Keystone National Policy Dialogue on

Department of the Navy

Hazardous Waste Management

Final Report

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EXECUTIVE SUMMARY

Hazardous waste management and cleanup are among the most challenging environmental issues of our time. As one of the largest generators of hazardous waste in the United States, the Department of Defense (DoD) has both real and perceived problems with these wastes. Over the past few years, many outside DoD have become particularly concerned with how the Department is addressing hazardous wastes regulated under the Resource Conservation and Recovery Act (RCRA) and related state laws. In particular, there has been significant interest in: the ability to monitor and enforce compliance with state and federal laws and regulations; the methods for funding waste management activities; and the internal organizational structure and management of hazardous waste management programs.

In 1989, several key interests suggested that The Keystone Center, a neutral non-profit conflict management organization, convene and facilitate an off-the-record dialogue on DoD hazardous waste management. In conducting the initial assessment, it became clear that because of the size and breadth of DoD's operations, such a dialogue would need to focus on one Service. Because the Department of the Navy is involved in sea, air and land operations, it was asked and agreed to be the focus of the Dialogue.

Twenty-three individuals experienced in RCRA hazardous waste issues met under the auspices of The Keystone Center over an eighteen month period. The Dialogue included participants from: the Department of the Navy, other Services, Office of the Secretary of Defense, environmental organizations, state and federal regulators and Congressional staff. The objectives of the Dialogue were to promote understanding and ongoing communication among the diverse interests and to develop a report outlining consensus suggestions for action resulting from the group interaction. These suggestions could be implemented by those involved to continue to improve Navy hazardous waste management.

The Dialogue group utilized extensive presentations and discussions with Navy headquarters and installation staff. Based on those discussions, the experience and knowledge of the participants, and the extensive interactions among participants, the Dialogue group developed a report with suggestions that should prove helpful to the Navy, regulators, citizens, environmental organizations, and others concerned with hazardous waste management. Although the Dialogue focused on Navy hazardous waste management, many of the

Throughout this report, references to the Department of Defense will imply all aspects of that Cabinet Department including all Services and activities associated with the Office of the Secretary of Defense.
suggestions contained in this report may be applicable to the other components of DoD.

The consensus report addresses several areas of Navy hazardous waste management. Major areas discussed in the report and selected suggestions for action within each area include:

**Management**

- The Navy chain of command needs to show an unmistakable commitment to an environmental ethic, through flag level messages, instructions, commanders conference level briefings and allocation of resources. A strong environmental commitment is and should be viewed as fully compatible with the Navy's mission.

- A comprehensive hazardous waste and environmental training and retraining program throughout the Navy military and civilian structure is essential to ensure comprehensive awareness of environmental responsibilities and an understanding of the Navy's commitment and support for environmental protection.

- The environmental auditing program initiated by the Chief of Naval Operations needs to be pursued aggressively to ensure identification of areas of hazardous waste non-compliance.

- The internal Navy reporting system for notices of violation or other similar notices of non-compliance or other deficiency should be reviewed and strengthened to ensure it captures all such notices and complaints and the possibility of incorporating environmental problems into the casualty report (CASREP) framework should be considered.

- Navy host and tenant commands need to identify command relationships and responsibilities on hazardous waste matters, preferably through formal agreements.

- An annual report on "the State of Navy Environmental Management" should be developed to provide a forum and visibility for the Navy hazardous waste and environmental programs. An environmental advisory committee as suggested below could use this report as a baseline for providing recommendations.
Financial

- The Navy should institutionalize a process for early identification of environmental requirements. One method would be to create a separate line item in base and activity budgets for environmental compliance.

- The Executive Branch should ensure the A-106 process results in the President's budget fully funding all environmental requirements.

- The law should be changed to allow the Navy to use operation and maintenance funds to execute military construction level projects (i.e., construction over $200,000) needed to achieve compliance with environmental laws. This would help expedite compliance in accordance with regulatory schedules. This could be subject to a twenty-one day review by Congress.

- The President should request and Congress should act to increase funding to meet Navy and other DoD environmental requirements.

Motivators

- The Navy should amend officer fitness report instructions to require narrative comment regarding officer's efforts and successes at environmental compliance.

- The Navy should require that environmental performance constitute a significant criterion for promotion.

- The Navy should broadly communicate and reward cost savings due to environmental programs.

Planning

- The Navy should conduct a more systematic review of all hazardous waste generating processes and sources and consider what process or material changes may be suitable to reduce the amount of hazardous waste generated.

- The Navy should ensure that all bases and activities have an effective Hazardous Waste Management Plan (HWMP) as required by current Navy policy. The HWMP should provide chain of command, training, storage, spill contingency, and disposal guidance as well as ensure organizational commitment and continuity.

- The Navy should develop a more systematic method for ensuring that proposed new environmental regulations or changes to existing environmental regulations by the EPA and state regulators are identified, reviewed, and commented on in a
timely fashion, and are communicated directly to Navy personnel in the field.

Communications

- The Navy should employ technology transfer teams to increase awareness of effective cost-saving waste management and environmental technologies.

- The Navy should require that as part of the turnover of command that the outgoing commanding officer briefs the incoming commanding officer on all aspects of the facility's hazardous waste and environmental programs.

- Each state should establish a single point of contact within their regulatory agency to coordinate across programs and integrate requirements for each activity similar to the EPA Headquarters and regional federal facilities offices.

- The Navy should view public communications as an opportunity to educate the public, expand the availability of resources, avail itself of outside expertise, develop support for its mission and obtain public trust. One way to engender this change is to provide the community with direct access beyond the public affairs officer. Another is to develop ongoing community-level advisory committees.

- The Navy should establish an external environmental advisory committee representing diverse interests to meet with senior Navy leadership to exchange information and perspectives.

- The Navy should report to Congress fully and fairly all actual and expected environmental requirements when submitting its yearly budget. To facilitate this, the Navy must strive to anticipate future legislative and regulatory requirements (e.g., RCRA reauthorization) and report these requirements to Congress.

- The DoD, with the assistance of the Services, should provide comment, both positive and negative, on legislation pending before environmental committees.

- Responsible Congressional Committees should give greater attention to Navy hazardous waste and environmental compliance needs and problems.

Enforcement

- To eliminate the debate and uncertainty over regulatory and enforcement authority at federal facilities, Congress should clarify the existing waiver of sovereign immunity in RCRA regarding whether states can assess fines and penalties.
- EPA should explore a multi-media regulatory approach at federal facilities including possible simultaneous state and federal multi-media inspections of facilities to facilitate consistent regulatory interpretation and communication.

- To help improve the state/federal relationship, EPA should review its oversight function with respect to state programs to assure this function is as constructive as possible.

- EPA should solicit state input in the development of enforcement priorities through the annual operating guidance and program specific planning processes.

- EPA should develop linked data systems that accurately reflect compliance and enforcement status and strengthen the institutional ability to "look" across programs.
KEYSTONE NATIONAL POLICY DIALOGUE

ON THE

DEPARTMENT OF THE NAVY HAZARDOUS WASTE MANAGEMENT

FINAL REPORT
INTRODUCTION

Background

Hazardous waste management and cleanup are some of the most challenging environmental issues of our time. Federal agencies such as the Department of Defense (DoD) are not exempt from this challenge and present a special situation for state and federal regulatory agencies. Federal agencies like DoD often engage in industrial activities resulting in the generation, storage, transport, disposal and cleanup of hazardous wastes. These agencies, while subject to federal and state environmental laws and regulations, have in some cases been determined to be exempt from civil penalties under the concept of sovereign immunity. This issue remains in dispute due to conflicting circuit court and agency interpretations. Because of DoD's mission, size and relationship to regulators, monitoring and enforcement of hazardous waste laws on federal defense facilities is complicated.

Over the past few years, many outside DoD (e.g., Congress, business interests, citizen and environmental organizations, state and federal environmental regulators) have become increasingly concerned about how DoD and its components address hazardous waste issues. This concern includes issues such as: the commitment of uniformed and civilian personnel towards protection of the environment; day-to-day management of hazardous waste created from ongoing activities as well as cleanup of sites contaminated with hazardous waste; procedures for funding such activities; the organization and staffing of waste management efforts; challenges inherent in the mission and organization of DoD and its components; and the ability to monitor and enforce compliance with state and federal laws and regulations.

Creation of the Dialogue

By early 1989, interested organizations and individuals had begun speaking with The Keystone Center about the possibility of convening and facilitating an off-the-record dialogue on DoD hazardous waste management focusing primarily on activities associated with the Resource Conservation and Recovery Act (RCRA).

This focus was chosen because many of the participants felt that very little was known or understood about how DoD and its components were organized to fund, manage and address RCRA-related issues. After substantial preliminary conversations, those concerned believed that because of the size and breadth of operation of DoD, the Dialogue should focus primarily on one Service with participation by the other components of the Department of Defense. Because the Navy is involved in sea, air and land operations, it was asked and agreed to be the focus of the effort.
Twenty-three individuals were invited to participate in the Keystone National Policy Dialogue on the Department of the Navy Hazardous Waste Management including individuals from: the Department of the Navy (civilian and military staff); the U.S. Environmental Protection Agency (regional and headquarters staff); other Services, Office of the Secretary of Defense; state agencies (California and Maine); environmental organizations; and Congressional Committee staff. The Dialogue group first convened on February 24, 1989 and met nine times over a two year period.

The objectives of the Dialogue were to promote and enhance understanding and ongoing communication among the diverse interests about hazardous waste management activities by DoD in general and the Department of the Navy in particular, and to develop a report that reflected the conversations that took place. This included clarification and description of areas where the group came to some common understanding of a problem with agreed on suggestions for action, as well as further clarification and description of areas where the group could not reach agreement. The intent was for the group to draw upon the diverse expertise, experience and perspectives of the individual participants to develop a range of suggestions for action various agencies and organizations might consider to improve Navy and possibly other DoD hazardous waste management.

As in all Keystone dialogues, the participants were asked to abide by the following ground rules:

- participants attend as individuals, not as formal representatives of their organizations;
- all conversations are off-the-record and not for attribution; and
- no dialogue documents will be made public without the consent of all participants.

Initially, the Dialogue group focused its attention on: identifying a common agenda of issues to be addressed; clarifying specific concerns and questions regarding Navy hazardous waste management from the various interests' perspectives; and establishing a broad frame of reference about how the Department of the Navy and DoD are organized to address environmental issues in general and hazardous waste in particular. This last issue was particularly challenging because of the mission and associated structure of the Navy and other components of DoD. Spending the time to establish common language and understanding of the organizational structure and culture of the military was essential for the group to focus discussions, clarify problems and jointly develop suggestions for action.
During the early stages of the Dialogue, participants established an agenda with three major areas for attention: funding for hazardous waste management activities, including internal Service funding mechanisms as well as external (i.e., Congressional) funding for DoD and the Services; enforcement, including relationships of state and federal environmental regulators to the Navy, and the other components of DoD; and organizational structure and management issues, such as planning, motivation, communications and utilization of military chain of command.

Initially, the Dialogue group utilized presentations from and detailed discussions with Washington, D.C. -based headquarters staff of the Navy to develop an overview of the key issues associated with funding, enforcement and organizational issues. While this general introduction was useful, the Dialogue group rapidly concluded that it would be especially informative to meet with base-level officials to learn about "on-the-ground" issues and the relationship between policy and site activities. During this period, Dialogue participants met with individuals from: Cherry Point Marine Corps Base, home of the Second Marine Aircraft Wing; Norfolk Naval Shipyard, one of the largest fleet complexes in the world with more than 12,000 workers; Oceana Naval Air Station, one of the four master jet bases in the Navy with 22 squadrons; and Adak Naval Air Station, which employs 5,000 workers and is located on a small island in the Aleutian chain.

In meeting with base officials, the Dialogue group typically met with the base commander, chief environmental and/or engineering officer, comptroller, and legal officer. These sessions provided an opportunity for in-depth presentations on some of the challenges and accomplishments at the site level, detailed discussion and analysis of what is currently working and not working at the base level, exploration of the relationship between policy direction and implementation, and mutual identification of potential suggestions for action that could address key issues. The Dialogue group found exploring headquarters policy issues in conjunction with base-level case examples extremely valuable.

The Keystone Dialogue emphasized direct interaction among all participants. The suggestions for action contained in this report reflect two years of in-depth presentations, study and dialogue among individuals from diverse perspectives and areas of expertise.

The primary focus of this Dialogue was to better understand the Navy RCRA program. The Dialogue group recognizes that the military services differ in significant ways. Although this report focuses on Navy-related activities, the Dialogue group believes many of the

*During the Dialogue, a distinction was drawn between funding required for day-to-day compliance with RCRA versus funding required for cleanup or remediation of past site contamination.
suggestions contained in this report are potentially valuable to
the other components of DoD and should be given serious
consideration by those organizations.

The Dialogue group believes this report should be used by the
Department of the Navy to continue to improve its RCRA program. To
that end, the Report and its suggestions for action are submitted
for review by the Secretary of the Navy, Assistant Secretary of the
Navy for Installations and Environment, Chief of Naval Operations,
and appropriate policy and line staff (military and civilian)
concerned with RCRA waste. This report is also intended for review
by Members of Congress, Congressional staff, state and federal
regulators, citizen and environmental organizations, and others
concerned with the day-to-day management and implementation of the
RCRA.

The Keystone National Policy Dialogue on the Department of the Navy
Hazardous Waste Management was an attempt to allow key
knowledgeable individuals intimately involved in the area to
examine the critical issues associated with management of hazardous
waste by the military. The Dialogue group readily acknowledges and
fully appreciates the complexities of such a challenge. Given the
level of attention this group has given to the topic and the
rapport established as a consequence of the dialogue process, the
group believes that the suggestions for action contained in this
report can address in a significant way many of the key issues
associated with Navy hazardous waste management.
PROBLEM STATEMENT

The Department of Defense has both real and perceived problems with its handling of hazardous wastes. Prior to the passage of modern environmental statutes, private companies and federal agencies often acted without particular concern for the environment. With the enactment of substantive controls over hazardous wastes, both the private sector and federal agencies faced a dual challenge -- to remedy the pollution that had gone before and to bring current hazardous waste operations into line with the new laws in order to prevent future pollution. DoD has met this challenge with mixed results.

Some of DoD's failures are serious ones, others less so. All have engendered criticism and increasing legal and political pressures to achieve full compliance and to bring into the agency ethic a regard for environmental concerns and the letter and spirit of the law. Studies and comment by the General Accounting Office, EPA, National Governors' Association, National Association of Attorneys General, Congressional Committees and public interest groups, as well as internal reviews have pointed to specific problems and needs within DoD. Unfortunately, past DoD failures to address these problems have eroded public confidence in the Department.

Recent policy statements by the Secretary of Defense and the Service Secretaries express a desire to implement a new departmental ethic regarding environmental matters. In an October 10, 1989 memorandum sent to the Secretaries of the Military Departments on environmental management policy, Secretary of Defense Cheney stated:

"This administration wants the United States to be the world leader in addressing environmental problems and I want the Department of Defense to be the Federal leader in the agency environmental compliance and protection."

He went on to note:

"Federal facilities, including military bases, must meet environmental standards. It must be a command priority at all levels. We must demonstrate commitment priority at all levels. We must demonstrate commitment with accountability for responding to the Nation's environmental agenda. I want every command to be an environmental standard by which Federal agencies are judged."

Secretary Cheney specifically commented on the need to integrate environmental concerns. He said:

"The first priority of our environmental policy must be to integrate and budget environmental considerations into our activities and operations. This will decrease our future liabilities and costs for our people. The effort begins and
ends with our people. We need the right people at the right place with the right training."\(^3\)

These new policies recognize that proper management of hazardous waste is essential to meeting the challenge of full compliance with environmental requirements.

The circumstances present an excellent opportunity to bring a fresh analysis and a series of suggestions to improve compliance. This report builds on the Navy hazardous waste management experiences the Dialogue group was able to explore and embodies the suggestions, observations, and options that have grown from the Dialogue.

The report addresses several major areas, including the need for the Navy to:

- Recognize proper waste management, disposal and cleanup as part of its national security mission.
- Comply with existing federal and state laws governing waste management, disposal and cleanup.
- Integrate hazardous waste management and disposal costs within the projected or actual costs of acquisitions and programs.
- Include measures to manage generation of hazardous waste as a management and economic factor in choosing defense programs and weapons systems.
- Communicate more effectively with community and environmental groups, states, EPA and others on hazardous waste decisions.
- Address institutional, systematic problems in financial, management, organization and planning practices that serve as barriers to more effective hazardous waste management.

Finally, while events in the Middle-East associated with Operation Desert Shield/Storm have caused the Navy to focus considerable attention and resources there, it is vitally important that the Navy sustain a commitment to environmental compliance and excellence through whatever international or other events that could otherwise serve to diminish such a commitment, with attendant long-term harm. Properly attending to environmental responsibilities is an obligation which will extend beyond shorter term crisis.

\(^3\)The complete text of the Memorandum is found in Appendix A.
MANAGEMENT CONCERNS

Utilization of the Chain of Command

Background

The Navy operates under a chain of command principle. A typical Navy shore activity receives orders from a parent command called a claimant who reports to higher level claimant commands or directly to the Chief of Naval Operations (CNO). The Chief of Naval Operations has a series of offices to execute Navy programs in various areas. The office responsible for environmental protection is the Environmental Protection and Occupational Safety and Health Division (OP-45) under the Deputy Chief of Naval Operations for Logistics (OP-04).

The following is the Navy organizational structure for compliance with hazardous waste laws.
Under this structure policy devolves downward. Each subordinate level exercises less policymaking authority and more execution responsibility.

As with any large organization, the Navy has some activities which, although not in the direct chain of command, are responsible for providing specialized support to other activities. In the environmental protection program, a support network of seven regional Engineering Field Divisions provides technical engineering support to Navy activities, attorneys under the General Counsel (civilian attorneys) or the Navy Judge Advocate General (military attorneys) provide legal advice, and specialty offices provide Navy-wide assistance for unique areas such as ships (Ship Environmental Support Office), aircraft (Aircraft Environmental Support Office), ordnance (Ordnance Environmental Support Office), the marine environment (Marine Environmental Support Office), and environmental information and unique technical assistance (Naval Energy and Environmental Support Activity).

Table I on the following page outlines the Navy support network on environmental matters.

The success of the Navy and any military organization is dependent on an effective chain of command to ensure orders are executed, policies are implemented and the mission is accomplished. Success in environmental compliance and pollution prevention can best be achieved if management strategies incorporate and take advantage of the existing chain of command.

The Dialogue group recognized that regulation without high visibility and strong command support will not produce the type of atmosphere where base personnel are totally involved in and committed to the concept of environmental excellence. These elements must be established and maintained in both the line management and technical support arenas. Major claimants, commanding officers and public works officers must do more than simply write an annual memo on the importance of proper handling of hazardous wastes. They must provide the required resources and training, provide appropriate program oversight, and demonstrate their personal commitment to the program. It is also essential that appropriate technical support be provided from the staff of the Chief of Naval Operations and the Systems Commands in the form of implementing instructions, technical notes, program guides, training and personal interaction.

Note: The Dialogue group had the benefit of meeting with U.S. Marine Corps (USMC) representatives whose chain of command is different. USMC reports to the Secretary of the Navy and Assistant Secretary of the Navy through the Commandant of the Marine Corps.
# Table I

Navy Environmental Support Network

**SECRETARY OF THE NAVY**

**CHIEF OF NAVAL OPERATIONS**

**DEPUTY CHIEF OF NAVAL OPERATIONS**

**LOGISTICS, OP-04**

**ENVIRONMENTAL PROTECTION, OCCUPATIONAL SAFETY AND HEALTH DIVISION, OP-45**

**CLAIMANT**

**NAVY SHORE ACTIVITY**

**TECHNICAL SUPPORT**

**ENGINEERING FIELD DIVISIONS**

**NAVAL ENERGY AND ENVIRONMENTAL SUPPORT ACTIVITY**

**SHIP ENVIRONMENTAL SUPPORT OFFICE**

**AIRCRAFT ENVIRONMENTAL SUPPORT OFFICE**

**ORDNANCE ENVIRONMENTAL SUPPORT OFFICE**

**MARINE ENVIRONMENTAL SUPPORT OFFICE**
Problems, Concerns and Suggestions for Action

The Dialogue group concluded that the chain of command is a key element to an effective environmental compliance and pollution prevention program. Concerns and problems are identified with possible suggestions for action.

Many of the possible suggestions discussed below were developed by drawing upon the presentations and discussions over the eighteen month Dialogue and identifying what makes the Navy's best environmental programs successful. Incorporation of these principles throughout the chain of command would help the spectrum of Navy activities achieve the same level of success.

Environmental Ethic/Commitment

Problems and Concerns

Secretary Cheney's memo correctly identifies the environmental ethic and commitment to be implemented. The memo is not self-executing, however, and does not fully specify how this ethic and commitment will be made a reality within DoD. There needs to be an internalized environmental commitment at all levels, military and civilian.

Suggestions for Action

1. The Secretary of Defense needs to take unmistakable action to ensure that the Department of Defense chain of command knows he is serious about the policy statement. The DoD and Navy political leadership, by their actions, need to communicate a genuine commitment to carrying out the spirit and intent of Secretary Cheney's policy statement, including aggressively defending budgetary requests for environmental funding and holding subordinates fully accountable for their performance in this area.

2. The Navy chain of command needs to show a similar dedication through flag level commitment, messages, instructions, commanders conference-level briefings and allocation of resources. A top-down environmental ethic must be adopted and institutionalized.

3. The Navy should view a strong environmental commitment as fully compatible with its mission. It should recognize that an effective environmental program is essential for achieving other mission goals. National security is enhanced by the Navy properly attending to its environmental responsibilities and complying with environmental laws.
4. The Chief of Naval Operation's (CNO) personal message to flag officers on environmental compliance was helpful and should be updated and periodically reissued to reflect changes in applicable law and the short-comings identified under comprehensive environmental audits (see Appendix B).

5. Individual Navy shore activity commanding officers should demonstrate an interest in and personal commitment to environmental compliance. They should provide direction and command support to environmental programs. The establishment of environmental policy councils at some Navy activities has been an effective mechanism to train senior management and provide a forum for information exchange, establishment of environmental priorities and identification of resource requirements.

Knowledge of Environmental Requirements

Problems and Concerns

1. There is a lack of full recognition and understanding within the Navy of the legal basis for environmental requirements. These environmental laws drive a schedule of compliance activities independent of the budget and decision process for obtaining funds to achieve and maintain compliance. As a result, funding for the activities needed to achieve and maintain compliance may not be pursued by the Navy or obtained in a timely manner.

Suggestions for Action

1. A comprehensive training program throughout the Navy military and civilian structure is essential to ensure comprehensive awareness of environmental responsibilities and an understanding of the Navy's commitment and support for environmental protection. Accountability must be built into each training and retraining program.

2. The existing quarterly environmental Flag Officers Environmental Steering Group and monthly environmental major claimant meetings are the types of forums which should be utilized to ensure programs are understood and communicated.

3. Requirements need to be clearly identified and corrective measures programmed to ensure funding for needed projects. Long-term requirements to address past practices should also be identified and budgeted. The environmental auditing program initiated by the CNO needs
to be pursued aggressively to ensure identification of areas of non-compliance.

4. The internal Navy reporting system for notices of violation or other similar notices of non-compliance or other deficiency should be reviewed and strengthened to ensure it captures all such notices or complaints, and the possibility of incorporating environmental problems into the casualty report (CASREP) reporting framework should be evaluated.

5. In support of long-term environmental protection, environmental planning should be incorporated into the strategic planning process at every level of command. Projection of future requirements and proper planning can encourage early development of environmentally acceptable solutions and reduction of future mission costs. Environmental planning should be supported all the way up to the Secretary level.

Host/Tenants

Navy "host" activities often have "tenant" activities located on their property. The analogy is a landlord and a renter. However, the tenant activity often does not report to or receive funding from the host activity.

Problems and Concerns

1. Host commands containing tenant commands that are not in the direct chain of command of the host commands lack the authority to directly enforce environmental requirements on the tenant command.

Suggestions for Action

1. There is a need for Navy host/tenant agreements which clearly identify command relationships and responsibilities between host and tenant. Host commands should take a firm stance with tenant commands about the need to comply with environmental regulations and follow host command procedures. Host commands should be given the authority needed to compel compliance with environmental requirements.

Refer to the Planning Section of this document for specific suggestions.
Accountability

Problems and Concerns

1. There is a lack of accountability in executing the Navy environmental program within both the civilian and military chain of command.

Suggestions for Action

1. An annual report on the "State of Navy Environmental Management" should be developed. This would provide a forum and visibility for the Navy environmental program, its successes, problem areas and unique interests. It would also provide a forcing function for chain of command input, review and accountability. An environmental advisory committee, if established as described in the External Communications Section of this report, could contribute to this annual report and also use it as a baseline for providing additional advice.

2. An internal evaluation system with internal audits and a method for issuing and enforcing "notices" citing environmental deficiencies should be included in each Navy activity's hazardous waste management plan.

Training and Staffing

Problems and Concerns

1. Staff turnover in environmental positions, especially in the hazardous waste cleanup field, has been significant. It has also been difficult, given government civilian pay scales, to recruit and retain appropriately trained personnel in certain areas of the nation.

2. Hazardous waste management involves highly technical issues and evolving laws and regulations. As a result Navy staff are sometimes ill-equipped to address the complex day-to-day demands associated with this issue.

Suggestions for Action

1. At least two types of training should be considered: a) awareness training for all personnel to instill a strong feeling of commitment and b) technical training for individuals involved in hazardous waste management. The Navy should establish courses necessary to meet the specific exigencies of the armed services. In addition, the Navy should establish, for each new civilian or uniformed member (enlisted personnel or officer) of the department, a basic environmental education module as a
part of any orientation program. Periodic refresher training programs should be required for all personnel depending upon job changes and longevity of service.

2. The Navy should establish training programs geared to environmental compliance. Such training programs should be specific to a particular type of activity and should encompass legal, educational, and technical material necessary for an employee's thorough understanding of his or her task.

3. If the Navy is to increase the rate at which it retains its civilian workforce employed in environmental areas, it must provide sufficient positions to accomplish environmental tasks successfully with a reasonable amount of individual effort, and must establish an entire Navy-wide network of positions from entry level to Senior Executive Service that provide career paths which reward good performance with additional responsibility and the grade and pay increases commensurate with promotion. The career paths must provide more than one avenue to advancement to Senior Executive Service to reflect the breadth of career skills in the environmental arena, and sufficient Senior Executive Service positions must be created to give the various career paths equivalent opportunity to succeed. Retention rates in the environmental sector would be further improved by a constant and unequivocal commitment to meet its environmental responsibilities and by providing the training and retraining necessary to provide the workforce with the skills needed to meet the Navy's environmental responsibilities and advance in their careers.
FINANCIAL ISSUES

Ensuring adequate funding for compliance with hazardous waste laws is a key issue at all levels in the Department of the Navy and within the DoD, and is an item of concern with Congress, EPA, and state regulatory agencies. Since the Department of the Navy must comply with a host of environmental laws, the financial issues described below, by necessity, apply to compliance not only with RCRA, but also other environmental laws. For ease of understanding, the issues have been broken down into the following levels:

- Activity/Installation Level
- Service Level
- DoD/OMB Level
- Congressional Level

**Activity/Installation Level**

Problems and Concerns

The activity/installation\(^6\) (hereafter referred to as activity) is the fundamental level of concern because the activity is where the problems reside, where daily production work is done, and where the daily interface with the regulatory community takes place. The activity commander has often been put in the middle of a host of systemic problems, many beyond his or her control, yet he or she is held responsible for compliance. Such problems include:

1. Activity commanders, service level and DoD officials often have not considered environmental protection as part of their mission.

2. Constraints on the use of base operating funds impair the ability of the base commander to shift resources to respond to day-to-day or emergent environmental compliance requirements.

3. In some cases, the federal acquisition process, particularly the military construction system, may make it difficult to respond in a timely manner to environmental regulatory schedules.

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\(^6\)An activity can be defined as a discrete Navy command with its own commanding officer or officer in charge. An installation (e.g., Norfolk Naval Base) is composed of multiple activities.
4. Activities frequently have failed to identify and budget for existing environmental requirements in a timely fashion.

5. There is uncertainty over the cost of complying with emerging regulatory requirements which affects the ability to estimate future budget requirements.

6. Even after environmental compliance needs are recognized, budget lead times built into the executive and legislative branch processes may sometimes cause further delay and may frustrate regulatory agencies trying to enforce timely compliance with environmental requirements. This condition is particularly acute in the case of military construction.

7. Because of the Navy's and DoD's longstanding budget policies, there is often little or no visibility within a base operating budget for routine and recurring environmental compliance costs.

Suggestions for Action

1. The Department of the Navy should institutionalize a process for early identification and programming of environmental requirements by:

   - Creating a mechanism such as a separate line item (as currently exists for purchased utilities) in the activity budget for environmental compliance and ensuring that all routine and recurring requirements such as ongoing environmental compliance are incorporated into the base operating budget and forwarded to the next level in the chain of command.

   - Ensuring that all non-recurring and non-routine requirements such as large construction projects and site cleanups are identified and entered as early as possible in the OMB A-106 process.

2. The Department of the Navy should document, at the facility level, the resources necessary to comply with environmental requirements while accomplishing its assigned defense mission.

3. The Department of the Navy should develop a policy to allow activities to calculate and integrate routine and recurring environmental compliance costs into charges applied to those receiving services (e.g., tenants, temporary on-site service recipients).
Service Headquarters Level

The Navy Headquarters level serves a bridging function between the activity/installation level and the larger department-wide level. This would include the Offices of the Secretary and Assistant Secretaries, Office of the Chief of Naval Operations and major claimants. Budgets are compiled, policies written, planning is conducted and technical guidance is provided at this level.

Problems and Concerns

1. Navy Headquarters often fail to distinguish between discretionary funding decisions and those required by law. In addition, there is a perception that Headquarters is not expected to fund fully all environmental requirements because they traditionally do not fund fully most program requests in other areas.

2. Activity level routine and recurring environmental requirements are not visible in the budget at the headquarters level.

3. The identification of environmental requirements is not effectively tied to the DOD Planning, Programming, and Budgeting System to ensure timely funding and completion.

4. Comptrollers at various levels in Navy organizations sometimes withhold or delay the issuance of various appropriations used for environmental compliance.

Suggestions for Action

1. Navy Headquarters should identify the resources needed to ensure compliance with environmental requirements and forcefully advocate their inclusion in budget requests.

2. The Department of Defense should establish a policy prohibiting the Navy and other Services from withholding or delaying the issuance of funding for environmental compliance.
DoD/OMB Level

Problems and Concerns

The DoD/OMB level is the place where the Department's priorities are integrated with the Administration's overall budget priorities. This is also the level where interactions, specifically some testimony and all legislative proposals, between the department and Congress must be approved by the OMB. The following problems were found at the DoD or OMB level:

1. The Department of Defense often fails to fully fund environmental compliance requirements. One reason for this is that these requirements are not always made visible at the department level.

2. EPA/OMB have not effectively compared and reconciled A-106 requirements to the President's budget request.

3. Senior environmental managers in the Department of Defense often do not adequately participate in key resource distribution decisions.

4. Hiring freezes (such as the one presently in place for civilian personnel in DoD) can adversely affect environmental compliance efforts.

Suggestions for Action

1. The Executive Branch should ensure the A-106 process results in the President's budget fully funding all environmental requirements.

2. The Department of Defense should avoid imposing restrictions such as the civilian hiring freeze on the environmental activities, especially those which focus on meeting compliance needs.

Congressional Level

Problems and Concerns

Congress enacts environmental laws, such as RCRA, with which the DoD and the Navy must comply. Additionally, Congress makes the final determination on the defense budget. As a result, there are several issues which arise from the relationship between DoD, the Navy, and Congress. They are:

1. Environmental laws are often enacted without adequate input from the Department of Defense concerning potential impacts on military mission and budget.
2. There is inadequate, if any, discussion of environmental requirements during Congressional consideration of the defense budget.

Suggestions for Action

1. DoD should provide Congress with adequate information on the projected mission and budgetary impacts of proposed environmental legislation.

2. The DoD should describe how the budget fully funds all Department of Defense environmental requirements during Congressional budget hearings. They should also explain any differences between these requirements and what the budget actually contains.

3. DoD should be required to analyze the projected, fully described cost of environmental compliance in the ten-year report on DoD Environmental Challenges. The report should also include a strategic plan for proactive pollution prevention and environmental protection.

4. Congress should provide funding necessary to meet environmental requirements.

5. Congress should more fully examine, consider and discuss the DoD environmental requirements and compliance with such requirements during its consideration of the defense budget.

6. The law should be changed so that Navy Headquarters has the ability to use operation and maintenance funds to execute environmental military construction level projects (construction over $200,000) to expedite compliance in accordance with regulatory schedules, subject to a twenty-one day review by Congress. This is similar to the statutory authority provided for in Section 211 of the Superfund Amendments and Reauthorization Act involving the use of Defense Environmental Restoration Account funds for military construction level projects.

7. The Navy recognizes that its action and budget requests must be predicated on meeting all statutory environmental requirements within the time frames specified by applicable local, state and federal laws. However, there may be years when total federal, state and local environmental requirements exceed the amounts that the President requested or Congress agreed to appropriate. If this condition arises, DoD should initiate actions to re-program such funds as required to enable them to comply with the requirements of the law.
MOTIVATORS

Background

Internal motivators to achieve compliance are necessary to ensure proper environmental management and to avoid enforcement responses from state and federal regulatory agencies. It was noted during the Dialogue that regulators view their exercise of enforcement authority as the most effective means to ensure proper management actions. Clear assignment of environmental compliance responsibility and accountability is required to allow the Department of the Navy to fully utilize command and control mechanisms to enhance compliance. Based on presentations from field level commanding officers, motivational mechanisms in addition to state and federal enforcement should be identified and explored to support this goal.

It is critical that the Navy ensure that environmental protection is understood and supported at every level within the department. Environmental policy statements, such as Secretary of Defense Cheney's Environmental Management Policy Memorandum of October 10, 1989, should be utilized to set goals and to elevate the relative importance of environmental considerations with other functions to assure proper integration into the military mission. Command commitment and accountability must be assured if such policy statements are to be successfully implemented.

The Department of Defense and associated Military Departments already have accountability mechanisms in place. For uniformed personnel, the military justice system and officer fitness reporting systems are available. For civilians, the performance appraisal system and conduct and discipline guidance are available.

The Department of the Navy must be accountable for the actions of its personnel. Adapting existing internal accountability systems to focus on environmental performance can ensure proper attention to environmental results and can serve to demonstrate a genuine commitment to environmental compliance. Further, consistent with the need for positive motivators, the Department should seek mechanisms to reward good environmental performance.

Suggestions for Action

The Department of the Navy should:

1. Amend officer fitness report instructions (e.g., NMPCINST 1611.1) to require comment by commanding officers regarding the officer's efforts and successes at environmental compliance. Comments on environmental compliance should be incorporated into the narrative portion and into the "brag reports" which are part of the fitness evaluation process. Specifically,
accomplishments of environmental goals established in Navy plans should be evaluated. This approach is preferable to adding an environmental box to be checked on the form.

2. Review the performance appraisal system directives to ensure that appropriate critical elements are included in appraisals for enlisted and civilian personnel with environmental compliance responsibilities.

3. Require that environmental performance, as documented in fitness reports, constitute a significant criterion for promotion.

4. Give host commands the necessary authority to impose sanctions against tenant commands to ensure environmental requirements are met.

5. Include in the Manual for Courts-Martial, 1984, Article 134, UCMJ, discussion of how the court-martial process may be used to discipline personnel for environmental offenses.

6. Develop a data base or modify existing Navy data bases to report investigations and disciplinary actions regarding environmental offenses.

7. Utilize policy statements from each command level to help integrate environmental programs with other functions and to elevate the importance of environmental considerations.

8. Integrate environmental considerations into Quality of Worklife programs.

9. Educate workers about resource values that may be enhanced or protected by environmental compliance.

10. Use strategic planning as a positive motivator and ensure staff are rewarded for meeting environmental planning goals.

11. Give awards for exemplary environmental performance at all levels of responsibility.

12. Broadly communicate cost savings due to environmental programs such as waste minimization, and reward such behavior.

13. Communicate positive environmental initiatives or results through the media and community relations activities to demonstrate a genuine environmental ethic.
14. Continue to develop other motivators to encourage environmental compliance and to institutionalize the environmental ethic into the way the Navy operates.
PLANNING

Background

Planning for proper hazardous waste management encompasses several principles:

1. Looking ahead to ensure facilities needed for compliance are properly tracked and the funds necessary to accomplish such work are sought through the budget process in as timely a fashion as practical so as to meet regulatory schedules.

2. Avoiding expending funds for short-term "fixes" which are not economical or appropriate in the long run, or which leave the facility more vulnerable to non-compliance.

3. Ensuring all proposed changes to applicable federal and state hazardous waste requirements are commented on by facility and Navy Headquarter's personnel so that comments regarding modifications can be developed and, where necessary, advanced planning for changes to facilities or operational practices can be instituted.

4. Ensuring that alternatives to proposals to upgrade or build facilities are considered where those alternatives make good environmental sense (e.g., spending money to devise methods for reducing hazardous waste generation which thus avoids the need for constructing new waste storage facilities).

Problems and Concerns

1. There is often inadequate planning to anticipate facility needs before those needs materialize.

2. The Navy institutionally has had difficulty organizing itself to respond in a timely fashion when new or revised regulations are proposed by the EPA or state regulators. The result has often been that little or no Navy input is supplied to assist the regulator in fashioning regulations.

Suggestions for Action

There are several measures which the Navy may consider to improve its performance in the planning area at both the Headquarters and facility level. Some of these have already begun to be implemented within the Navy, while others are under consideration.

1. In addition to ongoing waste minimization efforts, the Navy should conduct a more systematic review of all
processes and sources that generate hazardous waste. It should consider what process or material changes may be suitable to reduce the amount or toxicity of waste generated.

2. The Navy should institute a formal process for considering hazardous waste management needs whenever the scope or nature of a facility's operation changes. This may be done through changes to the Navy's Shore Facilities Planning System which requires the calculation of hazardous waste needs based on changes to facility operating tempo or conditions. Effective use of the National Environmental Policy Act process might also be a benefit.

3. The Navy should require all facility commanders to apprise their successors (prior to relief) of the exact status of hazardous waste requirements, efforts underway to minimize hazardous waste generation, and anticipated long-term needs for facility modification or renovation to attain or remain in compliance with environmental laws and regulations. The same principle should apply to other areas of environmental management and compliance.

4. The Navy should develop a more systematic method for ensuring that proposed new regulations or changes to existing regulations by the EPA and state regulators are identified, reviewed and commented on in a timely fashion. This may include electronic communication of such items directly to personnel in the field concurrent with formal requests for action through the chain of command.

5. The Navy should ensure that all activities have an effective Hazardous Waste Management Plan (HWMP) as required by current Navy policy. The HWMP ensures that base personnel have the necessary information to handle hazardous waste in a safe and environmentally sound manner that meets environmental requirements. The HWMP is designed to provide a chain of command, training, personnel safety, procurement, handling, transport, storage, spill contingency and disposal guidance as well as ensure organizational commitment and continuity through periodic personnel changes and periods of uncertainty.7

7The Hazardous Waste Management Planning Guide was developed to assist base personnel by providing detailed guidance on the presentation of a base HWMP as well as a complete sample plan for both a large and small quantity generator. This document is currently being updated and the revised Chapter 4 is provided as Appendix C.
6. Procurement policy should consider and document life cycle costs of materials and restrict purchase authority for hazardous materials to ensure that only essential quantities are ordered. The Navy is currently implementing a total quality management effort to reduce the entrance of hazardous materials into the supply system. Improvements should be made to the technical support contracting system to ensure that base personnel can quickly obtain qualified technical support from the private sector.

7. The Navy should consider increasing its use of level of effort contracts, like CLEAN contracts. A better opportunity for environmental compliance is afforded by this type of contracting.8

3. The Navy needs to assess immediately the status of its hazardous waste programs through its environmental compliance evaluation program. Such audits should provide input for management initiatives in the Navy's strategic plan. The audit process and strategic plan should not become a "paper exercise" which produces only a report. To avoid this, the Secretary of the Navy should require that measurable milestones be incorporated into management plans. The management plans should be the road map to achieve the objective of the strategic plan. Every Commander and each installation should be required to have and keep up-to-date such a management plan.

8Clean contracts are long-term, high value cost plus award fee contracts that offer maximum flexibility for quick response.
INTERNAL COMMUNICATIONS

Problems and Concerns

Internal communication problems regarding the Navy's hazardous waste effort exist in the following areas: up and down the Navy chain of command; between commands (e.g., Naval Facility Engineering Command (NAVFAC) and Naval Sea Systems Command (NAVSEA); between facilities within the same command; between facilities with common problems; between facilities in the same EPA region or state; between tenants of a single facility; between facilities and the Navy's headquarters environmental offices; and between the Navy's various environmental research arms.

The reasons for these internal communication problems include: lack of personnel substantially involved with environmental issues; inadequate compilation of, and access to, environmental information; lack of formal processes for transfer of environmental information (e.g., from outgoing commanding officer to incoming commanding officer); and lack of informal communication channels for sharing information and approaches.

Suggestions for Action

Although the Navy has improved its performance in this area, it should consider the following steps to further strengthen internal communications:

1. Increase personnel assigned to environmental positions and provide them with adequate training and equipment.

2. Give priority to the development of appropriate data bases accessible to all Navy environmental personnel. These data bases should include technical, regulatory, policy and historic information. There are differences of opinion about the degree to which such data bases should be centralized, but some centralization is important in order to ensure the broadest collection and dissemination of information.

3. Develop an electronic communication system that will allow personnel to exchange information quickly and informally. The Dialogue group supports the Navy's efforts to develop an electronic bulletin board that would provide some of this capability. It should be noted, however, that electronic communication systems and data bases are merely elements of an overall communications strategy and should not be unduly relied upon.

4. Employ technology transfer teams to increase the awareness of effective cost-saving environmental
technologies. These teams should focus on a broad array of solutions (e.g., pollution prevention, waste minimization).

5. Develop a more formal process at every facility whereby the outgoing commanding officer briefs the incoming commanding officer on all aspects of the facility's environmental program and the new commanding officer's responsibilities. This exchange should occur face-to-face prior to the transfer. Where this is not feasible, alternative mechanisms should be established and consistently employed. Turnover should include introduction to the appropriate regulators.

6. Increase use of internal meetings, seminars, symposia, training courses, etc. to increase face-to-face dissemination of information. For example, environmental problems and approaches for dealing with them should continue to be discussed in regular (e.g., quarterly) commanding officer meetings and monthly OP-45 meetings. Visits between environmental staffs of different facilities could also help substantially in improving communications.
EXTERNAL COMMUNICATIONS

Problems and Concerns

There is ineffective communication between the Navy and outside entities including Congress, federal and state regulators, and the general public. These outside entities on occasion are not receiving a full and fair picture of the Navy's environmental problems and solutions. By the same token, Congress, the regulators and the public sometimes do not communicate their own messages effectively. There are a variety of external communications problems:

1. Navy communication with regulators often ignores the different roles and different requirements which exist between state and federal environmental regulators. The Navy needs to recognize that the states have environmental regulatory programs which may differ from federal regulatory programs. Compliance with one regulator does not necessarily ensure compliance with another. Requirements which differ may range from reporting requirements to standards for remedial actions. As a result, state and federal regulators also sometimes communicate inconsistent information and requirements to the Navy. State and federal regulators must be willing to share information and coordinate regulatory efforts as much as possible.

2. Sometimes discrepancies exist between information that different entities (e.g., facility, parent command, DoD, EPA and the State) have at any given time on violations and compliance activities. For example, a facility may remain on some records as being a non-complier even after violations are corrected. Some informational discrepancies may be related to problems with timely updating of EPA's hazardous waste data management system. Discrepancies also occur when differences of opinion exist regarding the severity of a violation.

3. There is inadequate Navy communication with the public. This reflects a number of factors:
   - Access to information. The public often is unable to secure relevant information about a particular problem. This may be due to the Navy's problems in collecting and synthesizing information, a refusal on the part of the Navy to share its information, unnecessary hurdles preventing ready access to information (e.g., requiring questions in writing), lack of personnel to distribute information, or lack of public understanding about how to obtain information.
Credibility of Information. The public often does not believe information it receives from the Navy on a particular problem. This lack of credibility may stem from public skepticism about government information generally, the Navy's historic reluctance to share information which tends to color any information it does make available, the heavy-handed and arrogant way information is sometimes presented, a lack of public access to the most knowledgeable Navy personnel, or because Navy statements and information sometimes receive more critical news media scrutiny than parties challenging the Navy position.

Ability to respond. The public has difficulty making effective use of the information the Navy does provide. This may be due to the inaccessibility of decisionmakers, an inability to establish an ongoing exchange of information, or a lack of formal processes to discuss concerns.

The Navy often fails to communicate effectively with Congress on environmental issues. The Navy hasn't given Congress a full and balanced view of its problems and successes. Nor has the Navy consistently provided adequate comment on the potential positive and negative impacts of pending environmental legislation.

Suggestions for Action

The following should be considered to improve Navy external communications:

1. The Navy should improve the quality and depth of its public communications.

Navy public affairs operations have sometimes displayed a "we versus them" attitude. The Navy should instead view public communications as an opportunity to educate the public, expand the availability of resources, avail itself of outside expertise, and develop support for its mission. One way to engender this change is to provide public access beyond the public affairs officer. When information security requirements permit, the commanding officer and technical personnel should make themselves available to ensure that complete and accurate information and response is provided to the public. Once the public learns that it is dealing with professionals with knowledge and authority, trust is more likely to increase.
For communication to be effective, it must be long-term and continuous. Sporadic, one-time attempts to communicate will not establish the necessary framework for effective communications. The Navy should consider establishing a national advisory committee to develop techniques for improved communications and to provide a forum for discussion of issues of particular concern. This committee could function as a model for local (facility-level) advisory committees. Where they already exist, the work of local citizen advisory committees could be expanded to address environmental concerns, or combined and coordinated with existing technical review committees that address CERCLA sites. Additionally, the Navy should consider establishing reading rooms at its facilities similar to those maintained by the Department of Energy at its nuclear plants. Finally, greater use could be made of the NEPA process as a vehicle for communication.

The Navy should look for opportunities to work with environmental groups and the public.

The Navy should consider establishing an external Navy Headquarters environmental advisory committee consisting of representatives from the public, environmental organizations and regulatory bodies. This advisory committee could meet periodically with senior Navy leadership, receive information on Navy programs, and provide its observations and perspectives.

2. The Navy should improve its communications with regulators.

If a regulator is seeking information, facility access, or assistance which an activity is unwilling or unable to provide, the activity should involve its chain of command to meet the regulator's needs.

Regulators should be made more aware of ways to use the Navy chain of command when problems are not being satisfactorily resolved through normal channels. In appropriate cases, the Navy should encourage regulators to contact the Office of the Chief of Naval Operations directly when they are dissatisfied with the actions taken at lower levels.
- The Navy should increase its awareness of its requirement to comply with environmental regulations at both the state and federal level. If regulatory requirements differ or appear to be in conflict, the Navy should make its concerns known to regulators at both levels to avoid misunderstandings and alleviate conflict within the Navy and regulatory bureaucracies.

- The Navy should consider establishing military liaisons for each EPA regional office to facilitate communications and assist in the resolution of misunderstandings and questions.

- Each state should establish a single point of contact within their regulatory agency to coordinate across programs and integrate requirements for each activity similar to the EPA headquarters and regional EPA federal facilities offices.

3. The Navy should improve its communication with Congress in a number of areas:

- The Navy should report to Congress fully and fairly all actual and expected environmental requirements when submitting its yearly budget. To facilitate this, the Navy must strive to anticipate future legislative and regulatory requirements (e.g., RCRA reauthorization) and report these requirements to Congress.

- Traditionally, the DoD has restricted much of its communication regarding environmental problems to the Armed Services Committees. The DoD must provide comment, both positive and negative, on legislation pending before the environmental committees. The Congressional environmental committee should, in turn, request testimony from the DoD. Other Congressional Committees must also give greater attention to Navy hazardous waste and environmental compliance problems.

4. The Navy through DoD needs to play an active role commenting on proposed legislation and EPA rule makings. Congressional representatives expect private industry to be active in presenting their positions on proposed legislation, and the Navy through DoD should do the same, consistent with any limitation on legislative activities. Comments on environmental legislation in the past have often lacked focus. Such comments need to show where the military is fundamentally different and where
requirements may need to be tailored to reflect the differences.

5. The Armed Services Committees, with direct oversight of the Department of Defense and the environmental committees, need to work together better in the legislative process. The Armed Services and environmental committees need a more complete understanding of how environmental legislation affects the military services so they can better integrate environmental compliance with other military functions.
ENFORCEMENT

Enforcement is an integral part of state and federal hazardous waste programs. Both state and federal governments have a variety of tools to enable them to compel compliance with state and federal environmental laws in those instances when compliance has failed or is failing to occur. Tools include punishment for past failure to comply and injunctive authority to compel future compliance. Enforcement tools brought to bear by state and federal governments vary in accordance with the degree, intent and actual or potential results of non-compliance.

Various forms of enforcement action, which may include penalties for past violations and orders to act (or not to act) in a certain manner in the future, include informal action such as oral communications and written warning letters. They may also include formal actions such as consensual or unilateral, administrative or judicial actions, either civil or criminal. An effective enforcement program requires an ability to resort to judicial action in order to encourage compliance with less formal enforcement action.

One of the purposes of this Dialogue was to examine the problems the Navy has with complying with hazardous waste management requirements under RCRA. In discussing these problems, the group spent considerable time on how EPA and the states enforce RCRA requirements. Predictable, timely and consistent enforcement response from EPA and the states is an essential and integral part of any regulatory program, and the suggestions discussed below are aimed at improving the effectiveness of the enforcement program.

Over the course of the Dialogue, it appeared that significantly faster Navy command attention and higher funding priorities occurred in those instances where a formal enforcement action was taken against a Navy facility. In those instances where a formal enforcement action was either delayed or unavailable, it appeared that compliance was more likely to be lacking.

The Navy Culture

Problems and Concerns

1. The culture of the Navy influences individual and organizational responses to hazardous waste management. Too often the Navy has failed to recognize its obligations to comply with environmental requirements. There are a variety of reasons which include: misunderstanding the requirements; interpreting them differently than regulators and the courts; or simply as a matter of executive intransigence. While the last several years have seen some changes in the Navy's attitude, further changes are needed. The Navy must
acknowledge and internalize that it is a part of the community regulated by environmental laws.

2. As evidenced by presentations from Navy field activities made to the Dialogue group, the Navy organizational culture is changing and efforts are currently underway to accelerate the process. From the Secretary of Defense on down through the chain of command, the Navy and the rest of the Department of Defense are being told to embrace environmental compliance as a goal and become leaders in environmental protection.

Suggestions for Action

1. Achieving compliance with environmental laws will require further concerted efforts to change the Navy's organizational culture. The changes will need to acknowledge the Navy's membership in the regulated community and instill an understanding of the reasons for independent oversight and a recognition of the authority of environmental regulators. Given the reality of environmental regulation today, military managers will need to work openly and cooperatively with the regulatory authorities.

Clarification of Authority

Problems and Concerns

1. The availability of fines and civil penalties as a state enforcement tool against federal agencies under RCRA remains in dispute. Courts reviewing the question have reached opposite results. The views of the individuals in this Dialogue differ as well, but the participants express general agreement that clarification of this issue by Congress would serve to reduce delay and confrontation in the enforcement process.

2. It was clear from the case studies examined by the Dialogue group, and from interviews with Navy personnel (civilian as well as CO's), that when an enforcement action was taken by the regulators (based on their legal interpretation of the law), positive environmental results were realized. The formal enforcement action immediately gained command attention and resources were mobilized to attack the specific compliance problem. The formal action also led to instituting broad managerial and organizational changes to manage hazardous waste more effectively and to avoid the same problem in the future.
3. In contrast, at installations where the regulators chose to use informal means to resolve non-compliance, the same type of aggressive response was usually lacking. The base did not receive the command attention required to solve the problem and chronic shortages of personnel, training, and facilities required to manage hazardous waste persisted.

4. The environment would be better protected and DoD's credibility and public image would be enhanced if DoD were subject to the same enforcement sanctions as private industry, state agencies and municipalities.

While all participants accepted the above, some Navy participants expressed concern that such a policy, when extended to corrective actions, could present practical problems in implementation due to the large backlog of federal cleanups and fiscal concerns.

Suggestions for Action

1. To eliminate the debate and uncertainty over regulatory and enforcement authority at federal facilities, Congress should clarify the existing waiver of sovereign immunity in RCRA regarding whether states can assess fines and penalties. The disagreement concerning the waiver has resulted in unnecessary delay and confrontations among the federal and state regulatory authorities and federal facilities which manage hazardous waste. In some cases, it has produced lengthy and costly litigation. It is the consensus of the Dialogue group that if this issue were clarified, it would lead to better relations between the federal facilities and the regulators, and ultimately lead to improved compliance.

Focal Point for Federal Facilities Enforcement

Problems and Concerns

1. A number of times during the Dialogue, facility personnel and others mentioned inconsistent approaches employed by EPA regional offices, and between different EPA media programs which aggravated their attempts at achieving compliance. Further, EPA and state personnel sometimes appear to be concerned only with their particular "program area" and that other potentially more serious environmental problems at a facility were not being addressed. Finally, there was a feeling that few in the regulatory agencies had a broad, multi-media perspective of the facilities.
Suggestions for Action

1. EPA should continue to explore a multi-media approach at federal facilities. One suggestion is to conduct simultaneous state and federal multi-media inspections of facilities. EPA is planning to test a prototype multi-media inspection program this year. If successful, this could be used by EPA regions to select and inspect environmentally significant federal facilities on a region-by-region basis.
IMPROVING THE EFFECTIVENESS OF ENFORCEMENT

Improve Infrastructure and Training

Problems and Concerns

1. Consistency is a common problem faced by both the Navy and the EPA concerning staff training and staff turnover. These consistency problems occasionally resulted in an inappropriate enforcement response. (See also earlier discussion on training.)

Suggestions for Action

1. EPA should develop the tools and processes needed to implement and evaluate an enhanced, multi-media regulatory approach.

2. Each EPA region should develop a screening process to identify those situations which warrant a formal enforcement response and to decide upon the most appropriate form of response (i.e., whether a single-media or multi-media response is warranted).

3. EPA should decide what statutory authority or authorities should be used to address significant problems. In some situations, the original inspection might have been performed under one program authority, while the more effective authority lay elsewhere. Similarly, a multi-statute approach may be appropriate when violations at a facility are found under more than one statute.

Target Enforcement to Achieve Maximum Environmental Benefit

Problems and Concerns

1. A perception exists among some Navy staff that enforcement activities sometimes place too much emphasis on compliance with administrative requirements which they consider to have relatively little to do with the protection of human health and the environment. But, the regulators believe that these violations of administrative requirements reflect upon how well environmental laws are being implemented on the base. The regulators also point out that it is difficult to agree as to which administrative requirements have little to do with the protection of human health and the environment.
Suggestions for Action

1. Four basic criteria should guide priority setting for regulatory enforcement by EPA and the states. Priority inspections and enforcement actions should be based on the extent to which the activity is likely to result in one or more of the following objectives being met: reduce risk to human health and the environment; prevent pollution or minimize waste; preserve the integrity of the regulatory structure; and deter violations in an important regulated sector. Further, EPA regional offices and states should strive for consistency in applying these and other criterion.

Strengthen the State/Federal Relationship

Problems and Concerns

1. The states, which conduct the bulk of all environmental inspections under the delegation process, are a fundamental part of the entire enforcement effort. During the past few years, EPA has made considerable progress in communicating with the states and formalizing the relationship through the negotiation of the annual region/state agreements which commit the regions and states to specific activities. Despite this progress, there is still room for improvement in the state/federal relationship. Several participants in the Dialogue expressed frustration over perceived inconsistent approaches and interpretations of requirements between EPA and the states, inconsistent application of inspection criteria, lack of communication, and inconsistent information concerning a facility or specific enforcement action.

2. As noted previously, the state and federal environmental regulators enforce different statutes which have similar, but not always identical requirements. Just as the private sector must comply with state and federal environmental requirements, so too must the Navy comply with different sets of requirements. State and federal regulators, for their part, must also recognize the desirability of consistency of regulations and the frustrations that arise within the regulated community when state and federal regulators fail to communicate or take inconsistent positions unnecessarily.

Suggestions for Action

1. To help improve the state/federal relationship, EPA should review its oversight function with respect to
state programs to assure it is as constructive as possible. EPA will need to strengthen the state/EPA Agreements process in order to promote stronger and more effective state programs.

2. EPA should solicit state input in the development of enforcement priorities such as through the annual operating guidance and program specific planning processes.

3. EPA should place more emphasis on delivering to the states the generic and program-specific training materials developed under the EPA basic inspector training and development program.

Improve Data Systems

Problems and Concerns

1. There was a great deal of discussion among Dialogue participants about the lack of adequate data systems, or the limitations of current systems, to accurately track the compliance status of Navy (or other federal) facilities. The participants acknowledged that problems existed both in the Navy and with the regulators.

Suggestions for Action

1. EPA should develop linked data systems that accurately reflect compliance and enforcement status and strengthen the institutional ability to "look" across programs.

Expand Training Programs

Problems and Concerns

1. Dialogue participants and Navy facility personnel pointed to inadequate training as one of the root causes for instances of non-compliance at Navy facilities. Effective enforcement of environmental laws and regulations is equally dependent on highly qualified legal and technical personnel.

2. Last year EPA implemented a formal inspector training and development program (EPA Order 3500.1), recognizing that compliance inspection was one of the first critical steps in the enforcement process. The Agency has also developed a training program for new attorneys. Inspectors must be able to identify and document violations which are not readily apparent, including ones which could be referred to other media programs.
Suggestions for Action

1. EPA should develop a comprehensive enforcement training capability to train inspectors, technical personnel, investigators, and prosecutors in all phases of enforcement. The goal should be to provide introductory training with a general overall multi-media, multi-disciplinary perspective towards enforcement.

2. The Navy should utilize EPA training for compliance inspections.

3. Because training is worthless if people do not stay on the job long enough to use their skills, turnover remains a serious problem in both regions and states. Both the Navy and EPA should develop incentives to be able to recruit and retain qualified staff.

4. EPA should continue to provide training materials and opportunities to state enforcement personnel.

Enhance Enforcement's Role in Rule Making

Problems and Concerns

1. While the success of environmental regulations depends on effective enforcement, effective enforcement in turn depends on precise and carefully crafted regulations and permits which clearly mark the line between compliance and non-compliance. Vague regulations hinder the enforcement process.

Suggestions for Action

1. EPA should review selected regulations one year after promulgation, both to analyze their enforceability and to make any adjustments relating to the implementation of the regulations.
PUBLIC PARTICIPATION

Engaging the public fully and fairly in decisionmaking is critical to the success of any hazardous waste management program, especially when the responsible party is the U.S. government. Members of the public in the vicinity of a Navy base are concerned about the extent and type of contamination present; whether pollution is migrating off-site towards their neighborhoods; whether toxics discharged by an installation may affect their health and property; how and when wastes will be cleaned up; and how much such efforts will cost. Overall, they want reliable information and straightforward answers.

General Concerns

Public participation in a variety of Navy hazardous waste management initiatives has frequently been inadequate. The problem has many dimensions. Navy officials sometimes perceive questions from the public as unfair scrutiny of their installation by outsiders who do not understand the military mission. The public is often denied access to important information. In some cases, citizens' rights to the information are challenged, their credentials are questioned or they are told that the information is unavailable.

To the extent opportunities for public participation are extended, they are often formal and perfunctory. Some citizens complain that Navy public meetings end up being little more than lectures about base accomplishments with little time for a real give-and-take. The public is often consulted only after a decision is made. The Navy and the regulatory agencies often fail to reach out to independent experts the members of the public trust. Rather than trying to work with independent scientists and engineers, Navy officials sometimes try to discredit their methods and findings.

Frequently, the result of these problems -- at least in the case of complex and controversial hazardous waste issues -- is not a public that doesn't participate, but rather a public that participates in a frustrated, angry and sometimes misinformed way. This is a critical point sometimes not recognized by Navy officials and regulators.

Public Participation in Compliance Agreements

Signing an agreement to bring a Navy facility into compliance with RCRA and state hazardous waste laws begins a process by which hazardous waste management issues can be resolved: wastes are cleaned up, practices are modernized, and facilities are upgraded, all under a binding schedule. Signing a compliance agreement also begins another process: monitoring of the agreement by the affected public. To the public, a compliance agreement is an environmental report card. It indicates how well hazardous waste
problems are being resolved at a base. Is the installation meeting the commitments in the agreement? Are the EPA and the state environmental agency regulating in a strong and fair manner? Is Congress providing adequate funding? Are contractors doing an effective job?

If the terms of a compliance agreement are not met, the public makes its views known in a variety of ways: a citizen suit may be filed; Congressional representatives or the press may be contacted; or a direct citizen protest may occur.

Suggestions for Action

1. Navy facilities and regulators should develop, with citizen input, a public involvement process not only consistent with RCRA but also tailored to the needs of the particular affected community.

2. The Navy should solicit community concerns at the earliest possible time during the development of a compliance agreement and the subsequent implementation.

3. A public liaison officer should be assigned to work with concerned citizens and organizations at Navy bases facing hazardous waste management problems. The liaison officer should be responsible for listening to citizens' concerns, providing them with responsive and reliable information, and generally educating them about waste management problems and approaches including the facility compliance agreement.

4. In addition to the public liaison officer, the commanding officer and technical personnel should involve themselves with the public on a regular basis in order to ensure that full and accurate information and response is provided especially concerning the facility compliance agreement.

5. Meetings should be regularly scheduled to update the public on waste management initiatives including the status of the facility compliance agreement. The meetings should include a question-and-answer session and be structured so as to allow for an honest and informal exchange of information and concerns. Representatives of EPA and the state environmental agency should attend and participate.

6. Status reports should be provided by the Navy and appropriate regulatory agencies to the community on a periodic basis. The reports should discuss, among other things, the status of the facility compliance agreement.
7. Public documents should be accurate and readable. Gaps in information should be acknowledged and risks should be placed in a context that neither trivializes nor exaggerates them.

8. The Navy should reach out to independent experts the public trusts. Where there are differences of opinion between the Navy and independent experts, they should be confronted in an open and fair manner after a full exchange of information.
APPENDIX A

Secretary of Defense Cheney’s Memorandum
MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS

SUBJECT: Environmental Management Policy

This administration wants the United States to be the world leader in addressing environmental problems and I want the Department of Defense to be the Federal leader in the agency environmental compliance and protection.

Federal Facilities, including military bases, must meet environmental standards. As the largest Federal agency, the Department of Defense has a great responsibility to meet this challenge. It must be a command priority at all levels. We must demonstrate commitment with accountability for responding to the Nation's environmental agenda. I want every command to be an environmental standard by which Federal agencies are judged.

The first priority of our environmental policy must be to integrate and budget environmental considerations into our activities and operations. This will decrease our future liabilities and costs for our people. The effort begins and ends with our people. We need the right people at the right place with the right training.

It is also extremely important that we communicate clearly what we are doing to address our environmental concerns. We need to work harder at telling our environmental success stories and solving our problems in an open, cooperative way with the public and also appropriate regulatory authorities. The universal recognition of effective DoD Environmental compliance and stewardship activities is the surest way to maintain our access to the air, land, and water we need to maintain and improve our mission capability.

We must be fully committed to do our part to meet the worldwide environmental challenge and I know I can count on your support to ensure that we are successful in that effort.

[Signature]
APPENDIX B

Chief of Naval Operation's Environmental Message
UNCLASSIFIED

NAVAL MESSAGE
DEPT OF NAVY
>>> SPECIAL HANDLING REQUIRED <<<

ROUTINE ZTUW RUEANAA3862 2212259
R 092239Z AUG 89 ZEX ZYR
FM CNO WASHINGTON DC
TO ALL NAVY FLAG OFFICERS NAVOP

UNCLASSIFIED PERSONAL FOR FLAG OFFICERS, UNIT COMMANDERS, COMMANDING SECTION C1 OF 02 OFFICERS AND OFFICERS IN CHARGE //NOOOO//
ALUSNA LISBON PO PASS TO DEPUTY CINCIBFRLANT. USOCOSOUTH NAPLES IT PASS TO CINCSOUTH. USLSA SACLANT PASS TO DCOS POLICY SACLANT NAVOP 091/89

SUBJ: ENVIRONMENTAL COMPLIANCE
1. THE NAVY HAS LONG RECOGNIZED THE FRAGILE NATURE OF THE ENVIRONMENT AND IS COMMITTED TO FULL COMPLIANCE WITH ENVIRONMENTAL LAWS AND TO AN AGGRESSIVE ENVIRONMENTAL PROTECTION PROGRAM. ALL COMMANDERS, COMMANDING OFFICERS, AND OIC'S MUST BE SENSITIVE TO ENVIRONMENTAL CONCERNS AND REMAIN ALERT FOR SITUATIONS LIKELY TO INVOLVE ENVIRONMENTAL PROBLEMS. AS YOU ARE AWARE, HAZARDOUS MATERIAL CONTROL/HAZARDOUS WASTE IS A SECNAV/CNO ITEM OF SPECIAL INTEREST DURING COMMAND INSPECTIONS.

2. ENVIRONMENTAL LAWS ARE COMPLICATED. THE TASKS OF ELIMINATING DISCHARGES OF POLLUTANTS TO OUR AIR, LAND AND WATER, PROPERLY HANDLING HAZARDOUS WASTES AND OTHERWISE PROTECTING OUR ENVIRONMENT ARE NOT SIMPLE. BUT IT IS YOUR DUTY TO DETERMINE THE ENVIRONMENTAL CONDITION OF YOUR COMMAND, KNOW WHAT LAWS AND REGULATIONS APPLY, AND COMPLY WITH THEM. THE THREE STATUTES WHICH AFFECT US MOST ARE:

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A. The Resource Conservation and Recovery Act, 42 USC 6935, which governs the storage, transportation, and disposal of hazardous waste. Your command need not deal in exotic chemicals to violate RCRA - the used motor oil accumulating in your motor pool or base hobby shop is classified as a hazardous waste.

B. The Clean Water Act, 33 USC 1317, which governs the discharge of pollutants into the waters of the United States. Pouring paint thinner or other solvents down a drain likely violates the pretreatment standards that must be met before waste liquids may be discharged into sewage systems served by publicly owned treatment works.

C. The Clean Air Act, 42 USC 74119, which governs the release of pollutants into the air. This act can be violated in some areas simply by leaving the top off a can of paint thinner or by failing to comply with regulations governing the handling and disposal of asbestos while a WWII-era building is demolished.

3. Failure to comply strictly with environmental laws has the potential of not only endangering the environment and inviting disruptive enforcement measures, but also tarnishing the reputation of the Navy. Instances of the Navy's failure to comply with existing laws are being used to justify passage of even more restrictive laws that can adversely affect our operations and limit our ability to decide how to fix our own problems.

4. Noncompliance can have serious personal consequences for our people as well. Both military and civilian officials can be subject to criminal penalties if found guilty of environmental violations. Furthermore, even when no criminal charges are brought, commanders and subordinates could face civil liability for noncompliance. The recently enacted federal employees liability reform and tort compensation act of 1988 does not exempt federal officials from personal liability of the sort imposed by environmental laws.

5. OPNAVINST 5090.1 (Environmental Protection Policy Manual) has just been updated to reflect numerous changes in laws, waivers of federal sovereignty, personal liability, and strengthening of the Navy chain of command with respect to environmental compliance. A draft of the instruction will be mailed by OP-04 in August to all major claimants and key staff offices. In particular, you should have your staff closely review chapters 1-4 which deal with command responsibilities, payment of fines, and funding.

6. We must do everything within our authority to protect the environment and the Navy, and to ensure our people do not find themselves faced with personal liability. So that we can continue to provide the best and most timely advice a joint OGC/JAG environmental office has been created, P-coded Judge Advocates are being made available to both Fleet CinCs, and extensive training is being carried out for field lawyers. We are also exploring
REMEDIES TO PROTECT NAVY PERSONNEL FROM PERSONAL LIABILITY FOR ACTS OR OMISSIONS UNDERTAKEN IN GOOD FAITH IN THE COURSE OF OFFICIAL DUTIES.

7. COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS, HOWEVER, REMAINS THE BEST REMEDY. THIS IS WHERE YOU MUST ACT. SPECIFICALLY, YOU SHOULD TAKE ACTION TO ENSURE:

- YOUR COMMAND IS PROPERLY ORGANIZED, TRAINED, AND MANNED TO COMPLY WITH ENVIRONMENTAL REQUIREMENTS WHILE PERFORMING ITS MISSION.
- YOUR PERSONNEL ARE FULLY AWARE OF APPLICABLE REQUIREMENTS THAT PERTAIN TO THEIR DUTIES.
- YOUR COMMAND'S EFFORTS TO COMPLY WITH ENVIRONMENTAL REQUIREMENTS ARE PROPERLY DOCUMENTED. THIS INCLUDES A PROCESS TO ACCOUNT FOR THE ACTIONS OF TENANT AND SUBORDINATE COMMANDS.
- ENVIRONMENTAL PROBLEMS, PARTICULARLY POTENTIAL VIOLATIONS OF APPLICABLE LAWS OR REGULATIONS, ARE SOUGHT OUT AND BROUGHT TO YOUR ATTENTION BEFORE THEY DEVELOP INTO SIGNIFICANT NONCOMPLIANCE SITUATIONS.
- YOU FUND ROUTINE, RECURRING COMPLIANCE COSTS (SUCH AS PERMIT FEES, SALARIES, SAMPLING/ANALYSIS, TRAINING, ETC.) AND ADEQUATE ENVIRONMENTAL STAFFING FROM YOUR BASE OPERATING FUNDS. FOR NON-Routine, NONRECURRING STUDIES AND CORRECTIVE PROJECTS, THE NAVY HAS ESTABLISHED A CENTRAL ENVIRONMENTAL COMPLIANCE ACCOUNT WHICH MEETS THE REQUIREMENTS OF THE OMB A-106 PROCESS FOR IDENTIFYING FEDERAL AGENCY POLLUTION ABATEMENT PROJECTS. OPNAVINST 5090.1 DISCUSSES THE PROCEDURE FOR REQUESTING THESE FUNDS AND TYPES OF FUNDS AVAILABLE. ENSURE YOUR COMMAND HAS SUFFICIENT FUNDING TO COMPLY WITH REGULATIONS OR, IF NOT, CALL THAT FACT TO THE ATTENTION OF YOUR SUPERIORS.

- YOUR COMMAND WORKS AS AN INTEGRATED LEGAL/TECHNICAL TEAM TO PREVENT ENVIRONMENTAL PROBLEMS. THIS INCLUDES CONSULTING REGULARLY WITH YOUR STAFF JUDGE ADVOCATE, OGC COUNSEL, OR NAVAL LEGAL SERVICE OFFICE FOR LEGAL ADVICE, AND CONSULTING REGULARLY WITH YOUR STAFF CIVIL ENGINEER, NAVFAC ENGINEERING FIELD DIVISION, OR NAVY ENERGY AND ENVIRONMENTAL SUPPORT ACTIVITY FOR TECHNICAL ADVICE THEREBY ENSURING THAT PROBLEMS ARE ANALYZED FROM BOTH PERSPECTIVES.

8. CONGRESS HAS CLEARLY DECLARED ITS INTENT TO DEVELOP A PROGRESSIVELY MORE COMPREHENSIVE SYSTEM OF ENVIRONMENTAL LAWS. IMPLEMENTATION OF THE LAWS ALREADY ENACTED HAS PRODUCED REGULATIONS THAT IMPACT ALL AREAS OF OUR OPERATIONS. MANY OF THESE LAWS HAVE PLACED SERIOUS CONSTRAINTS ON OUR COMMANDING OFFICERS, BOTH ASHORE AND AFLOAT, AND IMPACT THE OPERATIONAL CAPABILITIES OF THE NAVY. NEVERTHELESS, WE MUST FIND WAYS TO ACCOMPLISH OUR MISSION WHILE AT THE SAME TIME LIVING IN HARMONY WITH OUR ENVIRONMENT AND ITS OTHER USERS. I RECOGNIZE THE DIFFICULTY OF THIS CHALLENGE.

ENVIRONMENTAL COMPLIANCE IS NOT A ONE-TIME EFFORT; CONSISTENT, THOROUGH, AND ONGOING COMMAND ATTENTION IS ESSENTIAL. I URGING YOUR
PERSONAL COMMITMENT TO THIS VITAL AREA. A PROTECTED ENVIRONMENT IS OUR MISSION.
4.1 GENERAL

The Hazardous Waste Management Plan (HWMP) provides wide guidance to base personnel who work with HW. With the frequent personnel and regulation changes an activity experiences, the HWMP provides the consistent guidance necessary to support compliance with the regulatory demands.

HWMPs can vary from very detailed, as in the case of a Naval Shipyard which may generate millions of kilograms of HW a year and performs collection, analysis, storage, treatment and disposal operations, to very simple, as in the case of a small communications station which may generate a few hundred kilograms of HW a year, and collect and transport it to their host command. Though the two above plans will be substantially different in scope and size, they are both of the same importance to the user.

A HWMP will provide its user with the information necessary to run a safe, legal and efficient HW management program, with the major objective of the HWMP being to insure compliance with the applicable regulations. This is accomplished by sectioning the HWMP into specific components, each component addressing different aspects of the HW management program.

4.2 COMPONENTS OF A HAZARDOUS WASTE MANAGEMENT PLAN

The HWMP components are listed and defined below. If a Federal regulation applies to a component it will be specified. Examples of the HWMP components are given in the sample HWMP, Appendix A of this manual. The sample plan was developed for a fictitious, medium size Naval Air Station, which is classified as a large quantity generator of HW as defined by Title 40 CFR 260.10. This sample is to be used as a guide for developing a HWMP. It should be recognized that depending on the volume of HW generated at an activity, the HWMP should be more or less detailed than that of the sample HWMP in Appendix A. The sample plan contains examples of the HWMP components. Corresponding Appendix A section numbers are indicated following the explanation of each component to help locate the component example in the sample plan.

4.2.1 HWMP Implementing Base Instruction: Implement the HWMP with a one-page, activity-wide instruction signed by the Commanding Officer. This endorsement will mandate compliance with the plan by the HW generator located at the activity. The base instruction should be the first thing the user reads, and it should precede the HWMP introduction.
4.2.1 Introduction: The HWMP begins with a section explaining to the reader the purpose of the plan and by what authority it was developed. If the plan is implemented by a base instruction, the base instruction should precede this section. See Appendix A, Sections 1 and 2 of this manual.

4.2.3 Definitions: To assist the user in fully understanding the HWMP and other HW management documents the EPA definitions of the major terms should be given. The terms to be defined and their location in the regulations include, but are not limited to:

- Small quantity generator (SQG), 40 CFR 261.5
- Solid waste, 40 CFR 261.2
- Hazardous substance, 40 CFR 116-117
- Listed waste, 40 CFR 261.30-261.33
- Hazardous material, 49 CFR 171.8
- Hazardous waste, 40 CFR 261.3
- Ignitability, 40 CFR 261.21
- Corrosivity, 40 CFR 261.22
- Reactivity, 40 CFR 261.23
- EP toxicity, 40 CFR 261.24
- Satellite accumulation area, 40 CFR 262.34
- Other regulated materials (ORM), 49 CFR 172.101

Definitions of the above terms are provided in Appendix A, Section 3 of this manual.

4.2.4 Regulations: The major federal, state and local regulations affecting an activity should be listed in this section. This will give the novice user an understanding of the need and requirement of the program, and provide the experienced user a valuable reference. See Appendix A, Section 4 of this manual.

4.2.5 Responsibility: The duties and responsibilities of all personnel involved with the HW management program are to be listed in this section. It will outline the employees' tasking and responsibilities, provide a basis for determining performance elements, job descriptions, and can be used as justification when requesting manpower. See Appendix A, Section 5 of this manual.

4.2.5.1 Organizational Chart: A chart showing the HW management chain of command should be developed. It will graphically describe the correct direction that information will flow. See Appendix A, Section 5 of this manual.

4.2.6 Hazardous Waste Inventory and Location Maps: See Chapter 3 for preparing the inventories, and Appendix A, Section 6 for a sample inventory.

4.2.6.1 The location map should clearly show the perimeter of the base and the areas where HW is generated and stored. General Development Maps (GDM) are useful for this purpose. Contact the base Public Works organization or the cognizant EFD for a copy of the appropriate GDM.
4.2.7 Requirements for Generators/Standard Operating Procedures (SOPs):

4.2.7.1 The correct procedures in the generation, containerization, collection, labeling, marking, recordkeeping, packaging, handling, storage, treatment, transportation and disposal should be explained in detail. **THIS IS THE MOST CRITICAL SECTION IN A HWMP.** It provides the HW generators, operators and managers detailed procedures to use in the day-to-day operation of a HW management program. In developing the HWMP for an activity, current SOPs will be examined very closely. An inspection should take place in which the author of the plan, whether an activity employee or a contractor, will give detailed guidelines for the criteria listed above. Contractors should work very closely with an activity to become familiar with needed SOP guidelines.

4.2.7.2 The procedures should be developed from the following sources:

a. Federal Regulatory Requirements:

   - 40 CFR 262-264 lists or gives reference to the federal requirements for HW generation, containerization, collection, labeling, marking, recordkeeping, inspection, packaging, handling, storage and disposal requirements.

   - 49 CFR 172, 173, 178, and 179 lists or gives reference to Department of Transportation packaging, marking and labeling regulations required for transport.

b. State and local regulatory requirements: If your state or locality has more stringent regulations, then they must be incorporated in the procedures. Contact your cognizant EFPI for assistance.

c. Navy Regulations:

   - Navy HW regulations can be found in Chapter 11 of OPNAVINST 5090.1 of 25 May 1983.

   - Navy Occupational Safety and Health regulations can be found in OPNAVINST 5100.23B.

d. Outside sources: As long as the regulatory requirements are met, an activity can adapt procedures recommended by outside consultants and/or agencies.
4.2.3 Sample standard operating procedures are included in Appendix A, Section 7 of this manual.

4.2.3 Storage Requirements:

4.2.3.1 A well organized inspection plan is required to insure that the HW management program is being implemented correctly and the activity is complying with all pertinent regulations.

4.2.3.2 All activities that have a Resource Conservation and Recovery Act (RCRA) permitted treatment, storage and disposal (TSD) facility are required to use the following inspection criteria:

a. HW facility general inspection criteria are listed in 40 CFR 264.15.

b. HW container inspection criteria are listed in 40 CFR 264.174.

c. HW tank inspection criteria are listed in 40 CFR 264.194.

d. HW surface impoundment inspection criteria are listed in 40 CFR 254.226.

e. HW pile inspection criteria are listed in 40 CFR 264.254.

f. HW incinerator inspection criteria are listed in 40 CFR 264.347.

Incorporate the appropriate referenced inspection criteria into the activity inspection plan.

4.2.3.3 All activities which are classified as generators of HW and DO NOT have a permitted TSD facility (store waste for less than 90 days) are required by RCRA to follow the inspection criteria in 40 CFR 265.174.

4.2.3.4 Activities which are classified as conditionally exempt small quantity generators are not required by RCRA to have an inspection plan. But, as part of best management practices, an inspection system should be developed.

4.2.3.5 An inspection program not only assures compliance with the applicable regulations, but it also keeps the program coordinator informed on how well the program is operating. Through inspections the coordinator will be able to confirm that the handlers and generators are following the guidelines established by the HWMP and related instructions.

4.2.3.6 To insure compliance, an activity's inspection plan criteria will be as stringent as the inspection criteria required by the regulations.

4.2.3.7 A sample inspection plan is included in Appendix A, Sections 7.6, 3.3.6, 3.4, and 11.2.
4.2.9 Disposal: An explanation of the procedures for HW pick-up and disposal should be included in this section. Information regarding DD 1348-1 requirements should be referenced or discussed. See Appendix A, Section 9.

4.2.10 Training Plan:

4.2.10.1 Properly train the HW management personnel so they can successfully complete their duties. For each HW management position, review the responsibilities of that position and determine the type and frequency of training.

4.2.10.2 All activities that are generators of HW are required by RCRA to have personnel complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that insures compliance with the regulations. The training requirements to be included in this plan are listed in 40 CFR 264.16.

4.2.10.3 The Navy currently offers the following hazardous waste management and emergency response training courses:


This four day course will provide the participants with fundamental information required to manage and supervise their hazardous waste (HW) facility as required by RCRA and Navy policy. This course fulfills the general training requirements initially required for HW supervisors and managers by RCRA regulations (40 CFR 264.16 (a)(1) and 265.16 (a)(1)), and 24 hours of initial training required by Superfund Amendments and Reauthorization Act regulations (29 CFR 1910.120 (o)(5)). The course provides fundamental information in the safe and environmentally proper operation of hazardous waste facilities in accordance with all applicable U.S. EPA and Navy guidelines. Topics covered in the class include hazardous materials and hazardous waste laws and regulations; Navy hazardous materials and hazardous waste management; hazardous material identification and classification; generator requirements; information sources; health effects and personal safety; labeling, packaging, handling, storage, and transportaiton procedures, as well as spill response planning and contingency or emergency response procedures.

b. Hazardous Waste Training Program Development Course (HWTPDC) (Previously titled Hazardous Waste Train the Trainer Course)

This three day course will provide information on developing and implementing an activity-wide "in-house" training program. RCRA regulations (40 CFR 264.16 (a)(1) and 265.16 (a)(1)) and Superfund Amendments and Reauthorization Act regulations (29 CFR 1910.120 (o)(5)), requires activities to develop and implement an HW training program. This course, in conjunction with a general HW management course (for example, the Hazardous Waste Facility Operations Course) will qualify a person to direct an activity's
HW training program. Participants will be exposed to alternative methods of successful instruction and the use of training tools and aids to effectively conduct "in-house" training sessions. This course will not cover general hazardous waste information found in the HWFOC or HWARRC.

c. Hazardous Waste Annual Review and Refresher Course (HWARRC)
(Replace Hazardous Waste Managers Course)

This two day course will provide participants with: (1) an update of new U.S. EPA and U.S. Department of Transportation requirements which impact the activity's hazardous waste and hazardous materials program, (2) new Department of Defense and Navy policies and programs, (3) a refresher of fundamentals in hazardous waste facility operations. The course fulfills general aspects of "annual review of initial training" as required by RCRA regulations (40 CFR 264.16 (a) (1) and 265.16 (a) (1)). The course also fulfills the eight hours of annual refresher training for managers of RCRA sites with routine operations as required by the Superfund Amendments and Reauthorization regulation (29 CFR 1910.120 (c) (5)).

d. Hazardous Substance Incident Response Management Course
(HSIRMC)

This five day course will provide the key activity personnel with the knowledge to develop an activity hazardous substance (HS) incident response management plan (contingency plan) and to improve the response performance of the response team. This course will cover the spill response requirements necessary to ensure that all HS spills, fires, and explosions are responded to safely, efficiently, and in accordance with the National Oil and Hazardous Substance Pollution Contingency Plan (NCP—40 CFR 300).

4.2.10.5 Training can also be obtained through courses offered by the EPA, other DOD agencies, private consulting firms, educational institutions and many other sources. For information regarding HW training courses in general, contact your EFD, Code 114.

A sample training plan is included in Appendix A, Section 10.

4.2.11 Reporting and Recordkeeping: RCRA specifies certain types of records that may be audited by federal or state officials and, therefore, need to be easily accessible. Such reports and records include HW storage records, inspection records, HW reports, training records, medical records, HW manifests, and Land Disposal Restriction records. Information regarding report and recordkeeping requirements can be found in Appendix A, Section 11 of this manual.

4.2.12 Hazardous Waste Analysis Plan and Land Disposal Restriction Requirements:
4.2.11.1. All activities that have obtained or applied for a permitted treatment, storage, and/or disposal (TSD) facility, are required by RCRA to have detailed chemical and physical analysis performed on a representative sample of the waste before they treat or dispose of any HW. They are also required to develop and follow a written HW analysis plan to analyze the waste. The analysis requirements for a permitted TSD facility are listed in 40 CFR 264.13. The analysis requirements for an Interim Status TSD facility are listed in 40 CFR 265.13. Hazardous Waste Analysis Plans are required in all permit applications for TSD facilities. Once a HW analysis plan is approved as part of a permit application and the application is approved overall, the HW analysis plan becomes an enforceable requirement.

4.2.12.2 In 1984, the Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) were signed into law. This law is commonly known as the Land Disposal Restrictions (LDR) rule. LDR prohibits untreated wastes to be disposed in landfills, surface impoundments, waste piles, injection wells, and land treatment facilities.

All restricted wastes are subject to testing and recordkeeping requirements of the LDR. The requirements are listed in 40 CFR 268. Requirements for waste analysis and recordkeeping are listed in 40 CFR 268.7. Appendix A, Section 12.2 of this manual provides specific information regarding LDR waste analysis and recordkeeping requirements.

EPA publishes a booklet to help generators and TSD facility owners/operators understand the LDR requirements. Land Disposal Restrictions, Summary of Requirements, EPA Solid Waste and Emergency Response document number OS-520, June 1989, can be obtained by contacting your EPA regional office.

4.2.13 Hazardous Substance Spill Plans:

4.2.13.1 All activities that have a permitted treatment, storage and/or disposal facility are required by RCRA to have a hazardous waste contingency plan. This plan must describe the actions facility personnel will take to comply with 40 CFR 264.50-264.56 in response to fires, explosions, or any unplanned release of hazardous substances to air, soil or water. This contingency plan is specific to the TSD facility.

4.2.13.2 Activities which are generators and accumulate HW on-site for 90 days or less are required to have a contingency plan prepared in accordance with 40 CFR 265, part D. This contingency plan is specific to the less than 90-day accumulation area.

4.2.13.3 The Chief of Naval Operations (OPNAVINST 5090.1) requires all installations that handle hazardous materials or waste, in any quantity, to have a Hazardous Substance Spill Contingency Plan and an Oil Spill Prevention, Control and Countermeasure Plan. For assistance in preparing an
installation contingency plan, use the *Hazardous Substance Spill Contingency Planning Manual*, NEESA document number M15-020. For assistance in preparing a spill prevention plan, use the *Oil Spill Prevention, Control, and Countermeasures Planning Manual*, NEESA document number 7-030.

4.2.12.4 Activities which have their HW managed by a host command, are to have the section of the installation contingency plan pertaining to them or a copy of the entire contingency plan.

4.2.14 Closure Plan:

All activities that have a permitted TSD disposal facility are required by RCRA to have a facility closure plan. A copy of the approved plan must be kept at the facility until closure is completed and certified. The closure plan requirements to be included in this plan are listed in 40 CFR 264.110-264.115, and the applicable requirements of 40 CFR 264.178, 264.197, 164.223, 164.258, 264.280, 264.310 and 264.351.

Hazardous Waste Facility Closure Plans are required in all permit applications for TSD facilities. Once a HW Facility Closure Plan is approved as part of a permit application and the application is approved overall, the closure plan becomes an enforceable requirement. If you have submitted an application or received a TSD permit, use the permit’s HW Facility Closure Plan.

4.2.15 The Navy requires that each activity generating HW must develop a HW minimization program. A section in the HWMP can be dedicated for this purpose. Additional HAZMIN information can be found in 4.4 of this chapter. Appendix A, Section 15 gives an example of HAZMIN information incorporated into a HWMP.

4.2.16 Other Requirements

4.2.16.1 The following Federal Regulations are pertinent to HW management:

- 40 CFR 260
- 40 CFR 261
- 40 CFR 262
- 40 CFR 263
- 40 CFR 264
- 40 CFR 266
- 40 CFR 267
- 40 CFR 270
- 40 CFR 300
- 49 CFR 171
- 49 CFR 172
- 49 CFR 173

Contact EFD for state regulations.

4.2.16.2 Hazardous Waste Packaging, Labeling, and Marking Information (Appendix A, Sections 7 and 8 of the sample HWMP).

A table should be developed to assist all workers in correctly packaging, labeling and marking all stored hazardous waste. This table should include the following information about each HW generated by the facility. (Appendix A, Section 7.3)
3. Common Waste Name: the common waste name is that which is best known by local personnel.

(b) Waste Shipping Name: the official shipping name as recognized by the DOT Hazardous Materials Table, found in 49 CFR 172.101, column (2).

(c) The Identification Number (UN/NA): Lists the identification numbers assigned to hazardous materials. Those preceded by a "UN" are associated with descriptions considered appropriate for international shipments as well as domestic. Those preceded by an "NA" are associated with descriptions that are not recognized for international shipments, except to and from Canada. The UN/NA number can be found in 49 CFR 172.101, column (3A).

(d) EPA Identification Number: the EPA identification number is required in complying with Notification Requirements of Section 3010 of RCRA and certain recordkeeping and reporting requirements under 40 CFR 262 through 265. The EPA identification numbers can be found in 40 CFR 261.

(e) Hazard Class: lists a designation of hazard class corresponding to each proper shipping name. The appropriate hazard classes can be found in 40 CFR 172.101 (3).

(f) Label Required: specifies the basic labeling requirements to be applied to each container of HW. The label requirements can be found in 49 CFR 172.101 (4), subject to the additional label requirements in 172.402.

(g) Container Required: specifies the DOT approved container for transportation of each specific HW. The appropriate containers can be found by going to 49 CFR 172.101 (5)(a) and (b). This will give you a reference to 49 CFR 173, which lists the containers required. (Appendix A, Section 7.2)

4.2.16.3 Compatibility Table

Documents to help determine HW compatibility are referenced in Appendix C. The documents will help establish a waste segregation plan. The waste segregation plan will be incorporated in the standard operating procedures (SOPs) section. Proper waste segregation is very important for developing a good hazardous waste management/minimization plan. Segregation techniques and categories will compliment and enable recycling, reclamation, reutilization and other minimization techniques.

To obtain methods for determining the compatibility and segregation categories of HW, use A Method of Determining the Compatibility of Hazardous Waste, EPA/600/2-80-076, document number PB 80-221005, published by the National Technical Information Service, 52855 Port Royal Road Springfield, VA 22161. Telephone, (703) 487-4650. This document is also used as class material in the Hazardous Waste Facilities Operations Course (HWFSC), presented by the Naval Energy and Environmental Support
Activity. For information regarding this course, contact your cognizant EPD or NEESA. Methods for determining the compatibility and segregation categories of HW can also be found in the Used Oil and Solvent Recycling Technology Transfer Manual, NEESA document number 19-001A, published by NEESA, Code 112F3, commercial telephone (305) 982-4889, Autovon: 551-4889. This document also provides valuable information pertaining to used oil and solvent recycling and reutilization options and can be helpful in developing the HWMP and a HW minimization program.

4.3 UPDATING THE HAZARDOUS WASTE MANAGEMENT PLAN (HWMP)

When updating a HWMP, each component should be developed specifically for the facility, reflecting its individual characteristics. The following procedure should be followed when creating components:

4.3.1 Take a HW inventory of the base. Consult Chapter 3 of this manual to assist in developing an inventory.

4.3.2 Re-determine the Federal, State, local and Navy requirement for each component, based on type and quantity of HW generated. Consult Chapter 2 of this manual to assist in determining these requirements.

4.3.3 Use the description of the HWMP components and the samples provided, to create a new update of an existing HWMP.

4.4 HAZARDOUS WASTE MINIMIZATION (HAZMIN)

NEES publishes a HW minimization bulletin, the HAZ-MINIMIZER on a quarterly basis. It provides current information on HAZMIN information, techniques and success stories. It graciously accepts articles from DoD activities regarding implemented HAZMIN techniques. To have your activity added to the mailing list for the HAZ-MINIMIZER contact NEESA, Code 112F3, Commercial (805) 982-4893 or Autovon 551-4893.

Additionally, NEESA has prepared the HAZMIN Note, Volume 1 to provide a quick reference on the basic steps an activity can take to establish a HAZMIN Program. Because this guide is general in nature, activities will need to tailor the steps to suit the specific needs of an activity. A copy of the HAZMIN Note, Volume 1 is included in Appendix I of this manual. For further reference, NEESA will also provide guidance on general HAZMIN techniques in Volume 2 of the HAZMIN Note. It will be available in the June 1990 edition of the HAZ-MINIMIZER. Further HAZMIN information is available through EPA’s Waste Minimization Opportunity Assessment Manual, EPA document number 625/7-88/003. This manual can be obtained by contacting your EPA regional office.
APPENDIX D

Preliminary Issues of Concern Identified

at the Initiation of the Dialogue
At the beginning of the Dialogue, the participants identified issues of concern and interest that would guide the development of the Dialogue's agenda. Three primary areas were identified: accountability, resources and source reduction. Under each issue area, specific areas of interest were identified.

**Accountability**

- How to utilize military chain of command to comply internally with stated policies and procedures and externally with regulations (including federal, state, and local regulatory agencies).

- How to integrate incentives and disincentives into existing management to promote internal and external accountability by military and non-military staff regarding desirable hazardous waste behavior.

- How to best promote contractor accountability.

- Are there case studies that can be examined to learn about successful and unsuccessful examples of desirable behavior regarding internal/external accountability?

- What kind of internal education (particularly for individuals with "clout") might be useful to promote desirable hazardous waste behavior?

- Identify how the unique aspects of the Navy/military make them different in addressing hazardous waste issues.

- Role of state law in compliance/enforcement.

- Identify how the unique aspects of the Navy/military should be dealt with, particularly to enhance compliance.

- How do internal and external accountability issues relate to responsible global environmental behavior for the Navy/DoD?

- Examine the issues outlined about understanding the difference between compliance and corrective action.

**Resources**

- How are internal resources currently identified/allocated to address hazardous waste issues?

- What is the existing external (i.e., Congressional funding) resource allocation process related to hazardous waste issues?
- Are there strategies available to appropriately streamline or focus the resource analysis/allocation process internally or externally?

- How does the difference between compliance and corrective action affect the internal/external resource issues?

Source Reduction

- How can the Navy/military best internalize the cost of hazardous waste management?

- What is the role of research and development in approaching hazardous waste issues?

- How is the Navy/military investing in up-front R&D to mitigate hazardous waste problems?

- What are the long-term costs and trade-offs of hazardous waste management; do they create incentives for source reduction?

In subsequent meetings, the issues raised in these questions guided the participants' interactions with Navy personnel.
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