
Office of Inspector General
Audit Report

Environmental Restoration
United States Coast Guard

Report Number: MA-1999-083
Date Issued: April 6, 1999





Memorandum

**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

Office of Inspector General

Subject: INFORMATION: Final Report on Environmental
Restoration, United States Coast Guard
MA-1999-083

Date: April 6, 1999

From: Lawrence H. Weintrob
Assistant Inspector General for Auditing

Reply to
Attn of: JA-40

To: Commandant
United States Coast Guard

We are providing this report for your information and use. Your March 26, 1999 comments to our revised draft report were considered in preparing this report. A synopsis of the report follows this memorandum.

In your comments to the draft report, you concurred or concurred in part with the recommendations. We consider your planned actions to be responsive, but request you provide us copies of guidance or policy issued in response to the recommendations. The recommendations are considered resolved subject to followup provisions of Department of Transportation Order 8000.1C.

We appreciate the courtesies and cooperation of your staff. If you have any questions, please call me at (202) 366-1992 or Tom Howard, Deputy Assistant Inspector General for Maritime and Departmental Programs, at (202) 366-5630.

Attachment

#

Environmental Restoration

United States Coast Guard

Report No. MA-1999-083

April 6, 1999

Objectives

The objectives were to evaluate the United States Coast Guard's (Coast Guard) (1) progress in the cleanup of contaminated facilities, (2) actions to prevent future contamination of facilities, and (3) effectiveness in establishing performance measures. Our review emphasized the restoration portion of the Environmental Compliance and Restoration Program, but we also reviewed selected compliance activities. During our review, we obtained technical assistance from the Office of the Secretary's environmental specialist in the Office of Security and Administrative Management and from a state environmental engineer from North Carolina.

Results in Brief

The Coast Guard has made progress in cleaning up its contaminated facilities. The number of identified restoration projects has decreased from 145 at the end of Fiscal Year (FY) 1993 to 103 in FY 1998 as a result of restoration activity. Likewise, the estimated cost to cleanup its backlog of identified sites has decreased from \$132 million at the end of FY 1993 to \$60 million at the end of FY 1998. Coast Guard estimates the restoration backlog will decrease about \$11 million annually. Congress has regularly appropriated about \$21 million annually for Coast Guard's Environmental Compliance and Restoration Program. Historically, the Coast Guard has used about 59 percent of the annual appropriation for restoration projects. If program funding continues at historical levels, the declining backlog of restoration projects should allow the Coast Guard to reduce future budget requests for environmental restoration.

The Coast Guard has established a program intended to prevent future contamination of facilities through environmental compliance evaluations, formal environmental training, and pollution prevention plans. However, the environmental compliance evaluation process lacked a means for tracking findings and deficiencies. In addition, the Coast Guard did not meet its own requirement to complete environmental compliance evaluations of all units every 3 years.

In support of the Government Performance and Results Act of 1993, the Coast Guard issued COMDTINST M16010.1B (dated August 1995). This instruction required Coast Guard program directors to develop, implement, and report on relevant

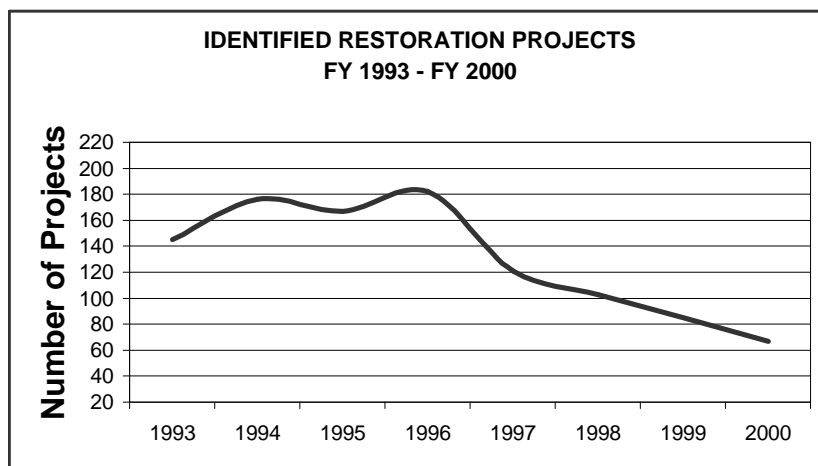
performance measures. For the Environmental Compliance and Restoration Program, three performance measures were developed in October 1996. However, the Coast Guard has neither identified quantifiable baselines for assessing programmatic outputs or outcomes, nor begun to collect performance data associated with the three measures. Without such baselines and data, the Coast Guard will not be able to assess improvement in and/or results of the Environmental Compliance and Restoration Program.

We recommend the Coast Guard reduce the future budget requests to reflect the declining restoration backlog. We also recommend the Coast Guard improve its environmental compliance evaluation process including the tracking of findings; and establish quantifiable baselines and collect performance data to assess program results.

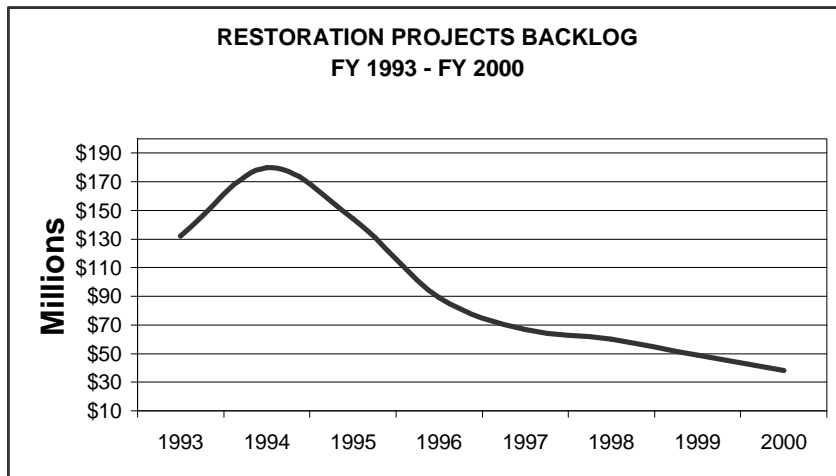
Coast Guard concurred in part with our recommendation to reduce future budget requests to reflect the declining restoration backlog and concurred fully with our recommendations concerning environmental compliance evaluations and performance measures.

Progress in Cleaning Up Contaminated Facilities

The Coast Guard has made progress in cleaning up contaminated facilities, as evidenced by a decrease in identified restoration projects and a decrease in the backlog of restoration projects. The number of active Coast Guard restoration projects has decreased from 145 at the end of FY 1993 to 103 in FY 1998 as a result of its restoration activity. As shown in the following chart, Coast Guard estimates that, by FY 2000, the number of identified projects will be reduced to 67.



Coast Guard's backlog of restoration projects is also decreasing. Backlog is the estimated cost to cleanup contaminated sites that have already been identified. Coast Guard continues to add new restoration projects to the backlog as they are identified, but the backlog does not include the potential impact of sites where cleanup liability has not yet been identified or quantified. The Coast Guard backlog of restoration projects has decreased from \$132 million at the end of FY 1993 to \$60 million at the end of FY 1998. As shown in the following chart, Coast Guard estimates the backlog of projects will decrease to about \$38 million by the end of FY 2000. Congress has appropriated about \$21 million annually for the Environmental Compliance and Restoration Program. Historically, the Coast Guard has used about 59 percent of the annual appropriation for restoration projects. The declining backlog of identified restoration projects should allow the Coast Guard to reduce future budget requests for the environmental restoration.



The Environmental Protection Agency (EPA) considers Coast Guard to be a good environmental steward. We met with the Associate Director of EPA's Federal Facilities Restoration and Reuse Office and the Director of EPA's Federal Facilities Enforcement Office. We also contacted EPA Federal Facility Coordinators in Regions IV, IX, and X. These EPA representatives indicated Coast Guard is responsive to EPA's suggestions and aggressive in meeting its environmental responsibilities. We reviewed EPA's Civilian Federal Agency Environmental Status Reports and found no Coast Guard facilities in significant noncompliance. We also reviewed the National Priorities List, EPA's list of the highest priority cleanup sites in the United States, and found the list included no Coast Guard sites.

Processes to Prevent Future Contamination

The Coast Guard has established a program intended to prevent future contamination of facilities. That program includes environmental compliance evaluations, formal environmental training, and pollution prevention plans. Coast Guard Headquarters has been working closely with all organizational levels to ensure compliance with applicable environmental statutes. However, we found Coast Guard needs to strengthen its internal environmental compliance evaluations. We reviewed a sample of environmental compliance evaluation reports but could not determine whether all corrective actions were completed because the Coast Guard had no formal system to track or follow up on the findings. We also noted that Coast Guard did not meet its own requirement to complete environmental compliance evaluations of all units every 3 years. The Environmental Management Division was working with the Maintenance and Logistics Commands and Civil Engineering Units to correct these weaknesses and further strengthen the environmental compliance evaluation process.

Use of Performance Measures

In support of the Government Performance and Results Act of 1993, the Coast Guard issued COMDTINST M16010.1B (dated August 1995). This instruction required Coast Guard program directors to develop, implement, and report on relevant performance measures. In October 1996, the Coast Guard developed the following three performance measures for the Environmental Compliance and Restoration Program: (1) Clean Up Status, (2) Environmental Compliance Evaluations Findings Index, and (3) Pollution Prevention Scoring System Composite Index.

However, the Coast Guard has neither identified quantifiable baselines for assessing programmatic outputs or outcomes, nor begun to collect performance data associated with the three measures. Without such baselines and data, the Coast Guard will not be able to assess improvement in and/or results of the Environmental Compliance and Restoration Program.

Recommendations

We recommend the Coast Guard reduce the budget line item in future budget requests to reflect the declining restoration backlog. If additional restoration sites are identified, Coast Guard's budget request for this line item can be adjusted accordingly. We also recommend the Coast Guard complete changes to the environmental compliance evaluation process, including creation of an information system to track deficiencies and establish quantifiable baselines to assess programmatic results and ensure information required for measuring performance is maintained.

Management Comments

Coast Guard stated that it is committed to cleaning up all contaminated sites on the backlog and will evaluate long-range budget plans for opportunities to reduce funding requests for cleanup. The Coast Guard acknowledged that its identified cleanup liabilities are decreasing but also noted that additional liabilities, not currently identified, are likely to surface. Coast Guard concurred with our recommendation concerning the environmental compliance evaluation process. Coast Guard stated it expects to release its revised policy addressing this issue in Fall 1999 and have an environmental audit information system in place by May 2000. Coast Guard also agreed to the recommendation concerning performance measures and is developing an environmental management business plan that will include measurements for assessing program effectiveness. Coast Guard said it expects to have a first draft by May 1999 and intends to have a completed plan by the FY 2002 budget submission. A complete copy of Coast Guard's response is included as an appendix to this report.

Office of Inspector General Comments

The actions taken or planned by the Coast Guard are responsive to the recommendations. With respect to our recommendation concerning budget reductions, we recognize the Coast Guard's position that there is a potential for additional restoration sites to surface. However, our audit confirmed that Coast Guard has scheduled or completed restoration of all major contaminated sites. If program funding continues historical levels, the declining backlog of restoration projects should allow the Coast Guard to identify opportunities to reduce budget requests for restoration projects by as early as FY 2002.

While the Coast Guard agreed to our recommendation concerning the environmental evaluation process and identified planned corrective action, completion of the action is tied to the development of an information system. Coast Guard has been aware of weaknesses in the environmental compliance evaluation process since November 1997 and has not taken corrective action. The environmental compliance evaluation process is an important means for ensuring units' compliance with environmental requirements. The Coast Guard needs to take interim action to ensure environmental compliance evaluations are accomplished timely and that deficiencies are corrected.

While Coast Guard concurred with our recommendation regarding performance measures, the timeframe for completion does not appear to be timely. The Coast Guard established performance measures for the Environmental Compliance and Restoration Program in October 1996 but has not yet taken action to make them operational. Under the planned timeline included in Coast Guard's response, it will not be able to begin measuring its program performance until FY 2002. The Coast Guard needs to take timely action to develop measures so that program results can be assessed.

DETAILS OF AUDIT AND RECOMMENDATIONS

BACKGROUND

The Coast Guard Authorization Act of 1989 established the Environmental Compliance and Restoration Program. It directly addresses environmental contamination on Coast Guard facilities. The goals include:

- (1) Identifying, investigating, and cleaning up contamination,
- (2) Correcting environmental damage that poses an imminent and substantial danger to public health or welfare or to the environment, and
- (3) Preventing contamination from hazardous substances and pollutants at current Coast Guard facilities.

Coast Guard is subject to provisions of over 50 Federal environmental laws covering air, water, and solid waste. However, two laws cover the majority of activities included in the Environmental Compliance and Restoration Program. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 regulates the cleanup of inactive or abandoned waste sites. The Resource Conservation and Recovery Act of 1976 regulates day-to-day management of facilities that treat, store, and dispose of hazardous wastes, and the cleanup of hazardous wastes released from the facilities. Coast Guard is also subject to state and local environmental laws. The Federal Facility Compliance Act provides the Environmental Protection Agency (EPA) and the states with authority to levy fines and assess penalties when Federal agencies violate environmental statutes.

The Environmental Management Division at Coast Guard Headquarters issues policy, coordinates funding, and oversees efforts to comply with applicable environmental statutes. The Civil Engineering Divisions of the Maintenance and Logistics Commands manage the environmental program in their areas of responsibility and provide support to the Civil Engineering Units who plan and execute restoration projects. The Civil Engineering Units also provide environmental compliance expertise to Coast Guard units in their areas of responsibility. Local operating units carry out day-to-day operations of the Coast Guard and must comply with all applicable environmental requirements.

From Fiscal Year (FY) 1993 through FY 1998, Congress appropriated about \$129 million for the Coast Guard's Environmental Compliance and Restoration Program. The funds are "no-year funds" that remain available until expended.

Coast Guard's expenditures totaled \$127 million for the same time period as show in the following table.

Appropriations and Expenditures FY 1993 - FY 1998		
FY	Annual Appropriations	Cumulative Expenditures
1993	\$22,000,000	\$17,938,742
1994	22,600,000	39,622,947
1995	20,997,300	63,418,728
1996	21,000,000	85,744,908
1997	21,800,000	106,094,184
1998	21,000,000	127,158,079

In FY 1998, Coast Guard applied approximately 59 percent of the appropriated funds to restoration projects, 20 percent to compliance programs, and 21 percent to personnel¹ costs. This application of funds has remained relatively constant since the Program's inception.

Coast Guard Has an Effective Restoration Program

Description of Coast Guard process

The Coast Guard has identified and scheduled restoration of all major contaminated sites. The Coast Guard identified potential sites by surveying field activities, assessing high-risk facilities where hazardous wastes were generated, examining historical uses of facilities, considering enforcement actions by Federal and state regulators, and incorporating findings from internal compliance evaluations. The Civil Engineering Units add new projects as a result of ongoing compliance reviews, investigations of suspected contamination, and as environmental regulations evolve. When scheduling contaminated facilities for restoration, the Coast Guard uses EPA's classification system to evaluate each site's potential threat to human health and the environment.

The restoration process is executed in several phases and costs are budgeted over several years. The Civil Engineering Units perform initial site assessments, make thorough investigations, and prepare site restoration plans. The Civil Engineering Units prepare cost estimates based on site-specific conditions and revise the estimates as they obtain additional knowledge of the nature and extent of the required restoration. The cost estimates are based on current restoration technology for the worst case at each site and on anticipated long-term monitoring. When

¹ Personnel costs are for 55 full time positions that include environmental protection specialists and engineers who conduct environmental evaluations and compliance inspections, provide technical assistance, and develop environmental policy. The Environmental Compliance and Restoration Program staff also includes legal, contracting, and accounting professionals who support the program.

restoration is completed, state regulators generally decide whether the Coast Guard should close a project or continue long-term monitoring. Along with the environmental specialists assisting us in our review, we tested a sample of project cost estimates. Based on engineering estimates and discussions with Civil Engineering Units, OIG's consulting environmental specialists concluded Coast Guard's project estimates were reasonable.

Illustration of Coast Guard process at Support Center Elizabeth City

During our audit, the Coast Guard was actively involved in three major restoration sites – Integrated Support Command, Kodiak, Alaska; Air Station Cape Cod, Massachusetts; and Support Center, Elizabeth City, North Carolina. To verify the effectiveness of Coast Guard's action, we observed restoration projects at Support Center Elizabeth City, North Carolina. The Support Center is a multi-mission facility consisting of an aircraft repair and supply center, air station, and aviation training center. As a result of environmental compliance evaluations and state inspections, Coast Guard targeted the Support Center for restoration in 1984. The Coast Guard and state regulators discovered several contaminated areas on the 800-acre site, including an abandoned fuel farm, former electroplating shop, fire fighting training area, paint stripping area, and dump site. The contamination occurred when past waste disposal practices were not as stringent as today's. Coast Guard estimated the total cost to restore all contaminated areas at the Support Center was about \$18 million.

One restoration project at the Support Center was a fuel farm that consisted of underground fuel tanks built during the 1940s through early 1960s. Some of the older tanks had been abandoned over the years but newer ones were still in service. When fuel was detected in water wells and utility manholes, the Coast Guard confirmed that the fuel farm tanks were the source of the leaks. The Coast Guard evaluated conditions to determine the water table depth and the direction of the water flow. It then submitted a corrective action plan to the state. Upon approval by state regulators, Coast Guard removed the fuel tanks and pumped the leaked fuel into holding tanks. Coast Guard recovered over 100,000 gallons of fuel and disposed of it in accordance with Federal and state regulations. Coast Guard will continue to monitor for evidence of fuel contamination or until state regulators approve closure of the project. The costs to clean up the fuel farm totaled \$2.5 million through FY 1998. Coast Guard estimates additional monitoring costs of \$750,000 beyond FY 1998 until state regulators approve closure of the project.

The Number of Projects Requiring Restoration Is Decreasing

We obtained and analyzed information concerning Coast Guard's restoration project workload and concluded the number of projects requiring restoration is decreasing. From FY 1993 to FY 1998, the number of Coast Guard's active restoration projects

decreased from 145 to 103 as a result of its restoration activity. Coast Guard estimates that by FY 2000, the number of active projects will be reduced to 67. In addition, the Coast Guard estimates the cost to clean up all identified sites (backlog) has decreased from \$132 million by the end of FY 1993 to \$60 million by the end of FY 1998. Coast Guard estimates the backlog of projects will decrease about \$11 million annually to \$38 million by the end of FY 2000. Congress has appropriated about \$21 million annually for Coast Guard's Environmental Compliance and Restoration Program. Historically, the Coast Guard has used about 59 percent of the annual appropriation for restoration projects. The declining backlog of identified restoration projects should allow the Coast Guard to reduce future budget requests for environmental restoration.

We reviewed individual projects and discussed the project list with Coast Guard's environmental managers and concluded Coast Guard has scheduled or completed restoration of all major sites. Coast Guard continues to add new restoration projects as they are identified. Representatives contacted in EPA's Headquarters and three regions as well as a state regulator from North Carolina indicated that Coast Guard has identified and scheduled all known major restoration projects.

EPA Considers Coast Guard a Good Environmental Steward

We met with the Associate Director of EPA's Federal Facilities Restoration and Reuse Office and the Director of EPA's Federal Facilities Enforcement Office in EPA Headquarters. We also contacted EPA Federal Facility Coordinators in Regions IV, IX, and X. These EPA representatives consider Coast Guard to be a good environmental steward, responsive to EPA's suggestions, and aggressive in meeting its environmental responsibilities. We reviewed EPA's Civilian Federal Agency Environmental Status Reports and found no Coast Guard facilities in significant noncompliance. We also reviewed the National Priorities List, EPA's list of the highest priority cleanup sites in the United States, and found no Coast Guard sites listed. We reviewed Coast Guard files concerning legal action for noncompliance with environmental laws and verified the information to violations reported by EPA. Since 1990, Coast Guard has received three environmental violation notices from EPA and two from the State of New York. Coast Guard corrected the conditions that led to the violations and the violation notices were closed.

One violation notice resulted in a fine of \$1 million from EPA. In 1994, EPA imposed a \$1 million fine on the Integrated Support Command in Kodiak, Alaska, for violations of the Resource Conservation and Recovery Act. Specifically, EPA penalized Coast Guard for illegal storage and disposal of hazardous wastes, and failure to adequately monitor groundwater. Coast Guard environmental managers worked with EPA to correct violations, clean up existing contamination, and reduce

future contamination. As a result, an October 1997 EPA inspection disclosed only minor labeling violations at the Integrated Support Command. Cleanup of contamination from past years of hazardous waste mismanagement continues at the Integrated Support Command, but EPA's Region X compliance inspector said the facility is making progress to restore contaminated sites and address environmental concerns.

Coast Guard has also entered into consent agreements with California, Georgia, South Carolina, Tennessee, and Alaska. Each of these consent agreements concerns the recovery, removal, and disposal of spent batteries for aids to navigation. The consent agreements establish common agendas for the Coast Guard and the states to work together on battery cleanup. Only California's consent agreement included a fine (\$78,347). Coast Guard took corrective actions to recover the spent batteries and continues to work with the states.

The Coast Guard used disposable batteries that contained small amounts of mercury to power most lighted navigation aids until the mid-1980s. Many batteries were discarded on site or were destroyed by collisions, storms, floods, and vandals. A 1994 study by Coast Guard and the Volpe National Transportation Safety Center concluded the discarded batteries did not pose a significant threat to the population or environment. However, the affected states considered the batteries to be hazardous waste that had been improperly disposed of and so Coast Guard committed to recover and properly dispose of discarded batteries. The Coast Guard implemented a systematic program to recover lost batteries nationwide, established policies prohibiting improper battery disposal, and created a "cradle to grave" battery tracking system. In addition, the Coast Guard converted 98 percent of its battery powered lighted navigation aids to rechargeable solar power.

The Coast Guard Has Programs to Reduce Future Contamination

The Coast Guard has established three major programs that are designed to reduce future contamination. These programs involve compliance evaluations, training, and pollution prevention plans.

Environmental Compliance Evaluations Assist Operating Units

Coast Guard Instruction (COMDTINST 16478.5) requires environmental compliance evaluations to be conducted at all units at least every 3 years. Civil Engineering Units perform the evaluations or provide assistance to contractors who perform the reviews. The environmental compliance evaluation reports make specific recommendations, such as improvements in hazardous waste storage and labeling and, when necessary, propose restoration projects to clean up

contamination. Maintenance and Logistics Commands manage the environmental compliance evaluation program for units within their areas of responsibility.

The environmental compliance evaluation program is intended to provide a comprehensive view of units' compliance with environmental requirements. We reviewed a sample of environmental compliance evaluation reports but could not determine whether all corrective actions were completed because the Coast Guard had no formal system to track or follow up on the findings. We also noted that Coast Guard did not meet its own requirement to complete environmental compliance evaluations of all units every 3 years. The Environmental Management Division was working with the Maintenance and Logistics Commands and the Civil Engineering Units to correct these weaknesses and further strengthen the environmental compliance evaluation process. In November 1997, a Coast Guard working group researched other agencies' programs and proposed changes to the program. The Coast Guard continues to work on these proposed changes and is considering establishing evaluation intervals that take into account a unit's size and risk, instead of requiring reviews of all units every 3 years. The Coast Guard will also create an information system to track environmental compliance evaluation findings until closed.

Formalized Training Makes Personnel Aware of Environmental Concerns

Department of Transportation (DOT) regulation (Title 49 Code of Federal Regulations Section 172.704) requires all personnel involved in the management or handling of hazardous materials to receive training in hazardous waste labeling, record keeping, and transportation. Coast Guard established a 28-hour mandatory basic course and a 12-hour annual refresher course to provide training to facility personnel. These courses cover applicable laws and regulations, identification of hazardous wastes, and preparation of manifests for transporting hazardous waste. In addition to these formalized courses, Coast Guard offers other training materials to increase environmental awareness, including videos and accompanying written materials. We selectively verified individual training records at the Maintenance and Logistics Commands. We observed on going training sessions and reviewed course contents with environmental specialists assisting in the audit. We concluded the Coast Guard's environmental training is an effective means for ensuring personnel are aware of their environmental responsibilities.

Pollution Prevention Initiatives Emphasize Reduced Use of Hazardous Materials

Coast Guard has pollution prevention initiatives that reduce the amounts of hazardous materials stored and used at its facilities, thereby lessening the chances that harmful substances will be released. In addition, Coast Guard has developed

recycling guides and detailed pollution prevention plans for use by operating units. We obtained and reviewed the January 1996 pollution prevention plan for the Support Center in Elizabeth City, North Carolina. The plan established baselines of waste generation and chemical use to enable the Support Center to target specific waste processes and set goals for waste reduction. For example, the Coast Guard converted all equipment to clean parts at the Support Center to cyclonic filter systems and, where possible, used less hazardous solvents. The change to cyclonic filters doubled the usable life of solvents and the use of less hazardous solvents significantly impacted the generation of hazardous waste. The combined effect resulted in a 68 percent reduction in solvent wastes from 1996 to 1998. Coast Guard has additional strategies to prevent pollution in daily operations, but we limited our audit to those pollution prevention initiatives funded by the Environmental Compliance and Restoration Program budget.

To evaluate the effectiveness of the Support Center's pollution prevention plan, we obtained a copy of the state regulator's February 1998 inspection report. The state reported that the Support Center had eliminated 44,000 pounds of waste from the plating shop, successfully decreased the use of chemical solvents, and reduced total pounds of hazardous waste by 81 percent from 1995 to 1997. The Support Center received North Carolina Governor's Award for Excellence in Waste Reduction for 1997. We concluded Coast Guard's pollution prevention initiatives were effective in reducing hazardous materials at the Support Center.

The Coast Guard Is Not Using the Performance Measures It Developed

In support of the Government Performance and Results Act of 1993, the Coast Guard issued COMDTINST M16010.1B (dated August 1995). This instruction required Coast Guard program directors to develop, implement, and report on relevant performance measures. In October 1996, the Coast Guard developed the following three performance measures for the Environmental Compliance and Restoration Program: (1) Clean Up Status, (2) Environmental Compliance Evaluations Findings Index, and (3) Pollution Prevention Scoring System Composite Index.

The Coast Guard has neither identified quantifiable baselines for assessing programmatic outputs or outcomes, nor begun to collect performance data associated with the three measures. Without such baselines and data, the Coast Guard will not be able to assess improvement in and/or results of the Environmental Compliance and Restoration Program. For example, Clean Up Status measures how well contaminated sites are being identified, cleaned up, and closed, but the Coast Guard did not identify a quantifiable goal. The Coast Guard obtained information from the Civil Engineering Units to track status of identified restoration projects but

had not consolidated the data into a standardized format for reporting program accomplishments.

The Environmental Compliance Evaluations Findings Index measures how well Coast Guard facilities are operating in compliance with environmental laws and regulations. The Coast Guard did not identify a quantifiable goal and lacked a formal system to track environmental compliance evaluations.

The Pollution Prevention Scoring System Composite Index measures the success of reducing quantities of hazardous, toxic, and other regulated materials consumed on an annual basis. This Index is an average of all units' composite scores for reducing hazardous wastes. The Coast Guard did not establish a quantifiable goal to achieve and did not compute the Index because it lacked a system to obtain the data from all operational units.

RECOMMENDATIONS

We recommend the Coast Guard:

1. Reduce the budget line item in future budget requests to reflect the declining restoration backlog.
2. Complete the proposed changes to the environmental compliance evaluation process, including creation of an information system to track deficiencies.
3. Establish quantifiable baselines to assess programmatic results and ensure information required for measuring performance is maintained.

MANAGEMENT POSITION

In response to our February 10, 1999 draft report, Coast Guard requested changes to the report. After discussions with the Coast Guard, we made changes and provided the Coast Guard with a revised draft on March 26, 1999. In its March 26, 1999 response to our revised draft report, Coast Guard stated that it is committed to cleaning up all contaminated sites on the backlog and will evaluate long-range budget plans for opportunities to reduce funding requests for cleanup. The Coast Guard acknowledged that its identified cleanup liabilities are decreasing but also noted that additional liabilities, not currently identified, are likely to surface. Coast Guard indicated its intent to shift program emphasis from restoration to compliance in an effort to prevent future liabilities.

With respect to our recommendation concerning environmental compliance evaluations, Coast Guard agreed to complete changes to the evaluation process, including creation of an information system to track deficiencies. Coast Guard stated it expects to release its revised policy addressing this issue in Fall 1999 and to have an environmental audit information system in place by May 2000.

In response to the recommendation concerning performance measures, Coast Guard agreed to establish quantifiable baselines and ensure information to measure performance is maintained. Coast Guard said it is developing an environmental management business plan that will include the necessary baselines and key measurements for assessing program effectiveness. Coast Guard said it expects to have a first draft of the plan by May 1999 and intends to have a completed plan by the FY 2002 budget submission. A complete copy of Coast Guard's response is included as an appendix to this report.

OFFICE OF INSPECTOR GENERAL COMMENTS

The actions taken or planned by the Coast Guard are responsive to the recommendations. With respect to our recommendation concerning budget reductions, we recognize the Coast Guard's position that there is a potential for additional restoration sites to surface. However, our audit confirmed that Coast Guard has scheduled or completed restoration of all major contaminated sites. If program funding continues historical levels, the declining backlog of restoration projects should allow the Coast Guard to identify opportunities to reduce budget requests for restoration projects by as early as FY 2002.

While the Coast Guard agreed to our recommendation concerning the environmental evaluation process and identified planned corrective action, completion of the action is tied to the development of an information system. Coast Guard has been aware of weaknesses in the environmental compliance evaluation process since November 1997 and has not taken corrective action. The environmental compliance evaluation process is an important means for ensuring units' compliance with environmental requirements. The Coast Guard needs to take interim action to ensure environmental compliance evaluations are accomplished timely and that deficiencies are corrected.

While Coast Guard concurred with our recommendation regarding performance measures, the timeframe for completion does not appear to be timely. The Coast Guard established performance measures for the Environmental Compliance and Restoration Program in October 1996 but has not yet taken action to make them operational. Under the planned timeline included in Coast Guard's response, it will not be able to begin measuring its program performance until FY 2002. The Coast

Guard needs to take timely action to develop measures so that program results can be assessed.

We consider these recommendations resolved, however, the Coast Guard's progress in implementing the actions taken or planned is subject to the audit followup provisions of DOT Order 8000.1C. We also request the Coast Guard provide us copies of any guidance or policy issued in response to these recommendations. We appreciate the courtesies and cooperation of your staff. If you have any questions or need further information, please call me at (202) 366-1992 or Tom Howard, Deputy Assistant Inspector General for Maritime and Departmental Programs, at (202) 366-5630.

SCOPE AND METHODOLOGY

We met with and Chief of the Civil Engineering Office and Chief of the Environmental Management Division at Coast Guard Headquarters to discuss policies and procedures for managing the Environmental Compliance and Restoration Program. We obtained and reviewed procedures for identifying contaminated facilities and scheduling restoration. We obtained the Coast Guard's restoration project worksheet for FY 1998 to assess completeness of the inventory of restoration projects. We interviewed the Chief Counsel, Office of Environmental Law, and reviewed files concerning legal actions for noncompliance with environmental laws. We reviewed Coast Guard summary reports to the Office of the Secretary of Transportation and EPA concerning the status of contaminated facilities.

We visited the Engineering Divisions of the Maintenance and Logistics Commands in Alameda, California, and Norfolk, Virginia, to evaluate their responsibilities in monitoring the Environmental Compliance and Restoration Program. To evaluate pollution prevention initiatives, we discussed the Maintenance and Logistics Commands' procedures for performing internal environmental compliance evaluations and reviewed a sample of completed evaluations. To evaluate the extent of environmental training provided to Coast Guard personnel, we compared training requirements to scheduled courses and reviewed the contents of environmental courses provided.

We visited the Civil Engineering Units in Cleveland, Ohio, and Oakland, California, to test procedures for identifying restoration projects, performing compliance evaluations, and preparing restoration estimates. We reviewed project files to test procedures for preparing cost estimates. We had project cost estimates reviewed by environmental specialists assisting us in our review. To test procedures for performing environmental compliance evaluations and ensuring followup of noncompliance findings, we reviewed a sample of evaluations at each of the Civil Engineering Units. We reviewed records of followup actions and selectively observed existing conditions at operating units.

To observe active restoration projects, we visited local operating units at Support Center Elizabeth City, North Carolina, and Group San Francisco, California. We followed up on selected findings from prior environmental

compliance evaluations at these units to see if corrections were made. We obtained and reviewed the pollution prevention plan for Support Center Elizabeth City to evaluate Coast Guard initiatives to prevent future contamination.

To ensure new design and construction projects comply with environmental standards, we reviewed procedures at Facilities Design and Construction Centers in Seattle, Washington, and Norfolk, Virginia. At the Seattle Facilities Design and Construction Center, we met with the manager responsible for oversight of restoration projects for Integrated Support Command Kodiak, Alaska, to discuss the status of those projects. We also reviewed the records and files for the Integrated Support Command's restoration efforts.

We obtained FY 1993 through FY 1996 restoration backlog statistics from Coast Guard's annual reports to Congress. We were unable to validate the accuracy of the reported backlog for those years because detailed project cost estimates were no longer available. Along with the environmental specialists assisting us in our review, we validated a sample of project cost estimates for FYs 1997 and 1998. Restoration project backlogs for FYs 1999 and 2000 were based on Coast Guard's projected workload.

We met with the Associate Director of EPA's Federal Facilities Restoration and Reuse Office and the Director of EPA's Federal Facilities Enforcement Office in EPA Headquarters to discuss Coast Guard's environmental program. We obtained and reviewed EPA reports of compliance on Coast Guard sites. We contacted the Federal Facility Coordinators and compliance inspectors in EPA Regions IV, IX, and X to discuss specific Coast Guard restoration projects in their areas of responsibility. We contacted state regulators in North Carolina to discuss the status of specific Coast Guard restoration projects and the state's role in providing oversight. We contacted three national environmental interest organizations to obtain their views of Coast Guard's progress in restoring contaminated facilities. During our review, we obtained technical assistance from Office of the Secretary's environmental specialist in the Office of Security and Administrative Management and from a state environmental engineer from North Carolina.

The audit was conducted from June through October 1998, in accordance with Government Auditing Standards prescribed by the Comptroller General of the United States. We focused on the FY 1998 Environmental Compliance and Restoration Program but included other periods as necessary.

U.S. Department
of Transportation
United States
Coast Guard



Memorandum

Subject: DOTIG DRAFT REPORT ON ENVIRONMENTAL
RESTORATION

Date: 26 MAR 1999
7500

From: Chief of Staff, U. S. Coast Guard

**Reply to
Attn. of:** G-SEC-3
Chris Hart
267-1918

To: Deputy Assistant Inspector General for Maritime and
Departmental Programs

Ref: (a) DOTIG Draft Report MA-1999 dated 31 March 1999

1. Enclosed is the revised U.S. Coast Guard response to the recommendations presented in your draft report referenced above. Revisions in both the draft report and the Coast Guard position reflect a mutual cooperative effort between our staffs. I sincerely appreciate your concern in this matter.
2. The response is for your consideration and inclusion in your final report on this matter. For additional information concerning this response, please contact Mr. Chris Hart at (202) 267-1918.


T. W. JOSIAH
Vice Admiral, U. S. Coast Guard
Chief of Staff

Encl: (1) U.S. Coast Guard Statement on DOTIG Report on Environmental Restoration

STATEMENT ON DEPARTMENT OF TRANSPORTATION INSPECTOR GENERAL (DOTIG) REPORT

I. TITLE: Draft Report on Environmental Restoration, United States Coast Guard, DOTIG Report Number MA-1999 dated March 31, 1999.

II. U.S. COAST GUARD POSITION

The Coast Guard is in general agreement with the DOTIG Draft Report on Environmental Restoration. However, the Coast Guard is concerned that the report's major focus on the declining restoration backlog of identified sites leaves other important program responsibilities vulnerable for premature Administration or Congressional budget reductions. The Coast Guard's FY98 financial statements, submitted in accordance with the CFO Act, reflect an identified cleanup liability (backlog) of \$59.6 million. This figure excludes amounts required for the Annette Island AK cleanup, phase II of the ATON battery recovery program, and outyear portions of the vessel PCB remediation program. These three projects cannot be recorded as liabilities in the financial statements until the Coast Guard can reasonably determine the probability of occurrence and amount of the liability. An October 98 letter from the FAA inferred that the Coast Guard was being considered as the lead agency for 12 of the 93 cleanup sites on Annette Island representing \$4.6 million of the total \$56 million cleanup effort. The vessel PCB project and Phase II of the ATON battery recovery program have similar potential to increase the cleanup backlog well beyond current levels.

In addition to the known cleanup liabilities, the EC&R appropriation is also responsible for ensuring that Coast Guard units remain in compliance with all applicable federal, state, and local environmental laws and regulations. One such regulation that may have a profound impact on Coast Guard operations is the Uniform National Discharge Standards (UNDS) section of the Clean Water Act. As cleanup liability permits, it is likely that the EC&R will appropriately shift its funding emphasis from cleanup to compliance to prevent future liabilities including more stringent water discharge requirements to minimize vessel environmental impact. Environmental compliance evaluations of shore facilities, personnel training, and appropriate pollution prevention measures will continue to be play an important role in the Coast Guard's overall environmental program as a primary means for preventing future cleanups and eventually eliminating the backlog.

The Coast Guard is developing an environmental management business plan for internal environmental management. This effort will encompass not only the cleanup program but all compliance and pollution prevention issues in a comprehensive plan to include goals, measures, and outputs. The first draft of the plan is expected by May 1999.

III. RECOMMENDATIONS AND RESPONSES:

1. Identify opportunities to reduce future budget requests to reflect the declining restoration backlog.

CONCUR IN PART. The Coast Guard acknowledges that identified cleanup liabilities are decreasing but also notes that additional liabilities (not currently identified on the backlog) are likely to surface. The Coast Guard will develop measures and performance data and will adjust our budget requests as necessary as this data becomes available. A shift in emphasis from restoration to compliance, as the cleanup liabilities allow, will permit the Coast Guard to implement prevention measures to prevent future liabilities. The Coast Guard is committed to cleaning up all contaminated sites on the backlog but will continually evaluate long range budget plans for opportunities to reduce funding requests for cleanup.

2. Complete the proposed changes to the environmental compliance evaluation process, including creation of an information system to track deficiencies.

CONCUR. COMDTINST 16478.5, governing policy concerning the CG environmental compliance evaluation program, is being revised and is scheduled for release in the fall, 1999. The policy will include formal responsibilities for fixing environmental findings and for tracking these findings to closure. The Coast Guard has been investigating the environmental audit information systems in place or in development at other federal agencies and sees a unique opportunity to partner with those agencies to address this common problem. Further development of this particular information system concept to include hardware, software, and communications links is necessary. The Coast Guard intends to incorporate this information system requirement into its strategic business plan as a prime method of measuring environmental compliance. MILESTONE: May, 2000.

3. Establish quantifiable baselines to assess programmatic results and ensure information required for measuring performance is maintained.

CONCUR. The Coast Guard environmental management's business plan will include necessary baselines and key measurements for assessing Coast Guard wide environmental effectiveness and intend to have it in place for the FY02 budget submission.