversely impacted users - other action necessary to mitigate adverse impacts - periodic monitoring and reporting at a frequency necessary to substantiate the effectiveness of the mitigation activities - a schedule for the implementation of the activities listed above. (NOTE: Adherence to a mitigation program, where required, is a condition of the permit or becomes a condition of the withdrawal permit in accordance with permit modification procedures.)

WQ.90.11.NH. Permittees of major withdrawals must adhere to alternative water supply guidelines (NHCAR Env-Ws 388.22) [Added March 2002].	Verify that where a water supply source is adversely impacted, the permittee develops a program for providing an alternative water supply.
	
	Verify that an adversely impacted water user is supplied with a quantity of water sufficient to provide an equivalent volume of water that was available prior to operating the withdrawal.
	
	Verify that the water source user is not charged for initial capital costs for providing an alternative water supply.
	
	Verify that the source replacement program:
	
	- identifies other withdrawals in the recharge area for the adversely impacted source
	- defines the performance standards at which alternative supply will be provided to the user, including the following:
	  - location and type of source
	  - method of delivery
	  - minimum and maximum volumes and rates of delivery
	  - water chemistry
	  - any water quality treatment or testing practices

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	- provides a schedule by which alternative supply will be provided - estimates the initial capital costs associated with establishing the alternative supply - estimates the costs to the user of the alternative supply after it is established by the permittee, including the per-unit cost and projected annual costs.
WQ.90.12.NH. Well drilling and decommissioning must meet requirements (NHCAR We 604.02 and 802.01) [Added March 2004; Revised March 2007].	Verify that wells are drilled and decommissioned only be licensed New Hampshire water well contractors holding a valid water well contractor license. (NOTE: Private wells constructed domestic supply may be decommissioned by the well owner on the owner's permanent residence provided that the well is sealed in accordance with regulations.) Verify that water well completion reports are submitted to the Water Well Board for all monitoring wells associated with the development of drinking water supplies.
WQ.90.13.NH. Non-community water systems must be approved and meet well locational requirements (NHCAR Env-Ws 373.04 and 373.11) [Added March 2007].	Verify that no well construction or water system design commence on a proposed non-community water system until a concept approval is issued by the department. Verify that non-community water system wells are located at least 50 feet from surface waters, wetlands, and natural drainage ways. Verify that the wellhead is above the 100-year flood level, provided, however, that where wells must be located within a floodway, the area immediately surrounding the well and pumphouse is built up above the 100-year flood elevation. Verify that non-community water system wells are kept at least 50 feet from the edge of road right-of-ways, driveways, and parking areas to minimize contamination from de-icing salts.
WQ.90.14.NH. Non-community water system wells must meet volume production and sanitary protective area requirements (NHCAR Env-Ws 373.12) [Added March 2007].	(NOTE: The sanitary protective area is a circle with a specified radius, centered on the well.) Verify that the production volume is not greater than the source capacity based on a 24 hour period defined by the pumping test or the well driller's well completion report. Verify that the radius length for the sanitary protective area, based on the permitted production volume established by the system, meets for following: - for 0 – 750gpd: 75 ft - for 751 - 1440 gpd: 100 ft

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	- for 1441 - 4320 gpd: 125 ft - for 4321 - 14,400 gpd: 150 ft - for 14,401 - 28,800 gpd: 175 ft - for 28,801 - 57,600 gpd: 200 ft - for 57,601 - 86,400 gpd: 250 ft - for 86,401 - 115,200 gpd: 300 ft - for 115,201 - 144,000 gpd: 350 ft - for greater than 144,000 gpd: 400 ft (NOTE: When more than one well is inside another well's sanitary protective area, then the individual sanitary protective areas for the wells is based on their combined permitted production volume unless the applicant demonstrates through hydrogeological means that these wells are not interconnected.) Verify that the following land uses are specifically excluded from within the sanitary protective areas of non-community water systems: - wastewater disposal systems, including septic tanks, grease traps, and effluent disposal areas - soil fertilization areas - nitrate set-back areas - dumpsters - detention ponds or infiltration basins - storage tanks for oil, gasoline, propane, or natural gas, or other hazardous chemicals - any uses associated with hazardous materials. (NOTE: Acceptable uses of the sanitary protective area for non-community water systems include those uses listed below: - roadways, with the exception of the required setback - parking lots, with the exception of the required setback - tennis courts - surface water such as lakes, rivers, and streams - permanently protected or undevelopable land - wastewater piping which passes within the sanitary protective area only if: - the type of pipe is ductile iron or approved equal pressure-type pipe that is tested for water-tight construction after installation - all wastewater piping is located a minimum distance of the greater of 50 feet or a distance equal to at least one-half the total amount of the well radius length from the well - pumphouse and permanent buildings - other compatible uses proposed in writing to the department by the water.) Verify that for non-community water systems, the water system owner controls the sanitary protective area.
WQ.90.15.NH. Non-community water systems	Verify that, for all non-community water systems having a design capacity of 13,500 gpd or greater, adequate source capacity is demonstrated by a sustained

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having a design capacity of 13,500 gpd or greater must meet pumping test water supply quality requirements (NHCAR Env-Ws 373.13 (a) and 373.14 [Added March 2007].	48-hour pumping test at a constant rate before final plans are approved. Verify that, prior to the end of the pumping test, the water system owner takes a water sample from each source and analyzes for quality by a laboratory accredited for the analysis requested. Verify that the proposed transient non-community water systems are sampled for: - arsenic - bacteria - chloride - copper - fluoride - hardness - iron - lead - manganese - nitrate/nitrite - pH - sodium. Verify that the water system owner submits results of laboratory analyses to the department as originals or photostatic copies of the original laboratory report. (NOTE: Re-typing or re-writing the data are not acceptable.)
WQ.90.16.NH. Non-community water system wells must meet specific well requirements (NHCAR Env-Ws 373.18) [Added March 2007].	Verify that no well installed after June 4, 1997 is placed inside a pumphouse or building being served by the water system. Verify that well casings project at least one foot above finished grade. Verify that, for bedrock wells installed prior to June 4, 1997 that are inside a pumphouse where the floor is below finished grade, the well casing extends above the finished floor at least 2 feet. Verify that a tight seal is provided around all entry ports into the well. Verify that all well sources at all non-community water supply systems are capable of being separately sampled for water quality before entering storage tank(s).
WQ.90.17.NH. Small community water systems small production wells must meet well approval requirements (NHCAR Env-	(NOTE: These rules apply to small community water systems that: - develop new small production wells - replace existing small production wells with new small production wells - hydrofracture existing small production wells -deepen existing small production wells.

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Ws 301.02, 301.04, and 301.21,) [Added March 2007; Revised March 2008].	An applicant for a new source of water for a new small community water system with a design flow and source capacity requirement established in accordance with Env-Ws 372.10 and Env-Ws 372.12, or successor rules in Env-Dw, that exceeds 57,600 gallons per day shall comply with the requirements of Env-Dw 302, Env-Ws 387, and Env-Ws 388, or successor rules in subtitle Env-Wq.) Verify that the Department has a approved the new source well or wells after receiving the final report. Verify, that within one week of the new small production well being connected to the water system and operational, the applicant submits a written request for a chemical monitoring program for conducting ongoing monitoring and reporting in accordance with Env-Ws 330-339 or successor rules in subtitle Env-Dw. Verify that, after the new small production is approved, approval is obtained to connect the new small production well to the small CWS under Env-Ws 372 or successor rules in subtitle Env-Wq. (NOTE: Location approval, a well head protection program, a contamination control program and pump test and water quality sampling are required prior to the approval of a new small community production well.)
WQ.90.18.NH. Small community water system replacement of small production wells must meet criteria for approval (NHCAR Env-Ws 301.27 (b)) [Added March 2007; Revised March 2008; Citation Revised March 2009].	Verify that the Department approved the replacement of an active small community production well with a new small community production well. (NOTE: The supporting documentation and data submitted by the applicant must demonstrate the following: - the applicant has provided water quality analysis results that indicate the water withdrawn from the replacement well meets all current drinking water standards in accordance with Env-Ws 310 through Env-Ws 316 or successor rules in subtitle Env-Dw - the applicant has demonstrated a sustainable yield for the replacement well and documented the total drawdown at the end of the test - a statement has been provided by a licensed well contractor that the existing well has been abandoned in accordance with We 600 - the applicant has provided the department with a copy of the well completion report for the replacement well filed in accordance with We 800 - the applicant has documented that sanitary protective area requirements, in accordance with Env-Dw 301.06, have been met, or improvements have been made to minimize the risk of contamination - the replacement well is permitted for the approved capacity of the well being replaced or the sustainable yield as tested, whichever is less.
WQ.90.19.NH. Wells serving NTNC water systems must be pump tested (NHCAR Env-Ws 372.15) [Added March	Verify that, for all NTNC water systems whose reliability is directly important to public health, the water system owner demonstrates adequate source capacity by a sustained 48-hour pumping test at a constant rate.

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2007].	Verify that the water system owner submits data documenting the pumping test on a pumping test log sheet. Verify that each log sheet is identified by project name, location, and submittal date. Verify that readings for water level and pumping rate are taken at least every hour so long as the change in drawdown exceeds 2 feet per hour. (NOTE: Thereafter, readings may be taken at appropriate intervals not to exceed 4 hours.) Verify that readings are direct measurements and not inferred from pump curves or other inferential methods. Verify that, where wells are within 150 feet of each other, the pumping tests run simultaneously.
WQ.90.20.NH. Large production wells for community water systems must meet criteria for approval (NHCAR Env-Ws 302.02, 304.24, 304.26) [Added March 2008].	(NOTE: These rules apply to community water systems that: - develop new large production wells - develop new back-up large production wells - replace existing large production wells with new large production wells - deepen or otherwise improve existing large production wells to increase their capacity - reactivate inactive wells or wells formerly removed from monitoring responsibility in accordance with Env-Ws 321.17 or successor rules in subtitle Env-Dw - develop new production wells for a large community water system.) Verify that the Department has approved the new source wells or wells after receiving the final report. Verify that a new or existing CWS that develops new sources submits a new or update an existing emergency plan to the Department. (NOTE: A CWS proposing to replace an existing large production well with a new production well may do so under reduced regulatory requirements.) (NOTE: Location approval, a well head protection program, a contamination control program and pump test and water quality sampling are required prior to the approval of a new small community production well.)
WQ.90.21.NH. New water wells and all wells at the time of a new pump installation or reinstallation of an existing	Verify that new wells are chlorinated to a minimum concentration of 50 parts per million for a minimum of 4 hours upon completion of the well construction and completion of the pump installation or reinstallation of an existing pump.

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pump must be chlorinated (NHCAR Env-Ws 602.03, 602.04, 702.02 and 702.03) [Added March 2009].	Verify that, at the time of new pump installation or reinstallation of an existing pump, all wells are chlorinated to a minimum concentration of 50 parts per million for a minimum of 4 hours. Verify that chlorinated water flushed or pumped from wells following disinfection is not discharged into any surface water of the state.
WQ.90.22.NH. Well completion reports must be submitted to the board no later than 90 days after completion of the well (NHCAR We 801.03) [Added March 2009].	Verify that well completion reports are submitted to the board no later than 90 days after completion of the well. Verify that well completion reports filed later than 90 days after completion of the well, which are not associated with an impending disciplinary action, are accompanied by a written statement signed by the licensee, explaining why the reports were submitted late. (NOTE: This is repeated in 100.4.NH.)
WQ.90.23.NH. Completed well reports for all test or exploration wells associated with the development of drinking water supplies must be submitted to the board. (NHCAR We 802.01 and 802.04) [Added March 2009].	Verify that well completion reports are submitted to the water well board for all test or exploration wells associated with the development of drinking water supplies. Verify that well completion reports are submitted to the water well board for the deepest monitoring well constructed at each property or place of business, and for each monitoring well constructed into bedrock at each property or place of business. Verify that well completion reports are submitted to the board no later than 90 days after completion of the well.
WQ.90.24.NH. Water wells must be located in a manner to reduce the likelihood of contamination from sources of pollution at or near the ground surface (NHCAR Env-We 602.05) [Added March 2009].	Verify that water wells are located a minimum of 75 feet from septic system leach fields and from septic tanks. (NOTE: The distance from septic tanks may be reduced to 50 feet if the soil line is SDR 26 or its equivalent and the tank is sealed and grouted.) Verify that wells are located a minimum of 50 feet from state highway rights-of-way. Verify that wells are: - not located in livestock pens - located uphill from livestock pens and grazing areas wherever possible - have a 20 foot wide buffer strip between the drilled well and a livestock pen.

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	Verify that shallow wells constructed in unconsolidated materials by excavation are not located closer than 100 feet from a livestock pen. Verify that wells constructed by excavation, drawing water from unconsolidated materials, are not located in areas subject to standing water. Verify that, where site conditions prevent compliance or where a well is located closer than 75 feet from an observed source of contamination, the water well contractor does the following: - alert the property owner of the potential for contamination at the proposed location - obtain a written acknowledgement from the property owner, prior to construction of the well and using the non-conforming well location form, that the potential consequences of the location are understood - utilize special methods of construction to provide additional protection from potential pollution. Verify that, on lots with underground storage tanks, the following setbacks apply: - all gasoline underground storage tank systems are located at least 500 feet from a public water supply well and at least 250 feet from a non-public water supply well - all regulated substances except gasoline underground storage tank systems are located at least 400 feet from a public water supply well and at least 75 feet from a non-public water supply well.
WQ.90.25.NH. A protective area designated as the "protective well radius" must be maintained around every private commercial or non-commercial drinking water well (NHCAR Env-Wq 1008.06 and 1008.07) [Added March 2009].	(NOTE: The protective area is a uniform circle having a radius determined based on the total proposed daily sewage flow, as set fort, below: - for 0 – 750gpd: 75 ft - for 751 - 1440 gpd: 100 ft - for 1441 - 4320 gpd: 125 ft - for 4321 - 14,400 gpd: 150 ft - for 14,401 - 28,800 gpd: 175 ft - for 28,801 - 57,600 gpd: 200 ft - for 57,601 - 86,400 gpd: 250 ft - for 86,401 - 115,200 gpd: 300 ft - for 115,201 - 144,000 gpd: 350 ft - for greater than 144,000 gpd: 400 ft.) Verify that the protective area is not reduced or encroached upon by any septic system component on an abutting lot. (NOTE: Unless precluded by other state or local regulation, the land surface within a protective well radius may be used for the normal residential or commercial surface activities associated with the structure served by the well, such as buildings, parking areas, recreational activities, and surface water

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	drainage control structures. Verify that no portion of a septic tank, EDA, pump chamber, or other such septic system component is within a protective well radius. (NOTE: Pipes connecting such components may be within the protective well radius provided they have an SDR of 26 or equivalent.)

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WQ.100. **MISCELLANEOUS WELLS**	
WQ.100.1.NH. Groundwater monitoring wells must meet specific design, installation and abandonment standards (NHCAR Env-OR 704.02) [Added April 1998; Citation Revised March 2004; Revised March 2009].	Verify that monitoring wells are designed, installed, developed, maintained and decommissioned in accordance with NHCAR Env-We 100-1000 (see WQ.90.NH and WQ.100.NH) and the practices described in: - "Standards Relating to Environmental Site Characterization", Second Edition, document identification number ASTM ENVSIT-06, dated 2006 - ASTM ENVSAM-06. Verify that monitoring wells are constructed, maintained, and decommissioned only by a licensed New Hampshire water well contractor holding a valid technical drillers license. Verify that monitoring wells are developed prior to sampling and allowed to equilibrate a minimum of 2 weeks following installation prior to sampling.
WQ.100.2.NH. Active wells must be maintained (NHCAR We 601.02(a) and 603.01) [Added March 2004; Revised March 2009].	Verify that active wells are maintained as follows: - well casings are not cut off below ground surface (unless the well installer demonstrates compliance with the requirements of NHCAR We 602.12) - wells with a casing inside diameter of 4 to 12 in. are equipped with a well cover which provides an o-ring, gasket or other seal to prevent the entrance of insects or other foreign matter into the well - wells with a casing inside diameter less than 4 inches are fitted with a secure cap or plug - dug wells are equipped with a concrete cover or are enclosed in a locked structure specifically designed to house the well (where a well house is provided, covers other than concrete are permitted) - all monitoring wells are fitted with a locking well cap. (NOTE: Observation wells constructed for investigating groundwater are exempt from this requirement except for having a secured tamper proof well cover.) (NOTE: This is repeated in 90.3.NH.)
WQ.100.3.NH. Inactive wells must be maintained or decommissioned (NHCAR We 603.02, 603.04, 604.02, 604.04, and 604.05) [Added	Verify that wells that are not longer in use and that have not been abandoned are maintained (see WQ.100.2.NH.), and are not terminated below the ground surface. Verify that abandoned wells are sealed.

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March 2004; Revised March 2009].	Verify that wells are decommissioned only by licensed New Hampshire water well contractors holding a valid water well contractor license. (NOTE: Private wells constructed for noncommercial farming or domestic supply may be decommissioned by the well owner on the owner's permanent residence provided that the well is sealed in accordance with these rules.) Verify that abandoned dug wells are filled and sealed by placing clean fill material free of organic matter into the well, with the upper 2 ft filled with impervious material such as clay or hardpan. Verify that abandoned drilled wells penetrating bedrock or unconsolidated materials are sealed by filling or grouting the entire length of the well. Verify that abandoned drilled wells that have been contaminated due to a construction deficiency or continue to cause an environmental hazard including salt contaminated wells are sealed by the pressure grout method, using a conductor pipe (otherwise known as a tremie pipe), from the bottom of the well to the top with a grout mixture of Portland cement. Verify that all pumping equipment, piping and wire, and any debris observed in the well, are removed from the well prior to sealing. (NOTE: This is repeated in 90.4.NH.)
WQ.100.4.NH. Well completion reports must be submitted to the board no later than 90 days after completion of the well (NHCAR We 801.03) [Added March 2009].	Verify that well completion reports are submitted to the board no later than 90 days after completion of the well. Verify that well completion reports filed later than 90 days after completion of the well, which are not associated with an impending disciplinary action, are accompanied by a written statement signed by the licensee, explaining why the reports were submitted late. (NOTE: This is repeated in WQ.90.22.NH.)
WQ.100.5.NH. Decommissioning wells must meet specific requirements (NHCAR Env-We 604.02 and 604.04) [Added March 2009].	(NOTE: Env-We 604, Abandonment of wells, applies to all wells.) Verify that wells are decommissioned only by licensed New Hampshire water well contractors holding a valid water well contractor license. (NOTE: Private wells constructed for noncommercial farming or domestic supply may be decommissioned by the well owner on the owner's permanent residence provided that the well is sealed in accordance with these rules.) Verify that all pumping equipment, piping and wire, and any debris observed in the well, are removed from the well prior to sealing.

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WQ.109. **UNDERGROUND INJECTION CONTROL (UIC)**	
WQ.109.1.NH. Underground injection to wells must meet Federal requirements (NHCAR Env-Ws 384.03) [Added March 2004].	Verify that an owner or operator of a facility where underground injection to a well or wells occurs comply with title 40 CFR 9, 144, 145, and 146 as amended at 64 FR 68566, December 7, 1999 and at 67 FR 39593, June 7, 2002. (NOTE: See WQ.109.1.US. through WQ.114.6.US. for specific requirements.)

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WQ.115. **WATER QUALITY STANDARDS**	
WQ.115.1.NH. Discharges must not contribute to a violation of groundwater quality criteria (NHCAR Env-Wq 402.04 and 402.05) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	Verify that, unless due to a natural condition, discharges do not cause: - groundwater to be unsuitable for use as drinking water without treatment - groundwater to contain any regulated contaminant at a concentration greater than the ambient groundwater quality standards in Appendix 13-4 - groundwater to contain any contaminant at a concentration such that the natural discharge of that groundwater to surface water will cause a violation of a surface water quality standard. (NOTE: Groundwater quality are exempt from these criteria if: - the groundwater is within a permitted groundwater discharge zone - the groundwater is within a permitted groundwater management zone - the groundwater is contaminated solely from application of salt and other de-icing chemicals for winter road maintenance.)
WQ.115.2.NH. Notification and response requirements must be met for violations of ambient groundwater quality standards (NHCAR Env-Wq 402.23)) [Added April 1998; Revised March 2000; Revised March 2009]	Verify that, if a regulated contaminant is detected by the permittee's monitoring at a concentration that violates ambient groundwater quality standards, the permittee does the following: - notifies the department within 10 days of receiving the test results that show the exceedance - prepare a written response plan to ensure that groundwater quality criteria is not violated at the boundary of the groundwater discharge zone. Verify that if the facility operations cannot be modified to eliminate the cause of the exceedance or if the groundwater quality cannot be restored, the response plan includes a schedule of activities that will be implemented for facility closure. Verify that response plan is submitted to the department within 60 days of receiving the test results that show the exceedance and is implemented within 30 days of department approval.
WQ.115.3.NH. Facilities must not contribute to a violation of surface quality criteria (NHCAR Env-Wq 1703.03) [Added April 1998; Citation Revised March 2000; Citation Revised March	(NOTE: The presence of substances in the surface waters does not justify further introduction of substances from point and/or nonpoint sources.) Verify that all waters are free from substances in kind or quantity which: - settle to form harmful deposits - float as foam, debris, scum or other visible substances

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2009].	- produce odor, color, taste or turbidity which is not naturally occurring and would render it unsuitable for its designated uses - result in the dominance of nuisance species - interfere with recreational activities. Verify that the level of radioactive materials in all waters is not in concentrations or combinations that would: - be harmful to human, animal or aquatic life or the most sensitive designated use - result in radionuclides in aquatic life exceeding the recommended limits for consumption by humans - exceed limits specified in USEPA's national drinking water regulations or Env-Ws 300 whichever are more stringent. Verify that tainting substances are not present in concentrations that individually or in combination are detectable by organoleptic tests performed on the edible portions of aquatic organisms. (NOTE: Wetlands are subject to the criteria listed in this subsection. Wherever the naturally occurring conditions of the wetlands are different from the criteria listed in these rules, the naturally occurring conditions are the applicable water quality criteria (NHCAR Env-Wq 1703.02).).
WQ.115.4.NH. Facilities must not contribute to a violation of surface quality criteria for dissolved oxygen (NHCAR Env-Wq 1703.07) [Added April 1998; Revised March 2000; Citation Revised March 2009].	Verify that Class A waters have a dissolved oxygen content of at least 75 percent saturation, based on a daily average, and not less than 6 mg/l at any place or time except as naturally occurs. Verify that, except as naturally occurs, or in waters when Temporary Partial Use applies or as provided below, class B waters have a dissolved oxygen content of at least 75 percent of saturation, based on a daily average, and an instantaneous minimum dissolved oxygen concentration of at least 5 mg/l. Verify that for the period from 1 October to 14 May, in areas identified by the Fish and Game Department as cold water fish spawning areas of species whose early life stages are not directly exposed to the water, the 7 day mean dissolved oxygen concentration is not less than 9.5 mg/l and the instantaneous minimum dissolved oxygen concentration not less than 8 mg/l. Verify that, unless naturally occurring or as specified above, waters within the top 25 percent of depth of thermally unstratified lakes, ponds, impoundments and reservoirs or within the epilimnion of thermally stratified lakes, ponds, impoundments and reservoirs, contain a dissolved oxygen content of at least 75 percent saturation, based on a daily average and an instantaneous minimum dissolved oxygen content of at least 5 mg/l. (NOTE: The dissolved oxygen content below those depths must be as naturally

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	occurs.) (NOTE: Wetlands are subject to the criteria listed in this subsection. Wherever the naturally occurring conditions of the wetlands are different from the criteria listed in these rules, the naturally occurring conditions are the applicable water quality criteria (NHCAR Env-Wq 1703.02).)
WQ.115.5.NH. Facilities must not contribute to a violation of surface quality criteria for benthic deposits (NHCAR Env-Wq 1703.08) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	Verify that Class A waters contain no benthic deposits, unless naturally occurring. Verify that Class B waters contain no benthic deposits that have a detrimental impact on the benthic community, unless naturally occurring. (NOTE: Wetlands are subject to the criteria listed in this subsection. Wherever the naturally occurring conditions of the wetlands are different from the criteria listed in these rules, the naturally occurring conditions are the applicable water quality criteria (NHCAR Env-Wq 1703.02).)
WQ.115.6.NH. Facilities must not contribute to a violation of surface quality criteria for oil and grease (NHCAR Env-Wq 1703.09) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	Verify that Class A waters contain no oil or grease, unless naturally occurring. Verify that Class B waters contain no oil or grease in such concentrations that would impair any existing or designated uses. (NOTE: Wetlands are subject to the criteria listed in this subsection. Wherever the naturally occurring conditions of the wetlands are different from the criteria listed in these rules, the naturally occurring conditions are the applicable water quality criteria (NHCAR Env-Wq 1703.02).)
WQ.115.7.NH. Facilities must not contribute to a violation of surface quality criteria for color (NHCAR Env-Wq 1703.10) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	Verify that Class A waters contain no color unless naturally occurring. Verify that Class B waters contain no color in such concentrations that would impair any usages specifically assigned to these classes, unless naturally occurring. (NOTE: Wetlands are subject to the criteria listed in this subsection. Wherever the naturally occurring conditions of the wetlands are different from the criteria listed in these rules, the naturally occurring conditions are the applicable water quality criteria (NHCAR Env-Wq 1703.02).)
WQ.115.8.NH. Facilities must not contribute to a violation of surface quality criteria for turbidity (NHCAR	Verify that Class A waters contain no turbidity unless naturally occurring. Verify that Class B waters do not exceed naturally occurring conditions by more

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Env-Wq 1703.11 (a) and (b)) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	than 10 NTUs.
WQ.115.9.NH. Facilities must not contribute to a violation of surface quality criteria for slicks, odors, and surface floating solids (NHCAR Env-Wq 1703.12 (a) and (b)) [Added April 1998; Citation Revised March 2000; Revised March 2009].	Verify that Class A and Class B waters contain no slicks, odors, or surface floating solids unless naturally occurring.
WQ.115.10.NH. Facilities must not contribute to a violation of surface quality criteria for temperature (NHCAR Env-Wq 1703.13) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	Verify that there are no changes in temperature in Class A waters. Verify that temperatures in Class B waters are in accordance with RSA 485-A:8, II which states in part "any stream temperature increase associated with the discharge of treated sewage, waste or cooling water, water diversions, or releases are not to appreciably interfere with the uses assigned to this class."
WQ.115.11.NH. Facilities must not contribute to a violation of surface quality criteria for nutrients (NHCAR Env-Wq 1703.14) [Added April 1998; Citation Revised March 2000; Revised March 2007; Citation Revised March 2008; Citation Revised March 2009].	Verify that Class A waters contain no phosphorus or nitrogen unless naturally occurring. Verify that Class B waters contain no phosphorus or nitrogen in such concentrations that would impair any usage assigned to the specific class involved, unless naturally occurring. Verify that existing discharges containing phosphorus or nitrogen that encourage cultural eutrophication are treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards. Verify that there is no new or increased discharge of phosphorus into lakes or ponds. Verify that there is no new or increased discharge of phosphorus or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds.

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WQ.115.12.NH. Facilities must not contribute to a violation of surface quality criteria for radioactivity (NHCAR Env-Wq 1703.15 through 1703.17) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	Verify that Class A and B waters do not contain gross beta radioactivity in excess of 1000 pCi/L. Verify that Class A and B waters do not contain strontium-90 in excess of 10 pCi/L. Verify that Class A and B waters contain no radium-226 in excess of 3 pCi/L.
WQ.115.13.NH. Facilities must not contribute to a violation of surface quality criteria for radioactivity (NHCAR Env-Wq 1703.18 (a) and (b)) [Added April 1998; Revised March 2000; Citation Revised March 2009].	Verify that the pH of Class A waters is as naturally occurs. Verify that the pH of Class B waters is 6.5 to 8.0, unless due to natural causes.
WQ.115.14.NH. Facilities must not contribute to a violation of surface quality criteria for biological and aquatic community integrity (NHCAR Env-Wq 1703.19) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	(NOTE: The surface water quality of the State must support a healthy and diverse community of organisms that are in balance with their existing habitat and are indicative of a healthy ecosystem.) Verify that, unless naturally occurring, only nondetrimental changes in community structure and function occur.
WQ.115.15.NH. Facilities must not contribute to a violation of surface quality criteria for toxic substances (NHCAR Env-Wq 1703.21) [Added April 1998; Citation Revised March 2000; Citation Revised March 2009].	Verify that unless naturally occurring or allowed by permit for mixing zones, all waters are free from toxic substances or chemical constituents in concentrations or combinations that: - injure or are inimical to plants, animals, humans or aquatic life - persist in the environment or accumulate in aquatic organisms to levels that result in harmful concentrations in edible portions of fish, shellfish, other aquatic life, or wildlife that might consume aquatic life. Verify that unless allowed under permits for mixing zones or naturally occurring, concentrations of toxic substances in all surface waters do not exceed the recommended safe exposure levels of the most sensitive surface water use shown in Appendix 13-5.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WQ.115.16.NH. [Deleted March 2009].	(NOTE: Env-WS 1710, Emergency Water Transfer, expired.)
WQ.115.17.NH. Facilities must not contribute to a violation of surface quality criteria for dioxin (NHCAR Env-Wq 1703.20 (b)) [Added March 2009].	Verify that class A and B waters do not contain dioxin (2, 3, 7, 8 - TCDD) in excess of 0.001 ng/l, unless allowed under part Env-Wq 1707, Mixing Zones.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **March 2010**
WQ.120. **WATER USE PERMITS**	
WQ.120.1.NH. Industrial, Commercial, and Institutional Water Users (ICI) must identify the location and amount of water used for existing and anticipated future uses (NHCAR Env-Wq 2101.08 (a) and (b)) [Added March 2009].	Verify that ICI water users identify the location and amount of water used for existing and anticipated future uses of water associated with the following: - heating - cooling - processing - product ingredient - sanitary use - outdoor water use. Verify that ICI water users install and maintain water meters prior to initiating a withdrawal from a new source of water. (NOTE: Env-Wq 2102 applies to: - new sources of groundwater for community water systems - new sources of groundwater for bottled and bulk water operations - new sources of groundwater that exceed 57,600 gallons over any 24-hour period - new surface water sources of water supply associated with projects that require a water quality certification pursuant to Section 401 of the federal Clean Water Act - consecutive water systems receiving water from wholesale water systems Env-Wq 2102 do not apply to: - consecutive water systems if the consecutive water system is no longer adding additional connections to the water system - new sources of water developed after the effective date of these rules that are replacements for existing sources of water, provided: - the replacement source withdraws either less than or the same amount of water the existing source has historically been demonstrated to withdraw - the existing source being replaced is abandoned.)
WQ.120.2.NH. Industrial, Commercial, and Institutional Water Users (ICI) must maximum water efficiency within 5 years of initiating a withdrawal from a new source of water (NHCAR Env-Wq 2101.08 (c) through (g)) [Added March 2009]	(NOTE: See WQ.120.1.NH. for applicability.) Verify that, if water is used in a single-pass cooling system, ICI replaces or retrofits the process by using one or more of the following methods to achieve maximum water efficiency within 5 years of initiating a withdrawal from a new source of water: - recirculating cooling techniques - use of sensors and automatic shut-off devices to reduce water used for cooling processes - implementation of water treatment processes

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	- air cooling techniques - alternative technology that produces equivalent results. Verify that, within 5 years of initiating a withdrawal from a new source of water for any processes where water is used to control temperature, the process is modified by one or more of the following processes: -installing automatic shut-off devices preventing the discharge of water to waste - installing sensors that optimize the use of water for the processes. Verify that, within 5 years of initiating a withdrawal from a new source of water for any process where is discharged or otherwise disposed of unused through an overflow, the process is modified by one or more of the following processes: -installing automatic shut-off devices preventing the discharge of water to waste - installing sensors that optimize the use of water for the processes. Verify that alternative water conservation practices not described above are implemented as described below: - provide the department a description of water conservation best management practices or best available technologies that might be applicable to the types of water-using processes at the facility - develop a plan and schedule to implement the plan that demonstrates these processes will be implemented within 5 years - implement the plan according to the schedule upon obtaining approval from the department. (NOTE: ICI water users are not required to implement a water conservation measures if an economic analysis shows that the payback period for the measure is more than 4 years.)
WQ.120.3.NH. Industrial, Commercial, and Institutional Water Users (ICI) that are establishing new lawns must implement water efficiency processes (NHCAR Env-Wq 2101.08 (j) and (k)) [Added March 2009].	(NOTE: See WQ.120.1.NH. for applicability.) Verify that, if an ICI water user is establishing new lawns, the following water efficiency processes are immediately implemented: - all new automatic watering devices used to irrigate the lawns, are equipped with technology that will prevent the systems from starting automatically and that will shut down the systems when not needed - all automatic watering systems are audited at no less than once every 3 years to ensure the technology is functioning properly - all new lawn areas are underlain by 6 inches of loam. (NOTE: The new lawn requirements above do not apply to lawns associated with

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	golf courses or agriculture uses.)
WQ.120.4.NH. Industrial, Commercial, and Institutional Water Users (ICI) must report to the department every 3 years (NHCAR Env-Wq 2101.13) [Added March 2009].	(NOTE: See WQ.120.1.NH. for applicability.) Verify that the water user provides the following information on a form supplied by the department once every 3 years from the date of approval: - name, mailing address, and daytime telephone number of the water user - name, mailing address, and daytime telephone number and, if available, fax number and e-mail address of the individual responsible for maintaining compliance with Env-Wq 2101 on behalf of the water user - an explanation of how compliance with the requirements is being achieved.
WQ.120.5.NH. Any person whose cumulative incoming water or cumulative outgoing water exceeds an average of 20,000 gallons of water per day in any 7-day period, or exceeds a total volume of 600,000 gallons in any 30-day period must register with the Department (NHCAR Env-Wq 2102.01 and 2102.02) [Added March 2009].	(NOTE: The purpose of these rules is to implement RSA 488 by establishing requirements relative to documenting the identity and location of water uses and collecting accurate water use data to support management of the state's water resources.) Verify that any person whose cumulative incoming water or cumulative outgoing water exceeds an average of 20,000 gallons of water per day in any 7-day period, or exceeds a total volume of 600,000 gallons in any 30-day period is registered. (NOTE: Water use registration applies to any of the following water uses: - domestic, commercial, industrial, or institutional supply - treated or untreated municipal or industrial wastewater discharge - industrial make-up and processing - contact and non-contact cooling - agriculture, including livestock and crops - irrigation other than for agriculture and discharge of return flows - the production of mechanical or electrical power - the containerized transport of water in bulk quantities - withdrawals and discharges associated with site remediation activities - any other use that equals or exceeds the threshold water volumes Water use registration is not applicable to a discrete withdrawal arising from an emergency event, such as fire suppression.) (NOTE: The following activities are not included in determining the cumulative water use - use of recycled water stored in holding ponds that are not connected to surface waters nor constructed below the water table at facilities that process aggregate materials - withdrawals and discharges for the purpose of dewatering quarries or other excavations following discrete events of stormwater inflow.)

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WQ.120.6.NH. Registered water users must keep an accurate record of water use (NHCAR Env-Wq 2102.15) [Added March 2009].	(NOTE: This checklist does not apply to agriculture water users or the owners of a mobile facility that qualifies for an intermittent registration.) Verify that each registered water user makes an accurate record of water use, including: - all direct measurements - all calculations - records demonstrating compliance with requirements for open channel flow measuring devices (NHCAR Env-Wq 2102.11(g)) - records demonstrating compliance with calibration, operation, and maintenance of measuring devices (NHCAR Env-Wq 2102.12(e)). Verify that records are retained for a minimum of 3 years from the date of the water use to which the record relates.
WQ.120.7.NH. Registered water users must submit water usage reports (NHCAR Env-Wq 2102.17, 2102.18 and 2102.20) [Added March 2009].	(NOTE: This checklist does not apply to agriculture water users or the owners of a mobile facility that qualifies for an intermittent registration.) Verify that each registered water user submits the following information to the department every 3 months within the first 15 working days following the reporting period: - the monthly water use total for each registered source and destination, including the monthly volume(s) of water transferred to or from another facility - the monthly 24-hour maximum volume for each registered source and destination - the units of measurement - the method of measurement - if water usage is determined based on power production, the amount of power produced per month - if the source is used for snowmaking, whether the reported monthly totals include the amount of drainback, and the percent of monthly withdrawal that is returned as drainback - if water usage is determined based on a unit water use rate, the water user's process for determining the unit water use rate - records demonstrating compliance with requirements for open channel flow measuring devices (NHCAR Env-Wq 2102.11(g)), if applicable - any changes in registration information or water use that have occurred since the previous report. (NOTE: An irrigator that is not an agriculture water user shall submit the information for each growing season or other period of use to the department no later than November 1st of the year in which the use occurred. A snowmaker shall submit the information for the each snowmaking season to the department no later than May 1st of the year in which the snowmaking season ends.)

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	(NOTE: Any public water supplier that provides water use data to the department under the Drinking Water program is deemed to be in compliance with this part if the information being provided includes the information required in this checklist item.)

Appendix 13-1

Average Annual Concentrations Assumed to Produce a Total Body or Organ Dose of 4 mrem/yr
(Source: NHCAR Env-Ws 312.02) [Citation Revised March 2007]

Radionuclide	Maximum Contaminant Level (MCL)
Tritium	20,000 pCi/L
Strontium 90	8

Appendix 13-2

Secondary MCLs
(Source: NHCAR Env-Ws 316.01(b)) [Revised March 2008]

Contaminant	Secondary MCL
Aluminum	0.05 - 0.2 mg/L
Chloride	250 mg/L
Color	15 color units
Copper	1.0 mg/L
Corrosivity	noncorrosive
Fluoride	2 mg/L
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Methyl tertiary-butyl ether (MtBE)	0.020 mg/L
Odor	3 threshold odor #s
pH	6.5 to 8.5
Silver	0.10 mg/L
Sulfate	250 mg/L
Sulfide	0.05 mg/L
Total Dissolved Solids (TDS)	500 mg/L
Zinc	5 mg/L
Sodium	100 to 250 mg/L

Appendix 13-3

Acceptable Devices for Types of Hazards
(Source: NHCAR Env-Ws 364.06) [Citation Revised April 1998]

Low Hazard	High Hazard
Air gap	Air gap
Atmospheric Vacuum Breaker (where bacteria hazards are not present)	Reduced Pressure Backflow Device
Pressure vacuum breaker	Or combination of the above
Double check valve assembly	
Reduced pressure backflow device	
Or combination of the above	

Appendix 13-4

Ambient Groundwater Quality Standards
(Source: NHCAR Env-Or 603.03) [Added April 1998; Revised March 2000; Revised March 2009]

(a) Pursuant to RSA 485-C:6, ambient groundwater quality standards (AGQS) shall apply to all regulated contaminants that result from human operations or activities.

(b) The following shall apply to Table 600-1, below:

(1) The standard for total trihalomethanes, namely bromoform, bromodichloromethane, dibromochloromethane and trichloromethane (chloroform), shall be 80 micrograms per liter (ug/L) if the groundwater is contaminated by chlorinated water supplies;
(2) Positives for total coliform shall be confirmed by the presence of other wastewater parameters, such as fecal coliform, Escherichia coli, fecal streptococcus, nitrates, and chlorides;
(3) Unless otherwise noted, concentrations shall be measured in micrograms per liter (ug/L), which is equivalent to parts per billion (ppb); and
(4) Gross alpha radionuclides, radium 226 and 228, strontium 90, and tritium shall be measured in picocuries per liter (pCi/L).

(c) AGQS shall be as set forth in Table 600-1 below:

Chemical Name	CAS No.	AGQS Ug/L (ppb)
Acenaphthene	83-32-9	420
Acenaphthylene	208-96-8	420
Acetone	67-64-1	6,000
Acrylonitrile	107-13-1	5
Alachor	15972-60-8	2
Aldicarb	116-06-3	7
Aldicarb sulfone	1646-88-4	7
Aldicarb sulfoxide	1646-87-3	7
Aldrin	309-00-2	0.1
Allyl chloride	107-05-1	7.4
Anthracene	120-12-7	2,100
Antimony	7440-36-0	6
Arsenic	7440-38-2	10
Atrazine	1912-24-9	3
Barium	7440-39-3	2,000
Benzene	71-43-2	5
Benzidine	92-87-5	0.8
Benzo(a)anthracene	56-55-3	0.1
Benzo(a)pyrene	50-32-8	0.2
Benzo(b)fluoranthene	205-99-2	0.1
Benzo(g,h,i)perylene	191-24-2	210
Benzoic Acid	65-85-0	28,000
Benzo(k)fluoranthene	207-08-9	0.5
Beryllium	7440-41-7	4
Biphenyl, 1,1-	92-52-4	350
bis-(2-chloroethyl)ether	111-44-4	10
bis-(2-chloroisopropyl)ether	39638-32-9	300
bis-(chloromethyl)ether	542-88-1	10
Bisphenol A	80-05-7	120

Chemical Name	CAS No.	AGQS Ug/L (ppb)
Boron	7440-42-8	620
Bromodichloromethane	75-27-4	0.6
Bromoform	75-25-2	4
Bromomethane	74-83-9	10
Butylbenzene, n-	104-51-8	260
Butylbenzene, sec-	135-98-8	260
Butylbenzene, tert	98-06-6	260
Cadmium	7440-43-9	5
Camphor	76-22-2	200
Carbofuran	1563-66-2	40
Carbon disulfide	75-15-0	70
Carbon tetrachloride	56-23-5	5
Chlordane	57-74-9	2
Chloroaniline, p-	106-47-8	28
Chloromethane	74-87-3	30
Chlorophenol, 2-	95-57-8	35
Chlorotoluene	95-49-8	100
Chlorotrifluoroethylene (CFC 1113)	79-38-9	5
Chromium (Total)	7440-47-3	100
Chrysene	218-01-9	5
Clopyralid (Stinger 3SC)	1702-17-6	3500
Copper	7440-50-8	1300
Cyanide	57-12-5	200
Cyanazine(Bladex 4L/90DF)	21725-46-2	1
2,4-D (Dichlorophenoxy acetic acid, 2,4-)	94-75-7	70
Dalapon	75-99-0	200
DDD (Dichlorodiphenyl dichloroethane, p,p')	72-54-8	0.1
DDE (Dichlorodiphenyl dichloroethylene, p,p')	72-55-9	0.1
DDT (Dichlorodiphenyl trichloroethane, p,p')	50-29-3	0.1
Dibenzo(a,h)anthracene	53-70-3	0.1
Dibromochloromethane	124-48-1	60
Dibromochloropropane	96-12-8	0.2
Dibutylphthalate	84-74-2	800
Dichlorobenzene, 1,2- (o-DCB)	95-50-1	600
Dichlorobenzene, 1,3- (m-DCB)	541-73-1	600
Dichlorobenzene, 1,4- (p-DCB)	106-46-7	75
Dichlorobenzidine, 3,3k-	91-94-1	1.3
Dichlorodifluoromethane	75-71-8	1,000
Dichloroethane, 1,1-	75-34-3	81
Dichloroethane, 1,2-	107-06-2	5
Dichloroethylene, 1,1-	75-35-4	7
Dichloroethylene, cis-1,2-	156-59-2	70
Dichloroethylene, trans-1,2-	156-60-5	100
Dichloromethane (Methylene chloride)	75-09-2	5
Dichlorophenol, 2,4-	120-83-2	21
Dichloropropane, 1,2-	78-87-5	5
Dichloropropene, 1,3-	542-75-6	0.5
Dieldrin	60-57-1	0.1
Diethyl ether	60-29-7	1,400
Di(ethylhexyl)adipate	103-23-1	400
Di(2-ethylhexyl)phthalate (DEHP)	117-81-7	6
Diisopropyl ether (DIPE)	108-20-3	120

Chemical Name	CAS No.	AGQS Ug/L (ppb)
Dimethyl phthalate	131-11-3	50,000
Dimethylphenol, 2,4-	105-67-9	140
Dinitrophenol, 2,4-	51-28-5	14
Dinitrotoluene, 2,4-	121-14-2	10
Dinoseb	88-85-7	7
Dioxane, 1,4-	123-91-1	3
Diphenylhydrazine, 1,2-	122-66-7	10
Diquat	85-00-7	20
Endosulfan	115-29-7	42
Endothall	145-73-3	100
Endrin	72-20-8	2
Ethylbenzene	100-41-4	700
Ethylene dibromide	106-93-4	0.05
Ethylene glycol	107-21-1	7,000
Ethyl tertiary-butyl ether (ETBE)	637-92-3	40
Fluoranthene	206-44-0	280
Fluorene	86-73-7	280
Fluoride	16984-48-8	4,000
Formaldehyde	50-00-0	100
Glyphosate	1071-83-6	700
Gross alpha radionuclides		15 pCi/L
Heptachlor	76-44-8	0.4
Heptachlor epoxide	1024-57-3	0.2
Hexachlorobenzene	118-74-1	1
Hexachlorobutadiene	87-68-3	0.5
Hexachlorocyclohexane, alpha	319-84-6	0.1
Hexachlorocyclohexane, beta	319-85-7	0.1
Hexachlorocyclohexane, gamma (Lindane)	58-89-9	0.2
Hexachlorocyclopentadiene	77-47-4	50
Hexachlorodibenzodioxin, 2,3,7,8	34465-46-8	0.0221
Hexachloroethane	67-72-1	1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1
Isophorone	78-59-1	100
Isopropyl benzene	98-82-8	800
Isopropyltoluene, p-	99-87-6	260
Lead	7439-92-1	15
Manganese	7439-96-5	840
Mercury	7439-97-6	2
Methanol	67-56-1	4,000
Methoxychlor	72-43-5	40
Methyl ethyl ketone (MEK)	78-93-3	4,000
Methyl isobutyl ketone (MIBK)	108-10-1	2,000
Methylnaphthalene, 2-	91-57-6	280
Methyl phenol, 2- (o-cresol)	95-48-7	40
Methyl phenol, 4- (p-cresol)	106-44-5	40
Methyl tertiary-butyl ether (MtBE)	1634-04-4	13
Metolachlor (Dual 8E/25G)	51218-45-2	70
Metribuzin (Sencor 75DF)	21087-64-9	100
Monochlorobenzene (Chlorobenzene)	108-90-7	100
Naphthalene	91-20-3	20
Nickel	7440-02-0	100
Nitrate	14797-55-8	10,000

Chemical Name	CAS No.	AGQS Ug/L (ppb)
Nitrite	14797-65-0	1,000
Oxamyl	23135-22-0	200
Pentachlorophenol	87-86-5	1
Phenanthrene	85-01-8	210
Phenol	108-95-2	4,000
Picloram	1918-02-1	500
Polychlorinated biphenyls (PCBs)	1336-36-3	0.5
Potassium	7440-09-7	35,000
n-Propylbenzene	103-65-1	260
Pyrene	129-00-0	210
Radium 226 and 228	7740-14-4	5 pCi/L
Selenium	7782-49-2	50
Silver	7440-22-4	100
Simazine	122-34-9	4
Strontium 90	10098-97-2	8 pCi/L
Styrene	100-42-5	100
Sulfate	14808-79-8	500,000
TCDD, 2,3,7,8- (Dioxin)	1746-01-6	0.00003
Tertiary amyl methyl ether (TAME)	994-05-8	140
Tertiary butyl alcohol (TBA)	75-65-0	40
Tetrachloroethane, 1,1,1,2-	630-20-6	70
Tetrachloroethane, 1,1,2,2,-	79-34-5	2
Tetrachloroethylene (PCE)	127-18-4	5
Tetrachlorophenol, 2,3,4,6	58-90-2	200
Tetrahydrofuran	109-99-9	154
Thallium	7440-28-0	2
Toluene	108-88-3	1,000
Total Coliform	-	CTS/100ml
Toxaphene	8001-35-2	3
2,4,5-TP (Silvex)	93-72-1	50
Trichlorobenzene, 1,2,4-	120-82-1	70
Trichlorobenzene, 1,3,5-	108-70-3	40
Trichloroethane, 1,1,1-	71-55-6	200
Trichloroethane, 1,1,2-	79-00-5	5
Trichloroethylene (TCE)	79-01-6	5
Trichlorofluoromethane	75-69-4	2,000
Trichloromethane (Chloroform)	67-66-3	70
Trichlorophenol, 2,4,5-	95-95-4	700
Trichlorophenol, 2,4,6-	88-06-2	5
Trichloropropane, 1,2,3-	96-18-4	40
Trimethylbenzene, 1,2,4-	95-63-6	330
Trimethylbenzene, 1,3,5-	108-67-8	330
Tritium	10028-17-8	20,000 pCi/L
Vinyl chloride	75-01-4	2
Xylenes (mixed isomers)	1330-20-7	10,000

Appendix 13-5

Water Quality Criteria for Toxic Substances
(Source: NHCAR Env-Ws 1703.21 and 1703.22) [Added April 1998; Revised March 2000]

Water Quality Criteria For Toxic Substances Table 1703.1.

	Protection of Aquatic Life Concentration in ug/l				**Protection of Human Health Units per Liter**	
Chemical	**Fresh Acute Criteria**	**Fresh Chronic Criteria**	**Marine Acute Criteria**	**Marine Chronic Criteria**	**Water & Fish Ingestion**	**Fish Consumption Only**
Acenaphthene	1,700	520	970	710	20ug [j]	20ug [j]
Acrolein	68	21	55	--	320ug	780ug
Acrylonitrile	7,550	2,600	--	--	0.059ug[c]	0.66ug[c]
Aldrin	3.0[k]	--	1.3[k]	--	0.13ng[c]	0.14ng[c]
Alkalinity	--	20,000	--	--	--	--
Aluminum	750	87	--	--	--	--
Ammonia{a}					--	--
Aniline	28	14	77	37	--	--
Anthracene	(see Polynuclear Aromatic Hydrocarbons)	9,600ug	110,000ug			
Antimony	9,000	1,600	--	--	14ug{l}	4300ug
Arsenic	340 [d,i]	150 [d,i]	69 [d,i]	36 [d,i]	18ng[b,c]	140ng[b,c]
Asbestos	--	--	--	--	7,000,000	--
					fibres[c]	
Barium	--	--	--	--	1.0mg{l}	--
Benzene	5,300	--	5,100	700	1.2ug[c]	71ug[c]
Benzidine	2,500	--	--	--	0.12ng[c]	0.54ng[c]
Benzo(a) Anthracene	(see Polynuclear Aromatic Hydrocarbons)	0.0044ug[c]	0.049ug[c]			
Benzo(a) Pyrene	(see Polynuclear Aromatic Hydrocarbons)	0.0044ug[c]	0.049ug[c]			
Benzo(b) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)	0.0044ug[c]	0.049ug[c]			
Benzo(g,h,i) Perylene	(see Polynuclear Aromatic Hydrocarbons)	--	--			
Benzo(k) Fluoranthene	(see Polynuclear Aromatic Hydrocarbons)	0.0044ug[c]	0.049ug[c]			
Beryllium	130	5.3	--	--	1	--
BHC	100[e]	--	0.34[e]	--	(see individual com-pounds)	
alpha-BHC	(see BHC)			3.9ng[c]	13ng[c]	
beta-BHC	(see BHC)			14ng[c]	46ng[c]	
delta-BHC	(see BHC)			0.0123ug	0.0414ug	
gamma-BHC(Lindane)	0.95	.08	.16[k]	--	19ng[c]	63ng[c]

	Protection of Aquatic Life Concentration in ug/l				Protection of Human Health Units per Liter	
Chemical	**Fresh Acute Criteria**	**Fresh Chronic Criteria**	**Marine Acute Criteria**	**Marine Chronic Criteria**	**Water & Fish Ingestion**	**Fish Consumption Only**
technical-BHC	--	--	--	--	0.0123 ug	0.0414 ug
Bis (2-Chloroethyl) Ether	(see Chloroalkyl ethers)	0.031[c]	1.4[c]			
Bis (2-Ethylhexy)Phthalate	(see Phthalate esters)	1.8ug[c]	5.9ug[c]			
Bromoform	(see Halomethanes)	4.3ug[c]	360ug[c]			
4-Bromophenyl phenyl ether	(see Haloethers)	--	--			
Butyl benzyl phthalate	(see Phthalate esters)	3000ug	5200ug			
Cadmium{i}	0.9[f,d]	0.80[e]	42{d}	9.3{d}	--	--
Carbon Tetrachloride	35,200	--	50,000	--	0.25ug[c]	4.4ug[c]
Chlordane	2.4[k]	0.0043[k]	0.09[k]	0.004[k]	2.1ng[c]	2.2ng[c]
Chlorinated benzenes	250[e]	50[e]	160[e]	129[e]	(see individual compounds)	
Chlorobenzene	(See Chlorinated benzenes)	20ug[j]	20ug[e]			
Chlorides	860,000	230,000	--	--	--	--
Chlorinated napthalenes	1,600[e]	--	7.5[e]	--	(see individual com-pounds)	
Chlorine	19	11	13	7.5	1	--
Chloroalkyl ethers	238,000[e]	--	--	--	(see individual com-pounds)	
Chloroethyl ether (Bis-2)	(see Chloroalkyl ethers)		.031ug[c]	1.4ug[c]		
Chloroethyl vinyl ether-2	(see Chloroalkyl ethers)		--	--		
Chlorodibromomethane	(see Halomethanes)		0.41ug[c]	34ug[c]		
Chloroethoxy methane (Bis-2)	(see Chloroalkyl ethers)		--	--		
Chloroform	28,900	1,240	(see Halo-methanes)	5.7ug[c]	470ug[c]	
Chloroisopropyl ether (Bis-2)	(see Chloroalkyl ethers)	1,400ug	170,000ug			
p-Chloro-m-cresol	30	--	--	--	3,000ug[e]	3,000ug[e]
Chloromethyl ether (Bis)	(see Chloroalkyl ethers)		0.13ng[c]	0.78ng[c]		
Chloronaphthalene 2	(see Chlorinated naphthalenes)		1,700ug	4,300ug		
Chlorophenol 2	4,380	2,000	--	--	0.1ug[e]	0.1ug[e]
Chlorophenol 3	--	--	--	--	0.1ug[e]	0.1ug[e]
Chlorophenol 4	--	--	29,700	--	0.1ug[e]	0.1ug[e]
Chlorophenoxy herbicides (2,4,5-TP)	--	--	--	10ug	--	--

	Protection of Aquatic Life Concentration in ug/l				Protection of Human Health Units per Liter	
Chemical	**Fresh Acute Criteria**	**Fresh Chronic Criteria**	**Marine Acute Criteria**	**Marine Chronic Criteria**	**Water & Fish Ingestion**	**Fish Consumption Only**
Chlorophenoxy herbicides (2,4-D)	--	--	--	100ug{l}	--	--
Chlorophenyl phenyl ether 4	(see Haloethers)		--	--		
Chlorpyrifos	0.083	0.041	0.011	0.0056	--	--
Chloro-4 Methyl-3 Phenol	30	--	--	--	3,000ug[e]	3,000ug[e]
Chromium +6	16[d,i]	11[d,i]	1,100[d,i]	50[d,i]	l	--
Chromium +3	183[f,d,i]	24[f,d,i]	10,300	--	--	--
Chrysene	(see Polynuclear Aromatic Hydrocarbons)	0.0044ug[c]	0.049ug[c]			
Copper{i}	3.6[e]	2.7[e]	4.8{d}	3.1{d}	1,000ug[e]	1,000ug[e]
Cyanide	22{m}	5.2{m}	1.0{m}	1.0{m}	700ug{l}	220,000ug
DDE(4,4')	1,050	--	14	--	0.59ng[c]	0.59ng[c]
DDD(4,4')	0.06	--	3.6	--	0.83ng[c]	0.84ng[c]
DDT(4,4')	1.1[k]	0.001[k]	0.13[k]	0.001[k]	0.59ng[c]	0.59ng[c]
Demeton	--	0.1	--	0.1	--	--
Dibenzo(a,h)Anthracene	(see Polynuclear Aromatic Hydrocarbons)	0.0044ug[c]	0.049ug[c]			
Dibutyl Phthalate	(see Phthalate esters)	2.7mg	12mg			
Dichlorobenzenes	1,120[e]	763[e]	1,970[e]	--	(see individ	al compound s)
Dichlorobenzene(1,2)	(see Dichlorobenzenes)		2,700ug[l]	17,000ug		
Dichlorobenzene(1,3)	(see Dichlorobenzenes)		400ug	2600ug		
Dichlorobenzene(1,4)	(see Dichlorobenzenes)		400ug[l]	2600ug		
Dichlorobenzidine(3,3')	--	--	--	--	0.04ug[c]	0.077ug[c]
Dichlorobromomethane	(see Halomethanes)	0.56ug[c]	46ug[c]			
Dichlorodifluoromethane	(see Halomethanes)	6.9mg[c]	570mg[c]			
Dichloroethane(1,2)	118,000	20,000	113,000	--	0.38ug[c]	99ug[c]
Dichloroethylenes	11,600[e]	--	224,000[e]	--	(see individual com-pounds)	
Dichloroethylene(1,1)	(see Dichloroethylenes)	0.057ug[c]	3.2ug[c]			
Dichloroethylene(1,2-Trans)	(see Dichloroethylenes)	700ug[l]	140,000ug			
Dichlorophenol(2,3)	--	--	--	--	0.04ug[e]	0.04ug[e]
Dichlorophenol(2,4)	2,020	365	--	--	93ug	790ug
Dichlorophenol(2,5)	--	--	--	--	0.5ug[e]	0.5ug[e]
Dichlorophenol(2,6)	--	--	--	--	0.2ug[e]	0.2ug[e]
Dichlorophenol(3,4)	--	--	--	--	0.3ug[e]	0.3ug[e]
Dichloropropanes	23,000[e]	5,700[e]	10,300[e]	3,040[e]	(see individual	

	Protection of Aquatic Life Concentration in ug/l				Protection of Human Health Units per Liter	
Chemical	**Fresh Acute Criteria**	**Fresh Chronic Criteria**	**Marine Acute Criteria**	**Marine Chronic Criteria**	**Water & Fish Ingestion**	**Fish Consumption Only**
					com-pounds)	
Dichloropropane(1,2)	(see Dichloropropanes)		0.52ug[c]	39ug[c]		
Dichloropropenes	6,060[e]	244[e]	790[e]	--	(see individual com-pounds)	
Dichloropropene(1,3)	(see Dichloropropenes)	10 ug	1700 ug			
Dieldrin	0.24	0.056	0.71[k]	0.0019[k]	0.14ng[c]	0.14ng[c]
Diethyl Phthalate	--	--	--	--	23mg	120mg
Dimethyl Phenol(2,4)	1,300	530	270	110	400ug[e]	400ug[e]
Dimethyl Phthalate	(see Phthalate esters)	313mg	2.9g			
Di-n-butyl Phthalate	(see Phthalate esters)	2.7mg	12mg			
Dinitrotoluenes	330[e]	230[e]	590[e]	370[e]	(see individual compounds)	
Dinitrotoluene(2,4)	(see Dinitrotoluenes)	0.11ug[c]	9.1ug[c]			
Dinitrotoluene(2,6)	(see Dinitrotoluenes)	--	--			
Dinitro-o-cresol (2,4)	(see Nitrophenols)	13.4ug	765ug			
Dinitro-o-cresol (4,6)	(see Nitrophenols)	13.4ug	765ug			
Dinitrophenols	(see Nitrophenols)	70ug	14,000ug			
Dinitrophenol(2,4)	(see Nitrophenols)	70ug	14,000ug			
Di-n-octyl phthalate	(see Phthalate esters)	--	--			
Diphenylhydrazine(1,2)	270	--	--	--	0.04ug[c]	0.54ug[c]
Di-2-ethylhexyl phthalate	(see Phthalate esters)	1.8ug[c]	5.9ug[c]			
alpha-Endosulfan	0.22[k]	0.056[k]	0.034[k]	0.0087[k]	110ug	240ug
beta-Endosulfan	0.22[k]	0.056[k]	0.034[k]	0.0087[k]	110ug	240ug
Endosulfan Sulfate	--	--	--	--	110ug	240ug
Endrin	0.086	0.036	0.037[k]	0.0023[k]	0.76ug	0.81ug
Endrin Aldehyde	--	--	--	--	0.76ug	0.81ug
Ethylbenzene	32,000	--	430	--	3,100ug[l]	29,000ug
Fluorene	(see Polynuclear Aromatic Hydrocarbons)	1,300ug	14,000ug			
Guthion	--	0.01	--	0.01	--	--
Haloethers	360[e]	122[e]	--	--	(see individual compounds)	
Halomethanes	11,000[e]	--	12,000[e]	6,400[e]	(see	

	Protection of Aquatic Life Concentration in ug/l				Protection of Human Health Units per Liter	
Chemical	**Fresh Acute Criteria**	**Fresh Chronic Criteria**	**Marine Acute Criteria**	**Marine Chronic Criteria**	**Water & Fish Ingestion**	**Fish Consumption Only**
					individual compounds)	
Heptachlor	0.52[k]	0.0038[k]	0.053[k]	0.0036[k]	0.21ng[c]	0.21ng[c]
Heptachlor Epoxide	0.52[k]	0.0038[k]	0.053[k]	0.0036[k]	0.10ng[c]	0.11ng[c]
Hexachloroethane	980	540	940	--	1.9ug[c]	8.9ug[c]
Hexachlorobenzene	(see Chlorinated benzenes)	0.75ng[c]	0.77ng[c]			
Hexachlorobutadiene	90	9.3	32	--	0.44ug[c]	50ug[c]
Hexachlorocyclo-hexane-(Technical)	(see BHC)	0.0123ug	0.0414ug			
Hexachlorocyclopentadiene	7.0	5.2	7.0	--	1.0[e]	1.0[e]
Ideno(1,2,3-cd)Pyrene	(see Polynuclear Aromatic Hydrocarbons)	0.0044ug[c]	0.049ug[c]			
Iron	--	1,000	--	--	0.3mg	--
Isophorone	117,000	--	12,900	--	36ug[c]	2,600ug[c]
Lead{i}	14[e]	0.54[e]	210[d]	8.1[d]	--	--
Malathion	0.1	0.1		0.1	--	--
Manganese	--	--	--	--	50ug	100ug
Mercury	1.4 [d,i,g]	0.77 [d,i,g]	1.8 [d,i,g]	0.94[d,i,g]	0.05ug	0.051ug
Methoxychlor	--	0.03	--	0.03	100ug[l]	--
Methyl Bromide	(see Halomethanes)	48ug	4,000ug			
Methyl Chloride	(see Halomethanes)	--	--			
Methylene Chloride	(see Halomethanes)	4.7ug[c]	1,600ug[c]			
2 Methyl-4,6-Dinitrophenol	(see Nitrophenols)	13.4ug	765ug			
2-Methyl-4-chlorophenol	--	--	--	--	1,800ug[e]	1,800ug[e]
3-Methyl-4-chlorophenol	30	--	--	--	3,000ug[e]	3,000ug[e]
3-Methyl-6-chlorophenol	--	--	--	--	20ug[e]	20ug[e]
Mirex	--	0.001	--	0.001	--	--
Naphthalene	2,300	620	2,350	--	--	--
Nickel{i}	144.9[e]	16.1[e]	74[d]	8.2[d]	610ug	4,600ug
Nitrates	--	--	--	--	10mg	--
Nitrobenzene	27,000	--	6,680	--	17ug	30ug[e]
Nitrophenols	230[e]	150[e]	4,850[e]	--	(see individual com-pounds)	
Nitrophenol 2	(see Nitrophenols)	--	--			
Nitrophenol 4	(see Nitrophenols)	--	--			
Nitrosamines	5,850[e]	--	3,300,000[e]	--	0.8ng	1.24ug
Nitrosodibutylamine N	(see Nitrosamines)	6.4ng	587ng			
Nitrosodiethylamine N	(see Nitrosamines)	0.8ng	1,240ng			
Nitrosodimethylamine N	(see Nitrosamines)	0.69ng[c]	8.1ug[c]			
Nitrosodi-n-propylamine N	(see Nitrosamines)	0.005ug[c]	1.4ug[c]			
Nitrosodiphenylamine N	(see Nitrosamines)	5.0ug[c]	16ug[c]			
Nitrosopyrrolidine N	(see Nitrosamines)	16ng	91,900ng			
Parathion	0.065	0.013	--	--	--	--
PCB	2.0[e]	0.014[e]	10.0[e]	0.03[e]	0.17ng{c,	0.17ng{c,

	Protection of Aquatic Life Concentration in ug/l				Protection of Human Health Units per Liter	
Chemical	**Fresh Acute Criteria**	**Fresh Chronic Criteria**	**Marine Acute Criteria**	**Marine Chronic Criteria**	**Water & Fish Ingestion**	**Fish Consumption Only**
					n}	n}
PCB-1242	(see PCB)	(see PCB)	(see PCB)			
PCB-1254	(see PCB)	(see PCB)	(see PCB)			
PCB-1221	(see PCB)	(see PCB)	(see PCB)			
PCB-1248	(see PCB)	(see PCB)	(see PCB)			
PCB-1260	(see PCB)	(see PCB)	(see PCB)			
PCB-1016	(see PCB)	(see PCB)	(see PCB)			
Pentachlorinated Ethanes	7,240	1,100	390	281	--	--
Pentachlorobenzene	(see Chlorinated benzenes)	3.5ug	4.1ug			
Pentachlorophenol	5.28[h]	4.05[d]	13	7.9	0.28ug[c]	8.2ug[c]
Phenanthrene	(see Polynuclear Aromatic Hydrocarbons)					
Phenol	10,200	2,560	5,800	--	300ug[e]	300ug[e]
Phthalate Esters	940[e]	3[e]	2,944[e]	3.4[e]	--	--
Polychlorinated Biphenyls	(see PCB's)	--	--			
Polynuclear Aromatic Hydrocarbons	--	--	300[e]	--	(see individual com-pounds)	
Pyrene	(see Polynuclear Aromatic Hydrocarbons)	960ug	11,000ug			
Selenium		5	290 [d,i]	71 [d,i]	170ug[l]	11,000ug
Silver	0.32 [f,i,g]	--	1.9 [d,i,k]	--	105ug[p]	65mg[p]
Sulfide-Hydrogen Sulfide	--	2.0	--	2.0	--	--
Tetrachlorobenzene 1,2,4,5	(see Chlorinated benzenes)	2.3ug	2.9ug			
Tetrachloroethane 1,1,2,2	--	2,400	9,020	--	0.17ug[c]	11ug[c]
	(see Tetrachloroethanes)					
Tetrachloroethanes	9,320[e]	--	--	--	(see individual compounds)	
Tetrachloroethylene	5,280	840	10,200	450	0.80ug[c]	8.85ug[c]
Tetrachlorophenol 2,3,5,6	--	--	440	--	--	--
Tetrachlorophenol 2,3,4,6	--	--	--	--	1.0ug[e]	1.0ug[e]
Thallium	1,400	40	2,130	--	1.7ug	6.3ug
Toluene	--	--	--	--	6.8mg[l]	200mg
Toxaphene	0.73	0.0002	0.21	0.0002	0.73ng[c]	0.75ng[c]
Tributyltin TBT	0.46	0.063	0.37	0.01	--	--
Trichlorinated Ethanes	18,000[e]	--	--	--	(see individual compounds)	
Trichlorbenzene 1,2,4	(see Chlorinated	260ug[l]	940ug			

	Protection of Aquatic Life Concentration in ug/l				Protection of Human Health Units per Liter	
Chemical	**Fresh Acute Criteria**	**Fresh Chronic Criteria**	**Marine Acute Criteria**	**Marine Chronic Criteria**	**Water & Fish Ingestion**	**Fish Consumption Only**
	benzenes)					
Trichloroethane 1,1,1	--	--	31,200	--	l	--
Trichloroethane 1,1,2	--	9,400	--	--	0.60ug[c]	42ug[c]
Trichloroethylene	45,000	21,900	2,000	--	2.7ug[c]	81ug[c]
Trichlorofluoromethane	(see Halomethanes)	10mg	860mg			
Trichlorophenol 2,4,5	--	--	--	--	1.0ug[e]	1.0ug[e]
Trichlorophenol 2,4,6	--	970	--	--	2.0ug[e]	2.0ug[e]
Vinyl Chloride	--	--	--	--	2.0ug[c]	525ug[c]
Zinc{i}	36.2[e]	36.5[e]	90[d]	81[d]	5,000ug[e]	5,000ug[e]

Notes for Table 430.1.

(a) "a" means that the freshwater aquatic life criteria for ammonia are expressed as a function of pH and temperature.

(b) "b" means that the criteria refers to the inorganic form only.

(c) "c" means that these criteria for the protection of human health are based on carcinogenicity. The human health criteria without this footnote are based on systemic toxicity.

(d) "d" means that criteria for these metals are expressed as a function of the water effect ratio (WER) as defined in 40 CFR 131.36(c). The values displayed in Table 430.1 correspond to a WER of 1.0. To determine metals criteria for different WER's, the procedures described in the EPA publication "Interim Guidance on Determination and Use of Water-Effect Ratios for Metals" (EPA-823-B-94-001) shall be used.

(e) "e" means that the following classes of compounds have 2 or more isomers and the sum of the concentrations of each isomer shall meet the appropriate aquatic life criteria:

(1) BHC
(2) Chlorinated benzenes
(3) Chlorinated naphthalenes
(4) Chloroalkyl ethers
(5) Dichlorobenzenes
(6) Dichloroethylenes
(7) Dichloropropanes
(8) Dichloropropenes
(9) Dinitrotoluenes
(10) Haloethers
(11) Halomethanes
(12) Nitrophenols
(13) Nitrosamines
(14) PCB
(15) Phthalate esters
(16) Polynuclear aromatic hydrocarbons
(17) Tetrachloroethanes
(18) Trichlorinated ethanes.

(f) "f" means that the freshwater aquatic criteria for these metals are expressed as a function of the total hardness, as mg/l $CaCO_3$ of the surface water. The values displayed in Table 430.1 correspond to a total hardness of 25 mg/l.

(g) "g" requires that, if the fresh or marine chronic criteria for total mercury exceeds 0.012 μg/l more than once in a 3-yr period in the ambient water, the edible portion of aquatic species of concern shall be analyzed to determine whether the concentration of methyl mercury exceeds the FDA action level of 1.0 mg/kg.

(h) "h" means that the freshwater aquatic life criteria for pentachlorophenol are expressed as a function of pH.

(i) "i" means that the values presented are dissolved metals.

(j) "j" shall indicate that these human health criteria prevent taste and odor effects in fish and other aquatic.

(k) "k" shall indicate that these criteria are based on EPA's 304(a) criteria and were derived to be used as instantaneous maximum values, or to be applied after division by 2, to obtain a value comparable to an acute criterion, when assessment is done using an averaging period:

(1) Aldrin/Dieldrin, document number 440/5-80-019;
(2) Chlordane, document number 440/5-80-027;
(3) DDT, document number 440/5-80-038;
(4) Endosulfan, document number 440/5-80-046;
(5) Endrin, document number 440/5-80-047;
(6) Heptachlor, document number 440/5-80-052;
(7) Hexachlorocyclohexane, document number 440/5-80-054; or
(8) Silver, document number 440/5-80-071.

(l) "l" shall indicate that a more stringent drinking water maximum contaminant level (MCL) has been issued by EPA.

(m) "m" shall indicate that this criteria is expressed as micrograms of free cyanide per liter.

(n) "n" shall indicate that this criteria applies to total PCBs or the sum of all of its congener or isomer analyses.

(o) "o" shall indicate that the freshwater acute criteria for selenium shall be calculated using the values for the fraction f(1) of selenite and f(2) of selenate measured in the receiving water. To calculate the acute criteria, in μg/l, the number 1 shall be divided by the sum of the fractions f(1) divided by 185.9 and f(2) divided by 12.83, as follows:

$$\text{Acute Criteria} = \frac{1}{\frac{f(1)}{185.9} + \frac{f(2)}{12.83}}$$

(p) "p" shall indicate that these human health criteria for silver shall be for the protection of humans from argyria.

Appendix 13-6

Sampling Collection Protocol for Unregulated Alpha Contaminants
[Deleted March 2005]

(NOTE: NHCAR Env-Ws 325.80 was deleted.)

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14. ABSTRACT

Environmental assessments help determine compliance with current environmental regulations. The U.S. Air Force, U.S. Army, Defense Logistics Agency (DLA), and Corps of Engineers (Civil Works) have adopted environmental compliance programs that identify compliance problems before they are cited as violations by the U.S. Environmental Protection Agency.

Since 1984, the U.S. Army Construction Engineering Research Laboratory, in cooperation with numerous Department of Defense (DOD) components, has developed environmental compliance assessment checklist manuals. The Environmental Assessment and Management (TEAM) Guide was developed for use by all DOD components. Currently there are five participating DOD components: the Air Force, Air National Guard, Army, Civil Works, and DLA. These agencies have agreed to share the development and maintenance of this Guide.

The Guide combines Code of Federal Regulations and management practices into a series of checklists that show legal requirements and the specific operations or items to review. TEAM Guide is supplemented by DOD component-specific manuals detailing DOD component regulations and policies. The New Hampshire Supplement was developed to be used in conjunction with the TEAM Guide, using existing New Hampshire state environmental legislation and regulations as well as suggested management practices.

15. SUBJECT TERMS
Environmental Compliance Assessment and Management Program, environmental compliance checklists, The Environmental Assessment and Management (TEAM) Guide, environmental compliance laws and regulations

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