

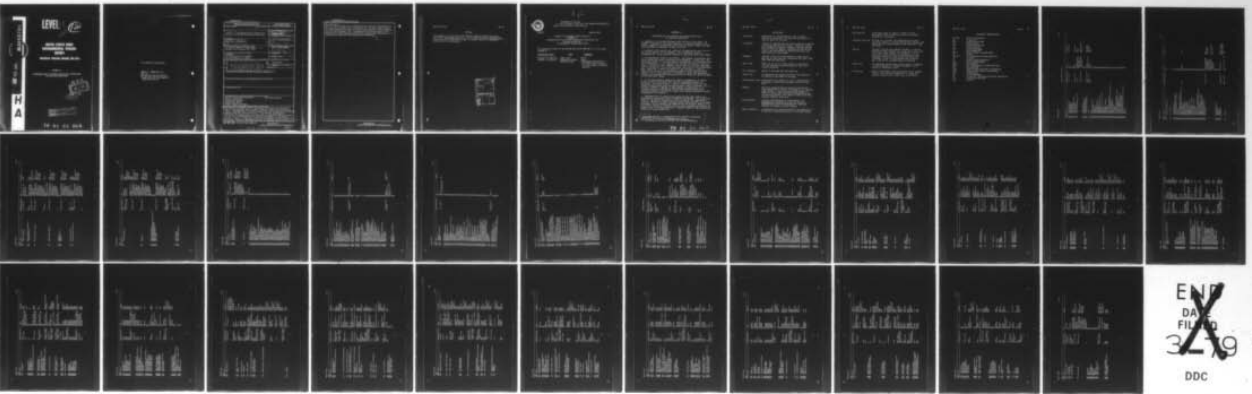
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ARMY ENVIRONMENTAL HYGIENE AGENCY ABERDEEN PROVING GR--ETC F/G 6/5
MEDICAL SURVEILLANCE GUIDE (GUIDE FOR JOB-RELATED EXAMINATIONS)--ETC(U)
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**UNITED STATES ARMY
ENVIRONMENTAL HYGIENE
AGENCY**

ABERDEEN PROVING GROUND, MD 21010

APPENDIX G

RECOMMENDATIONS FOR PERIODIC JOB-RELATED EXAMINATIONS
FOR SELECTED OCCUPATIONS

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This appendix recommends periodic job-related examinations for Department of Army civilian employees based on General Schedule or Wage Grade employee job titles. Recommendations are further based on the usual activities of individuals employed under the various job titles. To utilize the recommendations efficiently and appropriately, the actual job the individual holding a particular job title is performing must be carefully considered. In the event of unusual or special circumstances, the activities embodied in certain job titles may change. Similarly, the simple fact that an individual holds a certain		

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job title does not imply that recommendations are necessarily appropriate for that particular individual in his particular job. In these cases, periodic job-related examinations should be altered to accommodate the actual characteristics of the individual's job. Recommendations are further based on the assumption that other aspects, besides periodic job-related examinations, of a comprehensive occupational health program are implemented.

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PREFACE

This appendix is a revision to this Agency's Medical Surveillance Guide (Guide for Job-Related Examinations for Selected Occupations, January 1975). Other additions to this guide as well as further revisions of existing portions will be forthcoming.

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DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY MAJ Thomasino/mlo/584-2714
ABERDEEN PROVING GROUND, MARYLAND 21010

January 1979

Change to the November 1978 Printing of
APPENDIX G
Recommendations for Periodic Job-Related Examinations for
Selected Occupations
(to the Medical Surveillance Guide)

The examination format for the determining factor ASBESTOS is, in all cases, changed to:

<u>Determining Factor</u>	<u>Exam</u>	<u>Frequency</u>
Asbestos (if exposure exceeds 0.1 fiber/cc)	Chest x-ray Pulmonary functions Sputum cytology	Annual Annual Preplacement and annual if 45 years of age or older or 10 or more years of asbestos exposure.

APPENDIX G

Recommendations for Periodic Job-Related Examinations
for Selected Occupations*

1. Appendix G is oriented differently than the rest of this guide. As opposed to focusing on individual exposures, this section focuses on job titles. Chosen for inclusion were job titles for General Schedule and Wage Grade employees at Department of Army activities.
2. Included in this section are a glossary of abbreviations and a list of definitions specific to this appendix. Also included are specific recommendations listed by General Schedule or Wage Grade series code number.†
3. The presentation format is as follows: Pay Schedule, Occupational Code, Title, Determining Factor, Examination, and Frequency. In most cases, the Determining Factor is a specific exposure although other variables also enter into consideration. It is imperative to note that the factors listed are usual. This does not mean, however, that a factor is invariably associated with the occupation, nor, on the other hand, are claims of all-inclusiveness made. Naturally, if one of the factors is not relevant at a specific installation, the part of the examination geared to that exposure may be deleted. Also, if the operation is different or unique, the appropriate examinations (obtained from preceding sections of the Guide) should be added to the examination format.
4. In all cases where an examination format is recommended, an interim history should be obtained at the time the recommended procedure is performed. The interim history, a short history which focuses upon the symptom complexes which might be expected from a specific exposure, e.g., a history of asthmatic symptoms in those exposed to isocyanates, is an invaluable adjunct to any medical surveillance program and should be performed though not specifically listed in the various examination formats recommended in this section.
5. Recommendations are based on the assumption that other aspects of a comprehensive occupational health program are implemented. This especially refers to the hearing conservation, vision screening, and immunization programs. Where one of these procedures would almost certainly be required, audiograms, vision screening, and immunizations are depicted; however, this by no means includes all possible noise or visual exposures and assumes, for example, that all persons subjected to repeated trauma are immunized against tetanus per current guidelines.

* Supersedes Appendix G, Recommendations for Periodic Job-Related Examinations for Selected Occupations, April 1975.

† As designated by the United States Civil Service Commission.

DEFINITIONS

Age Related	Quadrennial for those 39 years of age or younger, biennial for those 40 to 49 years old, and annual for those 50 years old and over.
As Required	A factor or condition may exist which requires a specific job-related examination or action. Potential diversity and uniqueness of operation, however, preclude specific guidance from this Agency. Determination must be made locally and from appropriate guidance extracted from other sections of this guide.
Audiogram	Includes a record of the threshold of audibility of each ear for pure tone test frequencies 500, 1000, 2000, 3000, 4000 and 6000 Hertz.
Chest X-ray	Refers to 14- by 17-in films taken at a distance of 6 ft and including a posterior-anterior and a left lateral projection.
Cholinesterase	Refers to red blood cell cholinesterase.
Dental Exam	An examination the purpose of which is the detection of pitting of the enamel of the teeth.
Dermatological Exam	An examination the purpose of which is the detection of dermatoses or potentially contagious lesions of the skin.
Emphasis	Particular attention must be placed on the specific organ system which is cited. For example, G.I. emphasis might include: a medical history which focuses on alcoholic intake, past exposures to hepatotoxins, and past hospitalizations; and a physical examination which stresses abdominal organ size.
Eye Evaluation	Includes a determination of visual acuity. An ophthalmoscopic examination of the eye should be performed by a qualified professional if abnormal findings are present on acuity testing.
Nasal Examination	An examination the purpose of which is the detection of ulcerative or perforating lesions of the nasal septum.

- None Required In the usual case, no factor or condition exists which would require a specific periodic job-related examination or procedure.
- Pulmonary Functions Includes, at a minimum, the determination of Forced Expiratory Volume in 1 second, Forced Vital Capacity, and comparison with expected norms for the individual's age and height.
- Routine Includes a history (both medical and work), a physical examination which includes vital signs and an evaluation of all major organ systems, an audiogram, a vision screening, a chest x-ray (to be accomplished no more frequently than every 4 years except when otherwise indicated), an EKG in those greater than 35 years of age, a CBC and UA, and other tests as indicated.
- Stress Test The submaximal determination of work capacity employing a bicycle ergometer or treadmill followed by an EKG. Similar to the Master's Test.
- TB Testing Refers to intradermal testing by either of two methods (Tine or PPD) unless the individual is a known skin reactor, in which case a chest x-ray is indicated.

GLOSSARY OF ABBREVIATIONS

ALK PO ₄	Alkaline Phosphatase
AR	As Required
BUN	Blood Urea Nitrogen
CV	Cardiovascular
CBC	Complete Blood Count
CO	Carbon Monoxide
EKG	Electrocardiogram
GI	Gastrointestinal
GGTP	Gamma Glutamyl Transpeptidase
Hx	History
IAW AR	In accordance with Army regulation
IR	Infrared
IV	Intense Visible Radiation
LDH	Lactic Dehydrogenase
Misc.	Miscellaneous
MOCA	4,4'-Methylene bis (2-chloroaniline)
NR	None Required
SGOT	Serum Glutamic Oxalacetic Transaminase
SGPT	Serum Glutamic Pyruvic Transaminase
TB	Tuberculosis
TNT	Trinitrotoluene
UA	Urinalysis, including microscopic examination
UV	Ultraviolet Radiation
Var.	Various

GENERAL SCHEDULE EMPLOYEES

GS Series	Title	Determining Factor	Exam	Frequency
007	Correctional Officer		routine	
018	Safety Management	physical stress	AR	age-related
019	Safety Technician		AR	
020	Community Planner		NR	
023	Outdoor Recreation Planning		NR	
026	Park Aid/Technician	physical stress	routine	age-related
030	Sports Specialist	formalin	AR	annual
050	Funeral Director/Mortuary Officer	infectious disease	pulmonary functions dermatological exam IAW AR 40-26 tetanus and diphtheria immunization	annual basic series then every 10 yrs
062	Clothing Designer		NR	
072	Fingerprint Clerk/Examiner		AR	
080	Security Administration		NR	
081	Fire Protector and Prevention		NR	
083	Police	physical stress, CO smoke physical stress noise do	routine pulmonary functions routine audiogram do	age-related age-related age-related annual do
085	Guard		AR	
099	General Student Trainee		NR	
101	Social Science		NR	
110	Economist		NR	
130	Foreign Affairs		NR	
131	International Relations		NR	
132	Intelligence		NR	
142	Manpower Development Specialist		NR	
150	Geographer		NR	
160	Equal Opportunity Specialist/Officer		NR	
170	Historian		NR	
180	Psychologist		NR	
181	Psychology Aid/Technician		NR	
184	Sociologist		NR	
185	Social Worker		NR	
186	Social Services Aid/Assistant		NR	
187	Social Work Associate/Social Service Representative		NR	
188	Recreation Specialist		AR	
189	Recreation Aid/Assistant		AR	
190	Anthropologist		NR	
193	Archeologist		NR	
199	Social Science Student Trainee		NR	
200	Personnel Management/Industrial Relations		NR	
203	Personnel Clerk/Assistant		NR	
204	Military Personnel Clerk/Technician		NR	
205	Military Personnel Management		NR	
246	Contractor Industrial Relations		NR	
300	General Administrative Clerical, Office Services		NR	
301	Clerk		NR	
302	Messenger		NR	

Series Title	Determining Factor	Exam	Frequency
304 Information/Receptionist		NR	
305 Mail/File Clerk		NR	
309 Correspondence Clerk		NR	
312 Clerk Stenographer/Shorthand Reporter		NR	
316 Clerk-Dictating Machine Transcriber		NR	
318 Secretary		NR	
322 Clerk-Typist		NR	
324 Cold Type Composing Machine Operator		NR	
330 Digital Computer Systems Administrative Services		NR	annual
332 Computer Operations	noise	audiogram	
334 Computer Specialist		NR	
335 Computer Aid/Technician		NR	
341 Administrative Officer		NR	
342 Office Service Manager		NR	
343 Management Analyst		NR	
344 Management Clerk/Assistant		NR	
345 Program Analyst		NR	
346 Logistics Management Specialist		NR	
351 Printing Clerk		NR	
355 Calculating Machine Operator		NR	
356 Data Transcriber		NR	
357 Coding Clerk		NR	
359 Electric Accounting Machine Operator		NR	
362 Electric Accounting Machine Project Planning		NR	
382 Telephone Operating		NR	
391 Communications Management Specialist		NR	
392 Communications Control Technician		NR	
393 Communications Specialist		NR	
401 General Biological Science		AR	
403 Microbiologist	infectious disease	AR	annual basic series preplacement
		AR	influenza immunization Rubella immunization (all susceptible individuals except pregnant females) tetanus and diphtheria immunization
		AR	basic series then every 10 yrs
		AR	
	TB	IAM AR 40-26	
		AR	
404 Biology Aid/Technician		AR	
405 Pharmacologist		AR	
410 Zoologist		AR	
413 Physiologist	organophosphates	AR	baseline, then as required following potential exposure
414 Entomologist		AR	annual
	organic solvents	SGOT, SGPT, ALK PO4, CBC	
430 Botanist		AR	

GS Series Title	Determining Factor	Exam	Frequency
434 Plant Pathologist		AR	
435 Plant Physiologist		AR	
437 Horticulturist		AR	
440 Geneticist		AR	
454 Range Conservationist/Scientist		NR	
455 Range Technician/Aid	physical stress, CO	routine pulmonary functions	age-related annual
456 Forest and Range Fire Control	smoke noise	audiogram	annual
457 Soil Conservationist		NR	
458 Soil Conservation Aid/Technician		NR	
460 Forester		NR	
462 Forestry Aid/Technician	physical stress	routine audiogram	age-related annual
470 Soil Scientist	noise	NR	
471 Agronomy		NR	
475 Agricultural Management		NR	
481 Fishery Biologist		AR	
486 Wildlife Biologist		AR	
487 Husbandry		AR	
501 Accounting Clerk		NR	
504 Budget and Accounting Officer		NR	
505 Financial Manager		NR	
510 Accounting		NR	
520 Accounts Maintenance Clerk		NR	
525 Accounting Technician		NR	
530 Cash Accounting		NR	
540 Voucher Examining		NR	
541 Fiscal Accounting		NR	
544 Payroll Clerk/Technician		NR	
545 Military Payroll Clerk/Technician		NR	
547 Benefit Payment Roll Clerk/Technician		NR	
560 Budget Analyst/Officer		NR	
570 Financial Institution Examining		NR	
590 Time and Leave Clerk/Technician		NR	
591 Military Time and Leave Clerk/Technician		NR	
599 Student Trainee (Accounting)		NR	
601 General Health Services		AR	
602 Medical Officer	infectious disease	influenza immunization tetanus and diphtheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAM AR 40-26	annual basic series then every 10 yrs basic series basic series preplacement
603 Physician's Assistant	TB	do	do
	do	do	do

GS Series Title	Determining Factor	Exam	Frequency
605 Nurse Anesthetist	infectious disease	influenza immunization tetanus and diptheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAW AR 40-26	annual basic series then every 10 yrs basic series preplacement
610 Nurse	TB waste anesthetic gases infectious disease	CBC, SGOT, SGPT, ALK P04, LDH, UA, Creatinine, BUN influenza immunization tetanus and diptheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAW AR 40-26	annual annual basic series then every 10 yrs basic series preplacement
615 Public Health Nurse	TB	do	do
621 Nursing Assistant	do	do	do
622 Medical Aid (Sterile Supplies)	do	do	do
625 Autopsy Assistant	formalin	pulmonary functions dermatological exam	annual annual
630 Dietitian	infectious disease	tetanus and diptheria immunization IAW AR 40-26	basic series then every 10 yrs
631 Occupational Therapist	TB potential hazard to others infectious disease	IAW AR 40-5	do do do annual annual basic series then every 10 yrs
634 Physical Therapy Aid	infectious disease	influenza immunization tetanus and diptheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAW AR 40-26	annual basic series then every 10 yrs basic series preplacement
635 Corrective Therapist	do	do	do
636 Rehabilitation Therapy Assistant	do	do	do
637 Manual Arts Therapist	do	do	do
639 Educational Therapist	do	do	do
642 Nuclear Medicine Aid/Technician	infectious disease	influenza immunization tetanus and diptheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAW AR 40-26	annual basic series then every 10 yrs basic series preplacement
	TB var. radionuclides X radiation	bioassays personal monitoring device IAW AR 40-14; AR 40-501 (7-17, 11-8)	as appropriate monthly

Series Title	Determining Factor	Exam	Frequency
644 Medical Technologist	misc. chemicals	SGOT, SGPT, ALK P04, LDH, CBC, UA, Creatinine, BUN AR	annual
645 Medical Laboratory Aid/Technician	do	do	do
646 Pathology Technician	formalin	pulmonary functions dermatological exam tetanus and diphtheria immunization	annual
	infectious disease		annual
	TB		basic series then every 10 yrs
647 Medical Radiology Technology	infectious disease	IAM AR 40-26 influenza immunization tetanus and diphtheria immunization	annual
	TB	Rubella immunization (all susceptible individuals except pregnant females)	basic series then every 10 yrs
	X radiation	IAM AR 40-26 personal monitoring device	basic series then every 10 yrs
649 Medical Machine Technician	infectious disease	IAM AR 40-14; AR 40-501 (7-17, 11-8) influenza immunization tetanus and diphtheria immunization	annual
	TB	Rubella immunization (all susceptible individuals except pregnant females)	basic series then every 10 yrs
660 Pharmacist		IAM AR 40-26	preplacement
661 Pharmacy Technician		NR	
662 Optometrist	infectious disease	NR influenza immunization tetanus and diphtheria immunization	annual
	TB	Rubella immunization (all susceptible individuals except pregnant females)	basic series then every 10 yrs
664 Restoration Technician	acrylic resins	dermatological exam audiogram	annual
665 Speech Pathology and Audiology	noise	audiogram	annual
	infectious disease	influenza immunization tetanus and diphtheria immunization	annual
	TB	Rubella immunization (all susceptible individuals except pregnant females)	basic series then every 10 yrs
		IAM AR 40-26	preplacement

GS	Series Title	Determining Factor	Exam	Frequency
667	Orthotist-Prosthetist	noise brazing: UV, IR, IV, metal, flux fumes	audiogram eye evaluation chest x-ray	annual annual biennial, annual if exposure exceeds 10 yrs annual annual
668	Podiatrist	infectious disease TB infectious disease	pulmonary functions urinalysis influenza immunization tetanus and diphtheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAW AR 40-26 influenza immunization tetanus and diphtheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAW AR 40-26 NR NR NR NR	annual basic series then every 10 yrs basic series preplacement annual basic series then every 10 yrs basic series preplacement
669	Medical Record Librarian	TB	NR	annual
670	Hospital Administrator/Assistant/Officer/Specialist	infectious disease	influenza immunization tetanus and diphtheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAW AR 40-26	annual basic series then every 10 yrs basic series preplacement
673	Hospital Housekeeping Management			
675	Medical Record Technician			
680	Dental Officer			
681	Dental Assistant	mercury (if exposure exceeds 0.02 mg/m ³) X radiation	personal monitoring device IAW AR 40-14; AR 40-501 (7-17, 11-8)	annual monthly
682	Dental Hygienist	waste anesthetic gases	CBC, SGOT, SGPT, ALK P ₀₄ , LDH, UA, Creatinine, BUN	annual
683	Dental Lab Aid/Technician	noise do do acrylic resins noise	audiogram do do dermatological exam audiogram	annual do do annual

GS Series Title	Determining Factor	Exam	Frequency
688 Sanitarian	raw sewage	typhoid immunization	basic series then triennial
690 Industrial Hygienist	infectious disease	AR	annual
698 Environmental Health Aid/Technician		AR	basic series then every 10 yrs
699 Health Aid/Technician		AR	basic series then every 10 yrs
701 Veterinarian	TB	immunization (all susceptible individuals except pregnant females) IAW AR 40-26 tetanus	basic series then every 10 yrs basic series then every 2-3 yrs
801 General Engineer	TB	rabies	
802 Engineering Aid/Technician		IAW AR 40-26	
803 Safety Engineer		AR	
804 Fire Prevention Engineer		AR	
806 Materials Engineer		AR	
807 Landscape Architect		NR	
808 Architect		NR	
809 Construction Inspector/Representative		AR	
810 Civil Engineer		AR	
817 Surveying Aid/Technician		NR	
818 Engineering Draftsman		NR	
819 Sanitary Engineer		AR	
828 Construction Analyst		NR	
830 Mechanical Engineer		AR	
840 Nuclear Engineer		AR	
850 Electrical Engineer		AR	
855 Electronics Engineer		AR	
856 Biomedical Technician		AR	
858 Biomedical Engineer		AR	
861 Aerospace Engineer		AR	
871 Naval Architect		NR	
880 Mining Engineer		AR	
881 Petroleum Engineer		AR	
890 Agricultural Engineer		AR	
892 Ceramic Engineer		AR	
893 Chemical Engineer		AR	
894 Welding Engineer		AR	
895 Industrial Engineering Technician		AR	
896 Industrial Engineer		AR	
899 Engineering Student Trainee		AR	
930 Hearings and Appeals Position		NR	
950 Paralegal Specialist		NR	
962 Contact Representative		NR	
963 Legal Instruments Clerk/Examiner		NR	

GS Series	Title	Determining Factor	Exam	Frequency
986	Legal Clerk/Technician		NR	
998	Claims Clerk		NR	
1001	Interior Decorator/Color Designer		NR	
1010	Exhibits Specialist		AR	
1015	Museum/Staff Curator		AR	
1016	Museum Aid/Technician/Specialist		AR	
1020	Illustrator		NR	
1021	Office Draftsman		NR	
1045	Translator		NR	
1051	Music Specialist		AR	
1054	Theatre Specialist		NR	
1056	Art Specialist		NR	
1060	Photographer		NR	
1071	Audiovisual Production		NR	
1081	Public Information Officer/Specialist		NR	
1082	Writer/Editor		NR	
1083	Technical Writer/Editor		NR	
1084	Visual Information Officer/Specialist		NR	
1087	Editorial Clerk/Assistant		NR	
1102	Contract and Procurement		NR	
1103	Industrial Property Management/		NR	
1104	Administration Specialist		AR	
1105	Property Disposal		NR	
1107	Purchasing Agent		AR	
1107	Property Disposal Clerk/Technician		NR	
1130	Public Utilities Assistant/Specialist		NR	
1135	Transportation Industry Analyst		NR	
1140	Trade Assistant/Specialist		NR	
1144	Commissary Store Manager/Officer		NR	
1147	Agricultural Market Commodity Reporter		NR	
1150	Industrial Specialist		NR	
1152	Production Control/Controller Aid		NR	
1160	Financial Assistant/Analyst		NR	
1163	Insurance Examiner		NR	
1165	Loan Assistant/Specialist		NR	
1170	Realty Specialist		NR	
1171	Appraiser		NR	
1173	Housing Project Manager/Assistant		NR	
1221	Patent Advisor		NR	
1301	Physical Scientist		AR	
1306	Health Physicist		AR	
		var. radionuclides X radiation	bioassays personal monitoring device TAM AR 40-14; AR 40-501 (7-17, 11-8) AR	as appropriate monthly
1310	Physicist		AR	
1311	Physical Science Aid/Technician		AR	
1313	Geophysicist		AR	

GS Series	Title	Determining Factor	Exam	Frequency
1315	Hydrologist		AR	
1316	Hydrology Aid/Technician		AR	
1320	Chemist	misc. chemicals	SGOT, SGPT, ALK P04, CBC, LDH, UA, Creatinine, BUN	annual
1321	Metallurgist		AR	
1330	Astronomy and Space Science		AR	
1340	Meteorologist		NR	
1341	Meteorology Aid/Technician		NR	
1350	Geologist		NR	
1360	Oceanographer		AR	
1361	Aeronautical/Marine Information Specialist		NR	
1370	Cartography Aid/Technician		NR	
1371	Geodesist		NR	
1372	Land Surveyor		NR	
1373	Geodetic Aid/Technician		NR	
1374	Forest Production Technician		AR	
1380	Food Technologist		AR	
1382	Cotton/Fiber Technologist		AR	
1384	Photographic Technologist		AR	
1386	Document Analyst		NR	
1397	Physical Science Student Trainee		AR	
1399	Librarian		NR	
1410	Library Aid/Technician		NR	
1411	Technical Information Specialist/Officer		NR	
1412	Archivist		NR	
1420	Archives Aid/Technician/Specialist		NR	
1421	Actuary		NR	
1510	Operations Research Analyst		NR	
1515	Mathematician		NR	
1520	Mathematics Aid/Technician		NR	
1521	Mathematical Statistician		NR	
1529	Statistical Clerk/Assistant		NR	
1530	Statistical Clerk/Assistant		NR	
1531	Cryptanalyst		NR	
1541	Mathematical Science Student/Trainee		NR	
1599	General Facilities and Equipment		NR	
1601	Facility Management Officer/Specialist		NR	
1640	Building and Grounds Manager		NR	
1641	Printing Assistant/Specialist/Officer		NR	
1654	Laundry/Dry Cleaning Plant Manager/		NR	
1658	Superintendent		NR	
1666	Housekeeping		NR	
1667	Steward	potential hazard to others	IAM AR 40-5	
1670	Equipment Specialist		NR	
1701	General Education and Training		NR	
1702	Education Aid/Technician		NR	
1710	Educational and Vocational Training		AR	
1712	Training Instructor/Administrator/Specialist		AR	

Series	Title	Determining Factor	Exam	Frequency
1715	Vocational Rehabilitation Specialist		AR	
1720	Educational Assistant/Specialist		NR	
1810	Investigator	physical stress	routine	age-related
1811	Criminal Investigator	noise	audiogram	annual
1820	Safety Inspector	do	do	do
1899	Boiler Inspector		AR	
1900	General Commodities Quality Control		AR	
1903	Quality Control and Inspection Management		AR	
1905	Subsistence Quality Control and Inspection		NR	
1906	Clothing, Textile and Leather Quality Control and Inspection		AR	
1910	Quality Assurance Specialist		AR	
1915	Chemicals Quality Control and Inspection		AR	
1916	Petroleum Quality Control and Inspection		AR	
1920	Materials Quality Control and Inspection		AR	
1925	Electrical Equipment Quality Control and Inspection		AR	
1926	Electronic Equipment Quality Control and Inspection		AR	
1940	Mechanical Equipment Quality Control and Inspection		AR	
1941	Automotive Equipment Quality Control and Inspection		AR	
1942	Aircraft Quality Control and Inspection		AR	
1947	Ordnance Quality Control and Inspection		AR	
1948	Ammunition Quality Control and Inspection		AR	
1950	Missile Quality Control and Inspection		AR	
1955	Space System Quality Control and Inspection		AR	
1960	Quality Inspection Specialist		AR	
1961	Calibration and Measurement Quality Control and Inspection		AR	
1965	Metallic Materials Treatment Processes Quality Control and Inspection		AR	
1970	Preservation and Packaging Quality Control and Inspection		AR	
1980	Agricultural Commodity Grader		NR	
2131	Packaging Specialist		NR	
2040	Supply Clerk		NR	
2100	Transportation Clerk		NR	
2130	Traffic Manager/Management Specialist		NR	
2133	Freight Rate Assistant/Specialist		NR	
2144	Passenger Rate Assistant/Specialist		NR	
2144	Cargo Scheduler		NR	
2150	Automotive Transport Specialist/Administrator		NR	
2151	Motor Vehicle/Auto Equipment Dispatcher		IAM AR 40-501	
2152	Air Traffic Control Specialist		audiogram	annual
2161	Marine Cargo Assistant/Specialist	noise	IAM AR 40-501	
2181	Aircraft Operator		IAM AR 40-501	

WG Series	Title	Determining Factor	Exam	Frequency
2502	Telephone Mechanic	physical stress, heights	routine	age-related
2504	Wire Communications Cable Splicing		AR	
2506	Telephone Equipment Inspector		NR	
2508	Telephone Lineman	physical stress, heights	routine	age-related
2509	Teletypewriter Installing and Repairing	noise	audiogram	annual
2510	Wire Chief		AR	
2511	Wire Communications Equipment Installer and Repairer		NR	
2512	Wire Communications Equipment Inspector		NR	
2513	Cryptographic Equipment Installer and Repairer		NR	
2514	Automatic Telegraph Communications Switching Equipment Installing and Repairing		NR	
2602	Electronic Test Equipment Repairer/Maker/Installer		NR	
2603	Electron Tube Making	X radiation	personal monitoring device IAM AR 40-14; AR 40-501 (7-17, 11-8)	monthly
2605	Mine Control Systems Repairer	UV, IV, IR metal and flux fumes	eye evaluation pulmonary functions chest x-ray urinalysis	annual annual biennial annual
2606	Radar Equipment Inspector	microwave	ophthalmoscopic exam, slit lamp exam of lens, preplacement and termination determination of best visual acuity eye evaluation	preplacement and termination annual
2609	Radio Equipment Inspecting		NR	
2612	Fire Control Instrument Inspector	laser	IAM AR 40-46	
2614	Electronic Mechanic	microwave	ophthalmoscopic exam, slit lamp exam of lens, preplacement and termination determination of best visual acuity eye evaluation	preplacement and termination annual
2615	Electronic Equipment Inspector	noise	audiogram	annual
2616	Motion Picture Sound Transmission Installer and Repairer	noise	audiogram	annual
2619	Electronic-Mechanical Communications Equipment Installer and Repairer	noise	audiogram	annual
2621	Toll Office Telephone Equipment Installer and Repairer		NR	
2650	Electrical Integrated Systems Mechanic		NR	

WG	Series	Title	Determining Factor	Exam	Frequency
	2702	Crystal Cutter	silica	pulmonary functions TB testing chest x-ray	annual biennial, annual if exposure exceeds 10 yrs
	2703	Crystal Etcher and Oiler	do	do	do
	2704	Crystal Finisher	do	do	do
	2705	Crystal Inspector	do	do	do
	2706	Crystal Lapper	do	do	do
	2707	Crystal Orientator	do	do	do
	2708	Crystal Technician	do	do	do
	2802	Electrician, Marine	noise	audiogram	annual
	2804	Electrical Inspector		NR	
	2805	Electrician		NR	
	2810	Electrician (high voltage)	physical stress, heights	routine	age-related
			noise	audiogram	annual
	2854	Electrical Equipment Repairer		NR	
	2902	Public Address Equipment Operator		NR	
	2903	Radio Transmitter Operator		NR	
	3103	Shoe Repairing	noise	audiogram	annual
	3105	Fabric Worker	noise	audiogram	annual
	3106	Upholsterer	do	do	do
	3111	Sewing Machine Operator	do	do	do
	3114	Mattress Repairer	do	do	do
	3120	Parachute Inspector	do	do	do
	3121	Parachute Packer		NR	
	3122	Leather Products Inspector		NR	
	3124	Floor Coverer		NR	
	3202	Auto Glass Repairer		NR	
	3203	Glazer		NR	
	3204	Glassblower	UV, IR	eye evaluation	annual
	3306	Optical Instrument Repairer		NR	
	3307	Nautical Instrument Repairer		NR	
	3309	Timekeeping Instrument Repairer		NR	
	3310	Industrial Instrument Inspector		NR	
	3359	Instrument Mechanic	noise	audiogram	annual
	3403	Model Maker, Metal	noise	audiogram	annual
			noise	audiogram	annual
			cutting oils	dermatological exam	annual
	3405	Pattern Maker, Metal	do	do	do
	3406	Buffing and Polishing	do	do	do
	3407	Coil or Wire Machine Operating	do	do	do
	3416	Automotive Machinist	do	do	do
	3412	Instrument Maker and Repairer	do	do	do
	3413	Machined Parts Inspecting	do	do	do
	3414	Machinist	noise	audiogram	annual
			cutting oils	dermatological exam	annual
			metal fumes and dusts	pulmonary functions chest x-ray	annual biennial
	3416	Tool Maker	do	do	do
	3417	Tool Grinding and Repairing	do	do	do
	3420	Layout Man	noise	audiogram	annual
	3422	Power Saw Operating	noise	audiogram	annual

MS Series	Title	Determining Factor	Exam	Frequency
3428	Die Sinker	noise UV, IV, IR	audiogram eye evaluation	annual annual
3430	Tool and Gage Checker	physical stress	routine	age-related
3431	Machine Tool Operator	noise	audiogram	annual
3433	Machine Tool Inspecting Laborer	cutting oils	dermatological exam	annual
3502		do	do	do
3566	Janitor	noise	audiogram	annual
3602	Cement Finisher	physical stress cleaning solutions	routine dermatological exam	age-related annual
3603	Mason	noise	audiogram	annual
3604	Tile Setting	cement	dermatological exam	annual
3605	Plasterer	epoxy resins	dermatological exam	annual
3606	Roofer	heights coal tar pitch volatiles	NR routine chest x-ray	annual age-related biennial, annual if exposure exceeds 10 yrs
3608	Welder, Materials		pulmonary functions	annual
3609	Floor Layer	cement	urinalysis	annual
3653	Asphalt Worker		dermatological exam	annual
			NR	annual
3702	Flame Cutter	coal tar pitch volatiles	chest x-ray	biennial, annual if exposure exceeds 10 yrs
			pulmonary functions	annual
			urinalysis	annual
			dermatological exam	annual
			audiogram	annual
			audiogram	annual
			eye evaluation	annual
			pulmonary functions	annual
			chest x-ray	biennial
			urinalysis	annual
			lead (painted surfaces, if exposure exceeds 0.05 mg/m ³)	semi-annual annual
			do	do
			do	do
3703	Welder	noise	audiogram	annual
3704	Blacksmith	X radiation	personal monitoring device	monthly
3705	Welding Inspector	silica	pulmonary functions	annual
3706	Core Maker		TB testing chest x-ray	annual biennial, annual if exposure exceeds 10 yrs

MG Series	Title	Determining Factor	Exam	Frequency
3707	Metallizing	UV, IR, IV noise metal fumes	eye evaluation audiogram pulmonary functions chest x-ray urinalysis pulmonary functions TB testing chest x-ray	annual annual annual biennial annual annual annual biennial, annual if exposure exceeds 10 yrs annual annual annual biennial annual age-related
3708	Foundry worker	silica		
3709	Cast Room Working	UV, IR, IV noise	eye evaluation audiogram pulmonary functions chest x-ray urinalysis routine	annual annual annual biennial annual age-related
3710	Furnace Tender, Foundry	physical stress, heat noise physical stress, heat	audiogram routine AR	annual age-related
3711	Electroplater	chromium and nickel	dermatological and nasal exam	annual
3712	Heat Treater	acid mists misc. solvents oil mist noise physical stress, heat noise	sputum cytology pulmonary functions chest x-ray dental exam SGOT, SGPT, ALK, PO4, CBC dermatological exam audiogram routine audiogram	annual annual annual triennial annual annual annual age-related annual
3713	Chipper	noise	audiogram	annual
3714	Molder		AR	
3715	Smelter		AR	
3716	Leadburner	physical stress, heat lead (if exposure exceeds 0.05 mg/m ³) UV, IR, IV metal and flux fumes	routine blood lead CBC, UA eye evaluation chest x-ray pulmonary functions urinalysis blood lead CBC, UA audiogram audiogram audiogram personal monitoring device IAW AR 40-14; AR 40-501 (7-17, 11-8)	age-related semi-annual annual annual biennial annual annual semi-annual annual annual annual monthly
3720	Brazer and Solderer	lead (if exposure exceeds 0.05 mg/m ³) noise noise noise X radiation		
3721	Shrink Pit Operator			
3722	Cold Worker			
3723	Casting Machine Operator			
3724	Casting Inspector			

ICG Series	Title	Determining Factor	Exam	Frequency
3725	Battery Repairer	acids and acid mists lead (if exposure exceeds 0.05 mg/m ³) noise noise noise	dental exam blood lead CBC, UA audiogram audiogram audiogram NR	triennial semiannual annual annual annual annual
3802	Drop Hammer Operating	noise	audiogram	annual
3803	Punch Press Operating	noise	audiogram	annual
3804	Coppersmithing	noise	audiogram	annual
3805	Metal Products Inspector	noise	audiogram	annual
3806	Sheet Metal Mechanic	welding: UV, IV, IR metal and flux fumes	eye evaluation pulmonary functions chest x-ray urinalysis	annual annual annual biennial annual semiannual annual
3807	Structural Iron Worker	lead (painted surfaces, if exposure exceeds 0.05 mg/m ³)	blood lead CBC, UA	annual
3808	Boilermaker	do physical stress noise welding: UV, IR, IV metal and flux fumes asbestos (if exposure exceeds 0.1 fibers/cc)	do routine audiogram eye evaluation urinalysis pulmonary functions chest x-ray pulmonary functions	do age-related annual annual annual annual biennial annual
3809	Mobile Equipment Metal Mechanic	silica noise welding: UV, IV, IR metal and flux fumes	chest x-ray sputum cytology TB testing pulmonary functions chest x-ray audiogram eye evaluation urinalysis pulmonary functions chest x-ray	annual annual annual annual biennial, annual if exposure exceeds 10 yrs annual annual annual biennial, annual if exposure exceeds 10 yrs annual annual biennial, annual if exposure exceeds 10 yrs
3810	Forgings Heater	silica oil mist heat noise UV, IV, IR	TB testing pulmonary functions chest x-ray dermatological exam routine audiogram eye evaluation AR	annual annual biennial, annual if exposure exceeds 10 yrs annual annual biennial, annual if exposure exceeds 10 yrs annual annual annual annual
3812	Press Operator	noise	audiogram	annual
3813	Forgings Inspector	noise	audiogram NR	annual annual

Series Title	Determining Factor	Exam	Frequency
3814 Automotive/Engineer Equipment Radiator Repairer	noise UV, IR, IV metal and flux fumes	audiogram eye evaluation chest x-ray pulmonary functions urinalysis blood lead CBC, UA audiogram audiogram	annual annual biennial annual annual semiannual annual annual annual
3815 Riveter	lead (if exposure exceeds 0.05 mg/m ³)		
3820 Shipfitter	noise	NR	
3902 Make-up Artist	noise	NR	
3903 Studio Grip	noise	audiogram	annual
3904 Studio Sound Room Man	noise	audiogram	annual
3905 Property Man	organic solvents	SGOT, SGPT, ALK P0 ₄ , CBC	annual
3906 Property Man Drapery	lead (if exposure exceeds 0.05 mg/m ³)	blood lead CBC, UA	semiannual
3907 Property Man Wardrobe	isocyanates (urethane)	total eosinophil count pulmonary functions	annual
3908 Scenic Artist	noise	NR	annual
3909 Motion Picture Film Inspector and Reclaimer	noise	audiogram	annual
3910 Motion Picture Projectionist	noise	NR	
3911 Sound Recording Equipment Operator	misc. photographic chemicals	SGOT, SGPT, ALK P0 ₄ , LDH, UA, Creatinine, BUN	annual
3912 Motion Picture Negative Worker	do	do	do
3913 Motion Picture Developing Machine Operator	misc. photographic chemicals	SGOT, SGPT, ALK P0 ₄ , LDH, UA, Creatinine, BUN	annual
3914 Motion Picture Printing Machine Operator	do	do	do
3915 Film Slitting Machine Operator	noise	NR	
3916 Film Cleaning Machine Operator	noise	NR	
3917 Magnastripe Applying Machine Operator	noise	audiogram	annual
3918 Film Searcher	noise	audiogram	annual
3919 TV Control and Equipment Operator	epoxy resins	dermatological exam	annual
4002 Blocking (Optical Elements)	noise	audiogram	annual
4003 Cementing (Optical Elements)	noise	audiogram	annual
4005 Polishing (Optical Elements)	noise	audiogram	annual
4006 Grinding (Optical Elements)	noise	NR	
4007 Plating (Optical Elements)	noise	AR	
4009 Lens Coating (Optical Elements)	noise	audiogram	annual
4010 Spectacle Lens Bench Working	noise	audiogram	annual
4011 Spectacle Lens Surfacing	noise	audiogram	annual
4012 Optical Etching	noise	NR	
4015 Optical Element Inspector	organic solvents	SGOT, SGPT, ALK P0 ₄ , CBC	annual
4102 Painter	lead (if exposure exceeds 0.05 mg/m ³) isocyanates (urethane)	blood lead CBC, UA total eosinophil count pulmonary functions	semiannual annual annual annual
4103 Paperhanging			

Series Title	Determining Factor	Exam	Frequency
4104 Sign Painter	organic solvents lead (if exposure exceeds 0.05 mg/m ³) isocyanates (urethane)	SGOT, SGPT, ALK P04, CBC blood lead CBC, UA total eosinophil count pulmonary functions do audiogram chest x-ray	annual semiannual annual annual do annual annual
4105 Paint Miller	noise		
4203 Insulator	asbestos (if exposure exceeds 0.1 fiber/cc)		
4204 Pipefitter	heat noise asbestos (if exposure exceeds 0.1 fiber/cc)	pulmonary functions sputum cytology routine audiogram chest x-ray	annual annual age-related annual annual
4206 Plumber	lead (if exposure exceeds 0.05 mg/m ³) raw sewage lead (if exposure exceeds 0.05 mg/m ³) raw sewage asbestos (if exposure exceeds 0.1 fiber/cc)	sputum cytology pulmonary functions blood lead CBC, UA typhoid immunization blood lead CBC, UA typhoid immunization chest x-ray	annual annual semiannual annual basic series then triennial annual basic series then triennial annual
4303 Model Making (Plastic)	noise		
4351 Plastic Molding	noise thermosetting, epoxy resins isocyanates (urethane) polyvinyl chloride (if vinyl chloride exposure exceeds 0.5 ppm) MOCA dichlorobenzidine	chest x-ray sputum cytology pulmonary functions audiogram dermatological exam total eosinophil count pulmonary functions routine with GI emphasis, bilirubin, SGOT, SGPT, GGTP, ALK P04, LDH chest x-ray sputum cytology urinary cytology SGOT, SGPT, LDH, ALK P04, bilirubin urinary cytology SGOT, SGPT, LDH, ALK P04, bilirubin urinalysis AR do NR	annual annual annual annual annual annual annual, semiannual if exposure exceeds 10 yrs annual annual annual annual annual annual annual annual annual annual annual do
4352 Plastic Working	do		
4353 Plastic Working Inspector			

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MS Series Title	Determining Factor	Exam	Frequency
4402 Binding Working	noise	audiogram	annual
4403 Composer	noise lead (if exposure exceeds 0.05 mg/m ³)	audiogram blood lead	annual
	methylene chloride inks	CBC, UA routine with CV emphasis dermatological exam	semiannual
4404 Draftsman, Offset	noise methylene chloride inks	audiogram routine with CV emphasis dermatological exam	annual
4405 Film Assembly-Stripping	misc. photographic chemicals	AR SGOT, SGPT, ALK P04, LDH, UA, Creatinine, BUN dermatological exam	annual
4406 Press Operator, Printing	noise lead (if exposure exceeds 0.05 mg/m ³)	audiogram blood lead	annual
	methylene chloride inks	CBC, UA routine with CV emphasis dermatological exam	semiannual
4407 Linotype Operating	do	AR	annual
4408 Relief Model Reproduction	do	do	do
4409 Mounting	noise	NR	NR
4410 Monotype Casting Machine Operator and Repairer	noise lead (if exposure exceeds 0.05 mg/m ³)	audiogram blood lead	annual
	methylene chloride inks	CBC, UA routine with CV emphasis dermatological exam	annual
4411 Monotype Keyboard Operator	noise	AR	annual
4412 Mimeograph Operator	noise	audiogram	annual
4413 Negative Engraver	IV	NR	NR
4414 Photography (Offset)	IV	NR	NR
4415 Plate Graining	noise	eye evaluation	annual
4416 Plate Making	noise	eye evaluation	annual
4417 Press Operating Offset	noise misc. solvents inks	audiogram SGOT, SGPT, ALK P04, CBC dermatological exam	annual
4418 Printing Plant Equipment Mechanic	misc. solvents inks	AR SGOT, SGPT, ALK P04, CBC dermatological exam	annual
4419 Silk Screen Printer	do	AR	annual
4420 Transferral	do	do	do
4421 Chemical Mixer	misc. chemicals	SGOT, SGPT, ALK P04, LDH, UA, CBC, Creatinine, BUN	annual
4422 Dot Etcher	misc. solvents inks	AR SGOT, SGPT, ALK P04, CBC dermatological exam	annual

MS Series	Title	Determining Factor	Exam	Frequency
4423	Pantographer	noise misc. solvents	audiogram SGOT, SGPT, ALK, P ₀₄ , LDH, UA, CBC, Creatinine, BUN dermatological exam	annual annual annual
4424	Mitigraph Operator	inks	AR	do
4425	Photoengraver	do	do	do
4426	Relief Map Model Maker	do	AR	
4427	Xerox Operating	inks	AR	
4428	Blueprinting and Diazo Equipment Operating	misc. chemicals	dermatological exam SGOT, SGPT, ALK, P ₀₄ , LDH, CBC, UA, Creatinine, BUN	annual annual
4429	Photostat Operating	do	AR	do
4430	Microphotography Working	misc. photographic chemicals	SGOT, SGPT, ALK, P ₀₄ , LDH, UA, Creatinine, BUN NR	annual
4431	Photocomposition Machine Operating		NR	
4432	Compositor (Paste-up)		NR	
4502	Tire and Tube Inspector		NR	
4503	Rubber Products Fabricator and Repairer	benzene (if exposure exceeds 0.5 ppm)	CBC, platelet count bilirubin, reticulocyte count	semiannual & preplacement preplacement
4504	Tire and Tube Repairing	var. chemicals noise	AR	annual
4507	Rubber Products Inspector	benzene (if exposure exceeds 0.5 ppm)	audiogram CBC, platelet count	semiannual & preplacement
4508	Rubber Compounder	var. chemicals	audiogram bilirubin, reticulocyte count	preplacement
4554	Rubber Equipment Repair	physical stress	AR	semiannual & preplacement
4602	Blocker and Bracer	noise	audiogram	preplacement
4603	Boat Repairer	noise lead (if exposure exceeds 0.05 mg/m ³)	audiogram blood lead CBC, UA	age-related annual annual semiannual
4604	Woodworker	noise	audiogram	annual
4605	Woodcraftsman	noise	audiogram	annual
4606	Carpenter, Manual	noise	audiogram	annual
4607	Carpenter	noise	audiogram	annual
4608	Sawmill Operator	noise	audiogram	annual
4610	Carpenter, Studio	noise	audiogram	annual
4613	Furniture Repairer	methylene chloride misc. solvents	audiogram routine with CV emphasis SGOT, SGPT, ALK, P ₀₄ , CBC, UA, Creatinine, BUN	annual annual
		isocyanates	total eosinophil count audiogram	annual annual
		noise		annual

Series	Title	Determining Factor	Exam	Frequency
4614	Model Maker, Wood	noise	audiogram	annual
4616	Patternmaker	noise	audiogram	annual
4618	Woodworking Machine Operator	noise	audiogram	annual
4619	Wood Body Repairer	noise	audiogram	annual
4620	Shoe Last Repairer	noise	audiogram	annual
4622	Crating Inspector	noise	audiogram	annual
4623	Gun Stock Maker and Finisher	methylene chloride misc. solvents	audiogram with CV emphasis SGOT, SGPT, ALK P ₀₄ , CBC, UA, Creatinine, BUN	annual
4702	Construction Supervising	isocyanates	pulmonary functions	annual
4703	Construction and Maintenance Supervising	noise	total eosinophil count	annual
4704	Maintenance Supervising	noise	audiogram	annual
4705	Maintenance Inspector	noise	audiogram	annual
4706	River and Harbor Construction Supervising	noise	NR	annual
4712	Instrument Maker	noise	audiogram	annual
4714	Model Maker	noise	AR	annual
4742	Utilities Systems Repairer-Operator	noise	AR	annual
4749	Maintenance Mechanic	noise	AR	annual
4802	Musical Instrument Repairer	noise	AR	annual
4803	Fire Extinguisher Servicing	noise	AR	annual
4804	Garden Equipment Repairing	X radiation	personal monitoring device	monthly
4805	Medical Equipment Repairer	noise	IAW AR 40-14; AR 40-501 (7-17, 11-8)	annual
4806	Office Appliance Repairer	noise	audiogram	annual
4807	Chemical Equipment Repairer	textile finishes	AR	annual
4808	Custodial Equipment Repairer	noise	dermatological exam	annual
4810	Sponging Equipment Repairing	noise	AR	annual
4811	Musical Instrument Inspecting	noise	NR	annual
4812	Saw Reconditioner	brazing: UV, IV, IR metal and flux fumes	audiogram eye evaluation chest x-ray	annual biennial, annual if exposure exceeds 10 yrs
4813	Office Appliance Inspector	noise	pulmonary functions urinalysis	annual
4814	Survey Equipment Repairer	noise	NR	annual
4815	Chemical Equipment Inspector	noise	AR	annual
4816	Protective and Safety Equipment Fabricator and Repairer	noise	AR	annual
4817	Protective and Safety Equipment Inspector	noise	AR	annual
5003	Gardener	noise	AR	annual
5004	Cemetery Caretaking	noise	AR	annual

Series Title	Determining Factor	Exam	Frequency
5026 Pest Controller	organophosphates	cholinesterase	baseline, prior to spraying season then annually or quarterly depending on toxicity of pesticides used
5031 Insects Production Worker	mobile equipment operation	routine AR	annual
5210 Rigger	noise	audiogram	annual
5212 Laboratory Worker	physical stress, heights	routine	age-related
5220 Shipwright	noise	audiogram	annual
5303 Asbestos Working	noise	audiogram	annual
5306 Air Conditioning Equipment Mechanic	physical stress, heights	audiogram	age-related
5307 Shoe Machine Repairing	asbestos (if exposure exceeds 0.1 fiber/cc)	routine	annual
5308 Gas Appliance Repairer	refrigerant gases	sputum cytology	annual
5309 Heating and Boiler Plant Equipment Mechanic	noise	chest x-ray	annual
	noise	pulmonary functions	annual
	metal and flux fumes	routine with CV emphasis	age-related
	lead (if exposure exceeds 0.05 mg/m ³)	audiogram	annual
	coal tar pitch	audiogram	annual
	volatiles	audiogram	annual
	noise	eye evaluation	annual
	coal dust	pulmonary functions	annual
	silica	chest x-ray	biennial
	asbestos (if exposure exceeds 0.1 fiber/cc)	urinalysis	annual
		blood lead	annual
		CBC, UA	semiannual
		sputum cytology	annual
		chest x-ray	annual
		dermatological exam	biennial, annual
		audiogram	if exposure exceeds 10 yrs
		chest x-ray	annual
		pulmonary functions	if exposure exceeds 10 yrs
		chest x-ray	annual
		pulmonary functions	biennial, annual
		TB testing	if exposure exceeds 10 yrs
		chest x-ray	annual
		sputum cytology	annual
		pulmonary functions	annual
5311 Locksmith			

Series	Title	Determining Factor	Exam	Frequency
5312	Sewing Machine Repairer	noise	audiogram	annual
5313	Elevator Mechanic	noise	audiogram	annual
5314	Gasoline Distribution Equipment Repairer	petroleum products tetraethyl lead	dermatological exam urine lead CBC, UA	annual semi-annual annual
		benzene (if exposure exceeds 0.5 ppm)	CBC, platelet count	semi-annual & preplacement
5317	Laundry and Dry Cleaning Equipment Mechanic	noise perchloroethylene	bilirubin, reticulocyte count	annual
5318	Lock and Dam Maintenance and Repairing	noise	SGOT, ALK P04, LDH, SGPT, bilirubin	annual
5320	Coffee Plant Equipment Mechanic	noise	audiogram	annual
5321	Laundry and Dry Cleaning Equipment Inspector	noise perchloroethylene	SGOT, ALK P04, LDH, SGPT, bilirubin	annual
5322	Refrigeration and Air Conditioning Equipment Inspector	refrigerant gases	audiogram routine with CV emphasis	annual
5313	Oilier and Greaser	cutting oils noise	dermatological exam	annual
5324	Hydroelectric Powerhouse Mechanical Equipment Repairer	noise cutting oils	audiogram	annual
5326	Bridge Repairer	physical stress, heights	dermatological exam routine	annual age-related
		noise organic solvents lead (if exposure exceeds 0.05 mg/m ³) isocyanates (urethane)	audiogram SGOT, SGPT, ALK P04, CBC blood lead CBC, UA	annual annual semi-annual annual
5352	Equipment Mechanic	noise	total eosinophil count pulmonary functions audiogram	annual
5378	Powered Support Systems Mechanic	noise	AR	annual
5402	Boiler Fireman	physical stress, heat, CO coal dust	audiogram routine with CV emphasis chest x-ray	annual age-related biennial, annual if exposure exceeds 10 yrs
5402	Boiler Plant Operator	noise physical stress, heat, CO	pulmonary functions audiogram routine with CV emphasis	annual annual age-related
5403	Incinerator Operator	noise	audiogram	annual
5404	Operating Engineer, Gas Systems	do	do	do
5406	Utility Systems Operator	noise	AR	AR
5407	Electric Power Controller	do	AR	AR

Series Title	Determining Factor	Exam	Frequency
5408 Sewage Disposal Plant Operator	raw sewage	typhoid immunization	basic series then triennial
	chlorine	dental exam	triennial
		routine with CV emphasis	age-related
5409 Water Treatment Plant Operator	chlorine	pulmonary functions	annual
		dental exam	triennial
		routine with CV emphasis	age-related
5410 Asphalt Plant Operator	physical stress	pulmonary functions	annual
	coal tar pitch	routine	age-related
	volatiles	chest x-ray	biennial, annual if exposure exceeds 10 yrs
		pulmonary functions	annual
		urinalysis	annual
		dermatological exam	annual
5411 Air Compressor Operator	noise	audiogram	annual
5412 Coal Unloader Operator	physical stress	routine	age-related
	noise	audiogram	annual
	coal dust	chest x-ray	biennial, annual if exposure exceeds 10 yrs
		pulmonary functions	annual
		dermatological exam	annual
		urine lead	semiannual
5413 Fuel Distribution Systems Operating	petroleum products	CBC, UA	semiannual & preplacement
	tetraethyl lead	CBC, platelet count	preplacement
	benzene (if exposure exceeds 0.5 ppm)	bilirubin, reticulocyte count	annual
		audiogram	annual
5414 Baling Machine Operator	noise	routine with CV emphasis	annual
5415 Refrigeration and Air Conditioning Equipment Operator	refrigerant gases, cold lubricating fluids	dermatological exam	annual
	noise	audiogram	annual
	heat	audiogram	annual
	noise	audiogram	annual
5416 Coffee Plant Equipment Operator	Kaolin, coal shale dust	chest x-ray	biennial, annual if exposure exceeds 10 yrs
5417 Parts and Equipment Steam Cleaner Operator			annual
5420 Alum Plant Operator			annual
		audiogram	age-related
		routine	annual
		audiogram	annual
		chest x-ray	biennial, annual if exposure exceeds 10 yrs
5422 Fumigating and Decontaminating Equipment Operating	sulfuric acid mist	pulmonary functions	annual
5423 Sandblaster	silica	dental exam	annual
		AR	annual
		chest x-ray	biennial, annual if exposure exceeds 10 yrs
		pulmonary functions	annual
		TB testing	annual
		audiogram	annual
		routine	age-related
	noise		
	heat		

Series	Title	Determining Factor	Exam	Frequency
5424	Weighing Machine Operator	noise	NR audiogram	annual
5426	Lock and Dam Operator		AR	
5427	Chemical Plant Equipment Operator		AR	
5428	Biological Plant Operator		AR	
5430	Bridge Operator		NR	
5431	Furnace Tender, Popping Plant	noise	audiogram	annual
5432	Fish Facility Operator	phosphine	x-ray of lower jaw dental exam	annual
5433	Oxygen/Acetylene Plant Operator		CBC	annual
5434	Baking Equipment Operator	potential hazard to others	IAM AR 40-5	annual
5435	Carton and/or Bag Mixing Machine Operator	noise	audiogram	annual
5436	Sponging Equipment Operator	noise textile finishes	audiogram dermatological exam	annual annual
5437	Paper Processing Machine Operator	asbestos (if exposure exceeds 0.1 fiber/cc) paper finishes	AR chest x-ray pulmonary functions sputum cytology dermatological exam	annual annual annual annual
5439	Elevator Operator		AR	NR
5439	Materials and/or Products Tester	noise	audiogram	annual
5440	Packaging Machine Operator	noise	audiogram	annual
5502	Drilling Machine Operator	silica	chest x-ray	biennial, annual if exposure exceeds 10 yrs
5503	Scalper Machine Operator	do	pulmonary functions	annual
5505	Crusher Operating	do	TB testing	annual
5703	Motor Vehicle Operator	do	do	do
5704	Forklift Operator	potential hazard to others	do	do
5705	Tractor Operator	noise	routine	age-related
5706	Road Sweeper Operator	potential hazard to others	routine with CV emphasis audiogram	age-related annual
5707	Tank Driving	noise	routine	age-related
5713	Concrete or Mortar Mixing Operator	noise	audiogram	annual
5715	Diesel Tender Operator	concrete potential hazard to others	audiogram routine	annual age-related
5716	Engineering Equipment Operator	noise	audiogram	annual
5725	Crane Operator	do	do	do
5718	Crane Groundsman	do	do	do
5729	Drill Rig Operator	noise	audiogram	annual

MS Series Title	Determining Factor	Exam	Frequency
5730 Core Drill Inspector	noise	audiogram	annual
5732 Pneumatic Tool Operating	noise	audiogram	annual
5802 Engineer Equipment Inspecting	potential hazard to others	routine	age-related
5803 Heavy Mobile Equipment Mechanic	noise	audiogram	annual
5806 Mobile Equipment Servicer	noise	audiogram	annual
5808 Combat Vehicle Inspector	noise	audiogram	annual
5809 Combat Vehicle Mechanic-Fuel and Electrical Systems	noise	audiogram	annual
5814 Automotive Equipment Inspecting	CO	routine with CV emphasis	age-related
5818 Automotive or Engineer Equipment Repairing-Fuel and Electrical Systems	noise	NR	annual
5823 Automotive Mechanic	CO	audiogram	age-related
5827 Drill Equipment Repairer	noise	routine with CV emphasis	annual
5857 Powered Ground Equipment Repairer	noise	audiogram	annual
5858 Powered Ground Equipment Inspector	noise	audiogram	annual
5902 Amphibian Truck Operator	potential hazard to others	audiogram	age-related
5903 Boat Operating	noise	audiogram	annual
5904 Bucket Dredge Operator	do	do	do
5905 Deck Equipment Operator	do	audiogram	annual
5906 Deckhand	noise	audiogram	annual
	organic solvents	SGOT, SGPT, ALK, PO ₄ , LDH, CBC	annual
	lead (if exposure exceeds 0.05 mg/m ³)	blood lead	semi-annual
	isocyanates (urethane)	CBC, UA	annual
		total eosinophil count	annual
		pulmonary functions	annual
		AR	annual
5907 Derrickboat Operator	potential hazard to others	routine	age-related
	noise	audiogram	annual
5908 Dipper Dredge Operator	do	do	do
5909 Dredging Equipment Operating	do	do	do
5910 Barge Operator	do	do	do
5911 Engineer, Diesel	noise	audiogram	annual
5912 Engineer, Diesel Electric	noise	audiogram	annual
5913 Engineer, Steam	noise	audiogram	annual
5914 Engineer, Steam Electric	noise	audiogram	annual
5915 Fireman-Water Tender	physical stress, heat, CO	routine with CV emphasis	age-related
5916 Hyacinth Removal Plant Operator	noise	audiogram	annual
5917 Master-Mate Mopper Dredge	noise	audiogram	annual
		AR	annual
5918 Master-Mate Large Survey Boats, Tugs	do	do	do
5919 Master-Mate Pipeline Dredge	do	do	do
5920 Pile Driver, Floating Plant	potential hazard to others	routine	age-related
	noise	audiogram	annual

NA Series	Title	Determining Factor	Exam	Frequency
5921	Pilot	noise	audiogram	annual
5922	Pipeline Man	noise	audiogram	annual
5923	Quartermaster	noise	AK	annual
5924	Revetment Working	noise	audiogram	annual
5925	Shipkeeping	concrete	dermatological exam	annual
5926	Wiper-Offler	cutting oils	NR	annual
5927	Quarterboat Utilities Operator	noise	dermatological exam	annual
5928	Scowman	noise	audiogram	annual
5929	Master-Mate Snegboat	noise	AK	do
5930	Debris Worker, Marine	noise	audiogram	annual
5931	Dockhand	noise	audiogram	annual
5932	Dockmaster	noise	audiogram	annual
6003	Brakeman and Conductor	noise	audiogram	annual
6004	Locomotive Engineer	noise	audiogram	annual
		potential hazard to others	routine	age-related
		coal dust	chest x-ray	biennial, annual if exposure exceeds 10 yrs
6006	Yardmaster	noise	pulmonary functions	annual
6102	Locomotive Electrical Systems Repairing	physical stress	NR	age-related
6103	Locomotive Inspecting	noise	audiogram	annual
6104	Locomotive Repairing	cutting oils	audiogram	annual
		organic solvents	dermatological exam	annual
6105	Railroad Car Repairing	lead (if exposure exceeds 0.05 mg/m ³)	SGOT, SGPT, ALK PO ₄ , LDH, CBC	annual
		isocyanates (urethane)	blood lead	semi annual
			CBC, UA	annual
			total eosinophil count	annual
6106	Railroad Repairer	noise	pulmonary functions	annual
		physical stress	audiogram	age-related
6150	Railroad Maintenance Vehicle Operator	noise	audiogram	annual
		potential hazard to others	audiogram	annual
6202	Fender Maker	noise	NR	age-related
6206	Loftsman	hyperbaric conditions	NR	annual
6207	Pier Facilities Worker	noise	audiogram	annual
6208	Diver	noise	IAM AR 40-501	annual
6210	Marine Equipment Inspector	noise	audiogram	annual

Series Title	Determining Factor	Exam	Frequency
6502 Explosives Operator	TNT nitroglycerine	SGOT, LDH Hemoglobin or hematocrit routine with CV emphasis EKG stress test	quarterly quarterly age-related semiannual only if EKG or Hx of ischemic heart disease annual annual annual
6505 Munitions Destroyer	tetryl	pulmonary functions dermatological exam audiogram	annual annual annual
6506 Ammunition Loading Inspector	noise	AR	do
6507 Powder and Explosives Inspector	do	AR	do
	TNT	SGOT, LDH, ALK, PO ₄ , SGPT, bilirubin	quarterly
	nitroglycerine	Hemoglobin or hematocrit routine with CV emphasis EKG stress test	quarterly age-related semiannual only if EKG or Hx of ischemic heart disease annual annual do
6511 Munitions Handler	tetryl	pulmonary functions dermatological exam	annual annual do
6512 Toxic Materiel Handler	do	do	do
6514 Surveillance Inspector	TNT	AR	AR
	nitroglycerine	SGOT, LDH, SGPT, ALK, PO ₄ , bilirubin Hemoglobin or hematocrit routine with CV emphasis EKG stress test	quarterly quarterly age-related semiannual only if EKG or Hx of ischemic heart disease annual annual do
6515 Small Arms Ammunition Inspector	tetryl	pulmonary functions dermatological exam	annual annual
6517 Explosives Test Operator	indoor ranges: CO lead (if exposure exceeds 0.05 mg/m ³) noise	routine with CV emphasis blood lead CBC, UA audiogram	age-related semiannual annual annual
6604 Artillery Inspector	noise	NR	annual
6605 Artillery Repairer	physical stress	audiogram routine	annual age-related
6606 Civilian Gunner	noise	AR	annual
6610 Small Arms Repairer	noise	audiogram	annual
	test firing: CO lead (if exposure exceeds 0.05 mg/m ³)	audiogram routine with CV emphasis blood lead CBC, UA	annual age-related semiannual annual
6609 Small Arms Inspector	noise	NR	annual
6611 Mechanical Fuze Installer and Repairer	noise	NR	annual
6613 Guided Missile Mechanical Inspector	noise	audiogram	annual
6641 Ordnance Equipment Mechanic	noise	audiogram	annual
6652 Aircraft Ordnance Systems Mechanic	noise	audiogram	annual

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Series	Title	Determining Factor	Exam	Frequency
6702	Shop Checking		NR	
6703	Production Planner		NR	
6704	Production Estimator	physical stress	NR	age-related
6705	Materials Expediter		NR	
6706	Expenditure Underwriting		NR	
6902	Lumber Handler	noise	audiogram	annual
6903	Coal Handling	coal dust	pulmonary functions chest x-ray	annual biennial, annual if exposure exceeds 10 yrs
6904	Tools and Parts Attendant	CO	NR	
6907	Warehouseman	noise	NR	
6910	Warehouse Forklift Operating	noise	audiogram	age-related annual
6911	Salvage Processor and Laborer	cutting torch: UV, IV, IR	AR	annual
6912	Material Sorter and Classifier	metal and flux fumes	eye evaluation pulmonary functions urinalysis	annual annual annual
7002	Packer	lead (if exposure exceeds 0.05 mg/m ³)	chest x-ray blood lead CBC, UA audiogram	semi-annual annual annual annual
7003	Packing Inspector	noise	NR	
7004	Preservation Packager	noise	NR	
7005	Processing Inspector	noise	NR	
7006	Preservation Servicer	noise	NR	
7009	Equipment Cleaner	noise	audiogram	annual
7304	Laundry Worker	acid mists	dental exam	annual triennial
7305	Laundry Machine Operator	noise	audiogram	annual
7306	Presser	heat do noise	audiogram routine do	age-related do do
7307	Dry Cleaning	heat	audiogram	annual
7351	Laundry Operating	perchloroethylene	routine	age-related annual
7403	Baker	do	SGOT, ALK P ₀₄ , SGPT, LDH, bilirubin do	annual do
7404	Cook	potential hazard to others	IAM AR 40-5	age-related
7405	Bartender	heat	routine	do
7406	Dough Mixer	potential hazard to others	IAM AR 40-5	age-related age-related
7407	Meatcutter	do cold noise potential hazard to others	do do audiogram IAM AR 40-5	annual annual

USG Series	Title	Determining Factor	Exam	Frequency
7408	Food Service Worker	potential hazard to others	IAM AR 40-5	
7409	Fat Rendering	potential hazard to others	NR	
7410	Ice Cream Maker	formalin	IAM AR 40-5	annual
7503	Mortuary Attending	infectious disease	pulmonary functions dermatological exam tetanus and diphtheria immunization	annual annual basic series then every 10 yrs
7504	Ward Attending	TB infectious disease	IAM AR 40-26 influenza immunization tetanus and diphtheria immunization Rubella immunization (all susceptible individuals except pregnant females) IAM AR 40-26	annual basic series then every 10 yrs basic series preplacement
7602	Store Worker		NR	
7603	Barber		NR	
7605	Shoe Fitting		NR	
7606	Personal Servicing		NR	
7640	Bus Attending		NR	
7641	Beautician		NR	
7702	Teamster		NR	
7704	Rider, Horse		NR	
7705	Trainer, Horse and Mule		NR	
7706	Animal Caretaker		NR	
		physical stress infectious disease	routine tetanus immunization	age-related basic series then every 10 yrs basic series then every 2-3 yrs
8255	Pneumatic Systems Mechanic	TB	IAM AR 40-26	annual
8260	Aircraft Pneumatic Systems Mechanic	noise	audiogram	annual
8852	Aircraft Mechanic	noise	audiogram	annual

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MEDICAL SURVEILLANCE GUIDE (GUIDE FOR JOB-RELATED EXAMINATIONS)--ETC(U)
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DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010

May 1979

Change 2 to the October 1978 Printing of
APPENDIX G
Recommendations for Periodic Job-Related Examinations for
Selected Occupations
(to the Medical Surveillance Guide)

AD-A063701

The examination format for the determining factor LEAD is, in all cases, changed to:

<u>Determining Factor</u>	<u>Exam</u>	<u>Frequency</u>
Lead (if exposure exceeds .03 mg/m ³ for more than 30 days annually).	Blood lead	Semiannual (bimonthly if last blood lead exceeded 39 µg/100g; within 2 weeks of blood lead level of 50-80 µg/100g*; monthly during period worker is removed from exposure due to elevated blood lead).
	Physical examination emphasis on blood pressure, teeth, gums, hematologic, gastrointestinal, renal, CV and neurological systems, CBC, blood lead, BUN, creatinine, UA.	Annual (if blood lead exceeded 39 µg/100g in past 12 months).

- *NOTE: - Until 1 Mar 1980, workers who, on repeat blood lead testing following a blood lead level at or above 80 µg/100g, have a blood lead level at or above 80 µg/100g and are exposed to 8-hour TWA concentration of 0.1 mg Pb/m³ or greater should be removed from work involving exposure to lead until 2 consecutive blood lead levels, drawn within 1 month of each other are at or below 60 µg/100g.
- From 2 Mar 1980 - 1 Feb 1981, workers who, on repeat blood lead testing following a blood lead level at or above 70 µg/100g, have a blood lead level at or above 70 µg/100g and are exposed to an 8-hour TWA concentration of 0.05 mg Pb/m³ or greater should be removed from work involving exposure to lead until 2 consecutive blood lead levels, drawn within 1 month of each other are at or below 50 µg/100g.

APPENDIX G

- From 2 Mar 1981 - 1 ~~Feb~~^{MAR} 1983, workers who, on repeat blood lead testing following a blood lead at or above 60 $\mu\text{g}/100\text{g}$, have a blood lead level at or above 60 $\mu\text{g}/100\text{g}$ should be removed from work involving exposure to lead until 2 consecutive blood lead levels, drawn within 1 month of each other, are at or below 40 $\mu\text{g}/100\text{g}$.
- From 2 Mar 1983 onward, workers who, on repeat blood lead testing following a blood lead at or above 50 $\mu\text{g}/100\text{g}$, have a blood lead level at or above 50 $\mu\text{g}/100\text{g}$ should be removed from work involving exposure to lead until 2 consecutive blood lead levels, drawn within 1 month of each other, are at or below 40 $\mu\text{g}/100\text{g}$. See Final Standard, Occupational Exposure to Lead, 43 Federal Register (FR) 53010-53012, 14 November 1978 and Occupational Exposure to Lead; Notice of Partial Judicial Stay, 44 FR 14554-14555, 13 March 1979, for complete explanation of medical surveillance requirements.