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ARMY ORGANIZATION FOR ENVIRONMENTAL COMPLIANCE AND RESTORATION  
AN INDIVIDUAL STUDY PROJECT

by

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<p>Federal, state and local environmental regulators have not recognized the significant progress that the Army has made in its effort to achieve environmental excellence. The regulators do not understand our organization, or problems, or our intentions. They do, however, recognize achievements in the private sector. Environmentally successful businesses have organized to achieve excellence and to effectively communicate their accomplishments to the regulators. Comparison of Army environmental strategy to that of industry in America reveals striking similarities. This comparison also reveals significant weakness in the Army's organizational structure. The goal of this study is to examine the formula for success from the point of view of the regulating community and to compare Army strategy to private sector strategy. The result will be a recommendation for enhancing the Army team so that success in pollution control and environmental restoration can be both achieved and communicated.</p>					
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## ABSTRACT

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Federal, state and local environmental regulators have not recognized the significant progress that the Army has made in its effort to achieve environmental excellence. The regulators do not understand our organization, our problems, or our intentions. They do, however, recognize achievements in the private sector. Environmentally successful businesses have organized to achieve excellence and to effectively communicate their accomplishments to the regulators. Comparison of Army environmental strategy to that of industry in America reveals striking similarities. This comparison also reveals significant weakness in the Army's organizational structure. The goal of this study is to examine the formula for success from the point of view of the regulating community and to compare Army strategy to private sector strategy. The result will be a recommendation for enhancing the Army team so that success in pollution control and environmental restoration can be both achieved and communicated.

## INTRODUCTION

Human beings cannot destroy the earth. No matter how badly we treat the environment that supports our life, the planet will survive. The problem is not that we may be damaging the earth, but that we are destroying its ability to sustain life. We must control and eliminate pollution and develop an environmentally respectful infrastructure that protects our habitat. The Department of Defense has recognized this challenge and intends to lead the Federal Government in this environmental effort.

Secretary of Defense Cheney, in recent memoranda and speeches, has defined the Department of Defense mission as follows: "I want every command to be an environmental standard by which federal agencies are judged." <sup>1</sup> To assist in accomplishing this mission and to provide guidance, "The Secretary has promulgated a new environmental ethic for the Defense Department. That ethic is expressed in three words -- **compliance** with the law, **responsibility** as careful stewards of vast natural resources and **cooperation** with federal, state and local regulators." <sup>2</sup>

While the Army has made significant progress toward achievement of the Department of Defense environmental goals, there remains much to do. The component of Secretary Cheney's ethic that needs focus from the Army is that of cooperation with the regulating community. Typically, regulators do not understand Army organization and methods of conducting operations nor do they think we are truly serious about environmental restoration

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and compliance. While this is not necessarily a true perception, when it does exist our mission can only become more difficult.

Following is a study of the regulation problem and a report on progress and additional requirements. The purpose of this study is to provide a recommendation for organizing that will enhance our ability to work with regulators and improve management of the Army's environmental program.

#### THE FUTURE OF ENVIRONMENTAL REGULATION

The next 10 years will be decisive in determining the fate of our environment. As worldwide population growth continues and nations strive to improve standards of living, increasing pressure on the capability of the earth to support environmentally compatible development will continue. With alarming growth rates in Third World countries placing continued pressure on the environment, it is clear that one country alone cannot expect to solve the entire problem. The 1970's were marked with a series of laws in America and other Western nations that addressed the environmental problem from a national perspective. The 1990's must be a decade during which environmental solutions are addressed from an international perspective.<sup>4</sup>

Scientific evidence clearly points to environmental degradation of global dimensions. The enlarging ozone hole over Antarctica, the reduction of rainforests in South America, Africa and Indonesia, and the buildup of carbon dioxide and other greenhouse

gasses in the atmosphere has created a global environmental agenda. To achieve sustainable development and economic growth that is compatible with environmental preservation, we must focus energy in two primary areas. First, and most important, is pollution prevention. Second, is restoration of polluted areas that are threats to survival. There are no simple solutions. We must establish a mechanism that encourages economic incentives for pollution eradication. We must increase government intervention and efficiency at all levels to enforce improvement initiatives. Finally, we must develop an environmental protection ethic in both the public and private sectors that encourages, in fact demands, environmental consciousness.<sup>5</sup>

Emphasis on preserving a healthy environment will be in the forefront of political issues in the decade of the 90's. "For the first time in evolutionary history human beings have achieved a greater measure of influence over the future of their planet than evolution itself."<sup>6</sup> We have a basic responsibility to future generations that must be addressed now, before the balance is irrevocably altered. Progress is being made in America today that will be carried into the 1990's and beyond. Stringent anti-pollution controls are being imposed by all levels of government. As these become accepted in one area or industry, they will become easier to establish in others.<sup>7</sup> Clearly, "the transition to the twenty-first century is likely to catalyze awareness of the future at all levels and reinforce the environmental 'paradigm shift' that is already occurring...Environmental protection

is taking its place as a 'first-order' value along with economic growth, social justice, national security, and democracy<sup>8</sup> itself."

With increased emphasis being placed on environmental protection, the Congress of the United States introduced legislation (H.R. 1056 and S. 1140) during 1989 and 1990 that will focus attention on environmental compliance activities of the Federal Government. To insure that there is no confusion, these legislative proposals make clear that administrative orders and all civil and administrative fines and penalties are considered "requirements" of the law to which the Federal Government is subject. These resolutions also make it clear "that the United States expressly waives immunity for the purposes of enforcing any substantive or procedural requirement of solid or hazardous waste laws."<sup>9</sup>

It is significant to note that the Department of Justice has only one significant objection to these legislative proposals. That is, a failure to distinguish between penalties for on-going operations and penalties for past activities that cause violation of new pollution control regulations. The concern is that waiver of immunity for past failures may produce fines of such magnitude that cleanup priorities now committed to "worst first" will be<sup>10</sup> skewed to "most expensive first."

The financial impact of this legislation is enormous. The Congressional Budget Office has estimated the DOD and DOE costs would be between \$81 and \$117 billion. It is estimated that

clean up of old sites alone could amount to \$25 billion in the next 15 years. It is also conceivable that fines and penalties could exceed the cost for clean up of contaminated sites.<sup>11</sup> It is obvious that expenses of this magnitude will strain the fiscal capability of federal facilities to achieve environmental compliance.<sup>12</sup>

The future is clear. Environmental awareness will move to the forefront during the decade of the 1990's. New and stricter legislation will be passed by Congress in response to calls for action from our concerned citizens. We must show a clear dedication to compliance with environmental law or we will be forced into it at the expense of other programs. The first step in achieving necessary compliance is to define the scope of the environmental problem for the Department of Defense.

#### THE PROBLEM OF COMPLIANCE WITH ENVIRONMENTAL LAW

The environmental problem facing the Department of Defense is exceptionally complex and has been compounded by our late entry into the business of compliance and restoration. In the fall of 1989 Secretary of Defense Cheney directed all services to become leaders in the environmental field. It was then that we began to take the problem seriously. The reason for this was twofold: low priority in the programming process caused, in part, by our reliance on sovereign immunity and a general feeling that our mission priorities were more important than environmental

compliance. Actually, we began consistent application of the provisions of the National Environmental Policy Act of 1969 (NEPA) in the early 1970's and have produced significant progress in pollution prevention. We have not, however, acted aggressively to comply with the changing body of environmental law and have found ourselves with a larger environmental restoration and compliance problem than we can easily solve.

The political scene has changed in recent years. We must now recognize that environmental law is "the law" and as such cannot have a secondary priority to operational necessities. There are thousands of federal installations that are not or may not be in compliance with applicable laws. The preponderance of these facilities are owned and operated by the Department of Defense and the Department of Energy. The exact scope of the Federal Government's hazardous waste problem is not clear. What is clear is that the problem is significant. "According to the Congressional Budget Office, more than 2,300 facilities owned by the Federal Government handle hazardous wastes or contain hazardous waste contamination. In addition, there are more than 7,100 properties formerly owned by the Federal Government that may qualify for hazardous waste contamination liabilities. The DOD<sup>13</sup> alone has over 14,400 identified hazardous waste sites."

Both the GAO and the EPA report that Federal facilities have been slow in taking necessary compliance actions or ignoring them altogether. In fact, in fiscal year 1989, Federal facilities were found to have nearly twice as many serious violations as

their private sector counterparts. The GAO also reported that federal facilities often give a low priority to correcting violations. Enforcement activities have proven to be the best method to insure that environmental projects prioritized and funded.<sup>14</sup> We must remember that "the lack of funds is not a satisfactory excuse for noncompliance."<sup>15</sup>

Since environmental agencies of governments at all levels rely on enforcement to achieve compliance, it is imperative that we in the military understand the philosophy and structure of the regulating community. Only then can we adequately address the entire spectrum of activities needed to insure success.

## THE REGULATING COMMUNITY

### Organization of State and Federal Environmental Protection Agencies

The Environmental Protection Agency of the United States Government is organized into a national headquarters with ten regional enforcement agencies. The national headquarters establishes environmental policy and guidance for the implementation of environmental law. Key to this implementation is development of regulations and pollution control standards that are enforced by the EPA Regions and state and local regulatory agencies. The national headquarters staff actively interacts with the headquarters of federal agencies that are responsible for achieving environmental compliance and restoration standards. Finally, the

national staff works with Congress to develop meaningful environmental legislation.<sup>16</sup>

Environmental Protection Agency Regions enforce regulations, provide technical assistance and training to the regulated community, and provide recommendations to the national headquarters to assist in the development of regulatory guidance. EPA Regions interact with Congress on a case-by-case basis at the request of local legislators but do not have a formal congressional relationship. Additionally, EPA regional staffs closely monitor activities of state and local agencies that enforce federal regulations.<sup>17</sup>

State environmental enforcement agencies may or may not be organized to mirror the federal organization. The State of Maryland, for example, does not have regional subdivisions because of its relatively small size. Developing policy guidance, providing technical assistance, and regulating polluting activities are all conducted by the single state agency. The State of Pennsylvania, on the other hand, is a relatively large state with a myriad of environmental compliance problems. The Pennsylvania Department of Environmental Resources is a cabinet level agency that has six subordinate enforcement regions. The department focuses on providing guidance in the form of regulations and policy and provides centralized services such as an environmental laboratory and budget management. The regions execute

state policy and are the permitting and enforcement arm of the department. This organization exactly parallels the federal organization in both substance and form.

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### EPA Enforcement Strategy

Executive Order 12088 (Federal Compliance with Pollution Control Standards) was signed in October 1978 and establishes the executive branch process for ensuring that federal facilities comply with federal, state and local pollution control requirements. Central to this executive order are the following provisions. Federal agencies are responsible for: "(1) cooperating and consulting with EPA, state and local agencies in meeting their pollution control responsibilities; (2) requesting adequate funding for pollution controls; (3) developing solutions to environmental problems; and (4) submitting pollution control plans to the Office of Management and Budget (OMB) using the A-106 process;"<sup>19</sup> A-106 pollution abatement plans and project reports are required by OMB Circular No. A-106. These reports were developed to implement Section 3(a)(1) of Executive Order 12088 in response to direction to monitor such actions.<sup>20</sup>

The order also requires the EPA to: "(1) provide technical advice and assistance to federal agencies to ensure cost effective and timely compliance with pollution control requirements; (2) monitor federal facility compliance with applicable standards; and (3) review and approve compliance plans and schedules

submitted from federal agencies when EPA has issued a notice of noncompliance." <sup>21</sup> Additionally, the EPA is authorized to establish guidelines for submission of annual pollution abatement plans (A-106) and to review adequacy of funding for pollution abatement. Executive Order 12088 establishes the Office of Management and Budget as the ultimate arbiter for resolution of <sup>22</sup> disputes that cannot be resolved through negotiations.

Using the above guidance, The EPA has devised a regulation strategy for federal facilities. Features of the strategy include a series of EPA initiatives aimed at expanding the EPA's role in the technical assistance arena. Additionally, the strategy clearly establishes roles for federal, state and local agencies in the regulating program and establishes a process to <sup>23</sup> negotiate solutions to pollution problems. The net effect of this strategy is to insure a comprehensive and consistent approach in the achievement of federal facilities compliance nationwide. The purpose of the strategy is to make the federal <sup>24</sup> facilities the compliance model within the regulated community.

A recent initiative in the EPA regulating strategy has been the establishment of a regulatory program managed on a watershed basis. Region III of the EPA, state, and local enforcement agencies have worked with government agencies in a multimedia program to reduce pollution and to restore natural conditions in the Chesapeake Bay. This endeavor is called the Chesapeake Bay <sup>25</sup> Federal Facility Compliance and Enforcement Initiative. The key feature of this compliance initiative is the effort of the

Regional Staff to coordinate activities of environmental regulating agencies (in Pennsylvania, Maryland, Virginia and the District of Columbia) with compliance activities at federal facilities. This coordination effort has proven so successful that watershed compliance initiatives similar to the Chesapeake Bay Initiative are being contemplated by other EPA Regions. There is no doubt that this will become a useful strategy for the future.

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### Environmental Enforcement Procedures

Environmental regulating procedures consist primarily of identification, monitoring, and enforcement. Identification of federal facilities that require monitoring is accomplished using information systems managed by the Environmental Protection Agency. Essential systems are those which track permits to operate environmentally dangerous facilities and those that track funding requests for upgrade or cleanup using the A-106 report.

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Monitoring is accomplished through environmental agency audits, voluntary audits, and automatic audits required by applicable statutes such as the Safe Drinking Water Act and the Water Quality Act. These audits are conducted to insure compliance with environmental regulations and to identify unregulated environmental hazards that qualify as Superfund or Defense Environmental Restoration Program (DERP) restoration projects.

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Enforcement activities are characterized by "timely and appropriate" actions that emphasize the importance of nego-

tiations to correct violations. Negotiations are formalized<sup>29</sup> through compliance agreements and consent orders. The enforcement process at federal facilities starts after discovery of a violation with the immediate issue of a Notice of Noncompliance (NON). EPA enforcement personnel and a team, usually headed by the environmental coordinator at the installation, meet to negotiate a Federal Facility Compliance Agreement (FFCA). The FFCA defines necessary actions and a timetable for bringing the facility into compliance. It is important to note that federal enforcement is administrative in nature and does not provide for the assessment of penalties or judicial action common in private<sup>30</sup> sector enforcement.

When regulators and the violating facility cannot resolve the compliance issue, the Region refers the dispute to EPA National Headquarters. Negotiations are conducted at the national level with the headquarters of the violating facility. If these negotiations prove unsuccessful, the action is referred to the Office of Management and Budget for arbitration as required by<sup>31</sup> Executive Order 12088.

Where state and local agencies enforce environmental regulations, procedures generally follow those of the EPA regions. The major difference is that states use enforcement policies mandated by state law. This can involve negotiations of consent orders but may also involve filing suit in State or Federal Court. The states also have the option of referring compliance negotiations<sup>32</sup> to the appropriate EPA Region for resolution.

It is essential to remember that federal agencies are charged by the President to comply with the pollution control standards required by environmental laws and regulations. It is also essential to remember that state and local governments can file suit to force compliance and, in some cases, assess civil fines and penalties against both federal facilities and federal employees. Furthermore, when Congress does pass legislation that formalizes the waiver of sovereign immunity the penalties sought by local and State environmental agencies are sure to increase substantially.

While understanding the philosophy and structure of the various regulating agencies is essential, it is also important to investigate the structure of organizations which have not enjoyed the luxury of sovereign immunity to find successful strategies. Private industry provides examples of how to organize to insure success in the environmental arena.

#### "WHAT WORKS" IN PRIVATE INDUSTRY

In response to the regulating bureaucracy which has the power to impose severe penalties and because of moral obligations to operate in an environmentally conscious manner, many manufacturing businesses in America have established special staff organizations to assist with their pollution control and eradication efforts. Two such organizations are Ford Motor Company (chosen because of its size, numerous locations and diversity) and Bethlehem Steel Corporation (chosen because of the severe

compliance problems associated with steel production). These two companies exhibit most of the environmental problems encountered at Army installations.

Ford Motor Company established its Stationary Source Environmental Control Office (SSECO) as part of its headquarters staff in 1972. This environmental office provides a staff function that is responsible for liaison with the company's manufacturing arm and governmental agencies. It is important to note that as a staff function SSECO is not responsible for environmental compliance. SSECO is the plant manager's consultant and, as such, assists with the execution of his program.

The Stationary Source Environmental Control Office is often referred to as Ford's "internal EPA" because it performs many of the same functions as an EPA Regional Office. SSECO organization replicates that of EPA as it is structured on a media basis. Media offices conduct audits at company facilities, provide liaison between Ford Motor Company and government agencies, review and interpret new regulations, provide plants and divisions with advice, assist in the permit and record keeping process, and represent Ford Motor Company at negotiations and hearings. A Survey and Compliance Division provides plants and other facilities with reviews and evaluations of outside agency surveys and audits, evaluates performance of company pollution control facilities, conducts continuing automatic monitoring, and provides technical laboratory services and pollution control research.

SSECO provides another valuable service for Ford Motor Company with its active role in the environmental rule making process. Proposed regulations are reviewed and studied and recommendations are made to regulating authorities to assist with implementation. Once a new regulation is promulgated, SSECO summarizes applicable requirements and advises plants and facilities on the most effective way to achieve compliance. SSECO also tracks permit actions and assists in ensuring that permit re-<sup>35</sup>quirements are met in a timely, complete, and accurate manner.

The key to a successful environmental strategy at Ford Motor Company is that managers are responsible for compliance at their facilities and must periodically report the status of their environmental program to the Chief Executive Officer. The Ford Motor Company environmental staff answers only to top management and provides consulting services to plants. The staff acts as the regulator within Ford Motor Company and, as such, has authority to suspend operations at a facility in order to avert an environmental crisis. This "in-house" consulting service solves problems of noncompliance proactively. It saves time by avoiding lengthy negotiations of compliance agreements and saves money by<sup>36</sup> avoiding costly legal proceedings.

Information flow is essential in achieving and sustaining environmental compliance. SSECO enhances vertical communications with Mailgrams to disseminate information that is needed by plants/divisions immediately and provides less time sensitive information using periodic bulletins and newsletters. External

environmental communication programs with public organizations and government agencies are also managed by the Stationary Source Environmental Control Office. This allows Ford to "speak with one voice" to the regulating community and the public. Finally, SSECO interacts with Congress in the rule making process prior to enactment of new environmental laws. The purpose of this coordination is to insure that a balance between the interests of business and avowed environmentalists can be attained with maximum benefit to all.

The environmental compliance strategy employed by Bethlehem Steel Corporation is very similar to that of Ford Motor Company. An Environmental Affairs Division replicates EPA organization, assists with "in-house" regulation, provides compliance consulting services and technical services to the various plants, interacts in the legislative process, and provides liaison between plants and various government regulating agencies.

The key to success at Bethlehem Steel is that managers are responsible for the execution of the environmental compliance program. They report monthly progress to the CEO and are accountable at all levels for performance in the environmental program. Effective communication with regulators is essential. Everyone must know that Bethlehem Steel is serious about environmental compliance. Consulting services provided by the Environmental Affairs staff are "in-house" and focus on proactive solutions to environmental compliance problems. Interaction in the legislative and regulatory process is vital to insure that a

balance is struck between the environmental zealots and business  
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needs that will best serve the country's needs.

The fundamentals of successful environmental strategies for these two representatives of the private sector are remarkably similar. Both focus on accountability and responsibility of the plant manager for execution of the environmental program. Both, provide an "in house" consulting service with "stop action" authority and both emphasize active participation in the rule making and regulating process. In all cases communication within the company, with the regulators and with the public is critically important. Everyone must know that environmental compliance is part of the job.

Success at Ford Motor Company and Bethlehem Steel represents a commitment to environmental excellence that is tied to profitability. While the United States Army does not operate with the incentive of profit, the initiatives and organization of these two companies represent success that can be emulated. Following is an investigation of the organization and strategy being used and studied by the Army to achieve environmental excellence goals. The similarities are striking.

## U.S. ARMY ENVIRONMENTAL ORGANIZATION AND STRATEGY

### Problems at Army Installations

Most environmental difficulties at Army installations are problems with either compliance or restoration . "Environmental compliance is an installations's status with respect to the myriad of federal and state environmental regulations for ongoing operations...Environmental restoration refers to a comprehensive DOD program to identify and remediate hazardous waste sites on DOD installations." <sup>40</sup> Typical problems at installations occur in the areas of air pollution, water pollution, pest management, solid waste management, and the condition of underground storage tanks. Generally these are areas that revolve around the proper control of toxic materials and toxic waste (compliance) and management of toxic waste cleanup projects (restoration). In addition to these problems, installation commanders must comply with noise pollution, radon, asbestos abatement, preservation of historical and cultural resources and natural resources regulations. <sup>41</sup>

The "Superfund" Amendments and Reorganization Act of 1986 (SARA) revised the scoring system used for identification of sites for inclusion on the National Priority List (NPL). This new ranking system focuses on total environmental impact rather than public health effects as in the past. Since most military installations are not located in densely populated areas where

the risk is severe, few sites were included on the original NPL. Most of our worst pollution problems are located at sites in more sparsely populated areas.<sup>42</sup> There are currently 38 sites on Army installations listed or proposed for listing on the NPL.<sup>43</sup> When the reevaluation required by SARA is completed, the number of sites requiring restoration is sure to increase significantly.

The cost of the Army's restoration bill is in the \$4-7 billion range. Annual expenses required to achieve and maintain compliance at ongoing activities will approach \$500 million for at least the next five years.<sup>44</sup> Additional restoration cost will surely be added as we proceed with the implementation of SARA. Add to these figures the possibility of another \$25 billion for fines and penalties<sup>45</sup> associated with the probable loss of sovereign immunity and it is easy to envision an environmental bill that exceeds \$50 billion. The funding required just to pay fines and to cleanup known contaminated sites will force the Army into an inescapable budget dilemma. We can pay fines or we can clean up and maintain compliance.<sup>46</sup> We cannot afford both.

Another problem that must be considered is the confusion surrounding the regulation of environmental compliance. Staffs from Environmental Protection Agency (EPA) Regional offices, individual states, and local regions, counties and communities all have a hand in the regulation of the environment. Primacy for regulation rests initially with the Federal EPA Region. Enforcement of the PCB program must be retained at the federal region level as a requirement of law. It is the policy of the

EPA to delegate primacy for all other programs to state or local environmental protection agencies when they apply and are judged<sup>47</sup> capable of enforcing the appropriate regulations. Confusion occurs because not all media (air, water, hazardous waste, etc.) are enforced from the same political level. State or local regulators may have primacy for some media programs and not others, may share primacy within the same media program, may elect to enforce at some federal installations and not others or<sup>48</sup> may not enforce regulations on any federal installations. Obviously this is a confusing situation. Additionally, the installation staff must interface with 14 different agencies, staffs, and laboratories within the Army to obtain policy guidance and support in their effort to solve environmental problems. Installations must expend substantial staff effort just to monitor the regulation program and then must add a significant effort<sup>49</sup> to effectively manage the environmental program.

Installations must unravel the confusion of environmental compliance and restoration because the ramification of noncompliance are serious. The legal consequences of not complying include shut down of operations for the offending activity along with possible civil and criminal penalties for both the installation and responsible personnel. Restoration cost are mounting and while installations and activities have immunity from assessment of fines, they still are required to meet increasingly<sup>50</sup> expensive pollution control standards.

While there are sufficient punitive and budgetary reasons to

take environmental laws seriously. there is also a moral requirement to ensure that we make every effort to preserve our environment in a state that will support life. We must adhere to the ethic espoused by Secretary Cheney and truly be "stewards" of our resources and environment.

### The Strategy

Army policies for environmental protection and enhancement are summarized as a comprehensive program that includes the following: (1) compliance with all provisions of the National Environmental Protection Act (NEPA); (2) programs planned and executed to minimize or mitigate environmental degradation and protect human health; (3) operations that comply with applicable federal, state and local environmental protection statutes; (4) policies that lead to conservation of natural resources and minimization of hazardous material production; and (5) Army personnel that are conscious of their environmental responsibilities and to actively participate in community environmental action programs. Additionally, these policies require that commanders protect historic and archaeological sites and actively participate in natural resource, land management and endangered species protection programs on land under their jurisdiction.<sup>51</sup>

At the Senior Environmental Leaders Conference, Tier II (SELC II) held in Atlanta, Georgia at Morehouse College from 16 through 18 October 1989, the Army's environmental compliance strategy was formalized. The strategy focuses on five fundamen-

tal areas. These are defining the scope of the problem, organizing an effective environmental management team, communicating both vertically within the Army and with the general public, recruiting, training and retaining quality environmental personnel and obtaining the resources required to execute an effective environmental compliance program.

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Initiatives directed toward identifying the scope of the problem include environmental audits, management information systems and data bases, establishment of a system that will provide advice to the Army from recognized experts in the environmental field, and creation of an Environmental Policy Institute. The environmental audit program will ensure proper identification of problems. The data base must be multi-media in nature and follow each element through the full cycle from identification through remediation. The management information system needs to be structured to allow decision makers to focus on priority issues. Expert advice must include an outside perspective of the environmental program that is provided to the Secretariat on a periodic basis. Finally, the strategy for defining the scope of the problem includes establishing an Environmental Institute for Policy that provides forward looking research initiatives, reviews literature for the purpose of understanding developing policy, assesses emerging issues and trends to determine their future impact and provides alternative solutions for the Army Staff and Secretariat.

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Initiatives for enhancing the environmental staffing and

organization focus on determining the requirements and staffing criteria for all of the MACOMS. The strategy recommends organizing an Environmental Management Office at each installation that reports directly to the Commander or the Director of Engineering and Housing (DEH). This type of organization insures that environmental issues get emphasis and produces an elevated grade structure that will significantly enhance retention of qualified personnel.

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Communication strategy focuses on information exchange with the public, establishment of environmental quality goals, enhancing vertical discussions of environmental issues within the Army, revision and publication of the Commander's Guide and an environmental awards program. Public communication improvement must center around the Army's commitment to preserve, protect, and restore natural resources. It also focuses on increasing cooperation with regulating agencies. Within the Army we must insure that our personnel understand and support the established Army Environmental Quality Goals, improve vertical communication in both formal and informal methods, and establish an environmental awards program that will be meaningful and that will raise environmental awareness.

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The people component of the overall environmental compliance strategy focuses on the development of a specific career program for environmental professionals. An intern program must be established to enhance recruiting and retention. Additionally, continuing emphasis on training for these professionals, individ-

ual soldiers and civilian employees needs to be stressed. <sup>56</sup>

The resource component of the environmental strategy as recommended by SELC II consists of two initiatives. The first is to develop a Management Decision Package in the PPBES to provide a funding mechanism and vehicle to separately identify costs and track expenditures. The second initiative is to develop an investment strategy for hazard minimization and pollution prevention projects. This initiative includes development of standards, identification of funding sources, capture of costs for the proposed MDEP, and review of the prioritization process. This action will insure that both "worst first" funding and protection <sup>57</sup> of environmental projects from reprogramming actions will occur. (SELC II, pp. 71-76)

The Army clearly has a distinct strategy and definite goals for meeting environmental challenges. We need to look now at our progress and the difficulties that remain.

#### SUMMARY OF PROGRESS

A possible model for progress in environmental organization at installations is found at Aberdeen Proving Ground which was one of the most environmentally abused installations in the Army. Several initiatives have been instituted that now make it a leading installation in our drive toward environmental excellence and an example of success.

The environmental activity on the installation staff has been removed from the DEH and established as a separate director-

ate that includes safety and fire protection. This organization provides an authoritative voice to the commander and incorporates the environmental functions into the top of the management structure. Additionally, establishment of a separate directorate for managing environmental activities has produced an increased grade structure which enhances the installation's capability to train and retain qualified environmental professionals.

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The Environmental Directorate participates fully in the budgeting process and manages the environment, safety and fire protection parts of the operating budget. This provides protection for environmental project funds from reprogramming actions. This arrangement also makes it more difficult to obtain additional funds to meet unforeseen contingencies. Obviously, an accurate audit and survey program is necessary to insure that sufficient funds are available to meet requirements.

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The key to success at Aberdeen is an installation commander that understands his environmental responsibilities and who has an environmental staff that is organized to respond to his needs. This environmental staff can retain qualified professionals and has sufficient resources to accomplish the mission of compliance. The success of this organization in achieving environmental excellence has verified many of the recommendations from the SELC II report.

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Along with the success being experienced at Aberdeen Proving Ground, the Army is making significant progress in many other areas. Increases in programmed funding for environmental

projects and programs have been significant since 1989 when the Army linked the A106 requirements to the PPBES. In 1989 environmental funding was programmed at \$156 million and has been increased to \$452 million for fiscal year 1991.<sup>61</sup>

There has been a significant increase of concern from the Army leadership for the environment that began with the redesignation of the Assistant Secretary of the Army (ASA) for Installations and Logistics to ASA for Installations, Logistics and Environment. This awareness has permeated the Army at all levels including, most importantly, the installation where the commander has become acutely aware of his environmental responsibilities.

The Army has been successful in minimizing risk in the asbestos and radon control programs, has an excellent program in operations governed by the National Environmental Policy Act (NEPA), and executes a successful land management, historic preservation and noise abatement program. The Army has also led the way in successfully executing the Installation Restoration Program (cleanup of NPL listed sites) in the Department of Defense.<sup>62</sup> We are moving in the right direction. As we shall see in the next section, however, much remains to be accomplished in our drive toward environmental excellence.

## FUTURE REQUIREMENTS

We need to focus for a moment on areas where we have been less than satisfactory in our performance. We need increased staff awareness at all levels to improve our management of air, water, solid waste, and hazardous waste pollution prevention programs,<sup>63</sup> and we need to finish the business of identification of additional sites needing restoration in accordance with SARA. We need to integrate environmental awareness and protection into mission activities as part of the "cost of doing business." We also need to complete the integration of environmental requirements into the PPBES process so that resources support timely program execution. And, lastly, we need to expand our focus to include pollution prevention so that escalating compliance and<sup>64</sup> restoration costs can be curtailed.

Environmental professionals at Region III of the Environmental Protection Agency and the State of Pennsylvania Department of Environmental Resources think that the Army's most glaring deficiencies occur in the area of communication. They do not understand how the Army is organized to tackle the environmental problem. They do not understand our funding process. They do not understand the limitations placed upon our manning process by Congress. They do not understand who is in charge of environmental programs at installations and clearly think commanders are only interested when their careers are "on the line." This lack of understanding by regulators leads them to uncompromising

positions that cause frustration for Army professionals and continues to cause escalating costs for environmental programs. Obviously, this is an attitude that must change. 65

EPA Region III staffers think that additional attention is required to achieve success. The commander must understand that environment is as much a part of his mission as other requirements. Each installation needs an environmental staff that has the "ear" of the commander and has the authority to enforce environmental regulations. The environmental staff needs a "pipeline" to the top to assist in obtaining the proper emphasis when the commander does not meet his responsibilities. The installation needs an objective, unbiased consultant who does not report to the installation commander. This is a requirement that will ensure that operational priorities do not negate environmental priorities. The consultant must provide objective views of environmental needs and provide advice to the staff concerning rapidly changing compliance and restoration requirements as more restrictive standards are employed (new Clean Air Act and proposed amendments to the Safe Drinking Water Act). 66

Installations must recognize that environmental regulation is a "fact of life" and that regulators will continue in their efforts to assure compliance at all federal installations. Every installation needs an environmental auditing program that allows it to keep ahead of EPA regulators. This program must be proactive in the compliance arena and effectively identify restoration needs. We need to think of environmental auditing as an

extension of the National Environmental Protection Act and focus on compliance prior to restoration. The NPL does not need to get any longer. The Army needs to project an attitude of cooperation and not hide behind the mantle of sovereign immunity.<sup>67</sup>

Commanders and staffs at all levels must realize that the financial stakes are enormous. Political pressure will surely increase the effort to tighten environmental standards and subject Federal facilities to the same punitive measures as municipal and private sector facilities. We must look at private industry for success stories and employ their strategies where applicable.

#### CONCLUSION

Comparison of the perceptions of the regulating community and actual performance clearly shows that the Army has a problem in explaining our successes. We can resolve this by solving the two major problems identified by environmental professionals from the public and private sectors. These problems are identification of an independent, in-house, consultant and an effective communications program targeted at environmental regulators.

As indicated in discussions of "what works" in the private sector, the Army must designate an in-house consultant to assist in the regulating process. The responsibilities of this consulting agency would include the following activities: (1) provide liaison between regulators and the installation to reduce inherent confusion caused by enforcement from different levels within

the regulating community; (2) provide unbiased, independent, objective advice to the installation staff and commander; (3) provide analysis and assessment of the constantly changing environmental laws, regulations and procedures; (4) coordinate support from the various Army agencies, staffs and laboratories for policy guidance and technical assistance; (5) act as an "in house" regulator with stop action authority to avert environmentally disastrous conditions; and (6) manage required audit programs to "keep ahead" of external regulators.

The concept of an "in-house" consultant and regulator must be further explained. The consultant would be internal to the Army, not individual installations or their higher headquarters. Clearly the mission of this consultant would be to assist the commander in accomplishing his environmental mission. To do this effectively, private industry has proven that the consultant is most effective when answering only to the top management.

Although we are making significant progress in our efforts to communicate the Army's environmental story, continued effort must be expended to insure that our regulators know that we are sincere. The image of an environmentally conscious agency that truly excels at protecting the environment needs to be continually promoted. We must focus our efforts on the regulating community to insure that they understand who is in charge of the environmental program at the installation, how the Army is organized to meet the challenge of compliance and restoration, and how we obtain resources to solve environmental problems. Finally, to

reduce confusion in the regulating community, we must insure that we consistently "speak with one voice" throughout the entire Army. We must have a single spokesman in charge of communicating our environmental program.

We have devised a strategy that provides the direction necessary to insure success and have leadership at all levels that is determined to achieve success. The final element of the program is to devise a method for solving the consulting and communication problems.

#### RECOMMENDATION

The United States Army needs to designate a single organization to both act as its "in house" consultant and to direct its environmental communications efforts. This organization must be capable of interfacing credibly with knowledge and power at the same level as the enforcer. It must have the power to enforce compliance in order to prevent environmental disasters. It must represent the Army at all levels so that it can provide a consistent response to regulators. It must be responsive to the structure of both the Army and the enforcement arm of the EPA at all levels. Lastly, this organization must act as an internal EPA with the mission to regulate environmental protection and provide technical advice.

The United States Army Corps of Engineers is ideally suited to add the environmental consultant mission for the Army to its mission list. The Corps of Engineers (COE) already performs many

functions required by the environmental consultant in its military construction role and in its role as administrator of the navigable waters of the United States. The COE has provided technical assistance in the Army's successful implementation of NEPA requirements in military construction programs. Additionally, the COE currently acts as a regulator in that it grants permits, conduct surveys and audits, interfaces with Congress, provides policy and guidance derived from law, and enforces regulations in the conduct of its mission to protect the wetlands of America.

The Corps of Engineers' structure can interface at all levels with the Environmental Protection Agency using its district, division and national headquarters structure. COE districts and divisions provide objective, impartial advice and provide and coordinate technical assistance for installation commanders in their military construction mission. The districts also coordinate with environmental regulators in the execution of navigable water construction permit programs.

Engineer districts are ideally suited to be selected as the environmental consultant for the installation commander. At this level, the district's primary mission would be to act as the "internal regulator." The district would require limited stop action authority to avert environmental disasters in much the same manner as already provided the safety community. COE districts would provide a single point of contact for regulators at all levels. The districts would provide an added advantage to

the installations because large environmental staffs would not be required at each installation. Districts work on an area basis and, as such, can provide an economy of scale by eliminating the need for each installation to be capable of doing the entire regulation management job. Finally, the districts would help the installation insure that the Army's environmental message is conveyed with a "single voice."

Corps of Engineers divisions would interface with the federal EPA Regions to coordinate matters of environmental policy and to provide technical assistance from other COE agencies and laboratories. The divisions would provide advice for implementation of Army environmental programs and would coordinate PPBES oversight of compliance and restoration programs with the MACOMs. Finally, the division would assist the MACOMs in their efforts to convey the Army's environmental message.

The United States Army Corps of Engineer (USACE) headquarters would continue to serve as the primary point of contact for Army environmental programs through the Army Environmental Office. HQ, USACE would also coordinate with other MACOM's to resolve environmental compliance problems and to obtain technical services not readily available from its own agencies and laboratories. USACE would intervene in the rule making progress with lawmakers to insure that Army concerns are addressed in much the same manner as they already do in the Military Construction and Civil Works programs. USACE would coordinate with the headquarters of the Environmental Protection Agency on matters of policy

and coordinate all environmental issues with other federal agencies. The Corps of Engineers would lead the total Army effort to communicate the our environmental message both internally and with the general public.

The advantages are obvious. The designation of the United States Army Corps of Engineers as the Army's environmental consultant solves all of the significant problems brought out by the regulating community, reduces staff increases at installations, follows the initiatives of the Army environmental strategy and incorporates all of the "keys to success" espoused by environmentally successful private enterprise. Most importantly, this recommendation allows the Army to be in position to aggressively support the transition to environmental protection as a "First Order" value in America as we move through the 1990's.

## ENDNOTES

- (1) BG John L. Fugh, LTC Scott P. Isaacson, MAJ Lawrence E. Rouse. "The Commander and Environmental Compliance," The Army Lawyer, May 1990, p.3.
- (2) Ibid.
- (3) Interview with Lorraine Urbiet, Federal Facilities Coordinator, Region III, Environmental Protection Agency, Philadelphia, 15 January 1991 (hereafter referred to as Urbiet, 15 January 1991).
- (4) Will Steger and Jon Bowermaster, Saving the Earth, pp. xvi-xxiii.
- (5) Norman J. Vig and Michael E. Kraft, Environmental Policy in the 1990's, p. 381.
- (6) Ibid., p. 383
- (7) Ibid., pp. 371-385.
- (8) Ibid., p. 385.
- (9) U.S. Congress, Senate, Committee on Environment and Public Works, Federal Facility Compliance Act of 1990, p. 6 (hereafter referred to as S.R. 1140).
- (10) U.S. Congress, House, Committee on Energy and Commerce, Federal Facilities Compliance Act of 1989, pp. 47-49 (hereafter referred to as H.R. 1056).
- (11) S.R. 1140, pp.25-26.
- (12) H.R. 1056, pp. 54-60.
- (13) S.R.1140, p.3.
- (14) Ibid., p.5.
- (15) COL Wayne J. Scholl, Meeting the Environmental Challenge, p.5.
- (16) Urbiet, 15 January 1991.
- (17) Ibid.
- (18) Interview with Richard Boardman, Director, Environmental

Protection Division, State of Pennsylvania Department of Environmental Resources, Harrisburg, 18 January 1991 (hereafter referred as Boardman, 18 January 1991).

(19) U.S. Environmental Protection Agency, Federal Facilities Compliance Strategy, p.II-8 (hereafter referred as the Yellow Book).

(20) Ibid., p. V-6.

(21) Ibid., p. II-8.

(22) Ibid.

(23) Ibid., pp. I-1&2.

(24) Ibid., p. I-2.

(25) U.S. Environmental Protection Agency, Region III, Chesapeake Bay Multi-Media Federal Facility Compliance and Enforcement Initiative Update, July 1990, pp. 1-9.

(26) Urbiet, 15 January 1990.

(27) Yellow Book, pp. III 1-5 & V-5.

(28) Ibid., p. IV-3.

(29) Ibid., p. VI-1.

(30) Urbiet, 15 January 1991.

(31) Ibid.

(32) U.S. Environmental Protection Agency, "Enforcement Process For Federal Facilities," Fact Sheet, undated, pp. 1-2.

(33) Telephone Interview with Victor H. Sussman, P.E., Director, Stationary Source Environmental Control Office, Ford Motor Company, Detroit, 29 January 1991 (hereafter referred to as Sussman, 29 January 1991).

(34) Ibid.

(35) Ibid.

(36) Ibid.

(37) ibid.

(38) Telephone Interview with Dr. David M. Andersen, Phd., General Manager, Environmental Affairs, Bethlehem Steel Corporation, Bethlehem, 20 February 1991 (hereafter referred to as Andersen,

20 February 1991).

(39) Ibid.

(40) Michael E. Resch. Commanders Guide to Environmental Compliance, pp. 4-5 (hereafter referred to as Commanders Guide).

(41) Ibid., pp. 44-86.

(42) Urbiet, 15 January 1991.

(43) Scholl, p. 12.

(44) Ibid., pp. 4 & 21.

(45) Interview with Robert Kainz, LTC, U.S. Army Toxic and Hazardous Materials Agency, Edgewood Arsenal, 12 December 1990.

(46) Scholl, p. 4.

(47) Urbiet, 15 January 1991.

(48) Ibid.

(49) Commander's Guide, pp. 15-16.

(50) Yellow Book, p. II-8.

(51) U. S. Department of the Army, Army Regulation 200-1, p. 21 (hereafter referred to as AR 200-1).

(52) U.S. Army Corps of Engineers, Senior Environmental Leadership Conference Report, pp. 7-11 (hereafter referred to as SELC II).

(53) Ibid., pp. 27-35.

(54) Ibid., pp. 37-42.

(55) Ibid., pp. 43-51.

(56) Ibid., pp. 57-69.

(57) Ibid., pp. 71-76.

(58) Interview with Mr. Joe Cratan, Director, Directorate of Fire Prevention, Safety and Environment, Aberdeen Proving Ground, 12 December 1991.

(59) Ibid.

(60) Ibid.

(61) Scholl, p. 29.

(62) ibid., pp. 29-32.

(63) ibid., pp. 32-33.

(64) ibid., p. 41.

(65) Urbiet, 15 January 1991; Interview with John Nevius, Federal Facilities Compliance Branch, RCRA Enforcement Section, EPA Region III, Philadelphia, 15 January 1991 (hereafter referred to as Nevius, 15 January 1991); and Interview with Kate Siftar, Acting Chief, RCRA Enforcement Section, EPA Region III, Philadelphia, 15 January 1991 (hereafter referred to as Siftar, 15 January 1991).

(66) Nevius, 15 January 1991; Siftar, 15 January 1991; and Boardman, 18 January 1991.

(67) Ibid.

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