Audit Report

OFFICE OF THE INSPECTOR GENERAL

ENVIRONMENTAL CONSEQUENCE ANALYSES OF MAJOR DEFENSE ACQUISITION PROGRAMS

Report No. 94-020 December 20, 1993

Department of Defense

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Acronyms

CDR	Critical Design Review
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COEA	Cost and Operational Effectiveness Analysis
DAB	Defense Acquisition Board
EA	Environmental Assessment
EIS	Environmental Impact Statement
FAR	Federal Acquisition Regulation
FONSI	Finding of No Significant Impact
GAO	General Accounting Office
IPS	Integrated Program Summary
JSOW	Joint Standoff Weapon
MDAP	Major Defense Acquisition Program
NAVSEA	Naval Sea Systems Command
NEPA	National Environmental Policy Act
OSD	Office of the Secretary of Defense
PEA	Programmatic Environmental Analysis
SUPSHIP	Supervisor of Shipbuilding
USD(A)	Under Secretary of Defense for Acquisition

Office of the Inspector General, DoD

Report No. 94-020
(Project No. 2AE-0048)

December 20, 1993

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EXECUTIVE SUMMARY

Introduction. The DoD must ensure, to the maximum extent possible, that it is accomplishing its mission in a manner consistent with national environmental laws and DoD policies. The National Environmental Policy Act (NEPA) of 1969 is the national charter for protection of the environment. It establishes policy, sets goals, provides a means for carrying out the policy, and contains provisions to make sure that Federal Agencies comply. The NEPA requires DoD to integrate the NEPA process with other planning as early as possible to ensure that decisions reflect environmental values. The DoD is required to review policies, procedures, and regulations as necessary to ensure full compliance with the provisions of the NEPA. This is the fourth in a series of reports and is a summary report on the effectiveness of DoD environmental consequence analyses of major Defense acquisition programs.

Objective. The overall audit objective was to evaluate the effectiveness of DoD environmental consequence analyses of major Defense acquisition programs (MDAPs). The audit also assessed compliance with provisions of the NEPA and internal controls related to the objective.

Audit Results. The DoD was not accomplishing its mission in a manner fully consistent with national environmental laws and policies. Specifically:

o For the nine MDAPs reviewed, environmental oversight was not fully effective and implementation of existing environmental policies and procedures applicable to the MDAPs throughout the acquisition process was not consistent. As a result, environmental consequences were not adequately considered in the acquisition process at the Office of the Secretary of Defense and Military Department levels; environmental policy was inconsistently implemented by the Military Departments; and MDAPs may experience program delays and increased program costs (Finding A).

o When conducting Cost and Operational Effectiveness Analyses (COEAs) of MDAPs, DoD Components are not required to assess trade-offs among environmental impacts, environmental mitigating actions, and program performance. As a result, the environmental impact and mitigating measures of an alternative may not be considered and the most cost and operationally effective alternative may not be selected. Further, the life-cycle costs of environmental compliance could be overlooked in the acquisition process, resulting in unanticipated and unfunded costs (Finding B).

o The DoD has not adequately estimated total environmental cleanup and remediation liabilities at Defense contractors, including the portion for which the Government is potentially responsible, and prioritized cleanup, remediation, and prevention projects on a DoD-wide basis. As a result, DoD cannot estimate the Government's overall liability for environmental remediation, cleanup, and pollution prevention measures; actively monitor and control environmental costs; and identify actual and contingent liabilities for environmental costs (Finding C).

Internal Controls. The audit identified material internal control weaknesses in that controls were not effective to ensure adequate management oversight and assessment of the environmental consequences of the MDAPs. These internal control weaknesses are summarized in Part I and are fully discussed in Part II of this report.

Potential Benefits of Audit. Potential monetary benefits are not quantifiable. Implementation of the recommendations will ensure compliance with environmental policies and provide assurance that MDAPs will not incur costly delays and additional expenditures resulting from noncompliance with environmental policies (Appendix G).

Summary of Recommendations. We recommended that:

o The Deputy Under Secretary of Defense for Environmental Security be appointed as a Defense Acquisition Board committee member and required to review environmental documentation on MDAPs.

o An environmental management plan and uniform environmental policies and procedures be established along with a data base of all NEPA documentation prepared on MDAPS.

o COEA guidance require DoD Components to separately identify the environmental consequences and the mitigating measures of alternatives being considered. The guidance would also revise the roles of the Joint Staff and the Director, Program Analysis and Evaluation.

o A proposal be made to the Cost Accounting Standards Board to require contractors to separately account for environmental cleanup expenses and expensed and capitalized costs pertaining to environmental compliance.

o The DoD Components identify costs for environmental cleanup and remediation liabilities at contractor facilities, including the portion for which the Government is potentially responsible.

Management Comments. We received comments to the draft report from the Director, Acquisition Program Integration, Office of the Under Secretary of Defense for Acquisition;* the Assistant Secretary of the Navy for Research, Development and Acquisition (the Assistant Secretary); and the Director, Program Analysis and Evaluation. The Director, Acquisition Program Integration, discussed the fundamental changes taking place in the Office of the Under Secretary of Defense for Acquisition to improve DoD's environmental oversight, fully or partly concurred with eight recommendations, and nonconcurred with recommendations mainly concerning DoD's assessment of potential environmental liabilities at contractor facilities. The Assistant Secretary addressed fundamental environmental policy issues, provided editorial clarifications, and commented on statements in Finding A. The Director, Program Analysis and Evaluation, addressed the sufficiency of the Programmatic Environmental Analysis, the absence of environmental training and oversight among program managers, and his involvement in the environmental aspects of a COEA. We considered these comments in preparing the final report. The comments are synopsized in Part III after the findings and the complete texts of the comments are in Part IV. We request that the Under Secretary of Defense for Acquisition and Technology and the Director, Defense Logistics Agency, provide additional comments on the unresolved recommendations by February 18, 1994.

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* Renamed Under Secretary of Defense for Acquisition and Technology in November 1993.

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The Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report. Copies of the report can be obtained from the Secondary Reports Distribution Unit, Audit Planning and Technical Support Directorate, at (703) 614-6303 (DSN 224-6303) or fax (703) 614-8542.

Part I - Introduction

Background

The DoD must ensure, to the extent possible, that it is accomplishing its mission in a manner consistent with national environmental laws and DoD policies. The approaches to resolving environmental problems can be grouped into three categories:

- Clean up past environmental contamination,
- Improve current environmental conditions, and
- Develop plans to avoid future environmental impacts.

The DoD is involved in resolving problems in all three categories. It uses the Defense Environmental Restoration Program as a vehicle for cleaning up past environmental contamination at DoD facilities and provides for reimbursement of contractor cleanup expenses. The DoD's efforts to constrain current polluting activities are addressed via compliance with Federal, state, and local environmental regulations. The DoD's efforts to avoid future or potential environmental impacts are addressed via compliance with the National Environmental Policy Act (NEPA) of 1969.

The NEPA is the national charter for protection of the environment. It establishes policy, sets goals, provides a means for carrying out the policy, and contains provisions to make sure that Federal Agencies comply. The NEPA requires DoD to integrate the NEPA process with other planning as early as possible to ensure that planning and decisions reflect environmental values, to avoid delays in the process, and to prevent conflicts. The DoD shall review its policies, procedures, and regulations and revise them as necessary to ensure full compliance with the provisions of the NEPA.

The NEPA created the Council on Environmental Quality. The Council's authority is derived from the Environmental Quality Improvement Act of 1970 and Executive Order 11514, "Protection and Enhancement of Environmental Quality," March 5, 1970. The Council reviews and evaluates the programs and activities of the Federal Government to determine how they are contributing to the attainment of the national environmental policy, develops and recommends to the President policies to improve environmental quality, and issues environmental policies and procedures. The DoD Directive 6050.1, "Environmental Effects in the United States of DoD Actions," July 30, 1979, implements the NEPA and the Council on Environmental Quality regulations within DoD and provides policy and procedures for DoD officials to address environmental consequences before approving major DoD actions.

On August 3, 1993, the President issued Executive Order 12856, "Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements." The Order requires, in part, that:

o All Federal Agencies ensure that their facility management and acquisition activities are conducted so that, to the maximum extent practicable, the quantity of toxic chemicals entering any wastestream, including any releases to the environment, is reduced as expeditiously as possible through source reduction; that generated waste is recycled to the maximum extent practicable; and that any wastes remaining are stored, treated, or disposed of in a manner protective of public health and the environment.

o Markets are encouraged for clean technologies and safe alternatives to extremely hazardous substances or toxic chemicals through revisions to specifications and standards, the acquisition and procurement process, and the testing of innovative pollution prevention technologies at Federal facilities or in acquisitions.

Under the Executive Order, the NEPA and the implementing policies, the Government has a responsibility to avoid future environmental damage and reduce the costs of compliance with environmental requirements. Consequently, the progression of a DoD program is, in part, dependent upon identification and assessment of the environmental impact of the program early in the acquisition process and recognition and mitigation of the impact throughout the life cycle of the program. (Appendix A defines environmental terms used in this report.)

Objective

The overall audit objective was to evaluate the effectiveness of DoD environmental consequence analyses of major Defense acquisition programs (MDAPs). The audit also assessed compliance with provisions of the NEPA and internal controls related to the objective. The audit and related objective were formally coordinated with the Office of the Under Secretary of Defense for Acquisition (USD[A]).[1]

Scope

To accomplish the objective, we:

o Discussed the issues relating to environmental policy and acquisition strategy with Government and contractor personnel;

o Assessed whether the Military Departments were performing environmental analyses in accordance with DoD Directive 6050.1, "Environmental Effects in the United States of DoD Actions," July 30, 1979;

[1] Renamed Under Secretary of Defense for Acquisition and Technology in November 1993.

DoD Instruction 5000.2, "Defense Acquisition Policies and Procedures," February 23, 1991; and DoD Manual 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 23, 1991. (Appendix B lists the Military Departments' environmental regulations.)

o Reviewed life-cycle costs of MDAPs to determine whether environmental costs were included;

o Identified the roles of the Defense Logistics Agency, Defense Contract Management Command, Defense Contract Audit Agency, Environmental Protection Agency, and appropriate environmental management groups within each Military Department relative to the DoD environmental analyses process;

o Evaluated Defense Contract Management Command's review of contractor information supporting environmental analyses of MDAPs; and

o Determined contractors' involvement in the environmental analysis process for MDAPs and reviewed available environmental documentation supporting their involvement.

In accomplishing the objective, we selected nine MDAPs for the audit: two from the Army, five from the Navy, and two from the Air Force. The programs were subjectively selected to provide a variety of weapon types and a cross-section of DoD procuring organizations and contractors. The programs were in various phases of the acquisition process, ranging from demonstration and validation to production and deployment.

The nine MDAPs selected were:

o The Army's M1A2 Abrams tank and RAH-66 Comanche helicopter;

o The Navy's Seawolf (SSN-21) Class submarine, the Trident (SSBN-726) Class submarine, the Los Angeles (SSN-688) Class submarine, the Joint Standoff Weapon (JSOW) missile, and the V-22 Osprey aircraft; and

o The Air Force's F-22 and F-16 fighter aircraft.

Appendix C describes the nine programs.

We coordinated with the Office of the Inspector General, Department of Energy, on the environmental assessment (EA) of the M1A2 tank's depleted uranium turret.

We performed this program audit from June 1992 through April 1993 and reviewed data dated from October 1976 through April 1993. We did not rely on computer processed data to conduct the audit. The audit was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were deemed necessary. Appendix H lists the organizations visited or contacted.

Internal Controls

We evaluated internal controls related to the implementation and oversight of DoD environmental consequence analyses of MDAPs and the use of the data from those analyses in the acquisition process. These controls and procedures are specified in DoD Directive 6050.1, DoD Instruction 5000.2, and DoD Manual 5000.2-M.

We identified material internal control weaknesses as defined by DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987. Internal controls to conduct certain environmental analyses existed; however, these controls were not fully effective. Specifically, controls were not effective to ensure assessment of the total environmental consequences of the MDAPs; estimation of the costs of correcting environmental effects of the development, production, deployment, and disposition of MDAPs for comparison to the cost of mitigating measures being implemented during development; and estimation of total environmental cleanup and remediation liabilities at Defense contractors, including the portion for which the Government is potentially responsible. We consider these internal control weaknesses to be material because internal controls were not complied with or did not provide reasonable assurance that procedures were being carried out in accordance with applicable law and policy and require attention at higher levels of management, as discussed in Findings A, B, and C.

The recommendations in this report, if fully implemented, will correct the weaknesses. Monetary benefits associated with implementation of our recommendations are not quantifiable. However, implementation of the recommendations will ensure compliance with environmental policies and assure that MDAPs will not incur costly delays and additional expenditures resulting from noncompliance with environmental policies. Copies of this report will be provided to the senior officials responsible for internal controls within Office of the Secretary of Defense (OSD) and the Military Departments.

Prior Audits and Other Reviews

As a part of this audit effort, we issued three prior reports that addressed environmental issues related to specific MDAPs. These reports are listed below and synopsized in Appendix C.

o Report No. 93-077, "Environmental Consequence Analyses for the V-22 Osprey Program," on March 29, 1993.

o Report No. 93-127, "Environmental Consequence Analyses for the Joint Standoff Weapon Program," June 25, 1993.

o Report No. 93-130, "Environmental Consequence Analyses for the M1A2 Abrams Tank Program," June 25, 1993.

In addition, the Inspector General, DoD; the General Accounting Office (GAO); the Logistics Management Institute; and the Defense Analysis and Studies Office have issued five reports that address environmental issues.

o Inspector General, DoD, Report No. 93-INS-06, "Hazardous Waste Minimization Within the Department of Defense," December 28, 1992, reported the results of an inspection that focused on evaluating DoD's progress in reducing hazardous waste. The report concluded that DoD has reported significant reductions in the volume but has not reduced or eliminated the sources of hazardous waste. The report recommended that DoD reduce the sources of hazardous waste and set priorities for minimizing hazardous waste.

o Inspector General, DoD, Audit Report No. 92-011, "Environmental Compliance Assessment Programs," November 8, 1991, responded to a request by the Principal Deputy Assistant Secretary of Defense for Production and Logistics to determine the effectiveness of the DoD Environmental Compliance Assessment Program. However, this report relates to installations and not MDAPs.

o General Accounting Office Transition Series Report No. GAO/OCG-93-16TR, "Environmental Protection Issues," December 1992, discussed major environmental policy, management, and program issues facing the Congress and the Clinton Administration. These issues included the challenges of meeting environmental requirements with limited resources, developing information to support regulatory programs and measure environmental results, establishing accountability for correcting program weaknesses, and strengthening global environmental protection efforts. The report projects that the Federal Government will have to spend about $200 billion to clean up contaminated DoD and Department of Energy installations.

o Logistics Management Institute Report No. PL909R1, "The National Environmental Policy Act in DoD: Defending Our Environment's Future," June 1990, assessed how DoD decisions affected the environment. The categories reviewed included Defense acquisition programs, basing, military construction, and operational decisions. The report concluded that the Defense acquisition program can comply with NEPA requirements by enforcement and documentation at each formal milestone review. The report recommended that:

o The Deputy Under Secretary of Defense for Environmental Security (formerly the Deputy Assistant Secretary of Defense for Environment) review DoD and Military Department instructions, directives, regulations, and pamphlets that influence decisionmaking to identify publications that fail to emphasize the need for environmental considerations.

o The DoD should formalize an additional document to those required by the NEPA to record the plan and milestones for environmental reviews during the decisionmaking process.

o The DoD should encourage more communication and coordination among Military Department personnel responsible for NEPA documentation.

o The DoD and the Military Departments should use the planning, programming, and budgeting system as an environmental quality control check in major decisions.

o Defense Analysis and Studies Office Study, "Weapon System Acquisition Environmental Integration," May 29, 1990, was requested by the Assistant Secretary of Defense for Production and Logistics. The objective of the study was to determine the status of environmental planning during weapon system acquisition and suggest improvements. The study concluded that all Military Departments have published guidance to consider environmental factors during major actions that may impact the environment. However, environmental impact planning had not been fully incorporated as an integral part of acquisition policy and procedures at the OSD level or by the Military Departments. Some acquisition personnel are fully aware of the impact that environmental requirements can have on their programs. The study recommended that OSD:

o Incorporate environmental impact management planning in revisions to DoD Directive 5000.1, "Defense Acquisition," and DoD Instruction 5000.2. (Those revisions were issued on February 23, 1991.)

o Request that the Military Departments review weapon systems acquisition direction and ensure that planning to address the NEPA and other environmental requirements is an integral part of the acquisition process.

o Strengthen program manager and acquisition training by including NEPA planning as an integral part of the weapon system acquisition planning process.

Other Matters of Interest

When we began this audit in June 1992, the Deputy Assistant Secretary of Defense for Environment, within the Office of the Under Secretary of Defense for Acquisition, reported to the Assistant Secretary of Defense for Production and Logistics. At that time, we believed that the Deputy Assistant Secretary of Defense for Environment did not have sufficient authority to enforce implementation of DoD environmental policy by the DoD Components and to ensure that programmatic environmental issues were properly presented to the Defense Acquisition Board (DAB) and its committees. In May 1993, the Office of the Under Secretary of Defense for Acquisition was reorganized; the Deputy Under Secretary of Defense for Environmental Security position was established, replacing the Deputy Assistant Secretary of Defense for Environment and reporting directly to the Under Secretary of Defense for Acquisition. As a result of the reorganization, we believe that the Deputy

Under Secretary's new position provides sufficient authority to enforce environmental policy and to ensure proper presentation of programmatic environmental issues to the DAB.

Part II - Findings and Recommendations

Finding A. DoD Environmental Management Structure and Procedures

Environmental oversight was not fully effective. Implementation of environmental policies and procedures applicable to Major Defense Acquisition Programs (MDAPs) throughout the acquisition process was not consistent. The OSD and Military Departments did not have an adequate environmental organizational structure and did not fully assess environmental consequences, prepare and process environmental documents, and integrate environmental considerations into their decisionmaking process for the nine MDAPs reviewed. These conditions occurred because the DoD and Military Departments' environmental policy and procedures were inadequate with regard to environmental management as it pertains to the acquisition of MDAPs. Management emphasis was placed primarily on installations and facilities and cleanup or restoration, instead of examining the environmental impacts of developing and fielding weapon systems and appropriate pollution prevention or mitigating measures. Environmental managers in DoD and the Military Departments were not in the acquisition or resource allocation chain of command, accounting for weak oversight of the preparation of environmental documents to support the acquisition review process. As a result, environmental consequences were not adequately considered in the acquisition process at the OSD and Military Department levels, which can potentially cause MDAPs to experience extensive program delays and increased program costs.

Background

Defense Acquisition Board. The DoD Instruction 5000.2 states that the DAB is the senior advisory body to the Under Secretary of Defense for Acquisition and Technology to advise the Under Secretary in enforcing policies and procedures governing the operations of the DoD Acquisition System. The DAB is the primary forum to advise the Under Secretary on mission needs approved by the Joint Requirements Oversight Council, possible Concept Exploration or Definition study efforts, and Milestone I through IV decision point reviews and program reviews of MDAPs subject to DAB review. The reviews ensure that a program is ready to proceed into more advanced stages of development or production before receiving Milestone approval and that proposed program plans for subsequent stages are consistent with sound acquisition management practices. Three DAB committees support the DAB review process.

Department of Defense Directive 6050.1. The DoD Directive 6050.1 assigned to the former Deputy Assistant Secretary of Defense for Environment,[2] as a part of the Office of the Assistant Secretary of Defense for Production and Logistics, the responsibility for all DoD environmental matters. For purposes of this report, we expect these functions will be performed by the new Deputy Under Secretary of Defense for Environmental Security, pending issuance of revised DoD regulations. The DoD Directive required that the former Deputy Assistant Secretary of Defense for Environment:

o Provide assistance in the preparation of EAs and environmental impact statements (EISs) and assign, in consultation with appropriate Assistant Secretaries of Defense and heads of DoD Components, lead agency responsibility to prepare environmental documentation when more than one DoD Component is involved and agreement among the Components cannot be reached.

o Direct the preparation of environmental documents for specific proposed actions, when required, and, when appropriate, provide consolidated DoD comments requested by other Federal Agencies on draft and final EISs.

o Review proposed guidance by the Office of the Secretary of Defense that may have environmental implications and maintain liaison with the Council on Environmental Quality, Environmental Protection Agency, Office of Management and Budget, other Federal Agencies, and local groups with respect to environmental analyses for proposed DoD actions affecting the quality of the environment in the United States.

Although the NEPA and DoD Directive 6050.1 set environmental policy goals for Government and DoD organizations, respectively, NEPA guidance is more broad. The NEPA process requires an assessment of the environmental effects of a Federal undertaking, including consideration of alternatives. EAs must be done unless the DoD Component determines that a categorical exclusion exists. EISs are required if, based on an EA, the proposed action would significantly affect the quality of the human environment. In cases where it is readily apparent that a proposed action would have a significant impact on the environment, the DoD Component can first prepare an EIS instead of an EA. Compliance with the NEPA requires that, along with economical and technical factors, environmental values be considered in the decisionmaking process. If the assessments and impact statements are not done as soon as possible or if they are inaccurate or inadequate, unforeseen impacts on the environment may result in violation of Federal, state, or local environmental statutes and consequently result in delay of the acquisition process for MDAPs.

The DoD Directive 6050.1 also states that the preparation of an EIS on a proposal should be timed so that the final statement will be considered in any recommendation or report on the proposal. In addition, if mitigation measures required by environmental impact statements are not acted upon, the result can be violation of statutes and noncompliance with environmental regulations.

[2] As of May 1993, Deputy Under Secretary of Defense for Environmental Security (see Other Matters of Interest, Part I, for additional comments).

Consequently, environmental analysis or evaluation information needs to be available early in the decisionmaking process, including acquisition programs. The responsibility for providing the information, the timing, and the proper means for relaying the information to the decisionmakers must be well-defined in DoD procedures to be effective. In addition, adequate funding should be provided if established regulations, policies, and procedures are to be followed and fully implemented.

DoD Instruction 5000.2. The DoD Instruction 5000.2 states that DoD will design, develop, test, field, and dispose of Defense systems in compliance with applicable environmental protection laws and regulations, treaties, and agreements. Environmental analysis and planning will begin as early as possible in the acquisition process and will examine the entire life cycle of the program. During the Concept Exploration and Definition phase, the potential environmental effects of each alternative will be assessed. The DoD Directive 5000.2 requires potential environmental efforts noted in this initial environmental analysis to be integrated into the assessment of each alternative; however, DoD Instruction 5000.2 is silent on how this is to be accomplished. Since no guidance is provided on how environmental effects are to be assessed during Concept Exploration and Definition, we consider the requirements of the Programmatic Environmental Analysis (PEA) applicable, even though DoD Instruction 5000.2 states that a PEA will begin immediately *after* the Concept Demonstration Approval milestone.

The PEA contains a description of the program; alternatives to be studied; potential environmental impacts of each alternative throughout the system's life cycle; potential mitigation of adverse impacts; and the effect of environmental impacts and proposed mitigation on schedule, siting alternatives, and program cost. The PEA will be coordinated and integrated with other program plans and analyses, regardless of the classification of the program. After each succeeding milestone decision point, the PEA will be updated as necessary. The update, called a tier, focuses on the issues for a particular decision point. The PEA should include a summarization, at the overall program level, of all EAs, EISs, and Findings of No Significant Impact (FONSIs) performed on individual program segments and additional analyses identified as required. The PEA, in turn, is summarized in the Integrated Program Summary (IPS), Annex E. The summary will include alternatives considered, potential environmental effects, rationale for concept or design alternative chosen, mitigation measures, and conclusions. The Annex will discuss how environmental impacts and proposed mitigation measures would affect schedules, siting alternatives, and program life-cycle costs.

Army Regulation 200-2. The Army Regulation 200-2, "Environmental Effects of Army Actions," December 23, 1988, assigns responsibility for coordinating and monitoring NEPA activities within the Army to the Chief of Engineers. The Major Army Commands determine the appropriate Component to prepare the EAs and EISs. The Assistant Chief of Engineers (Environmental Office) is the Army staff point of contact for environmental matters. The Secretary of the Army designated the Assistant Secretary of the Army for Installations, Logistics, and Environment to serve as the Army's responsible office for the NEPA.

Secretary of the Navy Instruction 5090.6. The Secretary of the Navy Instruction 5090.6, "Evaluation of Environmental Effects from Department of the Navy Actions," July 26, 1991, states that the Assistant Secretary of the Navy for Installations and Environment:

o Advises the Secretary of the Navy on Department of the Navy policy regarding NEPA compliance.

o Approves and forwards EISs to the Environmental Protection Agency and the Office of the USD(A) for review and comment.

o Approves and forwards to the Navy Judge Advocate General FONSIs, which include actions of national concern, and Records of Decision for publication in the Federal Register.

The Chief of Naval Operations and the Commandant of the Marine Corps or their designees are responsible within the respective Service for NEPA compliance. The Chief of Naval Operations and the Commandant of the Marine Corps have several responsibilities, including advising Commands of the requirement for submitting EAs or EISs and identifying major decision points in the chain of command where environmental effects shall be considered. The Chief of Naval Operations determines whether an EA or a FONSI is appropriate. The Commandant of the Marine Corps has delegated the responsibility for determining the adequacy of EAs and the appropriateness of FONSIs to Commanding Generals. If preparation of an EIS is required, the Chief of Naval Operations and the Commandant of the Marine Corps coordinate, as appropriate, with the Environmental Protection Agency, Office of the Under Secretary of Defense for Acquisition and Technology, Office of the Assistant Secretary of the Navy for Installations and Environment, other DoD Components and Federal Agencies concerned with environmental matters. Additionally, the Chief of Naval Operations and the Commandant of the Marine Corps ensure that relevant environmental documentation accompanies all proposals for action through the appropriate review process to make the information available to the decisionmakers.

Air Force Regulation 19-2. The Air Force Regulation 19-2, "Environmental Planning Environmental Impact Analysis Process," August 10, 1982, states the Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health serves as the Air Force's responsible official for providing guidance, direction, and oversight of all environmental matters. Specifically, the Deputy Assistant Secretary is responsible for establishing policy and guidance and executing plans, policies, and programs concerning pollution prevention and environmental impact analysis of all Air Force activities, including new weapon systems development and acquisition.

The Air Force Office of the Civil Engineer, which assists the Deputy Assistant Secretary, develops and interprets environmental policy and sets procedures to ensure that proposed regulations, directives, instructions, and other major publications for which they are the proponent are evaluated for environmental consequences before they are published. He determines the need and provides assistance on preparing, reviewing the adequacy, and tracking the status of

environmental documents. The EAs, FONSIs, and EISs are coordinated and prepared by the environmental planning functions at the installation level, reviewed by the environmental impact analyses program manager at the Major Command level, and forwarded to the Air Force Office of the Civil Engineer for further review. High-profile EAs and all EISs are sent for approval to the Deputy Assistant Secretary for Environment, Safety and Occupational Health through the Office of the Civil Engineer.

Environmental Oversight, Implementation, and Assessments

Environmental oversight was not fully effective. Implementation of environmental policies and procedures applicable to MDAPs throughout the acquisition process was not consistent. In addition, the Military Departments did not adequately involve the public when NEPA documents were prepared, prepare and process environmental documents, fully assess environmental consequences, and integrate environmental life-cycle considerations into their decisionmaking process for MDAPs. (Appendix C contains audit results for each of the nine MDAPs in this audit.)

Environmental Oversight. The DoD had not effectively integrated environmental management into the acquisition process for MDAPs and had not demonstrated a substantial commitment through resource allocation decisions to assess the environmental consequences of acquisition programs. Although DoD Instruction 5000.2 includes requirements for an Environmental Assessment to be in the DAB "Blue Book" provided to the DAB members before a milestone review, we found that the DAB did not adequately consider environmental issues. The former Deputy Assistant Secretary of Defense for Environment had only one individual attending to the acquisition-related environmental responsibilities in DoD Instruction 5000.2 for all of the approximately 126 MDAPs as of December 1992. As a result, the adequacy of compliance by the Military Departments with the requirements of DoD Instruction 5000.2 was not monitored, and significant instances of noncompliance were noted in all the programs we examined. Further, the need for additional guidance and clarification was not identified due to a lack of oversight. Thorough review of environmental issues on each major program as part of the established acquisition oversight process was not occurring. Additionally, environmental issues on MDAPs identified by the Deputy Assistant Secretary of Defense for Environment, based solely on review of the Annex E of the IPS as part of the DAB committee review proceedings, were not resolved as part of the DAB review process and addressed in the resulting Acquisition Decision Memoranda. In essence, lack of compliance with environmental policies went effectively unchallenged in the DAB review process.

Environmental Policies and Procedures Implementation. Although the Military Departments' environmental policies are similar, the Military Departments were not consistently implementing them. The policies clearly require the Military Departments to consider environmental impacts as early as possible in the decisionmaking process of proposed actions by preparing

Programmatic Environmental Analyses (PEAs), EAs, and EISs. However, the Army and the Air Force had interpreted environmental policies differently than the Navy had.

Army and Air Force Implementation of Environmental Policies. The Army and the Air Force agree that NEPA requirements are not optional but are mandatory. Each has taken limited steps to comply with DoD environmental policies by preparing EAs that address environmental impacts on some of the MDAPs we reviewed. However, even for those programs, Army and Air Force did not adequately comply with established environmental policies. For the Army, we reviewed the Comanche Light Helicopter and the M1A2 Abrams programs; for the Air Force, the F-22 Aircraft and the F-16 Aircraft. Although EAs were prepared on very specific aspects of the programs, such as use of a particularly hazardous material, we found no instances where a PEA was prepared addressing overall environmental considerations through the life cycle of the programs. Generally, these EAs were prepared in reaction to concerns expressed about environmental impact rather than as part of the acquisition process. Further, we found that the EAs were not prepared adequately and had not been planned to be prepared at an appropriate point in the acquisition process. We also found that the decisionmaking process did not include public involvement.

Navy Interpretation of Environmental Policies. Unlike the Air Force and the Army, the Navy uniquely interpreted that NEPA requirements are optional and are not applicable to its MDAPs. A May 4, 1993, memorandum from the Navy to the Office of the Inspector General, DoD, addressed the Navy's position on environmental considerations in the weapon system acquisition process (see Appendix D). The memorandum stated that the Navy implemented the NEPA and DoD Directive 6050.1 by issuing the Office of the Chief of Naval Operations Instruction 5090.1A, "Environmental and Natural Resources Program Manual," October 2, 1990, Chapter 5, "Procedures for Implementing the National Environmental Policy Act." The memorandum further indicated that the Navy considers shore infrastructure decisions to be programmatic procurement decisions to which the NEPA and DoD Directive 6050.1 apply; however, Navy does not regard programmatic weapon systems procurement decisions to be within the domains of the NEPA and DoD Directive 6050.1. Therefore, the Navy has not provided decisionmakers, environmental agencies, and the affected public the opportunity to consider environmental consequences throughout the programs' life cycles.

Military Departments' Public Involvement. The Military Departments did not make a public disclosure of NEPA documents during or after the assessment of environmental consequences. Therefore, the decisionmakers, environmental agencies, and the public were not given the opportunity to adequately consider environmental consequences of these programs.

Army. The M1A2 Tank Program Office personnel assumed that the EA and other environmental documents were the property of the Department of the Army and were not to be released.

Although the Army prepared an EA on Comanche Program, it did not provide evidence that the FONSI that resulted was publicly released, as required by law.

Navy. The Navy indicated that the preparation of environmental documents for its weapon systems acquisition program decisions was not required (see Appendix D). Consequently, Navy did not involve the public in any decision made on its acquisition programs.

Air Force. According to officials at the Aeronautical Systems Center, the Headquarters Air Staff, which reviewed the F-22's EA and FONSI, advised the Center against publicly releasing the FONSI because of an assumed lack of public interest.

Timely Prepared PEAs, EAs, and EISs. Not only is the preparation of PEAs required, and if necessary, EAs and EISs, but the time in which they are done is also crucial to making appropriate decisions. The Army and the Air Force were not planning to prepare required EAs and EISs before critical points within the acquisition process of MDAPs. An OSD, Tri-Service, and Industry Steering Committee military standard is being prepared, which should improve the timeliness of environmental analyses.

Army. For the Army's Comanche Program, the Program Office did not plan to prepare a revised EA or an EIS of the Program before the Program's Critical Design Review (CDR) in December 1993, according to the environmental management program milestones schedule and a July 14, 1992, memorandum by the environmental specialist, who was officially a logistics management specialist for the Comanche program. The Army planned to have the Analytical Science Center update the EA and incorporate it as Annex E to the IPS, with no additional funds required, before the Milestone II decision tentatively scheduled for late Calendar Year 1997.

Air Force. Similar to the Army's Comanche Program, the F-22 System Program Office planned to begin preparing the EIS in 1997, 3 years after the Program's CDR in November 1994. Program Office officials indicated that because the Engineering and Manufacturing Development and the Pre-Production Validation Program Baseline Schedule was extended by almost a year, the F-22 CDR, which was initially scheduled for November 1993, will be postponed until November 1994. We believe that preparing and releasing the environmental impact statement after CDR defeats the purpose of the NEPA and DoD Directive 6050.1 because the EIS should inform decisionmakers of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. Preparing the EIS 3 years after CDR is too late to address significant environmental consequences that environmental analyses may disclose in system design. In fact, it would only serve as a document preparation requirement, in that EIS results would not be available to enable decisionmakers to make the most appropriate decision at the CDR. At CDR, design features that are crucial to the development of the weapon system should be, for the most part, completed. A decision is made to accept the design, the manufacturing processes, and materials needed to produce the weapon system. Further, Air Force's draft initiative, "Manufacturing Development Initiative (MDI)," April 1, 1993, states that an initial

environmental impact assessment report should be prepared 30 days before CDR. A final report should be prepared 90 days before the Milestone III decision package submittal. We support the Air Force initiatives; however, we consider issuance of the PEA versus an alternative final report before entry into low-rate and full-rate production to be required.

OSD, Tri-Service, and Industry Steering Committee Military Standard. An OSD, Tri-Service, and Industry Steering Committee is preparing a draft military standard, which is being coordinated by the Aeronautical Systems Center, Systems Engineering Division. The Draft Military Standard 499B, "Systems Engineering," May 6, 1992, Section 5.8.8, "Environmental Analysis," states:

> The contractor shall conduct environmental analyses on product and process alternatives to assist in the selection of requirements and designs. Environmental analyses shall be performed to determine the impacts on and by each system product and process alternative with surrounding biological, ecological and physical systems. Factors such as noise pollution, hazardous waste disposal, electromagnetic effects, socioeconomic influences and animal/marine life behavior shall be included. Potential mitigation methods shall be derived to minimize the impact of affected alternatives. Environmental impacts shall be factored into effectiveness analyses as well as system definition, design and verifications. Analysis output will be documented appropriate to the acquisition phase and used in conjunction with cost and performance analyses outputs to support acquisition phase exit criteria. Prior to fielding products and processes (including prototypes, end-items, and test vehicles), the appropriate environmental data shall be developed and made available to satisfy environmental impact documentation needs, prepare environmental impact statements, and to obtain the required environmental permits at operational, support and test locations.

According to the Air Force Materiel Command, the Draft Military Standard 499B has not been finalized. This section of the Military Standard, while an improvement over present guidance, still does not specifically incorporate environmental analyses into the critical design review process.

Assessing Environmental Impacts. The Military Departments did not adequately assess environmental consequences to address environmental requirements, life-cycle costs, and potential impacts in the acquisition process.

Army. For the M1A2 Abrams Tank program, the Army had not adequately considered environmental consequence considerations, integrated environmental considerations, and communicated environmental consequences associated with the Program. In addition, the Army had not estimated life-cycle environmental costs for the M1A2 Abrams Tank. Further, a PEA in support of the Milestone III, Production Approval, decision in the third quarter of FY 1994, had not been prepared.

Although the M1A2 Abrams Tank Program is scheduled for a Milestone III, Production Approval, decision in the third quarter of FY 1994, the Army had not:

o Adequately assessed and documented environmental impact or consequence considerations of the program over its life cycle;

o Integrated environmental considerations into the initial planning stages of the M1A2 program to ensure that planning and program decisions reflected environmental policies and procedures;

o Requested environmental information from Federal and contractor organizations and suppliers of Government-furnished equipment on the M1A2 program; and

o Prepared a PEA to support the Milestone III, Production Approval, decision.

We issued a separate Audit Report No. 93-130, "Environmental Consequence Analyses for the M1A2 Abrams Tank Program," June 25, 1993, which addressed those points.

Navy. For all five Navy programs we reviewed (the V-22 Osprey; the JSOW; and the SSBN-726, SSN-688, and SSN-21 submarines), the Navy failed to follow DoD policy by not conducting adequate environmental analyses and, as applicable, EAs and EISs, over the life cycles of these programs. Although only the JSOW Program was reviewed after the issuance of the revised DoD Instruction 5000.2 requiring a PEA, long-standing DoD requirements existed in DoD Directive 6050.1 to perform environmental analyses and integrate the NEPA into the acquisition process. Unlike the other Military Departments, the Navy did not believe that NEPA and DoD Directive 6050.1 requirements are mandatory and applicable to its MDAPs because the programs do not qualify as major Federal actions and do not have a significant impact on the environment. In response to a draft of this report, the Navy changed its position to reflect that the stages of the programs reviewed by the audit did not require preparation of NEPA documents. We disagree with the revised Navy position because DoD Directive 6050.1 does not allow such latitude and requires DoD Components to ensure that the NEPA is integrated into the acquisition decisionmaking process and that the NEPA requirements coincide with all major program decision points. To ensure that decisionmakers consider relevant environmental documents, comments, and responses, these relevant items should accompany a proposal through DoD Component reviews.

V-22 Osprey. Although the V-22 Program Office reentered Engineering and Manufacturing Development, the Navy has not yet assessed the environmental consequences, prepared and processed environmental documents, and integrated environmental considerations into its decisionmaking process for the Program. We issued Audit Report No. 93-077, "Environmental Consequence Analyses for the V-22 Osprey Program," March 29, 1993, addressing those issues.

Joint Standoff Weapon. The JSOW Program Office officials did not prepare and process a PEA or any other environmental studies on the environmental consequences of the JSOW Baseline Program in support of the environmental analysis provided to OSD decisionmakers in the IPS, Annex E,

used at the June 1992 DAB Milestone II Review. Furthermore, the environmental analysis did not address how environmental impacts and proposed mitigation measures would affect schedules, siting alternatives, and program life-cycle costs. Lastly, the Navy had not publicly disclosed the results of the decision. We issued a separate Audit Report No. 93-127, "Environmental Consequence Analyses for the Joint Standoff Weapon Program," June 25, 1993, addressing this Program.

The Submarines. The Navy did not assess the environmental consequences, prepare and process environmental documents, and integrate environmental considerations into its decisionmaking process for the SSN-21, SSN-688, and SSBN-726 submarine programs (the Submarines).

SSN-21 Program Office. Program Office personnel for the SSN-21 stated that the preparation of some type of environmental analyses may have been delegated to each of the many subsystems of the SSN-21 and that it would take years to collate all of these analyses, if they were done, into one PEA of the entire Program. The Program Office concluded that the environmental analyses were not in a tangible form. This indicates that, even if analyses were done, they were of little use in program decisionmaking for the SSN-21.

SSN-688 and SSBN-726 Program Office. Program Office personnel for the SSN-688 and the SSBN-726 also did not assess environmental consequences over the life cycle of these ships. We asked Program Office personnel who were responsible for environmental matters to make special requests to all available sources to ensure that EAs and EISs would be located if they, in fact, had been prepared. After several weeks, the Program Office personnel told us that environmental documentation was not available because such analyses were not required in the pre-planning phases of the programs. The Program Office indicated that submarines have traditionally been mission-focused endeavors and that they generate very little waste. Given, for example, that these are nuclear-powered submarines, we disagree that environmental analyses are not required.

Supervisor of Shipbuilding. The Supervisor of Shipbuilding (SUPSHIP), Conversion and Repair, United States Navy, Groton, Connecticut, administers the design, shipbuilding, conversion, and facility contracts for the Submarines with General Dynamics, Electric Boat Division. However, the SUPSHIP had not been concerned with environmental impacts and activities associated with the development, production, and maintenance of the Submarines and had no environmentally trained staff.

For instance, a SUPSHIP official stated that the Navy was concerned only with the environmental impacts of deploying the end product. In addition, the SUPSHIP official indicated that the Navy had not done any EAs and EISs because it was not the Navy's, but the contractor's, responsibility to follow and comply with the day-to-day environmental regulations and laws while, at the same time, satisfy the mission. We asked whether another reason why Navy had not prepared EAs and EISs was that doing environmental analyses over the life cycle of all components of the Submarines were too expensive. The

SUPSHIP official responded that Navy's responsibility was to look at the possible impacts of the end product after it was deployed, not before that, and that the Navy's practice was to leave the "how" up to American industry.

The SUPSHIP personnel had not been appropriately trained in environmental matters. For example, the environmental coordinator, who was also the chairman of the SUPSHIP Hazardous Material Control Program, had not received any environmental training and expressed plans to attend the Army Logistics Management College course on NEPA implementation. Only the Materials Department supervisors and the repair personnel had any environmental-related training, which was an entry-level hazardous materials and hazardous waste handlers' course. We informed the Supervisor of Shipbuilding at Groton of the need for training, who agreed that training was needed but cannot be provided without the funds to support it.

In addition, SUPSHIP personnel stated that Office of the Chief of Naval Operations Instruction 5090.1A, one of the primary set of procedures that they use, should be revised because it is not applicable to SUPSHIPs and shipyards.

Electric Boat Division. At General Dynamics, Electric Boat Division, the contractor for all three submarines, we held discussions with engineers who were involved in the design and development of the Submarines. They stated that the environmental consequences of developing and manufacturing the SSN-21, the SSN-688, and the SSBN-726 were not a consideration and that their only concern during design, development, and testing was ensuring that schedules and specifications were being met.

Air Force. The Air Force had not established adequate policies and procedures for implementing DoD Directive 6050.1. For instance, the Air Force Office of the Deputy Assistant Secretary for Environment, Safety and Occupational Health (the Deputy Assistant), who is responsible for establishing all environmental policy and guidance, had not established adequate environmental policies and guidance. During the last 2 years, the Deputy Assistant had been revising the Air Force's existing environmental policy, Air Force Regulation 19-2 (the Regulation), "Environmental Impact Analysis Process (EIAP)," February 10, 1989. The Regulation was outdated; it included the names of responsible organizations that no longer existed. This inconsistency caused confusion for activities attempting to follow the Regulation. In addition, the Regulation specifically assigned responsibilities to "installations" and "facilities" and failed to include the acquisition community. The Regulation should have included more comprehensive guidance and procedures for the acquisition community as well as the installations and facilities communities.

Life-Cycle Costs. The Military Departments did not include environmental cost estimates in their life-cycle cost estimates for the programs we reviewed.

Army. The Army neither adequately assessed the environmental consequences of programs throughout their life cycle nor included an estimate of environmental costs in the life-cycle cost estimates.

Navy. For the Navy programs reviewed, environmental cost estimates were not included in life-cycle cost estimates.

Air Force. The Air Force has not complied with DoD policies for identifying and analyzing the environmental impacts throughout the system's life cycle and has not filed required environmental documentation to the affected public and agencies.

F-16 Program. The F-16 Program Office officials did not assess the environmental consequences through the life cycle of the program and the associated costs. For example, F-16 Program Office officials had not determined costs associated with closing a chemical processing facility. The Air Force plans to close the facility due to repeated environmental problems and the trichloroethylene spill in May 1991. The Environmental Protection Agency demanded remediation of the spill, and the Air Force contracted with the Army Corps of Engineers for $1.6 million to start the cleanup effort.

The Air Force plans to contract the chemical processing business to subcontractors; however, potential liability associated with using subcontractors has not been evaluated. The risk associated with the process will merely be transferred to the subcontractor from the prime contractor, which could result in additional cleanup costs for DoD.

F-22 Program. The F-22 Program Office had not included estimates for preparing EAs, EISs, and other environmental costs associated with reducing or eliminating hazardous processes and materials from the F-22 Program. According to Program Office officials, environmental cost estimates were not in the F-22 Program life-cycle cost estimates because the officials had never prepared environmental analyses this early in the acquisition cycle. Therefore, they had no basis for determining or budgeting for the associated costs. In addition, the Program Office officials stated that since the F-22 Program will cost an estimated $96.4 billion, an EA, which cost about $160,000, can be easily absorbed by rounding up or down. According to an Aeronautical Systems Center environmental engineer, an EIS could cost between $800,000 and $6 million.

Cause for Ineffective Oversight and Inconsistent Implementation of Environmental Policies

Environmental oversight and implementation of existing environmental policies and procedures were not fully adequate because the DoD and Military Departments' environmental policy and procedures were inadequate with regard to environmental management as it pertains to the acquisition of MDAPs. Management emphasis was placed primarily on installations and facilities and cleanup or restoration instead of examining the environmental impacts of developing and fielding weapon systems and appropriate pollution prevention or mitigating measures. Environmental managers in DoD and the Military

Departments were not in the acquisition or resource allocation chain-of-command, accounting for weak oversight of the preparation of environmental documents to support the acquisition review process.

Defense Acquisition Board Committee. The lack of sufficient emphasis on environmental consequences of MDAPs occurred, in part, because the former Deputy Assistant Secretary of Defense for Environment had not taken an active role in assessing environmental issues pertaining to acquisition programs scheduled for DAB reviews.

The former Deputy Assistant Secretary of Defense for Environment had not reviewed environmental documentation supporting the Annex E of the IPS, including the PEA on each MDAP scheduled for a DAB. As of May 1993, USD(A) elevated oversight responsibility for environmental consequences of MDAPs to an authority high enough to ensure that environmental concerns are seriously considered and resolved. As a member of the DAB committee, the Deputy Under Secretary of Defense for Environmental Security would be able to advise the Under Secretary of Defense for Acquisition and Technology in enforcing policies and procedures governing the operations of the DoD Acquisition System. Also, the Deputy Under Secretary could ensure that a program is ready to proceed, from an environmental standpoint, into more advanced development or production stages before receiving Milestone approval and that proposed program plans for subsequent stages are consistent with sound acquisition management and environmental practices.

Adequate Funding. One primary reason given by the Military Departments for not implementing the provisions of the NEPA and DoD Directive 6050.1 for MDAPs was a lack of adequate funding.

Providing adequate funding for any initiative, large or small, sends a strong and positive message to the people involved in carrying out that endeavor. Having the funding needed sets priorities and places emphasis on those areas where funding has been provided to do what has been required either by law or DoD regulation. Conversely, if funding is not available to effectively implement policy, then it is highly probable that executing that policy will be designated as a low priority.

For instance, according to the Office of the Deputy Secretary of the Air Force for Environment, Safety and Occupational Health, overall environmental funding for FYs 1993 and 1994 will not be sufficient. In FY 1992, the Air Force spent approximately $1.5 billion overall for environmental efforts. Also, approximately 50 percent of the total environmental dollars spent from FYs 1990 through 1992 were for cleaning up the environment. Further, the Office of the Deputy Secretary of the Air Force for Environment, Safety and Occupational Health stated that the level of interest in environmental matters by high-level DoD officials has been raised; however, that interest has not resulted in adequate environmental funding.

Insufficient Environmental Policy, Guidance, or Procedures. The Military Departments failed to consistently implement DoD environmental policies because of insufficient OSD guidance and Military Department guidance and oversight.

Acquisition Regulations. The failure of the Military Departments to adequately prepare and process environmental documentation can also be partly attributed to acquisition regulations that did not include policies and procedures that specifically required the acquisition community to assess environmental consequences or impacts throughout the weapon systems acquisition process. Acquisition managers failed to comply with regulations that did not pertain specifically to acquisition. Overall DoD policies contained in DoD Directive 6050.1 were not part of acquisition regulations and, therefore, were not fully complied with by the Military Departments in the management of acquisition programs. The DoD Directive 6050.1 states that agencies are encouraged to publish explanatory guidance for the regulations within Directive 6050.1 and for their own procedures and shall continue to review their policies and procedures to determine whether revisions are needed to ensure full compliance with the purpose and provisions of the NEPA.

OSD Guidance. The USD(A) had not issued sufficient environmental policy, guidance, or procedures to DoD Components to ensure consistent implementation of environmental regulations throughout DoD. Guidance did not specifically address the preparation of and an explicit approval process for a PEA or associated documents, such as an EA, EIS, record of decision, and FONSI, and how the accuracy and adequacy of the analyses will be assured.

Also, current guidance does not address environmental compliance in source selection; environmental considerations in integrated logistic support planning; and establishment of guidelines for contractor incorporation of environmental considerations into development and production activities, including analyses to be performed and mitigating measures and environmental inputs for decision authorities' consideration.

DoD Directive 6050.1. DoD Directive 6050.1 does not adequately define the Council on Environmental Quality requirements from a Defense perspective and does not integrate current DoD acquisition, production, logistics, and operational areas.

Council on Environmental Quality. Council on Environmental Quality definitions and requirements specifically addressing the acquisition process were not established for terms such as "major Federal action" and "significant environmental impact." However, Army Regulation 200-2 states that the Army should comply with the NEPA and not try to determine whether a program is a major Federal action. Environmental planning direction is primarily in regulations and manuals that have been directed toward installations and facilities management instead of acquisition management, which provides the impression that environmental policy and direction are only applicable to installations and facilities.

Former Deputy Assistant Secretary of Defense for Environment. The former Deputy Assistant Secretary of Defense for Environment had not set a priority within his office on the review of environmental documentation on MDAPs scheduled for a DAB review to ensure compliance with environmental policy and has not informed the Military Department acquisition communities that environmental reviews are within their authority.

Reviewing PEAs and NEPA Documents. The former Deputy Assistant Secretary of Defense for Environment did not routinely review PEA or required NEPA documents on acquisition programs.

Adequate Reviews. The former Deputy Assistant Secretary of Defense for Environment assigned only one employee, the special assistant for acquisition programs, the responsibility for reviewing the environmental documentation on all MDAPs.

Military Departments' Guidance. The Military Departments' designated environmental officials did not place a high priority on environmental matters for MDAPs and did not provide sufficient guidance and oversight to the acquisition managers to ensure that viable environmental concerns were fully considered. Further, existing guidance did not specify by whom, how, and when these assessments were to be performed and clarify how to ensure that analyses would be adequate and accurate. Also, environmental officials did not require activities to interact on environmental matters affecting MDAPs.

A lack of adequate oversight and familiarity with applicable environmental laws and DoD environmental policies was evidenced when the Navy stated that the NEPA and DoD environmental policy does not apply to weapon systems acquisition programs. Also, a lack of adequate acquisition procedures that clarify by whom, how, and when EAs and EISs should be prepared and made available to decisionmakers contributed to inadequate program oversight.

Army. The Assistant Secretary of the Army for Installations, Logistics, and Environment had not established procedures requiring MDAP environmental documentation to be submitted for review and approval to ensure that environmental impacts had been properly addressed during the acquisition process.

Navy. In May 1991, the Commander, Naval Sea Systems Command, assigned responsibility for the Naval Sea Systems Command environmental policy and guidance and hazardous material control and management over the life cycle of a program to the Naval Sea Systems Command Environmental Protection, Occupational Safety and Health Office. This office is responsible for policy and guidance for environmental protection, hazardous material control and management, occupational safety, and health across product life cycles; however, the office did not actively involve itself in acquisition matters.

The program offices for the SSN-21, the SSN-688, and SSBN-726, and the Supervisor of Shipbuilding indicated that environmental considerations early in the acquisition cycle were not their responsibility. The Navy assumed that the contractor would consider the environmental impact of developing, testing, and producing the Submarines; however, the contractor did not perform assessments of environmental consequences during those phases of the programs.

On July 12, 1992, the Naval Air Systems Command assigned environmental management responsibility to the Facilities Management Division, Environmental Branch (the Branch). The Branch is responsible for establishing policy, processes, and procedures to develop and sustain the capability to execute, within the environmental management discipline, the acquisition and support of Naval aviation programs. In addition, it provides direction and oversight of NEPA implementation and performs NEPA documentation reviews. However, the Branch officials did not consider the NEPA to be applicable to Navy aviation programs and, therefore, did not recommend preparation of NEPA documents. Further, it considered compliance with environmental laws and environmental management to be the contractors' responsibility.

Air Force. For the F-22 Program, the Environmental Management Division at the Aeronautical Systems Center supported the F-22 Environmental Program Manager. However, the Division had not issued guidance to Aeronautical Systems Center activities, which include the F-16 Program Office.

Environment as a High Priority and Guidance. Environmental planning within DoD has been traditionally oriented toward operation of facilities and installations, with emphasis on pollution control required for cleanup, restoration, and waste management instead of the acquisition process. The Military Departments have placed responsibility for the implementation of the NEPA under the environmental and civil engineers with no requirements for coordination with the acquisition community, which caused the emphasis to be on cleanup and not on incorporating pollution prevention measures early in the life cycle of MDAPs. Further, the Military Departments did not establish a means for the environmental engineers and the acquisition community to exchange information on environmental consequences of MDAPs. Overall, this orientation of environmental planning toward facilities and installations occurred because DoD and the Military Departments have not established environmental planning as a priority for MDAPs.

The Military Departments have not set a high priority on addressing environmental matters early in the acquisition process of MDAPs. Instead, environmental considerations over the life cycle of MDAPs have traditionally been viewed as a distant second to program performance, schedule, and cost. By the time the environmental matters are considered during production and deployment, damage to the environment may have already occurred, and design changes to mitigate environmental impact are costly.

Because environmental planning guidance and procedures are generally established in regulations and manuals directed toward facilities and installations

acquisition instead of weapon system acquisition, the acquisition community may interpret the guidance and procedures as applicable only to facilities and installations. The requirements are often interpreted as applicable to weapon system acquisition only as they impact facilities and installations. "Facilities" is usually viewed by the program offices as a collateral responsibility assigned to a logistics staff-person. Designating this function as a secondary responsibility not only adversely influences the attention given to the function but also impacts the dissemination of information concerning environmental guidance and requirements.

The former Deputy Assistant Secretary of Defense for Environment could provide no instances where a MDAP had been stopped or delayed because of environmental factors, or where direction from milestone decision authorities addressed the environmental issues. However, we believe that the Military Departments should emphasize that environmental impacts can stop or delay a program.

Effects of Inadequate Environmental Oversight and Policy Implementation

The lack of environmental oversight and implementation of existing environmental policies and procedures applicable to MDAPs resulted in the inadequate consideration of environmental consequences in the acquisition and budgeting processes at the OSD and Military Department levels; environmental policy that was inconsistently implemented by the Military Departments; and MDAPs that may experience extensive program delays and increased program costs.

Consideration of Environmental Consequences. The former Deputy Assistant Secretary of Defense for Environment had not reviewed the environmental documents for each MDAP scheduled for a DAB milestone review and provided the results of its review to the DAB. As a result, the DAB was not provided sufficient information on the environmental consequences of MDAPs to make decisions that meet the mission of DoD and protect the environment commensurate with national security requirements.

The Assistant Secretary of the Army for Research Development and Acquisition and the Assistant Secretary of the Army for Installations, Logistics, and Environment did not interact on environmental issues. Neither office established a review and approval process for EAs or EISs prepared by acquisition officials. The Assistant Secretary of the Army for Installations, Logistics, and Environment directs the Corps of Engineers to respond to cleanup actions. Generally, they were trained to clean up installations and were not required to understand the acquisition process. The Assistant Secretary of the Army for Research, Development and Acquisition has acquisition specialists, program managers, and program executive officers who have not had training in environmental matters. Consequently, acquisition officials did not know how to prepare NEPA documents or which office within DoD could

provide assistance. Further, acquisition officials who obtained contractor assistance to prepare NEPA documents did not know which office within DoD was responsible for reviewing those documents. Therefore, the Army lacked proper internal controls to ensure that environmental documentation required by Federal laws and regulations was being prepared, properly reviewed, and stored in a central repository for reference for acquisition programs.

The Air Force Office of the Civil Engineer had not interacted adequately with the acquisition community to ensure environmental considerations were incorporated into MDAPs. In the Air Force, the Office of the Civil Engineer was responsible for determining the need and providing assistance and advice on preparing, reviewing the adequacy of, and tracking environmental documents. Traditionally, the Office of the Civil Engineer had focused on environmental impacts of installations and facilities rather than MDAPs and was, therefore, unfamiliar with the acquisition process. The Air Force did not have a means to exchange information among the acquisition officials and the environmental and civil engineers.

The Director of Environmental Quality, Office of the Air Force Civil Engineer, Bolling Air Force Base, stated that the engineers at the Air Force Center for Environmental Excellence at Brooks Air Force Base, San Antonio, Texas, provided the environmental assessment support to the Office of Air Force Civil Engineer. However, during our visit to the center, the Director of the center stated that they did not focus on environmental impacts of MDAPs and that their primary focus was environmental restoration, pollution prevention, environmental planning, design, construction of installations and facilities, and base closures.

The Air Force did not have a clear chain of command on environmental issues at the Air Force Materiel Command level. The Air Force Materiel Command Environmental Office had not defined its mission or role in the NEPA process. Although the System Program Office level provided information copies of environmental documentation to the Program Executive Office level, the Program Executive Office had never provided feedback on the documentation. Overall, the Air Force cannot be assured that it is carrying out its mission in a manner consistent with environmental policy because it lacks a mechanism to review and approve environmental documentation prepared on MDAPs.

Implementation of Environmental Policy. The Navy's Facilities and Environment Management Office under the Office of the Deputy Assistant Commander for Naval Air Systems Command, Navy Ranges and Field Activity Management, reviews the Annex E of the IPS to determine whether the NEPA is applicable to the action under consideration. If NEPA documentation is not required, the Annex E of the IPS is approved and no further action is taken. The Office of the Special Assistant for Environmental Planning was required to file NEPA documents with the appropriate agencies and provide review copies of the PEA to the Deputy Assistant Secretary of the Navy for Environment and Safety. The Assistant Secretary of the Navy for Installations and Environment is responsible for approving EISs and FONSIs. However, the Navy did not review environmental documentation supporting the Annex E, including the PEA, on each MDAP scheduled for a DAB. The Navy did not coordinate the

results of its review of the Annex E with the former Deputy Assistant Secretary of Defense for Environment, resulting in the lack of adequate information for the DAB process.

Program Delays and Increased Costs. Since the Military Departments did not prepare any PEAs for the MDAPs reviewed or take other measures to ensure appropriate action on environmental matters, DoD may expend significant resources for cleanup costs, fines, claims, and lawsuits. Also, the programs could be subjected to costly delays in development, manufacturing, fielding, and disposal as a result of noncompliance with environmental laws. This lack of recognition of environmental impact also may not permit timely and less expensive changes in the weapon system program to reduce environmental impact, if necessary. In addition, the program offices may not be carrying out their missions in a manner consistent with statutory and regulatory environmental polices and procedures, have not made provisions to fully fund associated environmental costs, and have not given the public the opportunity to review NEPA environmental documentation associated with the program, as required by law.

Conclusion

We believe that OSD should improve environmental oversight, resolve inconsistent implementation of existing policies, revise DoD Instruction 5000.2 and DoD Manual 5000.2-M, issue a supplemental environmental manual, establish an environmental data base, and prepare environmental documents before CDRs.

Environmental Oversight. With the establishment of the Office of the Deputy Under Secretary of Defense for Environmental Security, we believe an opportunity exists to ensure effective acquisition oversight of environmental issues on individual programs through designation of the Deputy Under Secretary as a permanent member on the DAB committees with full authority to review programs to ensure environmental compliance. This action would ensure the strong environmental leadership necessary to correct the extensive deficiencies noted in this report. These deficiencies were due, in part, to failure to implement and enforce existing policies. While implementation of the recommendations in this report should strengthen environmental management, we consider it essential that permanent environmental leadership be on the DAB committees because of the potential costs of environmental compliance. With reduced program budgets, there is a relatively high potential for environmental analyses to be deferred and, therefore, compliance costs not identified. The long-term cost impact of such deferred recognition of prevention and mitigation costs could be substantial.

Implementation of Policies. We believe that all nine MDAPs that we reviewed should have prepared PEAs or similar forms of environmental analyses, and EAs and EISs on those aspects of the program where warranted based on specific environmental concerns identified in the course of program execution.

We are concerned that, in spite of the inadequacies in existing policies, the Military Departments are not consistently implementing them. To resolve the inconsistent implementation, all Military Departments' environmental policies and procedures should be coordinated and approved by the Deputy Under Secretary of Defense for Environmental Security. These policies and procedures should be incorporated in the Military Departments' acquisition guidance and "installations and facilities" guidance so that the acquisition community can identify and include environmental matters as an integral part of the planning and decisionmaking process throughout the life cycle of MDAPs.

DoD Instruction 5000.2 and DoD Manual 5000.2-M. The DoD Instruction 5000.2 and DoD Manual 5000.2-M should be revised to prescribe the uniform implementation of environmental policies and procedures in the major Defense acquisition process. This guidance should include:

o Service Acquisition Executive and Program Executive Officer responsibilities for review and approval of environmental documentation;

o Designation of the decision authorities for records of decision on acquisition matters;

o Policies and procedures for processing environmental documents for review and approval;

o Specific delegation of responsibility such as when, how, and by whom environmental analyses and supporting documentation are to be prepared and approved;

o How the adequacy and accuracy of environmental analyses will be assured; and

o Policies and procedures for public release of environmental documents on MDAPs.

Supplemental Environmental Handbook. To facilitate the NEPA process, DoD should issue a 5000-series handbook that supplements DoD Instruction 5000.2 and includes procedures for conducting a PEA, EA, EIS, and related environmental documents on MDAPs. The handbook should also include guidance for an additional document to those required by the NEPA to record the plan and milestones for environmental reviews during the decisionmaking process, as recommended by the Logistics Management Institute Report (see Prior Audits and Other Reviews). The recommended environmental management plan should also address environmental considerations in solicitation, source selection, and contract award and administration.

Data Base. To preserve valuable resources, avoid duplication of efforts, and reduce the likelihood of overlooking certain environmental factors for a given acquisition program, DoD should establish a data base of all NEPA documentation prepared on MDAPs. This data base should be distributed to major buying commands and used in preparing program-specific environmental documentation.

Critical Design Reviews. We believe that the preparation of EAs and EISs, if required, on MDAPs should be prepared before critical decision points, such as CDRs. At this decision point, the decisionmaker will decide whether to accept a proposal on critical aspects of a program, such as the design, materials, and manufacturing processes. If the manufacturing process and materials to be used are agreed upon after the CDR, any manufacturing process or construction material found to be environmentally unacceptable would require either design changes to the weapon system or alternatives to the manufacturing process and materials. Military Standard 499B, currently in draft, would be an appropriate vehicle for implementation of CDR requirements for environmental matters.

Recommendations

We recommend that the Under Secretary of Defense for Acquisition and Technology:

1. Establish the Deputy Under Secretary of Defense for Environmental Security as a permanent Defense Acquisition Board committee member to incorporate environmental issues into the Office of the Secretary of Defense acquisition decisionmaking process.

2. Require the Deputy Under Secretary of Defense for Environmental Security to review environmental documentation supporting the Integrated Program Summary, Annex E, including the Programmatic Environmental Analyses on major Defense acquisition programs scheduled for a Defense Acquisition Board review, to ensure compliance with environmental policy and provide the results of these reviews to the Defense Acquisition Board.

3. Establish in DoD Instruction 5000.2, "Defense Acquisition Policies and Procedures," February 23, 1991, and DoD Manual 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 23, 1991, a requirement for an environmental management plan and uniform environmental policies and procedures addressing:

a. Designation of the decision authorities for records of decision on acquisition matters.

b. Policies and procedures for processing environmental documents for review and approval, including Service Acquisition Executive and Program Executive Officer responsibilities.

c. Policies and procedures for public release of environmental documents on major Defense acquisition programs.

d. Separately estimating costs associated with environmental compliance.

4. Revise DoD Instruction 5000.2 to require that any necessary environmental impact statements concerning system design, development, and manufacturing processes and associated records of decision be completed before critical design review.

5. Issue a handbook as a supplement to DoD Instruction 5000.2 on the procedures for preparing environmental documents and addressing environmental considerations in the procurement process, including specific controls for document review within the DoD Components.

6. Establish and maintain a data base of all environmental analyses, including Programmatic Environmental Analyses and National Environmental Policy Act documentation, prepared on major and nonmajor Defense acquisition programs for distribution to major buying Commands to be used in preparing program-specific environmental documentation.

7. Include in the revisions to Draft Military Standard 499B, "Systems Engineering," requirements for assessing and resolving environmental issues as part of the critical design review process.

Management Comments and Audit Response

We received comments addressing this finding from the Director, Acquisition Program Integration; the Assistant Secretary of the Navy for Research, Development and Acquisition; and the Director, Program Analysis and Evaluation. The following discussion provides a synopsis of the comments and our response to the comments. The complete texts of the comments are in Part IV. Overall, we consider the comments by the Director, Acquisition Program Integration, to lack a sense of urgency that should accompany findings of such widespread noncompliance with DoD policy. Since the Director is charged with monitoring compliance with established acquisition policy, we are concerned by the lack of definitive corrective action outlined in his response. Moreover, the comments evidence a lack of management support for remedying the situation. We are available to discuss further alternative approaches to resolving the deficiencies noted. The recommendations requiring additional response and completion dates by the Director are listed in the Response Requirements for Recommendations section at the end of this finding.

Director, Acquisition Program Integration, Comments. The Director discussed a change to the environmental organizational structure within DoD and also provided comments on the finding.

Environmental Organizational Structure. The Director stated that we identified many instances where acquisition activities were not complying with DoD environmental guidance and regulations but felt that our solution to the problem, as addressed in the recommendations, was not the most appropriate solution. He felt that "The more appropriate solution was to change the existing

environmental security organizational structure within DoD to address environmental security for all of the Department, including the Acquisition community."

The Director noted that DoD's environmental structure was changed this year with the elevation of the DoD environmental function from a Deputy Assistant Secretary level, under Production and Logistics, to a Deputy Under Secretary reporting directly to the USD(A). The Deputy Under Secretary of Defense for Environmental Security (the Deputy Under Secretary) will have representation on the DAB committees and will, as the need arises, advise the DAB on environmental issues. The Deputy Under Secretary will also interact with DoD program offices and the acquisition community to foster an environmental awareness and a team effort.

Audit Response. We agree that DoD's environmental organizational structure was an area of concern. However, we did not cite correction of the organizational structure within the Office of the Secretary of Defense as a recommendation because before the completion of our audit, the Deputy Under Secretary position was established.

Finding Comments. The Director concurred with the finding and discussed the environmental function in OSD and the delegation by DoD Directive 6050.1 to the DoD Components, the Chairman of the Joint Chiefs of Staff, and the Commanders of the Unified and Specified Commands to comply with the NEPA. Further, the Director noted that

> The [former] DASD(E) [Deputy Assistant Secretary of Defense for Environment], in NEPA compliance oversight for installations as well as acquisition activities, was limited to review of selected Environmental Impact Statements and provision of comments to the components. The oversight did not involve identification of significant Federal actions requiring NEPA documentation or determining the adequacy of Categorical Exclusion justifications or Environmental Assessments.

Audit Response. We agree with the Director's comments; however, with the creation of the Deputy Under Secretary position and representation on the DAB committees, greater opportunity exists to ensure that the DoD Components comply with NEPA and DoD regulations aimed at protecting the environment.

Recommendation 1. Comments. The Director partly concurred with the recommendation and noted:

o The Deputy Under Secretary is the prime advisor to the USD(A) on all environmental matters.

o The DoD Instruction 5000.49, "Defense Acquisition Board," September 11, 1989, is being revised to establish the Deputy Under Secretary as an advisor to the DAB.

o The Assistant Deputy Under Secretary of Defense for Compliance will represent the Deputy Under Secretary on the DAB committees.

Audit Response. The Director's comments were responsive to our recommendation. The Deputy Under Secretary advisory position, revision of DoD Instruction 5000.49, and the representation of the Deputy Under Secretary on the DAB committees meet the intent of our recommendation.

Recommendation 2. Comments. The Director partly concurred with the recommendation and stated that the staff of the Deputy Under Secretary reviews all documentation in the IPS and provides guidance on development of Annex E submittals. He also noted that the Deputy Under Secretary has the responsibility to ensure that the Services prepare environmental documentation, determine the adequacy of the documentation, and incorporate the documentation into the planning and decisionmaking process.

Audit Response. The Director's comments were not fully responsive to our recommendation because he did not completely address the recommendation. He discussed the review of IPS documentation and oversight of environmental documentation preparation by the staff of the Deputy Under Secretary that partially meet the intent of our recommendation; however, he did not address the review of Programmatic Environmental Analyses supporting the IPS and accomplishing the environmental assessment for the DAB as required by DoD Instruction 5000.2, Part 13, Section B, Attachment 2. The Director should reconsider his position and provide additional comments addressing those areas.

Recommendation 3. Comments. The Director partly concurred with the recommendation and stated that environmental laws and regulations drive environmental analyses documentation requirements and are interpreted in DoD environmental directives. Those directives should be modified, as required, to provide guidance to the acquisition community. Then, those directives should be incorporated into the 5000 series directives. The DoD Instruction 5000.2 could be modified, if necessary, to establish procedures for processing environmental documents and to provide for submittal standardization. However, due to differing organizational structures, he felt that specific delegation of responsibilities should be left to the Services.

Audit Response. The Director's comments were not fully responsive to our recommendation because he did not completely address the recommendation. By stating that DoD environmental directives should be, rather than would be, modified and incorporated into the 5000 series directives and that DoD Instruction 5000.2 could be, rather than would be, modified to establish procedures and to provide standardization, the Director gives the impression that corrective action may not be taken to establish uniform environmental policies and procedures, as well as a specific delegation of authority. We clarified our recommendations to specifically address the environmental oversight responsibilities of the Service Acquisition Executive and the Program Executive Officer and the delegations of authority to these

officials for approval of environmental documents. The Director should reconsider his position and provide additional comments addressing specific actions that will be taken to implement the recommendation.

Recommendation 4. Comments. The Director nonconcurred with the recommendation and stated, "In most instances system design, development and even manufacturing will only require an assessment with a finding of no significant impact."

Audit Response. We disagree that for most programs, system design, development, and manufacturing will only require an assessment with a finding of no significant impact. The decisions made during the design process are of paramount importance to pollution prevention and mitigation during production and deployment. The DoD Instruction 5000.2 should be revised to require environmental assessments as well as necessary environmental impact statements to be completed before critical design review for design-driven environmental impacts. We request that the Director reconsider his comments and provide additional comments addressing specific actions that will be taken to implement the recommendation.

Recommendation 5. Comments. The Director nonconcurred with the recommendation and stated that

> The DoD Environmental Directive and manual and regulatory agency guidance should be usable to the Acquisition community. In almost all instances DoD must comply with environmental laws in the same way as any person or other entity. To develop specific guidance for the Acquisition community in 5000.2 would imply that these procedures take precedence over guidance provided elsewhere, thus giving potential to conflict.

Audit Response. We are not implying that the development of specific guidance would take precedence over environmental laws, but, instead, the procedures would supplement environmental laws and provide uniformity to the environmental assessment process within the DoD acquisition process and reduce the amount of misinterpretation of and noncompliance with environmental policies and procedures within the DoD acquisition community. We cannot expect program managers to take responsibility for resolving all matters of environmental compliance. The present conflicting interpretations and noncompliance clearly evidence that positive action is required and that the present guidance is inadequate. The DoD cannot continue to ignore environmental compliance in the acquisition process by refusing to issue needed policy guidance to acquisition management. Since the comments by the Director were nonresponsive to our recommendation, we request that he reconsider his comments.

Recommendation 6. Comments. The Director partly concurred with the recommendation and stated that the establishment and maintenance of a data base of all NEPA documentation could be accomplished at probably less cost by requiring that the documents be submitted to the Defense Technical Information Center and improving access to Center documents.

Audit Response. The comments by the Director were not fully responsive to our recommendation because he did not completely address the recommendation. By stating that the NEPA documentation data base could be, rather than would be, established at the Defense Technical Information Center, the Director gives the impression that corrective action may not be taken to establish a NEPA documentation data base to be used in preparing program-specific environmental documentation. We certainly are open to alternative corrective actions to address the deficiencies noted if the actions are supported by a management commitment concerning implementation of the alternatives. We request that the Director provide additional comments on how he plans to implement his alternative.

Recommendation 7. Comments. The Director agreed with the recommendation; however, he noted that more appropriate terminology would be to address environmental issues as part of the design process.

Audit Response. We agree that environmental issues should also be addressed as part of the design process as well as during the critical design review process. After we issued our draft report, a revision to the Draft Military Standard 499B, "Systems Engineering," was issued on August 24, 1993. The revision changed Section 5.8.8, "Environmental Analysis," of the May 6, 1992, version to Section 5.5.8, "Environmental Analysis and Impact Assessment." The revised section states that

> The performing activity shall adhere to all applicable statutes and to contractually designated hazardous material lists. Environmental analysis limited to the above shall be performed to determine the impact on and by each system product and process alternative on factors such as noise pollution, quantities and types of hazardous materials used, hazardous waste disposal and other defined environmental requirements as applicable. Methods to mitigate problems identified from this analysis shall be defined and an assessment of impacts made. Results of these assessments shall be factored into effectiveness analyses as well as system definition, design, and verifications. Analysis output will be documented appropriate to the acquisition phase and used in conjunction with cost and performance analyses outputs to support acquisition phase exit criteria. Environmental-critical characteristics of people, product, and process solutions shall be identified and their risks included in risk management efforts.

Although this revised section requires that mitigating methods be identified, it implies that these methods be considered and not implemented. The Standard should require that mitigating methods be implemented in accordance with DoD Instruction 5000.2. Also, the revised section no longer requires that

> Prior to fielding products and processes (including prototypes, end-items, and test vehicles), the appropriate environmental data shall be developed and made available to satisfy environmental impact documentation needs, prepare environmental impact statements, and to obtain the required environmental permits at operational, support and test locations.

To comply with DoD Instruction 5000.2, the appropriate environmental data should be developed and made available before fielding products and processes. In view of the Director's comments and the changes to the Draft Military Standard 499B, the Director should require the Air Force to revise the Standard to require that environmental issues be addressed as part of the design process, that mitigating methods be identified and implemented, and that the above paragraph concerning environmental actions to be taken before fielding be reincluded in the Standard.

Navy Comments on the Finding. The Assistant Secretary of the Navy for Research, Development and Acquisition (the Assistant Secretary) addressed fundamental environmental policy issues, provided editorial clarifications, and commented on statements in this finding. He believed that the report misinterpreted the requirements of DoD Instruction 5000.2 versus the requirements of the NEPA and its implementing regulations because he felt that the report reflected a belief that NEPA documentation must be prepared every time DoD Instruction 5000.2 requires an environmental analysis.

Audit Response. We met with the staff of the Assistant Secretary and clarified misunderstandings concerning the draft report. We believe that documentation in the form of a PEA is required at each milestone decision to show that the NEPA has been and is being integrated into the acquisition decisionmaking process. However, we do not consider the PEA or the Environmental Analysis at Annex E in the IPS to be NEPA documents. The DoD Directive 6050.1 requires DoD Components to ensure that the NEPA is integrated into the acquisition decisionmaking process and that environmental compliance requirements are considered at all major program decision points. Relevant environmental documents, comments, and responses should accompany a proposal through DoD Component reviews to ensure consideration by decisionmakers. The DoD Instruction 5000.2 requires NEPA documents prepared during program execution and all other types of environmental analyses to be summarized in the PEA at milestone decision points. Additionally, the PEA provides the "road-map" for environmental planning and consideration of environmental impact throughout the remainder of the program life cycle. The PEA should become increasingly more specific as the program processes with near-term efforts addressed in detail. The Instruction states that the IPS, which is prepared for each milestone decision, will contain a summary of the results of the PEA, which, in part, addresses the type of environmental analysis (EA, EIS, or some other type of analysis) conducted.

Our detailed response to the Assistant Secretary's policy issues, editorial clarifications, and comments on statements in this finding is in Appendix F.

Director, Program Analysis and Evaluation, Comments on the Finding. The Director addressed, in part, the sufficiency of the PEA and the absence of environmental training and oversight among program managers. He stated that the report correctly emphasized that acquisition programs must satisfy the requirements of the NEPA; however, meeting the demands of the NEPA will not lead to a PEA that is sufficient to support effective oversight of the acquisition programs. Effective oversight depends on the PEA:

o Incorporating the results of systems engineering analyses on pollution prevention, hazardous waste management, safety, demilitarization, disposal, and final clean up;

o Encompassing the program's full scope and life cycle;

o Providing technical definition to the environmental issues;

o Quantifying steps to mitigate environmental effects; and

o Using all appropriate program information.

The Director stated that the report was correct in finding that an absence of training and oversight among program managers was key to explaining why PEAs were not prepared for the programs reviewed; however, he believed that guidance was also insufficient. He stated that the PEA is:

o Briefly discussed in DoD Instruction 5000.2 and DoD Manual 5000.2-M but not in other directives or standards;

o Not tied to any source documents or activities, including the NEPA and the program system engineering; and

o Required to be summarized in the IPS but no standards exist for the PEA itself.

He noted that even though DoD Instruction 5000.2 establishes the PEA, follow-up action is needed to make the PEA a reality.

Audit Response. We basically agree with the Director's comments; however, our intent was not to imply that meeting the demands of the NEPA would lead to a PEA that is sufficient to support effective oversight of the acquisition programs. The summarization, at the overall program level, of any NEPA analyses performed on individual program segments is only part of the PEA. The PEA also contains a description of the program; alternatives to be studied; potential environmental impacts of each alternative throughout the system's life cycle; potential mitigation of adverse impacts; and the effect of environmental impacts and proposed mitigation on schedule, siting alternatives, and program cost.

Response Requirements for Recommendations

		Response Should Cover:			
Number	Addressee	Concur/ Nonconcur	Proposed Action	Completion Date	Related Issues*
A.1.	Under Secretary of Defense for Acquisition and Technology			X	IC
A.2.-6.	Under Secretary of Defense for Acquisition and Technology	X	X	X	IC
A.7.	Under Secretary of Defense for Acquisition and Technology			X	IC

* IC equals material internal control weakness.

Finding B. Cost and Operational Evaluation of Environmental Effects

When conducting Cost and Operational Effectiveness Analyses (COEAs) of MDAPs, the DoD Components are not required to assess trade-offs among environmental impacts and program performance, including the costs of environmental research and development, pollution prevention, and mitigating measures. This failure to assess programmatic environmental trade-offs in COEAs occurred because DoD guidance does not specifically require COEA trade-off assessments to consider the effect of an alternative's environmental impact and mitigating measures on the life-cycle costs of a program. As a result, the environmental impact and mitigating measures of an alternative may not be considered and the most cost and operationally effective alternative may not be selected. Further, the life-cycle costs of environmental compliance could be overlooked in the acquisition process, resulting in unanticipated and unfunded costs.

Background

The DoD Instruction 5000.2, part 4, and DoD Manual 5000.2-M, part 8, provide procedures and guidelines for COEAs. The COEA evaluates the costs and benefits, including operational effectiveness or military utility, of alternative actions to meet recognized Defense needs. A COEA is required to be prepared and considered at milestone decision reviews of Acquisition Category I programs,[3] beginning with Milestone I, Concept Demonstration Approval. They aid decisionmaking, facilitate communications, and document acquisition decisions by highlighting the advantages and disadvantages of the alternatives being considered and showing the sensitivity of each alternative to possible changes in key assumptions, such as threat, or variables, including selected performance capabilities. Further, COEAs provide early identification and discussion of reasonable alternatives among decisionmakers and staffs at all levels.

The DoD Component responsible for the mission area in which a deficiency or opportunity is identified normally prepares the COEA. The DoD Component head, or a designee, determines the independent analysis activity to prepare the COEA. The Joint Staff should ensure that the full range of alternatives is

[3] This acquisition category is comprised of major Defense acquisition programs that have unique statutorily imposed acquisition strategy, execution, and reporting requirements. Milestone decision authority for Acquisition Category ID and IC programs is the Under Secretary of Defense for Acquisition and Technology and the cognizant DoD Component head, respectively. The DoD Component head may delegate decision authority for Acquisition Category IC programs to the Component Acquisition Executive.

considered, organizational and operational plans are developed, and joint-Service issues are addressed. The Director, Program Analysis and Evaluation, has primary responsibility for assessing the adequacy of COEAs submitted in support of DAB reviews. The Director will provide, as necessary, guidance tailored to the program under review to be in the memoranda from the Under Secretary of Defense for Acquisition and Technology.

Assessing Environmental Trade-offs and Life-Cycle Costs

When preparing a COEA, DoD Components are not required to assess environmental impact constraints; analyze trade-offs among environmental impacts, environmental mitigating actions, and program performance; and include, in life-cycle cost estimates, costs associated with environmental compliance. To prepare a COEA, DoD Components have to apply several key concepts, such as constraints and assumptions, costs, and trade-off analyses; however, the environmental impact of the program is not required to be considered in these concepts.

Constraints and Assumptions. Constraints and assumptions are factors that limit the number of viable alternatives to be considered. The DoD Manual 5000.2-M specifically cites personnel, funding, and technical as examples of constraints but not the environmental impact of an alternative. As a result, the DoD Component may overlook the environmental impact of an alternative as a possible constraint.

Costs. Cost estimates are as important as operational effectiveness measures in the COEA. Decisionmakers must combine cost considerations with assessments of operational effectiveness and potential constraints in evaluating alternatives. The life-cycle costs associated with each alternative should be identified in the COEA. Life-cycle costs reflect the cumulative costs of developing, procuring, operating, and supporting a system. The DoD Instruction 5000.2 requires that COEAs contain separate estimates of operations and maintenance cost, particularly staffing, personnel, and training costs. However, the Instruction does not specifically require DoD Components to include and separately identify, in life-cycle cost estimates, costs associated with correcting or mitigating environmental effects of the development, production, deployment, and disposition of programs.

Trade-off Analyses. Trade-off analyses evaluate the implications of exchanging one set of controllable variables, such as schedule or performance, for another, such as cost. Trade-off analyses are an important component of Milestone I and II decision reviews.

Milestone I. For Milestone I, Concept Demonstration Approval, the COEA focuses on the broad trade-offs available among the different concepts to meet the basic mission need. The analysis demonstrates why acquiring a new system is preferable to modifying an existing one and defines the major performance and critical system characteristics needed in the new system.

Milestone II. For Milestone II, Development Approval, the COEA would establish performance floor and cost ceiling objectives; show trade-offs used to arrive at the objective for Phase II, Engineering and Manufacturing Development; and examine the impact of program termination.

Trade-off analyses identify areas of uncertainty, estimate their extent, and show how military utility is affected by changes in system capability. They also show how system characteristics, such as size and weight, drive performance and how performance affects military utility or effectiveness. However, DoD Components are not specifically required to assess trade-offs between implementation of mitigating measures, including costs, and program performance, which could impact the ultimate alternative at the milestone decision reviews, especially Milestones I and II.

Cause for Not Assessing Trade-offs and Life-Cycle Costs

The failure to require DoD Components to assess environmental impact constraints; analyze trade-offs among environmental impacts, environmental mitigating actions, and program performance; and include, in life-cycle cost estimates, costs associated with environmental compliance occurred because DoD guidance does not specifically require COEAs to analyze the effect of an alternative's environmental impact and mitigating measures on the life-cycle costs and trade-off assessments of a program. Specifically, COEA procedures in DoD Instruction 5000.2 and DoD Manual 5000.2-M do not require the DoD Components to:

o Include the environmental impact of an alternative in constraints and assumptions, costs, and trade-off analyses;

o Coordinate with the Joint Staff to ensure that the environmental consequences of a program are considered when the Joint Staff evaluates the range of alternatives, organizational and operational plans, and joint-Service issues; and

o Coordinate with the Director, Program Analysis and Evaluation, to ensure that the environmental consequences of a program are evaluated when the Director, Program Analysis and Evaluation, assesses the adequacy of COEAs submitted in support of DAB reviews.

The DoD Manual does address the operational environments by requiring an evaluation of potential contribution of Allied forces and terrain, weather, ocean, or other pertinent environmental parameters. However, the operational environment does not include an evaluation of the environmental impact of the program and associated alternatives.

Effect of Inadequate Cost and Operational Assessments

By not requiring DoD Components to assess life-cycle costs and trade-offs among environmental impacts, environmental mitigating actions, and program performance when conducting COEAs of programs, major program decisions are being made without due consideration of environmental consequences. In addition, the environmental impact and mitigating measures of an alternative may not be considered. The most cost and operationally effective alternative may not be selected. Further, the life-cycle costs of environmental compliance could be overlooked in the acquisition process, resulting in unanticipated and unfunded costs, such as environmental cleanup costs that could at least be partially offset if mitigating measures were considered during development.

Recommendations

We recommend that Under Secretary of Defense for Acquisition and Technology revise Cost and Operational Effectiveness Analysis procedures in DoD Instruction 5000.2, "Defense Acquisition Policies and Procedures," February 23, 1991, and DoD Manual 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 23, 1991, to require the:

1. DoD Components to separately identify, in life-cycle costs and trade-off analyses, the environmental consequences and the mitigating measures of alternatives being considered as part of a Cost and Operational Effectiveness Analysis.

2. Joint Staff to ensure that environmental consequences of a program are considered when the Joint Staff evaluates the alternatives, organizational and operational plans, and joint-Service issues on major Defense acquisition programs.

3. Director, Program Analysis and Evaluation, to ensure that the environmental consequences of a program are assessed as part of the review of Cost and Operational Effectiveness Analyses submitted in support of Defense Acquisition Board reviews.

Management Comments and Audit Response

We received comments to this finding from the Director, Acquisition Program Integration, and the Director, Program Analysis and Evaluation. The following discussion is a synopsis of the comments and our response to the comments. The complete texts of the comments are in Part IV.

Director, Acquisition Program Integration, Comments. The Director provided comments on the finding and associated recommendations.

Finding Comments. The Director concurred with the finding and stated that

> DoD is currently working on ways to incorporate total life cycle environmental costs into the COEA process. While some costs such as systems disposal are relatively easy to address, cost such as R&D [research and development] to satisfy an unidentified need or pollution prevention which should be a reduction on costs, are more evasive and difficult to identify.

Recommendations 1. through 3. Comments. The Director partly concurred with the recommendations and stated that:

o While environmental costs need to be incorporated into life-cycle costs and trade-off analyses, modifying DoD Manual 5000.2-M to direct the DoD Components to assess and identify those costs will result in potentially three different processes and values.

o The Director, Program Analysis and Evaluation, is analyzing this requirement, identifying resources, developing a process to assess environmental costs, and considering a study associated with including environmental costs in life-cycle cost analyses and establishing environmental cost estimating capabilities in the OSD Cost Analysis Improvement Group.

Audit Response. The Director's comments were not fully responsive to the recommendations since he did not address coordination with the Joint Staff to ensure that environmental consequences of a program are considered during Joint Staff evaluations. Also, we do not believe that requiring the DoD Components to assess and identify those costs will result potentially in three different processes and values as long as adequate guidance is provided. Further, even if the Components efforts to identify environmental costs vary in "process and value," the Components still need to identify the costs and to include those requirements in acquisition guidance. The initiatives being developed by the Director, Program Analysis and Evaluation, should provide uniformity to the process as well as analysis results. However, further explanation of those actions and completion dates are required before we can conclude that the actions are responsive to our recommendations. Therefore, we ask that the Director reconsider his position on the recommendations and provide additional comments.

Director, Program Analysis and Evaluation, Comments. The Director addressed, in part, his involvement in the environmental aspects of a COEA. He concurred with the recommendation concerning his office as long as the intent of our recommendation is for his analysts to assess whether significant environmental issues are addressed in COEAs and meet analytic standards. He interpreted the Executive Summary as requiring him to perform substantive reviews of environmental engineering issues and evaluate the environmental

impact if such an evaluation had not been completed adequately. He believed that the assessment of technical adequacy was the responsibility of the Deputy Under Secretary of Defense for Environmental Security.

Audit Response. The Director's comments meet the intent of the recommendation involving him. Concerning the Executive Summary, our intent was for the DoD Components to coordinate with the Director to ensure that the environmental consequences of a program are evaluated when the Director assesses the adequacy of COEAs submitted in support of DAB reviews.

Response Requirements for Recommendations

		Response Should Cover:			
Number	Addressee	Concur/ Nonconcur	Proposed Action	Completion Date	Related Issues*
B.1.-3.	Under Secretary of Defense for Acquisition and Technology	X	X	X	IC

* IC equals material internal control weakness.

Finding C. Assessing the Cost of Environmental Consequences[4]

The DoD has not fully estimated total environmental cleanup and remediation liabilities at Defense contractors, including the portion for which the Government was potentially responsible, and prioritized cleanup, remediation, and prevention projects on a DoD-wide basis. The lack of an accurate estimate for environmental cleanup and remediation occurred because DoD has not:

o Required contractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance,

o Identified the total costs for environmental cleanup and remediation liabilities at contractor facilities and the costs of preventive measures,

o Established a data base that prioritizes funding for preventive measures at contractor facilities, and

o Issued policy that prescribes procedures for environmental cost-monitoring reviews.

As a result, DoD cannot estimate the Government's overall liability for environmental remediation, cleanup, and pollution prevention measures; actively monitor and control environmental costs; prioritize investments in environmental protection; and report actual and contingent liabilities for environmental costs.

Background

Executive Order. Executive Order 12856, "Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements," August 3, 1993, requires that, within 12 months of the date of the Order, the head of each Federal Agency develop a written pollution prevention strategy to achieve the requirements specified in the Order, including toxic chemical reduction goals, and reductions in the acquisition of extremely hazardous substances and toxic chemicals. The Order also states that

> Federal agencies are encouraged to involve the public in developing the required strategies under this order and in monitoring their

[4] Finding was revised based on the issuance of Executive Order 12856 and USD(A) report, "Contractor Environmental Cleanup Costs," subsequent to the draft report; inclusion of Securities and Exchange Commission requirements; and management comments to the draft report.

> subsequent progress in meeting the requirements of this order. The strategy shall include, but shall not be limited to, the following elements:
>
> (a) A pollution prevention policy statement, developed by each Federal agency, designating principal responsibilities for development, implementation, and evaluation of the strategy. The statement shall reflect the Federal agency's commitment to incorporate pollution prevention through source reduction in facility management and acquisition, and it shall identify an individual responsible for coordinating the Federal agency's efforts in this area.
>
> (b) A commitment to utilize pollution prevention through source reduction, where practicable, as the primary means of achieving and maintaining compliance with all applicable Federal, State, and local environmental requirements.

To further comply with the Order, Federal Agencies are required to:

o Place high priority on obtaining funding and resources needed for implementing all aspects of the Order, including the pollution prevention strategies, plans, and assessments required by the Order, by identifying, requesting, and allocating funds through line-item or direct funding requests.

o Apply, to the maximum extent practicable, a life-cycle analysis and total cost accounting principles to all projects needed to meet the requirements of the Order.

o Provide, in all future contracts between the Agency and its relevant contractors, for the contractor to supply to the Federal Agency all information the Agency deems necessary for it to comply with the Order.

In addition, to the extent that compliance with the Order is made more difficult due to lack of information from existing contractors, Federal Agencies are required to take practical steps to obtain the information needed to comply with the Order from such contractors.

The Executive Order emphasizes that the Federal Government should become a leader in the field of pollution prevention through the management of its facilities, its acquisition practices, and in supporting the development of innovative pollution prevention programs and technologies. The Order also provides for further implementation of the Pollution Prevention Act of 1990, which:

> Established that it is the national policy of the United States that, whenever feasible, pollution should be prevented or reduced at the source; that pollution that cannot be prevented should be recycled in an environmentally safe manner; that pollution that cannot be prevented or recycled should be treated in an environmentally safe manner; and that disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.

Securities and Exchange Commission. Securities and Exchange Commission Regulation S-K, Subpart 229.100 - Business, November 1992, governing financial reporting for publicly held corporations, states that

> Appropriate disclosure also shall be made as to the material effects that compliance with Federal, State and local provisions which have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, may have upon the capital expenditures, earnings and competitive position of the registrant and its subsidiaries. The registrant shall disclose any material estimated capital expenditures for environmental control facilities for the remainder of its current fiscal year and its succeeding fiscal year and for such further periods as the registrant may deem material.

Estimating the Total Cost of Environmental Cleanup

The DoD's estimates for total environmental cleanup and remediation liabilities at Defense contractors, including the portion for which the Government could be potentially responsible, were underestimated. The DoD also underestimated its environmental cost for DoD's payment of, or agreement to pay, environmental cleanup costs for which Government contractors were, or may have been, liable. This underestimate occurred because DoD only included in its estimate universe 15 major Defense contractors and 12 other Defense contractors for which significant environmental cleanup costs had been reported, instead of all DoD contractors, including subcontractors.

Congressional Direction. The Senate Report on the DoD Appropriation Bill for FY 1993 directed the Secretary of Defense and the Administrator of the Environmental Protection Agency to prepare a report analyzing DoD's payment of, or agreement to pay, environmental cleanup costs for which Government contractors were or may have been liable. Those contractors must have claimed those costs as reasonable and allowable expenses under the Federal Acquisition Regulations. The report was to include:

- An examination of the legal basis for making such payments;
- The origins of the payment practice;
- The amount of DoD's past and potential financial obligations of such payments; and
- The steps, if any, planned or taken by the Government to address the issue.

The report was due to the Committees on Appropriations of the Senate and House by May 30, 1993. On July 26, 1993, USD(A) issued the report, "Contractor Environmental Cleanup Costs," to the Chairmen of the Committees after coordination with the Environmental Protection Agency. The report

addressed the legal basis for allowing contractor environmental cleanup costs, origins of DoD's reimbursement of contractor environmental cleanup costs, data on environmental cleanup costs at major Defense contractors, and regulatory initiatives regarding contractor environmental costs. (Appendix E contains the complete text of the report.)

Legal Basis for Allowing Costs. The USD(A) report stated that, in a February 3, 1992, response to the Chairman of the House Committee on Government Operations, the GAO provided the legal basis for allowing contractor environmental cleanup costs on Government contracts:

> There are, at present, no specific provisions in either (1) the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); (2) 10 U.S.C. 2324, "Allowable cost under defense contracts;" (3) the Federal Acquisition Regulation (FAR) part on contract cost principles and procedures; or (4) the Defense Acquisition Regulation Supplement, governing the allowability of costs incurred by a Government contractor in complying with various laws and regulations for protection or cleanup of the environment. Consequently, if the contract contains cost reimbursement provisions, a contractor may, as a matter of accounting practice, treat allowable portions of CERCLA cleanup costs as "ordinary and necessary business overhead" expenses, which would be reimbursable if otherwise "allowable" under Federal procurement regulations.
>
> As a general matter, a cost is allowable if it meets the criteria for each of the factors set out in FAR 31.201-2: (1) reasonableness, (2) allocability, (3) compliance with cost accounting standards, (4) compliance with contract terms, and (5) meeting any other specific FAR limitations.

The GAO response also addressed the allowability of environmental cleanup costs relating to fines and penalties and CERCLA cleanup cost included as overhead in a cost reimbursement contract.

When evaluating environmental cleanup costs included in a contractor overhead rate proposal, the USD(A) report stated that DoD auditors and contracting offices follow the Government-wide allowability criteria in the FAR. To determine allowability, the contracting officers apply the reasonableness criteria at FAR 31.201-3 and may disallow cleanup costs that result from contractor noncompliance with applicable environmental laws or regulations. In situations involving no contractor malfeasance, equity and FAR allowability criteria may dictate that the Government should pay its fair share of such cost. However, since CERCLA is a "no fault" statute, a contractor may be financially responsible for an environmental cleanup without having done anything wrong. Accordingly, each situation must be judged on its own merits, utilizing the appropriate FAR cost allowability criteria.

DoD Reimbursement of Contractor Environmental Cleanup Costs. Concerning the origin of DoD's reimbursement of contractor environmental cleanup costs, the USD(A) report stated that contractors started incurring increasingly significant amounts of such costs following the 1980 enactment of CERCLA. By the mid-1980s, those expenditures started

appearing in contractor overhead proposals, prompting the first suggestions within the Government that more specific allowability guidance might be warranted in the FAR. The report cited an example of such a case.

Environmental Cleanup Costs at Major Defense Contractors. Addressing the DoD's past and potential financial obligations, the USD(A) report stated that the Office of USD(A) collected data from 27 contractors, including 17 of the 1992 top 21 Defense contractors. The 27 contractors are comprised of the 15 major Defense contractors to which DoD has assigned Defense Corporate Executives, as well as 12 additional Defense contractors where significant environmental cleanup costs have been claimed or proposed.

As of July 26, 1993, the report estimated that those 27 contractors incurred about $1.3 billion in environmental cleanup costs with an additional $2.1 billion projected for future cleanup efforts. By factoring in the contractor percentage of Government sales, the Government's allocable share of the $2.1 billion would be approximately $956 million, spread over an average period of about 8.2 years. The report noted that

> These are rough estimates, since contractors do not routinely segregate environmental cleanup costs and do not share a common definition for that term. In addition, several of the contractors' estimates included substantial cleanup costs for commercial segments which are not allocable to Government contracts. Of the approximately $1.3 billion in environmental cleanup costs incurred by the contractors in our review, estimated Government reimbursements to date are about $286 million. It should be added that over 25 percent of these reimbursed costs relate to Government-owned, contractor-operated facilities where the Government would be a potentially responsible party for the environmental cleanup under CERCLA.

Regulatory Initiatives. The USD(A) report stated that, since 1989, DoD has been working with Federal Agencies to draft a FAR environmental cost principle, ensuring greater certainty and consistency in the evaluation of environmental costs, adequate protection of Government interests, and fairness to contractors. In May 1992, agreement was reached on a proposed FAR environmental cost principle that would make environmental cleanup costs allowable only when a contractor:

o Performed a Government contract contributing to the environmental damage.

o Complied with all then-existing environmental laws and regulations.

o Acted promptly to minimize damage and costs.

o Exhausted or is diligently pursuing all legal and contributory sources to defray the cost.

The report stated that

> There was consensus among the agencies that the Government, as a customer, should pay its fair share of cleanup costs if the contractor had acted responsibly at the time the environmental damage was created, and if the Government had derived some benefit from the contractor activity which caused that damage. This position is consistent with the current FAR cost principles and is fair.

There has been a significant delay in the publication of the proposed environmental cost principle. As a result, the Defense Contract Audit Agency, in consultation with the staff of the USD(A), issued audit guidance on October 14, 1992, regarding the allowability of contractor environmental costs. The report notes that this additional audit guidance is "an important initiative that will aid consistency in the evaluation of contractor environmental costs." (We address this guidance in greater detail later in this finding.)

In addition to the Defense Contract Audit Agency guidance, the Defense Contract Management Command:

o Issued policy to DoD contract administration offices on October 19, 1992, emphasizing their responsibilities concerning contractor environmental costs.

o Established an Environmental Task Force to evaluate and determine the implementing procedures necessary to address environmental concerns in contract administration.

Director of Defense Procurement Memorandum. On January 15, 1993, in response to the congressional direction, the Director of Defense Procurement, Office of the USD(A), issued a memorandum to the Defense Logistics Agency, with a copy to the Defense Contract Audit Agency. The memorandum summarized the Appropriations Committee's requirement and requested that the Defense Logistics Agency provide the following by April 30, 1993:

o For the 15 Defense contractors, where Defense Corporate Executives were assigned, and for contractor sites, where significant problems were known to exist, provide estimated total environmental cleanup costs and time frames, actual environmental cleanup costs incurred to date, and environmental cleanup costs reimbursed by DoD to date.

o Actions taken and planned by Defense Contract Management Command to enhance its reviews of environmental cleanup cost allowability.

Defense Contract Management Command Memorandum. On February 16, 1993, the Defense Contract Management Command, Defense Logistics Agency, issued a memorandum to its Defense Contract Management Districts. The memorandum:

o Restated the Director of Defense Procurement's memorandum;

o Required coordination with the Defense Contract Audit Agency;

o Provided a list of the 15 Defense contractors, associated Defense Corporate Executives, and 12 other Defense contractors for which significant environmental cleanup costs had been reported; and

o Addressed a General Accounting Office memorandum requesting similar data.[5]

Defense Contract Audit Agency Memorandum. On February 23, 1993, the Defense Contract Audit Agency issued a memorandum to its cognizant corporate audit coordinators and field audit offices. The memorandum forwarded the Defense Contract Management Command memorandum and requested that the addresses coordinate with the cognizant Defense Corporate Executives and Administrative Contracting Officers.

Cause for Underestimated Environmental Costs

The failure to estimate the total environmental cleanup and remediation liabilities at Defense contractors occurred because DoD has not required contractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance, identified the total costs for environmental cleanup and remediation liabilities at contractor facilities and the costs of preventive measures, established a data base that prioritizes funding for preventive measures at contractor facilities, and issued policy that prescribes procedures for environmental cost-monitoring reviews.

Accounting for Environmental Cost. Guidance concerning the accounting for environmental costs is in the Federal Acquisition Regulation and policy issued by the Director of Defense Procurement and the Assistant Director, Policy and Plans, Defense Contract Audit Agency.

Federal Acquisition Regulation. The Federal Acquisition Regulation does not require contractors and subcontractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance charged to DoD contracts. The Federal Acquisition

[5] On January 12, 1992, Congress requested that the General Accounting Office conduct a review of environmental cleanup costs incurred to date at the top 15 Defense contractors for both their plants and Government-owned plants operated by contractors. The data included amounts spent in the last 10 years and projections for the next 10 years. The General Accounting Office determined from its review that 15 of DoD's largest contractors estimated that their future environmental cleanup costs would total $2.1 billion. However, much of that amount could apply to non-Government business, but DoD's liability could be substantial. Because DoD does not routinely collect information on its projected costs from contractors, it cannot properly budget for future costs of DoD's contracts for products and services. In addition, although DoD has stated that contractors do not receive profits on their reimbursements, in some cases DoD has included such profits. Also, DoD was beginning to pay for contractors' cleanup costs directly. For example, the Navy agreed to indemnify contractors for cleaning up hazardous material. The Army has similar clauses in other contracts, thus creating the potential for additional cleanup cost liabilities.

Regulation, "Contract Cost Principles and Procedures," states that costs shall be allowed to the extent they are reasonable, allocable, and determined to be allowable. A cost is reasonable if in its nature and amount it does not exceed that which would be incurred by a prudent person in the conduct of competitive business. A cost is allocable if it is assignable or chargeable to one or more cost objectives on the basis of relative benefits received or other equitable relationship.

Director of Defense Procurement and Defense Contract Audit Agency. The Director of Defense Procurement and the Assistant Director, Policy and Plans, Defense Contract Audit Agency, jointly developed guidance on the allowability of environmental costs. On October 14, 1992, the Defense Contract Audit Agency issued a memorandum to Regional Directors and the Director, Field Detachment, enclosing a "Guidance Paper on Environmental Costs" (the Paper). The summary of the Paper stated that

> Environmental costs are normal costs of doing business and are generally allowable costs if reasonable and allocable. Some environmental costs must be capitalized when the effort improves the property beyond its acquisition condition or under certain circumstances when the costs are part of the preparation of the property for sale. If the environmental cleanup efforts resulted from contamination caused by contractor wrongdoing, the cleanup costs are not allowable. Cleanup costs paid or projected are usually only estimates of the contractor's true net costs after future recoveries. The costs should be treated as contingent costs subject to FAR [Federal Acquisition Regulation] 31.205-7, Contingencies, and, for costs paid and later recovered, 31.201-5, Credits.

The memorandum stated that if new cost principles addressing environmental costs were established, new audit guidance would be issued. Until then, the guidance in the Paper was to be used in auditing all incurred costs and forward pricing proposals and was being distributed to the DoD acquisition community. On October 22, 1992, the Director of Defense Procurement endorsed the Defense Contract Audit Agency audit guidance as a reasonable interpretation of applicable acquisition regulation concerning allowability of environmental costs and determined that environmental costs should be treated as normal business expenses.

Identification of Total Environmental Cleanup and Remediation Costs. The DoD underestimated the total environmental cost because it did not place a priority on determining the extent of the liability for environmental costs and contract provisions did not provide for identification of environmental costs at contractor facilities.

Establish a Data Base. Compliance with environmental laws and implementation of pollution prevention measures were traditionally viewed as the contractor's responsibility entirely; therefore, the Government did not normally monitor any associated costs. By establishing a data base of all DoD contractors and associated environmental cleanup and remediation liabilities, DoD could have monitored the compliance with environmental guidance and prioritized funding for preventive measures and, therefore, increased its ability to control future environmental costs. Presently, no system of priorities exists

to maximize the benefits of investment in cleanup, remediation, and preventive measures. Additionally, the future cost of pending environmental legislation and regulatory requirements has not been assessed in deriving cost estimates.

Issue Policy. The DoD has also not fully monitored environmental costs charged to the Government because the Defense Logistics Agency has not provided guidance regarding how cost-monitoring reviews in the environmental area should be conducted. The Defense Logistics Agency requested that cost-monitoring reviews be conducted at the major Defense contractors to determine past costs for environmental cleanup, estimates of future environmental cleanup, and DoD reimbursements to the contractor for environmental cleanup. However, the Defense Logistics Agency did not provide guidance explaining how the cost-monitoring reviews should be conducted to ensure uniformity in collecting the data.

Effect of Not Assessing Environmental Costs

By not estimating total environmental cleanup and remediation liabilities at Defense contractors, DoD cannot estimate the Government's overall liability for environmental remediation, cleanup, and pollution prevention measures; actively monitor and control environmental costs; and identify actual and contingent liabilities for environmental costs.

Overall Liability. The DoD lacks an overall estimate of Government liability for environmental remediation, cleanup, and pollution prevention measures. Therefore, DoD can not accurately disclose the current and probable future environmental operating costs and investment decisions, including the future resource requirements. The lack of cost estimates impedes monitoring actual environmental costs as a means to revise cost estimates and funding requirements and does not provide the information required for efficient use of limited resources.

Monitor and Control. The lack of active monitoring and control of environmental costs prohibits validation of cost estimates and liabilities. The DoD cannot actively control environmental costs or utilize available resources in the most efficient manner at Defense contractors without identifying, costing, and prioritizing environmental activities.

Identify Actual and Contingent Liabilities. The DoD cannot adequately prepare its financial statements without identifying actual and contingent liabilities for environmental costs. The Chief Financial Officers Act of 1990 requires DoD to submit to the Director of the Office of Management and Budget financial statements for the preceding fiscal year, covering accounts of offices and activities of the agency. Understating liabilities adversely impacts the budget and financial statements such as the statements of financial condition, operations, and cash flows. The DoD financial statements should reflect:

o The overall financial position of the revolving funds, trust funds, offices, and organizations covered by the statement, including assets and liabilities;

o Results of operations of those revolving funds, trust funds, offices, and organizations;

o Cash flows or changes in financial position of those revolving funds, trust funds, offices, and organizations; and

o A reconciliation to DoD's budget reports for those revolving funds, trust funds, offices, and organizations.

Insufficient accounting visibility for environmental costs restricts determining the estimated total cost for environmental compliance or cleanup resulting from the development and production of MDAPs and separately accounting for actual costs incurred regardless of whether the costs are expensed or capitalized.

Conclusion

We believe that DoD should propose to the Cost Accounting Standards Board[6] a requirement for contractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance; identify the total costs for environmental cleanup and remediation liabilities at contractor facilities and the costs of preventive measures; establish a data base that prioritizes funding for mitigating measures at contractor facilities; and issue policy that prescribes procedures for environmental cost-monitoring reviews. By taking those steps, DoD will be able to estimate potential environmental costs to assist in developing program budgets and to provide DoD managers and the Congress an estimate of the future funding liabilities that may result from environmental cleanup costs and pollution prevention. Direction to account for those costs separately is warranted, in our opinion, to comply with Executive Order 12856. The financial reporting requirements established by the Securities and Exchange Commission provide additional precedent for identifying environmental costs.

[6] The Cost Accounting Standards Board has the exclusive authority to promulgate cost accounting standards designed to achieve uniformity and consistency in the cost accounting practices governing measurement, assignment, and allocation of cost to contracts with the United States Government. Cost Accounting Standards are mandatory for use by all executive agencies and by contractors and subcontractors in estimating, accumulating, and reporting costs in connection with pricing and administration of, and settlement of disputes concerning, all negotiated prime contract and subcontract procurements with the Government in excess of $500,000, other than contracts or subcontracts that have been exempted by the Board's regulations. The Federal Acquisition Regulation, Part 30, describes the policies and procedures for applying the Board's rules and regulations.

Recommendations

1. We recommend that the Under Secretary of Defense for Acquisition and Technology propose to the Cost Accounting Standards Board a requirement for contractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance charged to Government contracts.

2. We recommend that the Under Secretary of Defense for Acquisition and Technology direct the DoD Components to:

a. Identify the total costs for environmental cleanup and remediation liabilities at contractor facilities for which the Government is potentially responsible and the costs of preventive measures to reduce future environmental costs.

b. Identify separately the funded and unfunded portions of Government environmental liabilities for acquisition programs over the Future Years Defense Plan period.

c. Establish a data base that prioritizes funding for preventive measures at contractor facilities that can reduce environmental costs.

3. We recommend that the Director, Defense Logistics Agency, issue policy that prescribes how and when environmental cost-monitoring reviews should be conducted at contractor facilities.

Management Comments and Audit Response

We received comments to this finding and associated recommendations from the Director, Acquisition Program Integration. The following discussion is a synopsis of the comments and our response to the comments. The complete texts of the comments are in Part IV.

Finding Comments. The Director nonconcurred with the finding and stated that the finding demonstrated a misunderstanding of contractor environmental costs because contractor environmental costs at contractor-owned facilities are not DoD liabilities but, instead, are liabilities only for the contractor. He further stated that DoD may reimburse its allocable share of those costs through overhead rates if those costs are determined to be allowable under the FAR.

The Director stated that neither the Superfund Amendments and Reauthorization Act nor the Chief Financial Officers Act of 1990 require DoD to report on contractor environmental costs at contractor-owned facilities. He also stated that Congress requested a report on Defense contractor environmental cleanup costs that was a nonstatutory, onetime request for information on issues relating to DoD reimbursement of such costs. In response, the Director said that data

was collected on the 15 contractors where Defense Corporate Executives were assigned, as well as 12 additional Defense contractors where significant environmental cleanup costs were claimed or proposed. He stated that approach was reasonable and did not understand why the Office of the Inspector General, DoD, was critical that the environmental cleanup costs for all DoD contractors, including subcontractors, was not reported. He also stated it would not have been a reasonable use of resources to survey all Defense contractors in response to a nonstatutory request. The Director noted that, even though the congressional request was a onetime request, the costs would be updated annually, plus those costs from additional contractors with significant environmental cleanup costs.

Audit Response. Based on the Director's comments and issuance of Executive Order 12856, we revised our finding and recommendations. However, the original finding did not demonstrate a misunderstanding of contractor environmental costs because, as the Director mentioned, DoD may be liable for its allocable share of those costs through overhead rates paid if those costs are determined to be allowable under the FAR. If DoD is responsible for reimbursing the contractor for those costs, then the costs are, in fact, a liability that must be addressed. More importantly, DoD should ensure that the costs are controlled and that environmental impacts are mitigated or prevented.

Concerning the reporting of contractor environmental cleanup costs, we believe that to provide accurate disclosure of those costs, DoD must report on all contractors who have environmental cleanup costs. We do not consider estimating the potential cost risk to DoD for cleanup costs at contractors to be necessary solely to fulfill congressional reporting requests. Rather, the underlying environmental impacts that drive the costs need to be more actively managed so that DoD does not incur excessive costs. Further, prudent managers should not limit management activities to what is specifically required by statute.

Contractors are required to accrue the liability for environmental costs, if the costs are probable and reasonably estimable, and to disclose whether a possible liability exists but the costs are not accrued. To the extent the contractor intends to transfer those costs to the Government, the reporting requirements also mandate separate reporting rather than offsetting the estimated Government reimbursement against the future costs. Projections by DoD contractors of Government reimbursement should, as a minimum, provide the basis for DoD estimates of environmental liability. In summary, estimates of the costs for DoD overall should be in the annual update.

Recommendation 1. Comments. The Director nonconcurred with the recommendation and stated that the recommendation was erroneously based on the assumption that statute requires DoD to report contractor environmental costs and separately identify actual and contingent liabilities. The Director reemphasized that costs are contractor costs, not DoD liabilities. He also stated that the report did not justify an additional burdensome reporting requirement.

Audit Response. In order to comply with Executive Order 12856 and to adequately prepare its financial statements, DoD needs to identify actual and

contingent liabilities for contractor environmental costs, as discussed in the finding. Financial standards require that liabilities be adequately disclosed. Moreover, DoD has a vital interest to control future liabilities resulting from its procurement activities, a point clearly highlighted by the recent Executive Order 12856. The Director is minimizing the potential significance of the DoD contingent liabilities because there is no absolute correlation between the size of a contractor and the environmental impact of its operations. Our report noted where a prime contractor decided to subcontract activities with a significant impact on the environment. We revised the recommendation to recommend that the Under Secretary of Defense for Acquisition and Technology propose to the Cost Accounting Standards Board a requirement for contractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance charged to Government contracts. We request that the Director reconsider his position on the recommendation and provide additional comments.

Recommendation 2.a. Comments. The Director nonconcurred with the recommendation and stated that the recommendation was based on the erroneous assumption that contractor environmental costs at contractor-owned facilities are a DoD liability. He noted that DoD may reimburse its allocable share of those costs through the overhead rates if the costs are determined to be allowable; however, DoD may also choose to contract with a different contractor with more competitive overhead rates. The Director also believed that DoD should not report unrequested data to Congress.

Audit Response. Contractor environmental costs at contractor-owned facilities are a DoD liability if, as the Director noted, DoD determines that those costs are allowable and reimburses its allocable share of those costs through the overhead rates. To select a contractor with more competitive overhead rates does not necessarily relieve DoD from responsibility for environmental costs. The fact that those costs impact overhead rates is a clear indication that they are not necessarily included in contractor proposals, but may ultimately be borne by the Government if the costs are not considered in the procurement process. The DoD needs to identify contractors' actual and contingent environmental liabilities for budgetary purposes and for prioritization of its environmental mitigation and prevention activities. Since the comments by the Director were nonresponsive to our recommendation, we request that he reconsider his comments.

Recommendation 2.b. Comments. The Director nonconcurred with the recommendation and stated that potential liabilities for future years at contractors' activities cannot be identified when contracts may or may not be granted.

Audit Response. We are not suggesting that DoD identify liabilities for future years at contractors' activities when contracts may or may not be granted. Instead, we are recommending that DoD identify liabilities for future years at contractors' activities where contracts have been awarded. The recommendation is intended to get DoD to recognize the future costs for the environmental costs at a time of shrinking budgets. Prudent management would dictate this type of action. In addition, recommendations at Finding A. are intended to address

consideration of environmental costs in future procurements. Since the comments by the Director were nonresponsive to our recommendation, we request that he reconsider his comments.

Recommendation 2.c. Comments. The Director nonconcurred with the recommendation and stated that whatever funds are included on Government contracts, those funds pay for an allocable share of the pollution prevention costs that are in the overhead rate. In addition, the Director stated that DoD should not substitute its judgement for that of a contractor's management regarding prioritization of specific pollution prevention measures.

Audit Response. By establishing a data base of all DoD contractors and associated environmental cleanup and remediation liabilities, DoD can monitor compliance with environmental guidance and prioritize funding for preventive measures. Therefore, DoD can increase its control of future environmental costs and maximize the benefits of investment in cleanup, remediation, and preventive measures. As far as substituting DoD's judgement for that of a contractor's management concerning pollution prevention, DoD has the responsibility to ensure that its limited resources are expended in the most efficient manner by prioritizing specific pollution prevention measures. Since the comments by the Director were nonresponsive to our recommendation, we request that he reconsider his comments.

Recommendation 3. Comments. The Director nonconcurred with the recommendation and stated that the Defense Contract Management Command does not perform environmental cost monitoring reviews of the contractors under its cognizance. He believed that the draft report did not support such an undertaking. He noted that the Defense Contract Management Command is continuing to collect Defense contractor environmental cleanup costs that will be reviewed for management and oversight purposes. However, he noted, analysis of the data suggests that projected contractor expenditures may not be large enough to warrant additional review. The Director stated that, for the 27 contractors, the Government share of the projected environmental cleanup costs would be $956 million over 8.2 years, for an average of $4.3 million per company per year. He felt that $4.3 million per company per year "would not have a significant impact on the applicable overhead rates."

The Director also noted that the Defense Contract Management Command has several initiatives underway concerning the allowability of environmental cleanup costs and oversight.

Audit Response. The Defense Contract Management Command is performing environmental cost monitoring reviews of the contractors. This position is further supported by the Director's statement that the Defense Contract Management Command is continuing to collect Defense contractor environmental cleanup costs that will be reviewed for management and oversight purposes. We also do not agree with the Director that the company costs per year in projected environmental cleanup may not be large enough to warrant additional review. More importantly, we believe that this figure significantly underestimates the potential costs of environmental compliance. Since the Defense Contract Management Command is performing environmental

cost monitoring reviews of the contractors, we redirected the recommendation to the Director, Defense Logistics Agency. Therefore, we request that the Director, Defense Logistics Agency, provide comments in response to this recommendation.

Response Requirements for Recommendations

		Response Should Cover:			
Number	Addressee	Concur/ Nonconcur	Proposed Action	Completion Date	Related Issues*
C.1.-2.	Under Secretary of Defense for Acquisition and Technology	X	X	X	IC
C.3.	Director, Defense Logistics Agency	X	X	X	IC

* IC equals material internal control weakness.

Part III - Additional Information

Appendix A. Definitions of Terms Used in This Report

Categorical Exclusion. This is a category of actions that do not individually or cumulatively have a significant effect on the human environment; therefore, neither an environmental assessment nor an environmental impact statement is required.

Environmental Analysis. This is the summary of the programmatic environmental analysis contained in the Integrated Program Summary (IPS), Annex E. The IPS is the primary decision document to facilitate top level acquisition milestone decisionmaking. An environmental analysis will be prepared for each phase of the acquisition process to identify and analyze the potential environmental consequences of each alternative being considered.

Environmental Assessment (EA). The EA is used to determine whether the preparation of an environmental impact statement (EIS) or a finding of no significant impact (FONSI) is required to comply with the National Environmental Policy Act when an EIS is not necessary and to facilitate preparation of an EIS when an EIS is required. The DoD Components should prepare an EA as early as possible after the requirement is identified. Based on an EA, if a DoD Component determines that an EIS is not required, the Component shall prepare a FONSI and make the FONSI available to the effected public. If the DoD Component determines that a categorical exclusion exists, an EIS or a FONSI is not required.

Environmental Impact Statement (EIS). An EIS provides full disclosure of significant environmental implications of the program, informs decisionmakers and the public of the alternatives considered and mitigating environmental measures being implemented on the selected alternative, and serves to insure that the policies and goals defined in the National Environmental Policy Act are incorporated into the program and the decisionmaking process.

Finding of No Significant Impact. This is a document by a Federal agency briefly presenting the reasons why an action will not have a significant effect on the human environment and why an environmental impact statement is not necessary. Additionally, this document will include the environmental assessment or a summary of the environmental assessment.

Initial Environmental Analysis and Planning. Environmental analysis and planning will begin as early as possible. During Phase O, Concept Exploration and Definition, the potential environmental effects of each alternative will be assessed and substantial potential effects will be integrated into the assessment of each alternative.

Mitigating Measures. These are actions taken to make the environmental impact of a system less severe. These actions could include:

- Avoiding the impact altogether by not taking a certain action;

o Limiting the degree or magnitude of the action and its implementation;

o Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

o Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and

o Compensating for the impact by replacing or providing substitute resources or environments.

Planning Considerations. The DoD Components are required to integrate the National Environmental Policy Act procedures into the initial planning stages of proposed DoD actions to ensure environmental impact issues are properly addressed and avoid unnecessary costs or delays in the acquisition, fielding, and disposal process. In the planning process, DoD Components will determine, as early as possible, whether to prepare environmental impact statements based on the overall programmatic environmental analysis (PEA) required by DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," part 6, section I, February 23, 1991, or individual environmental assessments performed in support of the PEA.

Preimplementation Actions. The DoD Components shall ensure that the National Environmental Policy Act (NEPA) is integrated into the acquisition decisionmaking process and that NEPA requirements coincide with all major program decision points. Relevant environmental documents, comments, and responses should accompany a proposal through DoD Component reviews to ensure consideration by decisionmakers.

Programmatic Environmental Analysis (PEA). The DoD Instruction 5000.2 defines a PEA as a study that will contain a description of the weapon system; alternatives to be studied within the program; potential environmental impacts of each alternative throughout the system life-cycle; potential mitigation of adverse impacts; and how the impacts would affect program cost, schedule, and siting alternatives. This analysis is to begin immediately after Milestone I and will simultaneously and thoroughly coordinate and integrate with other plans and analyses for the program; however, we recommended that the analysis be started before Milestone I. After each milestone decision point, the analysis will be updated or tiered as necessary. The analysis can be in the form of an environmental assessment or environmental impact statement and will occur regardless of the classification of the program. The Integrated Program Statement will contain a summary of the results of the analysis.

Public Involvement. Public involvement is the law. The National Environmental Policy Act (NEPA) states that the public shall participate, to the extent practicable, in the environmental review process. Environmental documents must be available to the public to ensure that all interested parties can be informed of and comment on proposed actions before decisions are reached. The DoD Directive 6050.1 requires the DoD Components to involve environmental agencies, applicants, and the public, to the extent practicable, in

preparing environmental assessments (EAs). If, as the result of an EA, a finding of no significant impact (FONSI) is prepared, the FONSI must be available to the affected public. When the DoD Component decides to prepare an environmental impact statement (EIS), the Component is required to publish a notice of intent in the Federal Register. The notice of intent describes the proposed action and possible alternatives, including the proposed range of actions, alternatives, and impacts to be considered in the EIS. The notice of intent also provides the name and address of the DoD Component's point of contact. Information or status reports on EISs and other elements of the NEPA process will be provided to interested persons upon request.

Record of Decision. For each environmental impact statement (EIS), a record of decision is required. The record of decision is a concise public document that provides a record of the Government decision concerning an EIS; identifies the alternatives considered in making the decision; specifies the environmentally preferable alternatives; indicates other factors that were considered in the decisionmaking process; and states whether all practicable means were taken to avoid or minimize environmental harm and if not, why not.

Appendix B. Military Components' Environmental Regulations

Department of the Army

Army Regulation 200-2, "Environmental Effects of Army Actions," November 16, 1988, designated the Office of the Assistant Secretary of the Army for Installations, Logistics, and Environment as the Army's responsible official on environmental policy. Additionally, the regulation implements the NEPA.

Army Regulation 70-1, "Army Acquisition Policy," April 22, 1992, was enacted to provide guidance to the Army acquisition community in conjunction with DoD Directive 5000.1 and DoD Instruction 5000.2. The regulation only assigns responsibilities.

Department of the Army Draft Pamphlet 70-xx, "Materiel Acquisition Handbook," (undated) implements DoD Instruction 5000.2, part 6, section I, "System Safety, Health Hazards, and Environmental Impact," for materiel acquisition programs. The pamphlet will implement NEPA requirements when approved.

Army Materiel Command, Army Acquisition Pollution Prevention Support Office, "Materiel Developer's Guide for Pollution Prevention," August 28, 1992, is intended to provide guidance to the Army acquisition community in the area of pollution prevention for environmental protection. The guide is not Army policy. Current distribution is limited to major Commands until the Army Chief of Public Affairs approves the guide for general release.

Department of the Navy

Secretary of the Navy Instruction 5090.6, "Evaluation of Environmental Effects From Department of the Navy Actions," July 26, 1991, establishes policy and assigns responsibilities to the Navy and Marine Corps for the evaluation of environmental effects from continuing and future Department of the Navy actions, supplements DoD Directive 6050.1, and implements procedural provisions of the NEPA and Council on Environmental Policy regulations.

Secretary of the Navy Instruction 5000.2A (draft), "System Safety, Health Hazards, and Environmental Impact," (undated) refers to Secretary of the Navy

Instruction 5090.6 and Office of the Chief of Naval Operations Instruction 5090.1A for guidance on the preparation and submittal of PEAs and lists the points of contact and brief descriptions of their responsibilities.

Office of the Chief of Naval Operations Instruction 5090.1A, "Environmental and Natural Resources Program Manual," October 2, 1990, Chapter 5, "Procedures for Implementing the National Environmental Policy Act," contains policy and guidance to ensure that Navy actions with the potential for significant environmental impacts are accomplished in accordance with DoD Directive 6050.1.

Department of the Air Force

Air Force Regulation 19-2, "Environmental Planning, Environmental Impact Analysis Process," August 10, 1982, implements DoD Directive 6050.1.

Appendix C. Major Defense Acquisition Programs Reviewed

RAH-66 Comanche Helicopter

Acquisition Command: Army Aviation and Troop Command

Contractor: Boeing Helicopters and Sikorsky Aircraft

Program Description: The RAH-66 Comanche Helicopter Program is the result of the Light Helicopter Family Rotorcraft Program. The Comanche is designed to satisfy the current deficiencies of the light helicopter fleet used for armed reconnaissance and light attack roles and will replace the AH-1, OH-6, OH-58A/C, and the OH-58D. The system will be effective at night and in adverse weather. In January 1992, a program restructure extended the Demonstration and Validation Prototype phase by an additional 2 years, to 78 months. As of January 1993, the acquisition cost of the Comanche Program was estimated at $44 billion. The Restructured Demonstration and Validation Prototype phase contract target price is $2.1 billion in Research, Development, Test and Evaluation funding for fiscal years 1993 through 1997. The Demonstration and Validation Prototype contract has been awarded to the Boeing Sikorsky Team.

Audit Results: The Army did not plan to prepare a revised EA or an EIS of the Comanche Program before the program's CDR in December 1993. Although the Army prepared an EA for the Light Helicopter Family Rotorcraft in August 1985, the Chief, Environmental Quality Division, Army Materiel Command, stated in a September 1985 letter that essential information on the environmental effects of manufacturing, storing, and disposing of the aircraft may not be known and that reasonable impacts of these and maintenance processes should be addressed in revisions of the documents. The period before the CDR is the last opportunity to economically effect the design of a weapon system. The DoD Directive 6050.1 requires DoD officials to consider environmental consequences before authorizing or approving major DoD actions. If the manufacturing process and materials to be used are agreed upon after the CDR, any manufacturing process or construction material found to be environmentally unacceptable would require either design changes to the aircraft or alternatives to the manufacturing process and materials. Redesigning is expensive, time-consuming, and wastes design efforts. The failure to prepare environmental documents before the CDR occurred because of inadequate acquisition procedures. Specifically, the procedures lacked clarification on how and when PEAs should be prepared and made available to decisionmakers to consider environmental impacts and to incorporate mitigation measures into MDAPs before major decision points, such as CDRs.

We believe that the Under Secretary of Defense for Acquisition and Technology should require the Comanche Program Office to:

o Conduct and document a PEA of the RAH-66 Comanche Helicopter Program before entry into Engineering and Manufacturing Development in accordance with DoD Directive 6050.1 and DoD Instruction 5000.2 and

o Prepare an EA or EIS before the CDR, as part of its PEA, that considers the environmental effects of manufacturing, maintaining, storing, and disposing of the Comanche Helicopter.

Implementation of the recommendations in Finding A. will result in those corrective actions.

M1A2 Abrams Tank

Acquisition Command: Army Tank-Automotive Command

Contractor: General Dynamics, Land System Division

Program Description: The Army's M1A2 tank, part of the Abrams Tank System, is a full-tracked, low-profile, land-combat, assault weapon system with shoot-on-the-move firepower. The M1A2 Program consists of 62 new construction, Low-Rate Initial Production tanks and 998 upgraded M1 configuration tanks. A Milestone III, Production Approval Decision, is scheduled for the third quarter, FY 1994. The total acquisition cost of the Program is $5.56 billion in then-year dollars.

Audit Results: The Army did not adequately assess the environmental consequences of the M1A2 Program throughout its life cycle or estimate life-cycle environmental costs. The prime contractor prepared the M1A2 EA to show the environmental effects of the tank during testing and use during peacetime; therefore, the EA did not address development, manufacturing, and disposal. Additionally, no action has been taken to develop a PEA in support of the upcoming DAB Milestone III decision. We believe that a PEA should serve as a natural link between environmental and acquisition decision documents. The Program is required to present a COEA at its Milestone III, Production Approval Decision, which should contain information from an adequate PEA. As a result, the Army cannot be assured that its mission is implemented in a manner consistent with statutory and regulatory environmental policies and procedures or that the M1A2 Program is fully funded, including associated environmental costs. We issued Report No. 93-130, "Environmental Consequence Analyses for the M1A2 Abrams Tank Program," June 25, 1993, in which we recommended that USD(A) direct the Army to perform a PEA and incorporate the results of the analysis in the IPS, program office, and independent cost estimates, COEA, affordability assessment, and other DAB documentation. We additionally recommended that USD(A) direct the Army to publicly release all NEPA documents in accordance with laws and regulations and to direct the Army Acquisition Executive to review and approve M1A2 Pollution Prevention Plan contracts or contract modifications in accordance with Army Regulation 200-2. The Project Manager, Abrams Tank System, concurred with the recommendations. After we issued the final report, the Deputy Under Secretary of Defense for Environmental Security provided comments that were responsive to the intent of our recommendations.

Joint Standoff Weapon Missile

Acquisition Command: Naval Air Systems Command

Contractor: Texas Instruments

Program Description: The Joint Standoff Weapon is an air-to-ground missile designed to attack a variety of targets during day, night, or adverse weather. It is comprised of the current Baseline Program and the later Pre-planned Product Improvement Program. The Baseline Program will be used against fixed targets and the Pre-planned Product Improvement Program will be used to attack blast/fragment-sensitive and moving point targets. The Baseline Program entered the Engineering and Manufacturing Development phase in June 1992 and is scheduled for a Milestone III, Production Approval Decision, in July 1998. The Pre-planned Product Improvement Program is scheduled for a Milestone I, Concept Demonstration Approval, in July 1994. As of August 1992, the acquisition cost of the Baseline Program was estimated at $2.97 billion; an Engineering and Manufacturing Development contract of $202.7 million has been awarded to Texas Instruments. No acquisition estimates were available for the Pre-planned Product Improvement Program.

Audit Results: The Navy did not adequately assess the environmental consequences of the Baseline Program before entry into the Engineering and Manufacturing Development phase. Additionally, the Navy did not initiate a PEA of the Baseline or Pre-planned Product Improvement Programs. The Joint Standoff Weapon's IPS, Annex E, Environmental Analysis, addressed operational alternatives but failed to address the environmental impacts of the alternatives throughout the system's life cycle. The analysis also did not address how the environmental impacts and proposed mitigation would affect schedules, siting alternatives, and program life-cycle costs. The Program Office decided not to fully comply with environmental guidance in DoD Instruction 5000.2 because they had begun to accumulate documentation before the Instruction was passed and received inaccurate information from Navy environmental officials. The Navy did not want to spend an estimated $250,000 for the preparation of a PEA and determined that the Annex E was sufficient despite knowing of the potential for environmental pollution. The Program Office further stated that it planned no further environmental work unless a problem came to its attention. The Naval Air Systems Command stated that it was the contractors' responsibility to comply with environmental laws. We believe that the laws and regulations clearly state that the Government will be responsible for its actions that affect the environment as well as the contractors. The actions of the Navy are not in compliance with laws and regulations and make it impossible for the Navy to assure that it is carrying out its mission in a manner consistent with national environmental policies. Additionally, the information provided in the Annex E is insufficient for decisionmakers to make informed decisions. In Report No. 93-127, "Environmental Consequence Analyses for the Joint Standoff Weapon Program," June 25, 1993, we recommended that USD(A) conduct a DAB Review of the Baseline Program before entry into Low-Rate Initial Production. We also recommended that USD(A) direct the Navy to perform PEAs of the Baseline and Pre-planned

Product Improvement Programs and incorporate the results into required DAB documentation such as the IPS, Program Office and independent cost estimates, COEA, and affordability assessments. We also recommended that USD(A) direct the Navy to publicly release all NEPA documents as required by the NEPA. After we issued the final report, the Director, Acquisition Program Integration, provided comments that were responsive to the intent of our recommendations.

Seawolf (SSN-21), Los Angeles (SSN-688), and Trident (SSBN-726) Class Submarines

Acquisition Command: Naval Sea Systems Command

Contractor: General Dynamics, Electric Boat Division and Newport News Shipbuilding

Program Description: The SSN-21 submarine will be quiet, fast, heavily armed, shock-resistant, survivable, outfitted with an advanced combat system, and capable of contending with the projected enemy threat well into the 21st century. The SSN-21 Program began July 1982 and was awarded to the Electric Boat Division of the General Dynamics Corporation. On May 3, 1991, Electric Boat was awarded a contract for a second vessel. No further awards were made as the Program was terminated in January 1992; however, the two vessels under contract will be built. As of December 31, 1992, total program funding was estimated at $10.4 billion (in then-year dollars).

The SSN-688 submarine has vertical launch systems, improved weapons and increased firepower, and major improvements in quieting and combat systems. The 688 Class submarine program will consist of 62 submarines; 12 remained under construction at the end of 1992. Electric Boat was awarded 33 and Newport News 29 submarines. As of December 31, 1991, total program funding was estimated at $28 billion (in then-year dollars).

The SSBN-726 submarine provides an undersea strategic missile system to ensure that the United States maintains a credible, survivable deterrent that is independent of foreseeable threats. State-of-the-art technologies in submarine quietness, mobility, and self-defense make the submarine highly survivable. Electric Boat was awarded 18 submarines; 5 remained under construction at the end of December 1992. The first Trident submarine was launched in December 1986 and the last is scheduled for delivery in August 1997. As of December 1991, total program funding was estimated at $14.3 billion (in then-year dollars).

Audit Results: In 1991, the Commander, Naval Sea Systems Command, assigned responsibility for environmental policy and guidance to the Environmental Protection, Occupational Safety and Health Office of the Command. However, the Navy failed to follow DoD policy to conduct PEAs on the programs. The Navy stated that NEPA requirements are not applicable to MDAPs because the programs do not qualify as major Federal actions. The Navy did not assess the environmental consequences, prepare and process environmental documents, and integrate environmental considerations into its decisionmaking process for the programs. Lack of adequate oversight and familiarity with environmental laws and DoD Environmental Policies contributed to the Navy's position on environmental policy.

The Program Offices and Supervisor of Shipbuilding, Groton, Connecticut, indicated that the consideration of environmental matters early in the acquisition cycle was not their responsibility. The Navy stated that the contractor would

consider the environmental impact of developing and producing the submarines; however, the contractors did not. Electric Boat officials stated that they focused only on delivering the submarines to meet the specifications and designated schedules and that environmental consequences before deployment of the submarines were not a consideration.

The Navy's noncompliance with environmental policies could result in extensive delays and increased cleanup costs to the Government on the SSN-21 and future submarine programs. Also, the Program Offices cannot be assured that they are carrying out their missions in a manner consistent with national environmental policies. We believe that the Navy should conduct and document a PEA including supporting environmental impact analyses of the SSN-21 Seawolf Program to comply with national environmental policy and to be used as a tier for decisionmaking in future submarine programs. Implementation of the recommendations in Finding A. will result in those corrective actions.

V-22 Osprey Aircraft

Acquisition Command: Naval Air Systems Command

Contractor: Bell Helicopter Textron and Boeing Helicopter

Program Description: The V-22 Osprey is a tilt-rotor, vertical takeoff aircraft for Joint Service application. The aircraft is being developed to perform various combat missions, including medium-lift assault for the Marine Corps, combat search and rescue for the Navy, and long-range special operations for the Air Force. The Program entered the Engineering and Manufacturing Development phase in May 1986 and issued contracts for six aircraft for flight testing at a cost of $1.7 billion. The price is exclusive of engines, to which a $141.7 million contract was awarded to Allison Gas Turbine Division of General Motors Corporation for 21 engines in 1986. At the time of the audit, DoD had not decided whether to continue the program as its current status was one alternative being considered in the review of the Marine Corps' Medium-Lift Replacement.

Audit Results: The Navy had not assessed the environmental impacts of the program and integrated resulting environmental considerations in its decisionmaking process. The Program had not prepared a PEA and summarized it in the V-22 Program's IPS, Annex E, Environmental Analysis, as required by DoD Instruction 5000.2. The Program Office was not familiar with the NEPA resulting in inappropriate management environmental oversight. The failure to assess the environmental consequences of the program makes it impossible for the Program Office to assure that it is carrying out its mission in a manner consistent with national environmental policies. Furthermore, major acquisition decisions are being made without due consideration of the environment, which could lead to increased cost or schedule delays. We issued Report No. 93-077, "Environmental Consequence Analyses for the V-22 Osprey Program," on March 29, 1993, on the program and recommended that USD(A) direct the Navy to conduct a PEA, provide a summary of the findings of the analysis to the Defense Acquisition Executive before any Low-Rate Initial Production decision is reached, and summarize the analysis in the IPS for the V-22 Program. The USD(A) concurred with our recommendations.

F-16 Fighting Falcon Aircraft

Acquisition Command: Aeronautical Systems Center, Air Force Materiel Command

Contractor: Lockheed Aeronautical Systems Company, Lockheed Corporation

Program Description: The F-16 multi-mission Fighter is a single engine, lightweight, high-performance aircraft, powered by a 25,000-pound thrust class augmented turbofan engine. The program is currently in Milestone III and is funded for 24 Air Force deliveries in FY 1994. The Air Force stated that there are no current plans to revive the aircraft as a new multi-role fighter. The total cost of the F-16 Program is approximately $39 billion for 2,237 aircraft.

Audit Results: The F-16 Program Office did not assess the environmental consequences through the life cycle of the program and the associated costs or update NEPA documentation. The F-16 Environmental Statement was prepared in October 1976 but has never been updated, even though numerous environmental protection laws have been passed that affect the acquisition of the aircraft. For example, the Environmental Statement recognizes Halon 1301 as an effective fire-suppression agent safe for use in the human environment; however, it was not updated to show that Halon production is being banned in 1994. As a result, enough Halons must be stored to service aircraft in the fleet beyond 1994.

The Program Office had not determined all costs associated with closing the chemical processing facility where parts for the aircraft are manufactured and cleaned. The Air Force plans to close the processing facility due to repeated environmental problems such as the May 1991 spill of trichloroethylene, a hazardous cleaning agent for aircraft parts. The Environmental Protection Agency demanded remediation of the spill, and the Air Force contracted with the Army Corp of Engineers for $1.6 million to start the effort at Lockheed Plant 4. The Air Force did not conduct any environmental analysis to determine the extent of potential Government liability, resulting in no estimate of the total cost of the cleanup effort. The Air Force is aware of some environmental problems associated with the program; however, all costs have not been identified or recorded in NEPA documentation. Additionally, other environmental problems at Carswell Air Force Base are estimated to cost $115 million to correct and pose a threat to the drinking water of the surrounding community. As a result, the Air Force lacks an overall estimate of Government liability for environmental remediation, cleanup, and pollution prevention measures. Additionally, life-cycle costs are an inaccurate assessment of all environmental costs associated with the Program. Essentially, the Air Force does not have the information required to determine the impact of environmental considerations on the program. No Program-specific recommendations were issued; however, when implemented, the recommendations in Finding B. of this report can correct the internal control weaknesses.

F-22 Aircraft

Acquisition Command: Aeronautical Systems Center, Air Force Materiel Command

Contractors: Lockheed Aeronautical Systems Company, Lockheed Corporation

Program Description: The F-22 (formerly known as the Advanced Tactical Fighter) is designed to penetrate enemy airspace and achieve a first-look, first-kill capability against multiple targets.

On August 2, 1991, the Air Force awarded Cost-Plus-Award-Fee contracts of $9.6 billion for Engineering and Manufacturing Development to Lockheed Corporation to design, develop, and test the F-22 air vehicle and integration of the overall weapon system and $1.4 billion to Pratt and Whitney to design, develop, qualify, and test the F-22 engines. The program is scheduled for Milestone III in December 1999. As of October 1, 1992, the total acquisition cost of the program is an estimated $96.4 billion.

Audit Results: The Air Force did not assess and include environmental costs in the life-cycle cost estimate for the F-22 Program, did not file the FONSI to the affected public and agencies, as required by the NEPA and DoD Directive 6050.1, and does not plan to prepare and release an EIS for the F-22 Program before the Program's CDR in November 1993. Consequently, life-cycle costs may not be an accurate assessment of all environmental costs associated with the program. Also, the lack of recognition of significant environmental impacts before CDR within the acquisition process for the F-22 Program may cause extensive program delays and increased program costs, and may not permit timely and less expensive changes in the Program to reduce environmental impact, if necessary. Therefore, the Air Force does not have the information to determine the impact of environmental considerations on the program.

Appendix D. Navy's Prior Environmental Position

DEPARTMENT OF THE NAVY
NAVAL SEA SYSTEMS COMMAND
2531 JEFFERSON DAVIS HWY
ARLINGTON VA 22242 5160

IN REPLY REFER TO
5090
OPR:00T3
Ser 00T/075
4 May 93

From: Commander, Naval Sea Systems Command (SEA 00T)
To: Department of Defense, Office of the Inspector General, Lead Auditor, Acquisition Management

Subj: ENVIRONMENTAL CONSIDERATIONS IN THE WEAPON SYSTEM ACQUISITION PROCESS

1. In a recent query by your office, NAVSEA was asked to provide an official position on three aspects of environmental considerations in the acquisition process. Specifically, these questions are:

a. Provide a statement of NAVSEA's understanding of NEPA and DoD 6050.1 and how these laws apply to acquisition programs.

b. Provide a statement of NAVSEA's position on dealing with environmental impacts early in the acquisition process of development and manufacturing.

c. A statement of what is SEA 00T's role in the acquisition process, how do we operate internally, and how do we get involved in the acquisition process.

In response to these questions, NAVSEA provides the following information.

2. NAVSEA's understanding of NEPA relating to acquisition programs.

a. You have asked for NAVSEA's views about the applicability of the National Environment Policy Act and DODD 6050.1 with regard to the acquisition process. NAVSEA examines all programs to ascertain whether, and to what extent, a range of statutes, regulations and instructions apply and then complies with all pertinent requirements. NAVSEA complies with NEPA and the implementing regulations and performs the requisite NEPA analysis whenever it is applicable.

b. The National Environment Policy Act (NEPA), P.L. 91-190, was enacted January 1, 1970. It requires that all federal agencies include a statement detailing the environmental consequences "in every recommendation or report on proposals for legislation or other major Federal actions significantly affecting the quality of the human environment". 42 U.S.C. §4332. The Department of Defense implementation of NEPA is contained in

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the policy and procedures for DoD's compliance with NEPA. The Navy implemented DODD 6050.1 by issuing OPNAVINST 5090.1A (Oct. 2, 1990).

c. It is important to differentiate between NEPA and its implementing regulations and instructions, and the procurement laws, including the Competition in Contracting Act, 10 U.S.C. §2304 et seq., and those implementing regulations. Specifically, DoD Directive 5000.1 (Feb. 23, 1991) and DoD Instruction 5000.2 (Feb. 23, 1991) established a management process for the acquisition of weapon systems and materiel. Part 6, Section I of DoDInst. 5000.2 established the policies and procedures for integrating system safety, health hazard and environmental considerations into the acquisition process. It requires in paragraph 2.b. that proposed systems "be analyzed for their environmental impacts" in accordance with NEPA regulations, and in paragraph 3.d. it requires the inclusion in the Integrated Program Summary of a synopsis of the programmatic environmental analyses. That document, called the Identification of Potential Environmental Consequences, or IPEC, is Annex E to the Integrated Program Summary. The IPEC identifies and assesses areas that have potential environmental significance. This serves many purposes: it highlights environmental issues early, so that potential pollution problems can be avoided through redesign, or minimized through effective upfront planning; the issues can be examined for applicability of NEPA; and the document is revised at regular intervals, with the result that these issues are re-examined and updated as the weapon system program changes and as environmental requirements change.

d. Therefore, NEPA is not the sole means of taking environmental considerations into account in the acquisition of a weapon system. Appendix E to DOD Inst. 5000.2 raises the environmental consciousness of the decision-makers as the weapon system program moves along the milestone process. The program manager identifies the alternatives and their environmental ramifications, and the decision-makers include this information in assessing the merits of the proposed program. Also, if as a matter of policy or law the decision is made that specific environmental considerations be taken into account in the procurement process, then environmental considerations can be established as an evaluation factor, evaluated and weighted along with other factors in procurement decisions.

e. NEPA does not customarily apply to the programmatic procurement of weapon systems because there is no "major Federal action" within the meaning of NEPA. In Lujan v. National Wildlife Federation, 497 U.S. 871 (1990), the National Wildlife Federation challenged the actions of the Interior Department under NEPA. The Supreme Court held that programs which are continuously undergoing change are not "final agency actions"

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subject to Administrative Procedure Act review and upheld the dismissal of the action for lack of standing. The Court stated:

> It [the land withdrawal review program] is simply the name by which petitioners have occasionally referred to the continuing (and thus constantly changing) operations of the BLM in reviewing withdrawal relocation applications and the classifications of public lands and developing land use plans as required by the FLPMA. It is no more an identifiable "agency action" -- much less a "final agency action" -- than a "weapons procurement program of the Department of Defense or a "drug interdiction program" of the Drug Enforcement Administration . Lujan at 497 U.S. 890.

f. Like the BLM land withdrawal program discussed in Lujan, a weapon system procurement program is too iterative to trigger the NEPA review process. That is, the acquisition process involves a series of steps, commencing with the earliest and most preliminary definitions of an evolving requirement, through a series of decisions in which the means of satisfying that operational requirement are made, as a number of considerations, including expected performance, risk, supportability, maintainability, affordability, producibility and environmental sensitivity are analyzed. Because of its iterative nature, there is no "major Federal action" within the meaning of NEPA.

g. NAVSEA fully supports NEPA and the performance of NEPA reviews whenever they are required. Where NEPA is applicable, and to those aspects of weapon system procurement programs to which it is applicable, NAVSEA fully performs and supports the NEPA process as it is required by law, regulation and policy.

h. That is, NAVSEA performs the requisite NEPA analysis whenever there is a proposed major federal action which will affect a specific environment. With the programmatic procurement of weapon systems, the decision points are not necessarily "major federal actions" nor do they necessarily affect the human environment. Many of the decisions do not affect a specific environment: the realm of the environment arguably affected by the decision is too broad to be analyzed using the NEPA processes. See PANE discussion, infra. Other programmatic procurement decisions constitute pieces of or predicates to other decisions: they are not self-implementing, and require the Congressional appropriation of funds as well as other specific decisions and actions before the decisions are effective. Cf. Lujan, supra.

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i. However, there are a multitude of programmatic procurement decisions to which NEPA clearly applies and for which NEPA analysis and NEPA documentation are prepared. Decisions which affect a specific environment are frequently subject to NEPA. These decisions typically occur as the weapon system becomes fairly defined and the ramifications of the proposed designs can by analyzed. For example, if the Navy had a requirement for a ship capable of meeting shock loads twice as severe as that of ships currently in operation, and if it became necessary to demonstrate that capability by means of at-sea tests, then the decision to procure that design and to shock test it would be subject to NEPA. Similarly, if the Navy decided to change the hull preservative to one significantly more ecotoxic, or to use materials prohibited by U.S. law or treaty in order to meet a military requirement, such as an unauthorized use of PCBs or class I ozone depleting substances, then the consequential programmatic procurement decision would be subject to NEPA.

j. Shore infrastructure decisions are programmatic procurement decisions to which NEPA is frequently applicable. As the weapon system becomes increasingly defined and the requisite shore support becomes apparent, then those decisions may be subject to NEPA. For example, if the Navy had a requirement for a ship with a draft in excess of the draft of other ships currently in operation, so that dredging would be required to homeport or service the ship, then the decision to procure a ship with that draft would likely be subject to NEPA. Similarly, decisions concerning where ships will be homeported and whether new or existing facilities can be used, whether channel dredging, pier construction or other facility modifications are necessary and whether new acoustic test ranges are necessary are procurement decisions which are subject to NEPA.

k. Decisions must also be made regarding the end of the weapon system program, when the disposal of the system is an issue. These, too, are decisions which are frequently subject to NEPA because they are likely to have a direct bearing on a specific human environment. For example, the decision regarding the disposal of reactor compartments from nuclear submarines was deemed subject to NEPA and an Environmental Impact Statement prepared. Similarly, the Department of Navy is in the process of preparing NEPA documentation regarding the recycling of hull materials from decommissioned submarines at Puget Sound Naval Shipyard.

l. The purpose of NEPA is to ensure that decision-makers are fully aware of the environmental ramifications of a proposed course of action. It is fundamental to this process that the decision must have an impact on a specific human environment so that that impact can be analyzed. That is, the decision must have an effect on a specific area -- a river, a forest, a city --

Subj: ENVIRONMENTAL CONSIDERATIONS IN THE WEAPON SYSTEM ACQUISITION PROCESS

which can be analyzed to determine the ramifications of the proposed action. The programmatic weapon system procurement decisions typically have no such specific human environment that would be directly affected. Those decisions may have a broad effect, but usually not on a particular environment.

m. Furthermore, NEPA does not apply to many programmatic weapon system procurement decisions because those decisions do not have as their primary impact an effect on the physical environment. In order for a proposed federal action to "trigger" NEPA, the decision must be one which has as its primary impact an effect on the physical environment. Metropolitan Edison Co. v. People Against Nuclear Energy, 460 U.S. 766 (1983) (PANE). Thus, decisions such as base closure decisions[1], which primarily affect the human environment in a socio-economic way, are not subject to NEPA. Breckinridge v. Rumsfeld, 537 F.2d 864 (6th Cir. 1976), cert. denied, 429 U.S. 1066, National Association of Government Employees v. Rumsfeld, 418 F. Supp. 1302 (E.D. Pa. 1976), Image of Greater San Antonio v. Brown, 570 F.2d 517 (5th Cir. 1978). Similarly, most programmatic weapon system procurement decisions do not primarily affect the human environment, other than in an abstract or secondary manner. As such, they are not subject to NEPA: the causal connection required by the Supreme Court in PANE between the change in the physical environment and the effect on the human environment is too attenuated and thus the decisions would not normally be subject to NEPA review.

n. Therefore, it is NAVSEA's view that environmental considerations are important aspects of the decision-making process. The NEPA arm of environmental analysis is fully explored whenever NEPA and the implementing DOD Directive 6050.1 are applicable. However, NEPA is not normally applicable to the programmatic procurement of weapon systems. With regard to those decisions, environmental considerations are taken into account in accordance with the acquisition process regulations, directives and instructions.

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[1] Certain aspects of base closure decisions which are reached pursuant to the Defense Base Closure and Realignment Act, P.L. 101-510, are, however, subject to NEPA, and the DoD Base Closure Selection Criteria, 56 Fed. Reg. 6374 (Feb. 15, 1991) includes environmental impact as one of the eight criteria taken into account in selecting the military installations for closure or realignment.

Subj: ENVIRONMENTAL CONSIDERATIONS IN THE WEAPON SYSTEM ACQUISITION PROCESS

3. NAVSEA's position on dealing with environmental impacts early in the acquisition process.

a. NAVSEA has always supported informed decision-making in the acquisition process, including consideration of environmental requirements in major weapon system acquisition. The DODINST 5000.2, issued in 1991, requires that formal documentation of these environmental considerations be prepared and updated at each milestone in the acquisition process to ensure current environmental information was available to decision-makers. This environmental documentation is included as Annex E to the Integrated Program Summary.

b. NAVSEA considers the Annex E to be a useful management tool for bringing together the numerous environmental considerations impacting the development and acquisition of a major weapons system. Annex E includes information such as whether permits under Federal and State environmental statutes will be required to operate a system; whether the Navy has required use of regulated or restricted materials such as ozone depleting substances; whether aspects of the system will constitute major Federal actions having significant impact on the environment requiring separate consideration under NEPA; and whether any operating restrictions may be necessary to ensure compliance with regulatory standards. The first Annex E is drafted at milestone I, and contains general, conceptual information. Revisions prepared at subsequent milestones contain increasingly detailed information. This iterative process ensures any concerns to be addressed through changes in system design, maintenance requirements, or operational parameters. Further, the Annex E typically focuses on design and operational aspects of a weapons system, rather than the manufacturing aspect, because ships and most NAVSEA major acquisitions are produced through contract to privately owned, privately operated businesses.

c. In summary, NAVSEA supports the preparation and use of the Annex E as discussed above. As noted in paragraph 2, DODINST 5000.2 does not alter existing obligations or impose new ones to perform NEPA review for proposed major federal actions which will affect the environment, but rather requires broad consideration and documentation of a range of environmental regulatory requirements which could impact an acquisition.

4. NAVSEA's Environmental Protection Office role in the acquisition process.

a. NAVSEA 00T is responsible for coordinating environmental matters that impact multiple NAVSEA headquarters directorates and field activities. On such matters NAVSEA 00T prepares and staffs

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Command positions on environmental regulations, strategies or policy initiatives, and issues guidance where necessary to comply with requirements affecting NAVSEA operations.

b. With regard to implementing the requirements of DODINST 5000.2, this office serves as a point of contact for Program Managers preparing Annex E documentation to support acquisition of a major system. We advise Program Managers of the range of environmental requirements which should be taken into account in preparing the environmental annex to the Summary, and attempt to bring consistency within NAVSEA where practical. NAVSEA 00T has provided some written guidance to Program Managers for use in preparing Annex E documentation, and is currently developing a more formal guidance document to be used in all Programs.

5. The above information is provided as requested. The position noted in this letter has received NAVSEA legal review and input. The positions noted are considered by this Command to be consistent with all federal laws and regulations and with DoD and DoN requirements. The point of contact on this issue is Mr. Steven P. Brixey, SEA 00T3 of this office.

KURT W. RIEGEL
Director, Environmental
Protection, Occupational
Safety and Health

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Appendix E. Contractor Environmental Cleanup Costs Report

THE UNDER SECRETARY OF DEFENSE
WASHINGTON, DC 20301

ACQUISITION

JUL 26 1993

Honorable Robert C. Byrd
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Senate Appropriations Committee Report (Senate Report 102-408) accompanying the Department of Defense Appropriation Bill, 1993 requested the Secretary to prepare the enclosed report analyzing the Department's payment of contractor environmental cleanup costs pursuant to the Federal Acquisition Regulation.

A similar letter has been sent to the Chairman of the House Committee on Appropriations.

Sincerely,

John M. Deutch

Enclosure

cc: Honorable Mark O. Hatfield
Ranking Republican

CONTRACTOR ENVIRONMENTAL CLEANUP COSTS

The Senate Appropriations Committee Report accompanying the Department of Defense Appropriation Bill, 1993 requested the Secretary to prepare a report on the Department's payment of contractor environmental cleanup costs. In response to that request, the following examines the legal basis for allowing such costs on Government contracts; provides summary data on projected, incurred, and reimbursed environmental cleanup costs at 27 major defense contractors; and discusses the Department's initiatives to develop more specific guidance for the evaluation of these costs. Our report has been coordinated with the Environmental Protection Agency.

Legal Basis for Allowing Contractor Environmental Cleanup Costs

In a February 3, 1992 response to the Chairman of the House Committee on Government Operations, the General Counsel for the General Accounting Office outlined the legal basis for allowing contractor environmental cleanup costs on Government contracts:

> There are, at present, no specific provisions in either (1) the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); (2) 10 U.S.C. 2324, "Allowable costs under defense contracts;" (3) the Federal Acquisition Regulation (FAR) part on contract cost principles and procedures; or (4) the Defense Acquisition Regulation Supplement, governing the allowability of costs incurred by a Government contractor in complying with various laws and regulations for protection or cleanup of the environment. Consequently, if the contract contains cost reimbursement provisions, a contractor may, as a matter of accounting practice, treat allocable portions of CERCLA cleanup costs as "ordinary and necessary business overhead" expenses, which would be reimbursable if otherwise "allowable" under Federal procurement regulations.
>
> As a general matter, a cost is allowable if it meets the criteria for each of the factors set out in FAR 31.201-2: (1) reasonableness, (2) allocability, (3) compliance with cost accounting standards, (4) compliance with contract terms, and (5) meeting any other specific FAR limitations. Particularly relevant to the allowability of environmental cleanup costs are the provisions relating to fines and penalties. The FAR, restating a limitation in 10 U.S.C. 2324(e)(1)(D), provides that costs of fines and penalties resulting from violations of, or failure of the contractor to comply with Federal, state, or local laws and regulations are unallowable, except when incurred as a result of contract compliance or written instructions from the contracting

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officer. FAR 31.205-15. Environmental Protection Agency consent decrees defining the scope of a contractor's CERCLA liability may state specifically that the payment "is not a penalty or monetary sanction." Because liability under CERCLA depends on whether a contractor fits the descriptions in 42 U.S.C. 9607(a) relating to owners, operators, and transporters or generators of hazardous waste rather than on a determination that the contractor has violated a Federal, state, or local law, it is questionable whether CERCLA cleanup costs could be disallowed on the grounds that they are fines or penalties.

CERCLA cleanup costs included as overhead in a cost reimbursement contract must also be reasonable in order to be allowable. A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in conducting a competitive business. FAR 31.201-3. In addition to whether the cost is of the type generally recognized as ordinary and necessary for the conduct of the contractor's business, reasonableness considerations include determinations of compliance with Federal and state laws and regulations, and the contractor's responsibilities to the Government and the public at large. FAR 31.201-3(b). In any event, reasonableness determinations are necessarily made on a case-by-case basis and include consideration of all the facts and circumstances surrounding the environmental cleanup.

DoD auditors and contracting officers evaluate environmental cleanup costs in the same fashion as they evaluate any other type of cost that may be included in a contractor overhead rate proposal, following the Government-wide allowability criteria in the FAR. In determining allowability, our contracting officers apply the reasonableness criteria at FAR 31.201-3 and may disallow cleanup costs that result from contractor noncompliance with applicable environmental laws or regulations. However, there are other situations involving no contractor malfeasance where equity, and the FAR allowability criteria, may dictate that the Government should pay its fair share of such costs; for example, when the environmental damage occurred notwithstanding the exercise of due care by a contractor who was complying with applicable laws and regulations, or when it resulted from specific Government direction. In this regard, it is important to note that since CERCLA is a "no fault" statute, a contractor may be financially responsible for an environmental cleanup without ever having done anything wrong. Accordingly, each situation must be judged on its own merits, utilizing the appropriate FAR cost allowability criteria.

Data on Environmental Cleanup Costs at Major Defense Contractors

The Senate Appropriations Committee Report requested the Secretary to examine the "origins" of DoD's reimbursement of contractor environmental cleanup costs. While it is impossible to pinpoint an exact beginning, contractors started incurring increasingly significant amounts of such costs following the 1980 enactment of CERCLA. By the mid-1980s, these expenditures had begun appearing in a number of contractor overhead proposals, prompting the first suggestions within the Government contracting community that more specific allowability guidance might be warranted in the FAR.

One of the earliest cases involving a dispute over the allowability of environmental cleanup costs on Government contracts occurred at the Aerojet-General Corporation in Sacramento, California. The cognizant DoD administrative contracting officer initially disallowed Aerojet's 1986 claim for such costs on the grounds that the contractor had not complied with state hazardous waste discharge permits. However, after Aerojet appealed that decision to the Armed Services Board of Contract Appeals, the DoD contract management/legal team handling the case concluded that several additional factors posed a substantial litigation risk. These included questions of whether the state discharge permits were specific enough to constitute strong evidence of Aerojet's negligence, whether Government direction and Government-furnished equipment contributed to the contamination, whether Government indemnification clauses in Aerojet's contracts from the 1950s to 1979 covered the contamination, and whether Government ownership/leasing of buildings and property on the site contributed to the contamination.

In view of these considerations, the Government settled Aerojet's appeal with an agreement providing that the contractor would recover $36.8 million of its $62 million in claimed environmental cleanup costs for the period from 1980 through June 1989. This settlement was judged to be in the Government's best interest. It should be added that to date, the Government has received credits against the settlement amount of approximately $8 million for its share of related insurance recoveries received by Aerojet.

The Senate Appropriations Committee Report also requested the Secretary to examine "the amount of the Department's past and potential financial obligations" for contractor environmental cleanup costs. For this effort, we collected data on the 15 major defense contractors to which the Department has assigned Defense Corporate Executives, as well as on 12 additional defense contractors where

significant environmental cleanup costs have been claimed or proposed - for a total of 27 firms (including 17 of the 1992 top 21 defense contractors).

It is estimated that to date, these 27 contractors have actually incurred about $1.3 billion in environmental cleanup costs, with an additional $2.1 billion projected for future cleanup efforts. These are rough estimates, since contractors do not routinely segregate environmental cleanup costs and do not share a common definition for that term. In addition, several of the contractors' estimates included substantial cleanup costs for commercial segments which are not allocable to Government contracts. Of the approximately $1.3 billion in environmental cleanup costs incurred by the contractors in our review, estimated Government reimbursements to date are about $286 million. It should be added that over 25 percent of these reimbursed costs relate to Government-owned, contractor-operated facilities where the Government would be a potentially responsible party for the environmental cleanup under CERCLA. By factoring in each contractor's current percentage of Government sales, we estimate that the Government's allocable share of the $2.1 billion in future cleanup costs projected for these 27 firms would be approximately $956 million, spread over an average period of about 8.2 years.

Regulatory Initiatives Regarding Contractor Environmental Costs

As mentioned earlier, there has been a growing awareness within the Government acquisition community, starting in the mid-1980s, that the magnitude, complexity, and controversial nature of environmental costs warranted more specific guidance than the general cost allowability rules at FAR 31.201-2. Since 1989, DoD has been working with the civilian agencies to draft a new environmental cost principle for the FAR that would ensure greater certainty and consistency in the evaluation of these costs, adequately protect the Government's interests, and be fair to contractors.

Agreement was reached between the Federal agencies in May 1992 on language for a proposed FAR rule which would make environmental cleanup costs allowable only when the contractor demonstrates that it: (1) performed a Government contract which contributed to the environmental damage; (2) complied with all then-existing environmental laws and regulations; (3) acted promptly to minimize damage/costs; and (4) has exhausted or is diligently pursuing all legal/contributory sources to defray the cost. There was consensus among the agencies that the Government, as a customer, should pay its fair share of cleanup costs if the contractor had acted responsibly at the time the environmental damage was created, and if the Government had derived some benefit from the contractor activity

which caused that damage. This position is consistent with the current FAR cost principles and is fair.

President Bush's moratorium on new regulations prevented the environmental cost principle from being published as a proposed rule for public comment prior to January 20, 1993. The draft cost principle is currently under study by the new Administration.

After it became clear that there would be a significant delay in the publication of the proposed environmental cost principle, the Defense Contract Audit Agency (DCAA), in close consultation with the staff of the Under Secretary of Defense for Acquisition, issued additional audit guidance on October 14, 1992 regarding the allowability of contractor environmental costs. This guidance paper interprets for field auditors the current general allowability criteria in the FAR as it relates to contractor environmental costs. The Department views this additional audit guidance as an important initiative that will aid consistency in the evaluation of contractor environmental costs.

In addition, the Defense Contract Management Command (DCMC) issued policy to DoD contract administration offices on October 19, 1992, emphasizing their responsibilities in this area, including knowledge of contractor environmental practices that may impact contractor responsibility, contract performance, or Government costs, and requiring the use of all available technical, audit, and legal information for proper decision making on the allowability of environmental costs. DCMC has also established an Environmental Task Force to evaluate and determine the implementing procedures necessary to address environmental concerns in contract administration, including training plans, an environmental review system, fact-finding procedures, and developing a core of technical expertise to complement DCAA financial audits. As an important part of that process, the DCMC Environmental Task Force will closely monitor pilot programs which have been established at several contractor sites and will work with DCAA on any needed revisions to its audit guidance based on experience at those locations.

Appendix F. Audit Response to the Assistant Secretary of the Navy for Research, Development and Acquisition Comments

Our detailed response to policy issues, editorial clarifications, and comments on statements in Finding A. by the Assistant Secretary of the Navy for Research, Development and Acquisition (the Assistant Secretary) concerning the draft report follows and corresponds to the headings and paragraph numbers associated with the Assistant Secretary's comments.

Part I - Policy Issues. The Assistant Secretary believed that the programmatic environmental analysis required by DoD Instruction 5000.2, "Defense Acquisition Policies and Procedures," February 23, 1991, does not in and of itself require National Environmental Policy Act (NEPA) documents at any specific point for all acquisition programs. However, he conceded that the Instruction does require compliance with the NEPA at appropriate points, but he did not define those appropriate points. He based those conclusions on several examples of case law. We believe that those appropriate points are the milestone decision points as noted by DoD Directive 6050.1, "Environmental Effects in the United States of DoD Actions," July 30, 1979, and DoD Instruction 5000.2. The Directive requires DoD Components to ensure that the NEPA is integrated into the acquisition decisionmaking process and that environmental compliance requirements are considered at all major program decision points. The Instruction states that the Integrated Program Summary, prepared for each milestone decision, will summarize the results of the programmatic environmental analysis, which, in part, addresses the type of environmental analysis (environmental assessment [EA], environmental impact statement [EIS], or some other type of analysis) conducted.

Part II - Editorial Clarification. The Assistant Secretary suggested editorial changes to clarify specific points in the draft report. We agree with all proposed editorial changes except for II-8. The Assistant Secretary suggested changes associated with the preparation of the programmatic environmental analysis (PEA) and the requirements for an EA and EIS.

Programmatic Environmental Analysis Preparation. The Assistant Secretary suggested that the PEA requirements in DoD Instruction 5000.2 were misunderstood. We disagree; however, for clarification, we did add "or similar forms of environmental analyses" after the word PEA to the sentence in question. The reason for the phrase is because DoD Instruction 5000.2, which requires the preparation of a PEA, had not been published before all nine major Defense acquisition programs (MDAPs) had their latest Defense Acquisition Board reviews. However, based on DoD Directive 6050.1 issued in 1979, there was a requirement for EAs and EISs.

Environmental Assessment and Environmental Impact Statement Requirements. The Assistant Secretary suggested inserting in the sentence in question the phase "and any necessary" and omitting the phase "in most instances." The Assistant Secretary's rationale for the change is that EAs are not automatically required and that EISs may be required. We did not make the changes because DoD Components must prepare an EA as early as possible after the requirement is identified unless there is a categorical exclusion. As for whether an EIS should be prepared, we find it hard to believe that, with the potential environmental impact of these nine MDAPs, an EIS would not be required on any aspect of these programs. The DoD Directive 6050.1 states that the EA is used to determine whether the preparation of an EIS or a finding of no significant impact (FONSI) is required, to comply with the NEPA when an EIS is not necessary, and to facilitate preparation of an EIS when an EIS is required. The DoD Components should prepare an EA as early as possible after the requirement is identified. Based on an EA, if a Component determines that an EIS is not required, the Component shall prepare a FONSI and make the FONSI available to the affected public. If the Component determines that a categorical exclusion exists, neither type of impact assessment is required.

Part III - Comments on Statements in Finding A. The Assistant Secretary commented on the accuracy of the statements supporting Finding A. and made suggested changes. Our response to the Assistant Secretary's comments and suggested changes follows.

III-1. The Assistant Secretary stated that our description of NEPA documents, in particular EAs and EISs, was not accurate because we did not address categorical exclusions and how an EA prompts the development of an EIS. We modified the paragraph accordingly and added categorical exclusion to our list of terms in Appendix A.

III-2. The Assistant Secretary suggested editorial changes to reflect the role of the Commandant of the Marine Corps with respect to the NEPA. We changed the paragraph accordingly.

III-3. The Assistant Secretary stated that our paragraph addressing the Navy's interpretation of environmental policies did not accurately reflect the Navy's position on the interpretation of environmental policies. He stated that the Navy does believe that the NEPA is mandatory and can be applicable to MDAPs depending on the particular procurement and the specific decisions for the next milestone review. However, he noted that, since the Navy had not identified any NEPA documentation as being required for the programs we reviewed, none was prepared for the milestone decisions. He also stated that we should not have treated the Naval Sea Systems Command's (NAVSEA's) letter addressing the Navy's interpretation of environmental policies as the Navy's position. As a result, he suggested a rewrite of the paragraph.

We considered the Assistant Secretary's comments, but we still believe that the paragraph accurately reflects the Navy's position. Even though the Assistant Secretary stated that the NEPA is mandatory and can be applicable to MDAPs, he says that the Navy did not identify any NEPA documentation as being required for the milestone decisions associated with the programs we reviewed.

We address those programs in Appendix C. and note that the Navy did not adequately assess the environmental consequences of the programs. In view of the Navy comments, we conclude that it is not serious about the implementation of the NEPA. We further support that conclusion by citing a meeting we had with the Deputy Assistant Secretary of the Navy for Installations and Environment (the Deputy Assistant Secretary).

On November 5, 1992, we met with the Deputy Assistant Secretary and members of her staff. We asked her under what circumstances the Navy requires preparation of NEPA documentation. She stated that her office does not routinely review the Annex E, Environmental Analysis, associated with programs going before the Defense Acquisition Board. However, for the programs her office has reviewed, her staff did not require the preparation of NEPA documentation because ". . . NEPA doesn't fit comfortably into the acquisition process; therefore, it [NEPA] is assessed on a case by case basis." The "Navy doesn't want to start preparing NEPA documentation because there are legal consequences; therefore, . . . we don't address NEPA." Also, "We don't want to add any additional burdens to the PM [program manager] by having them process additional documentation."

Concerning the Assistant Secretary's comments about NAVSEA's interpretation of environmental policies as not being the Navy's position, we note the last paragraph in the NAVSEA's letter (Appendix D). The letter stated, "The position noted in this letter has received NAVSEA legal review and input. The positions noted are considered by this Command to be consistent with all federal laws and regulations and with DoD and DoN [Department of the Navy] requirements."

We believe that, based on our discussion with the Deputy Assistant Secretary and our interpretation of NAVSEA's paragraph, NAVSEA's position was the Navy's position at the time of NAVSEA's letter.

III-4. The Assistant Secretary believed that our paragraph addressing the Military Department's public involvement did not track because "The fact that no public disclosure of the environmental documents were made, does not mean that decisionmakers were not informed." We believe that without public disclosure, the decisionmakers are not provided feedback from the public, which could influence the final decision. The Assistant Secretary also stated that the paragraph "should be made clear that it is referring only to NEPA documents, as those are the only environmental documents that are required to be made available to the public."

We agree and modified the paragraph to specifically address NEPA documents.

III-5. The Assistant Secretary stated that our paragraph concerning the Navy's public involvement was incorrect and suggested a replacement paragraph. The replacement paragraph discussed, in part, the public disclosure of shore infrastructure decisions. We believe that our paragraph is correct as stated because the Navy did not involve the public in the programs we reviewed. Further, the discussion of shore infrastructures in the paragraph would be inappropriate because our review did not include shore infrastructures.

III-6. The Assistant Secretary disagreed that the Navy failed to follow DoD policy and did not believe that NEPA and DoD Directive 6050.1 requirements are mandatory and applicable to its MDAPs. He stated that the only program reviewed that included milestones after the effective date of DoD Instruction 5000.2 was the Joint Standoff Weapon (JSOW) Program. We agree and modified the sentence accordingly. The Assistant Secretary also stated,

> The JSOW Program Office prepared the environmental analysis and documentation for the DAB [Defense Acquisition Board] review within a few months of the effective date of the DODI [DoD Instruction] 5000.2 and made a good faith effort to examine the information available at the time and to provide an environmental analysis that was compliant with applicable directive and available guidance.

We disagree and stand by our report that the JSOW Program Office did not prepare and process a PEA to assess the environmental consequences of the JSOW Baseline Program or support the environmental analysis provided to Office of the Secretary of Defense decisionmakers. Since DoD Directive 6050.1 was issued in 1979, the Navy has no basis for not preparing supporting environmental analyses or NEPA documents as required, even if to state that the Program did not have an environmental impact.

Concerning the Assistant Secretary's comment about NEPA and DoD Directive 6050.1 requirements, he repeated some of his comments from III-3 and suggested a change to our paragraph. We do not agree with the change and continue to believe that the Navy was not serious about complying with the NEPA and DoD Directive 6050.1. We base this conclusion on our reasons cited in III-3 and the Assistant Secretary's comment that the NEPA "can be applicable to the MDAPS, depending on the facts of the particular procurement and the specific decision that is to be analyzed at the next milestone review."

The DoD Directive 6050.1 does not allow such latitude and requires DoD Components to ensure that the NEPA is integrated into the acquisition decisionmaking process and that the NEPA requirements coincide with all major program decision points. Relevant environmental documents, comments, and responses should accompany a proposal through DoD Component reviews to ensure consideration by decisionmakers. However, we recognize that the Navy position has moved in the right direction concerning the need to comply with environmental requirements.

III-7. The Assistant Secretary noted that, with respect to the V-22 Osprey Program, the Navy was responding to our review comments and was in the final stages of the preparation of a PEA for the milestone review, scheduled for November 1993.

III-8. The Assistant Secretary did not believe that public disclosure of JSOW environmental documents should be made unless a NEPA document was prepared. We believe that the JSOW Program would have an environmental impact, thereby resulting in an EIS, releasable to the public. However, the NEPA also requires a FONSI based on an EA if no significant environmental

impact is identified. Our issue is that the fundamental underlying environmental analyses were not performed to reach the Navy conclusions on the JSOW Program.

III-9. The Assistant Secretary believed that several statements attributed to interviews at the Supervisor of Shipbuilding (SUPSHIP) Groton were incomplete or misleading. He stated that SUPSHIP personnel did not tell us that they had not been concerned with environmental impacts and that they had not been trained. He noted that SUPSHIP personnel are encouraged to attend training but do not do in-depth environmental analyses. Such analyses are the responsibility of NAVSEA. In response, we did not misquote SUPSHIP personnel. Regardless of what the Navy encourages, what counts is whether SUPSHIP personnel are actually trained. We do not expect SUPSHIPs to perform environmental analyses but be able to monitor what contractors do, which requires training.

The Assistant Secretary also stated that the SUPSHIP personnel were incorrect in indicating to us that the Office of the Chief of Naval Operations Instruction 5090.1A, "Environmental and Natural Resources Program Manual," October 2, 1990, was not applicable to SUPSHIPs and shipyards. He added that the Instruction is clearly applicable to SUPSHIPs and shipyards.

III-10. The Assistant Secretary stated that our sentence addressing the Council on Environmental Quality definitions and requirements for "major Federal action" and "significant environmental impact" was unclear. Our point is that the Council on Environmental Quality guidance did not establish definitions and terms specifically applicable to the acquisition process for "major Federal action" and "significant environment impact." Such definitions, terms, and examples would help clarify the application of those terms to the acquisition process. We revised the paragraph accordingly.

III-11. The Assistant Secretary commented about our statement concerning the Navy's lack of oversight and familiarity with applicable environmental laws and DoD environmental policies. He stated that our statement on the Navy's application of the NEPA was incorrect. He felt that the Navy was very familiar with and knowledgeable about the NEPA. He stated that the issue was how and when the NEPA applies to the milestone review process. He felt that we had a disagreement with Navy personnel with respect to how the NEPA should be applied to the programs we reviewed. In response, we base our conclusion on the comments by NAVSEA, the submarine program offices, SUPSHIP, and Naval Air Systems Command as noted in our report. This conclusion was also based on the results of our review of Navy programs (Appendix C) and comments by the Deputy Assistant Secretary of the Navy for Installations and Environment, as noted in III-3.

With respect to oversight, the Assistant Secretary stated that we were correct about no written guidance existing defining the review and oversight responsibilities within the Navy for the preparation of DoD Instruction 5000.2 environmental documentation. He noted that policy had been prepared and was under review.

III-12. The Assistant Secretary believed that our statement concerning the Naval Air Systems Command officials application of the NEPA to Navy aviation programs was inaccurate and misleading. He stated that the officials did not consider the NEPA to be always required. He further noted,

> Based on DODI [DoD Instruction] 5000.2, the officials thought that a thorough environmental analysis as contained in Annex E of the Integrated Program Summary would lead to a determination of whether or not NEPA documentation was required. The officials also considered compliance with environmental laws to be both the contractors' and the Navy's responsibility, not solely the contractors' responsibility as inferred in the paragraph.

We do not agree that the environmental analysis in Annex E leads to a determination of whether or not NEPA documentation is required. Rather, the PEA, which should be a much more comprehensive form of analysis, addresses NEPA documentation or other environmental analyses that have been prepared and requirements for environmental analyses and NEPA documents through the life cycle of the program as deemed necessary at the time of PEA preparation. The PEA is the summarization at the overall program level of all environmental assessments (EAs), environmental impact statements (EISs), findings of no significant impact (FONSIs), or other environmental analyses performed on individual program segments. The PEA also serves as the "road-map" for environmental analyses and compliance with environmental requirements over the program life cycle. In accordance with DoD Directive 6050.1, the EA is to be used to determine compliance with the NEPA unless a categorical exclusion exists. The DoD Component uses an EA to determine whether the preparation of an EIS or a FONSI is required, to comply with the NEPA when an EIS is not necessary, and to facilitate the preparation of an EIS, when required. The Component should prepare an EA as early as possible after the requirement is identified. Based on an EA, if a Component determines that an EIS is not required, the Component shall prepare a FONSI. If the Component determines that a categorical exclusion exists, neither type of impact statement or finding is required.

In response to the Assistant Secretary's comment about the responsibility for environmental laws, we were told by Naval Air Systems Command officials that the contractor is responsible to comply with the environmental laws, as noted in our Report No. 93-127, "Environmental Consequence Analyses for the Joint Standoff Weapon Program," June 25, 1993.

III-13. The Assistant Secretary stated that the paragraph describing the role of the Navy's Facilities and Environment Management Office was confusing and needed to be rewritten to indicate the present procedure. He suggested a rewrite for the first two sentences of the paragraph. We revised the paragraph.

III-14. The Assistant Secretary suggested that our paragraph recommending that DoD establish a data base of all NEPA documentation prepared on MDAPs should also include PEAs. We did not intend to limit the

data base to NEPA documentation. The inclusion of PEAs in the data base should be considered by DoD; however, as a minimum, the data base should include NEPA documentation. We revised the recommendation accordingly.

Appendix G. Summary of Potential Benefits Resulting From Audit

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
A.1.-7.	Internal Control. Will improve program oversight and uniformity of environmental policies.	Benefits not quantifiable.
B.1.-3.	Program Results and Internal Controls. Will ensure that environmental life-cycle costs and trade-off analyses, including associated mitigating measures of alternatives, are evaluated in cost and operational effectiveness analyses.	Benefits not quantifiable.
C.1.	Program Results and Internal Controls. Will ensure that contractor and subcontractor environmental cleanup expenses and expensed and capitalized costs charged to DoD contracts are accounted for.	Benefits not quantifiable.
C.2.	Program Results and Internal Controls. Will identify total costs for environmental cleanup and remediation liabilities at contractor facilities for which the Government is potentially liable, separately identify the funded and unfunded portions of Government environmental liabilities, and establish a data base for preventive measures at contractor facilities.	Benefits not quantifiable.
C.3.	Internal Control. Will improve program oversight and uniformity of environmental policies at contractor facilities.	Benefits not quantifiable.

Appendix H. Organizations Visited or Contacted

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Washington, DC
- Director, Acquisition Program Integration, Washington, DC
- Director, Tactical Systems, Washington, DC
- Deputy Under Secretary of Defense for Environmental Security, Washington, DC

Comptroller of the Department of Defense, Washington, DC

Department of the Army

Assistant Secretary of the Army for Installations, Logistics, and Environment, Washington, DC

Assistant Secretary of the Army for Research, Development, and Acquisition, Washington, DC
- Program Executive Office, Armored Systems Modernization, Warren, MI
  - Project Manager, Abrams Tank System, Warren, MI
  - Project Manager, System Survivability, Warren, MI
- Program Executive Office, Aviation, St. Louis, MO
  - RAH-66 Comanche Helicopter Program Office, St. Louis, MO

Army Materiel Command, Alexandria, VA
- Army Aviation and Troop Command, St. Louis, MO
- Army Tank-Automotive Command, Warren MI
- Army Armament Research, Development, and Engineering Center, Picatinny Arsenal, NJ
- Army Acquisition Pollution Prevention Support Office, Alexandria VA

Department of the Navy

Assistant Secretary of the Navy for Financial Management, Washington, DC

Assistant Secretary of the Navy for Installations and Environment, Washington, DC

Assistant Secretary of the Navy for Research, Development, and Acquisition, Washington, DC

Deputy Chief of Naval Operations for Logistics, Washington, DC
- Environmental Protection, Safety, and Occupational Health Division, Arlington, VA

Naval Air Systems Command, Arlington, VA
- Joint Standoff Weapon Program Office, Arlington, VA
- Medium-lift Replacement Program Office, Arlington, VA
- V-22 Osprey Program Office, Arlington, VA

Department of the Navy (Continued)

Naval Sea Systems Command, Arlington, VA
- Director, Environmental Protection, Occupational Safety and Health, Arlington, VA
- SSBN-726 Submarine Program Office, Arlington, VA
- SSN-21 Submarine Program Office, Arlington, VA
- SSN-688 Submarine Program Office, Arlington, VA
- Nuclear Propulsion Directorate, Arlington VA
  - Associate Director, Regulatory Affairs, Arlington, VA
- Supervisor of Shipbuilding, Groton, CT

Department of the Air Force

Assistant Secretary of the Air Force for Acquisition, Washington, DC
Assistant Secretary of the Air Force for Financial Management and Comptroller, Washington, DC
Assistant Secretary of the Air Force for Manpower Reserve Affairs, Installations, and Environment, Washington, DC
- Deputy Assistant Secretary of the Air Force for Environment, Safety, and Occupational Health, Washington, DC
  - Air Force Center for Environmental Excellence, Brooks Air Force Base, TX

Air Force Materiel Command, Wright-Patterson Air Force Base, OH
- Aeronautical Systems Center, Wright-Patterson Air Force Base, OH
  - F-16 System Program Office, Wright-Patterson Air Force Base, OH
  - F-22 System Program Office, Wright-Patterson Air Force Base, OH
- Human Systems Center, Brooks Air Force Base, TX
  - Armstrong Laboratory, Brooks Air Force Base, TX

Air Force Audit Agency, Wright-Patterson Air Force Base, OH
Office of the Civil Engineer, Washington, DC

Defense Agencies

Defense Contract Audit Agency, Alexandria, VA
- Defense Contract Audit Agency, Lockheed, Fort Worth, TX

Defense Logistics Agency, Alexandria, VA
- Defense Contract Management Command, Alexandria, VA
  - Defense Plant Representative Office
    - General Dynamics, Fort Worth, TX
    - General Dynamics, Groton, CT
    - General Dynamics, Warren, MI
    - Lockheed, Marietta, GA
    - Sikorsky, Trumbull, CT
    - Texas Instruments, Lewisville, TX

Non-Defense Organizations

U.S. Department of Energy, Idaho Falls, ID
U.S. Environmental Protection Agency, Washington, DC
  U.S. Environmental Protection Agency Field Office, Atlanta, GA
  U.S. Environmental Protection Agency Field Office, Dallas, TX

Contractors

Boeing-Sikorsky, Trumbull, CT
General Dynamics, Electric Boat Division, Groton, CT
General Dynamics, Land Systems Division, Warren, MI
Lockheed Aeronautical Systems Company, Marietta, GA
Lockheed Corporation, Fort Worth, TX
Texas Instruments, Lewisville, TX

Appendix I. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Director, Acquisition Program Integration
  Director, Tactical Systems
  Deputy Under Secretary of Defense for Environmental Security
Comptroller of the Department of Defense
Assistant Secretary of Defense for Public Affairs
Director, Program Analysis and Evaluation

Department of the Army

Secretary of the Army
Assistant Secretary of the Army for Installations, Logistics, and Environment
Assistant Secretary of the Army for Research, Development and Acquisition
  Program Executive Office, Armored Systems Modernization
    Abrams Tank System Project Office
    System Survivability Program Office
  Program Executive Office, Aviation
    RAH-66 Comanche Helicopter Program Office
Army Materiel Command
  Army Aviation and Troop Command
  Army Tank-Automotive Command
  Army Armament Research, Development, and Engineering Center
  Army Acquisition Pollution Prevention Support Office
Auditor General, Department of the Army

Department of the Navy

Secretary of the Navy
Commandant of the Marine Corps
Assistant Secretary of the Navy for Financial Management
Assistant Secretary of the Navy for Installations and Environment
Assistant Secretary of the Navy for Research, Development, and Acquisition
Comptroller of the Navy
Headquarters, Naval Audit Service
Deputy Chief of Naval Operations for Logistics
  Environmental Protection, Safety, and Occupational Health Division
Naval Air Systems Command
  Joint Standoff Weapon Program Office
  V-22 Osprey Program Office

Department of the Navy (Continued)

Naval Sea Systems Command
- SSBN-726 Submarine Program Office
- SSN-21 Submarine Program Office
- SSN-688 Submarine Program Office
- Supervisor of Shipbuilding, Groton, CT

Department of the Air Force

Secretary of the Air Force
Assistant Secretary of the Air Force for Acquisition
Assistant Secretary of the Air Force for Financial Management and Comptroller
Assistant Secretary of the Air Force for Manpower Reserve Affairs, Installations, and Environment
- Deputy Assistant Secretary of the Air Force for Environment, Safety, and Occupational Health
  - Air Force Center for Environmental Excellence

Air Force Materiel Command
- Aeronautical Systems Center
  - F-16 System Program Office
  - F-22 System Program Office
- Human Systems Center
  - Armstrong Laboratory

Air Force Audit Agency
Office of the Civil Engineer

Defense Agencies

Director, Defense Contract Audit Agency
- Defense Contract Audit Agency, Lockheed, Fort Worth, TX

Director, Defense Intelligence Agency
Director, Defense Logistics Agency
- Commander, Defense Contract Management Command

Director, Defense Logistics Studies Information Exchange
Inspector General, National Security Agency

Non-Defense Organizations

Office of Management and Budget
Office of Federal Procurement Policy
U.S. Department of Energy
U.S. Environmental Protection Agency
U.S. General Accounting Office, National Security and International Affairs Division, Technical Information Center

Chairman and Ranking Minority Member of the Following Congressional Committees and Subcommittees:

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Operations
House Subcommittee on Legislation and National Security, Committee on Government Operations

Part IV - Management Comments

Office of the Under Secretary of Defense for Acquisition Comments

Office of the Assistant Secretary of the Navy for Research, Development and Acquisition Comments

Office of the Director, Program Analysis and Evaluation, Comments

Office of the Under Secretary of Defense for Acquisition Comments

OFFICE OF THE UNDER SECRETARY OF DEFENSE

WASHINGTON, DC 20301-3000

ACQUISITION

1 NOV 1993

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Draft Audit Report on Environmental Consequence Analyses of Major Defense Acquisition Programs (Project No. 2AE-0048)

We have reviewed the Draft Report, and our item specific comments to your findings and recommendations are set forth in the attachment to this memorandum.

While you have identified many instances where Acquisition activities are not following DoD guidance or complying with EPA regulations and procedures, you have not identified the basic cause for this non-compliance. Your solution to the problem, as reflected in your recommendations, is to establish parallel direction and activity within the Acquisition community to address environmental concerns. We believe the more appropriate solution was to change the existing environmental security organizational structure within DoD to address environmental security for all of the Department, including the Acquisition community.

This fundamental change was initiated this year with the elevating of the DoD Environmental function from a Deputy Assistant Secretary level, under Production and Logistics, to a Deputy Under Secretary reporting directly to the Under Secretary of Defense for Acquisition. The Deputy Under Secretary of Defense for Environmental Security (DUSD(ES)) has followed through on this approach by specifically addressing Acquisition Compliance in her Strategic Plan for Environmental Compliance. The Environmental Compliance staff will, in the near future, develop a protocol setting forth the DUSD(ES) involvement in the acquisition systems review process. The Assistant for Environmental Compliance will represent the DUSD(ES) on the Conventional Systems, Strategic Systems, and C^3I Systems Committees, and the DUSD(ES) will, as the need arises, advise the Defense Acquisition Board on environmental issues of importance. It is not our intent to withdraw from the Services' decision-making authority granted them earlier for environmental

compliance. We will, through interaction with DoD program offices and the Service acquisition community, foster an environmental awareness and a team effort within the Services to excel and lead in environmental protection.

Finally, we must point out that, contrary to representations contained in Finding C, contractor environmental costs at contractor owned facilities are not DoD liabilities and do not require reporting under either the Superfund Amendments and Reauthorization Act or the Chief Financial Officers Act. Therefore, we strongly recommend that the Draft Report be revised to properly focus on environmental cost issues at DoD owned facilities, and to delete all references to such costs at contractor owned facilities.

Gene H. Porter
Director, Acquisition
Program Integration

Attachment

Item Specific Responses To The Draft Audit Report on Environmental Consequence Analysis of Major Defense Acquisition Programs (Project No. 2AE-0048)

Finding A: DoD Environmental Management Structure and Procedures.

Environmental oversight was not fully effective. Implementation of environmental policies and procedures applicable to Major Defense Acquisition Programs (MDAPs) throughout the acquisition and budget process was not consistent. The Office of the Secretary of Defense (OSD) and Military Departments did not have an adequate environmental organizational structure and did not fully assess environmental consequences, prepare and process environmental documents, and integrate environmental considerations into their decision making process for MDAPs. These conditions occurred because the DoD and Military Departments' environmental policy and procedures were inadequate with regard to environmental management as it pertains to the acquisition of MDAPs. Management emphasis was placed primarily on installations and facilities and cleanup or restoration, instead of examining the environmental impacts of developing and fielding weapon systems and appropriate pollution prevention or mitigating measures. Environmental managers in DoD and the Military Departments were not in the acquisition or resource allocation chain of command, accounting for weak oversight of the preparation of environmental documents to support the acquisition review process. As a result, environmental consequences were not adequately considered in the acquisition and budgeting processes at the OSD and Military Departments levels; environmental policy was inconsistently implemented by the Military Departments; and MDAPs may experience extensive program delays and increased program costs.

Comment: Concur. The Environmental function in OSD, until about 1986, was a subset of the installations management organization. The initial thrust and one of the environmental office's goals during the period of your review, was to operate our Military installations in compliance with all applicable Federal, State and local environmental laws and regulations. The installation commander was viewed as the person primarily responsible for environmental compliance on his installation, and both DoD and Service environmental guidance and assistance were provided to him. During the Defense Management Review of Acquisition Directives the DoD environmental office became aware that the Defense Acquisition community was in need of guidance on compliance with environmental laws and regulations. Their participation in the redrafting of the Acquisition directives resulted in the development of the requirement in DoD 5000.2-M for an Environmental Annex to the Integrated Program Summary prepared on major programs reviewed by the Defense Acquisition Board. This annex was to describe Service program office's activities related to

environmental protection and compliance with the National Environmental Policy Act (NEPA). It was not the intent of the drafters of DoD 5000.2-M, or of the environmental program office today to usurp authorities or responsibilities previously delegated to the Services.

DoD, in DoD Directive 6050.1 dated July 30, 1979, delegated to the Secretary of the Military Departments, Chairman of the Joint Chiefs of Staff, Directors of Defense Agencies and Commanders of the Unified and Specified Commands the responsibility to comply with the NEPA. Specifically they are required to:

- Assess environmental consequences of proposed programs and actions within their components;
- Prepare and process environmental documents;
- Incorporate environmental considerations into their decision making processes.

They also are to integrate the NEPA process, during the initial planning stages of proposed DoD actions and determine the appropriate levels of environmental documentation, i.e., an Assessment or an Impact Statement, required. The DASD(ES), in NEPA compliance oversight for installations as well as acquisition activities, was limited to review of selected Environmental Impact Statements and provision of comments to the components. The oversight did not involve identification of significant Federal actions requiring NEPA documentation or determining the adequacy of Categorical Exclusion justifications or Environmental Assessments.

DoDIG Recommendations for Corrective Action

Recommendation 1. Establish the Deputy Under Secretary of Defense for Environmental Security as a permanent Defense Acquisition Board committee member to incorporate environmental issues into the Office of the Secretary of Defense acquisition decisionmaking process.

Comment: Partly Concur. DUSD(ES), as a Deputy Under Secretary is the prime advisor to USD(A) on all environmental matters. DoDI 5000.49 is currently being revised to establish DUSD(ES) as an advisor to the DAB. The Assistant Deputy Under Secretary of Defense (Compliance), ADUSD(CM), will represent DUSD(ES) at the committee level on all three DAB committees.

Recommendation 2. Require the Deputy Under Secretary of Defense for Environmental Security to review environmental documentation supporting the Integrated Program Summary, Annex E, including the programmatic environmental analysis on major Defense acquisition programs scheduled for a Defense Acquisition Board review, to ensure compliance with environmental policy and provide the results of these reviews to the Defense Acquisition Board.

Comment: Partly Concur. DUSD(ES) staff reviews all documentation in the Integrated Program Summary and provides guidance on development of Annex E submittals. Environmental analyses documentation is summarized in Annex E along with identification of impacts and mitigating measures to be considered. Since the Services have been delegated the responsibility in DoDD 6050.1 to do environmental documentation, determine its adequacy and incorporate it in the planning and decision process, DUSD(ES) responsibilities should be to make sure they do this. This can be accomplished by making properly signed Records of Decision and Findings of No Significant Impact part of the Annex E submittal.

Recommendation 3. Establish in DoD Instruction 5000.2, "Defense Acquisition Policies and Procedures," February 23, 1991, and DoD Manual 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 23, 1991, a requirement for uniform environmental policies and procedures. These documents will include specific delegation of responsibility, addressing:

a. Environmental consequences in the major Defense acquisition process with designation of the decision authorities for records of decision on acquisition matters.

b. Policies and procedures for processing environmental documents for review and approval.

c. Policies and procedures for public release of environmental documents on major Defense acquisition programs.

Comment: Partly Concur. Environmental analyses documentation requirements are driven by environmental laws and regulations which are further interpreted in DoD's environmental directives. These directives should be modified, as required, to provide guidance to the Acquisition community. These Directives should then be incorporated by reference in the 5000 series directives. DoDI 5000.2 could be modified, if necessary, to establish procedures for processing environmental documents within OSD and to provide for standardization of submittals. However, due to differing organizational structures within the Services, specific delegation of responsibilities is best left to the Services.

Recommendation 4. Revise DoD Instruction 5000.2 to require that environmental impact statements concerning system design, development, and manufacturing process and associated records of decision be completed before critical design review.

Comment: Nonconcur. In most instances system design, development and even manufacturing will only require an assessment with a finding of no significant impact.

Recommendation 5. Issue a manual as a supplement to DoD Instruction

5000.2 on the procedures for preparing environmental documents and specific control for document review.

Comment: Nonconcur. The DoD Environmental Directive and manual and regulatory agency guidance should be usable to the Acquisition community. In almost all instances DoD must comply with environmental laws in the same way as any person or other entity. To develop specific guidance for the Acquisition community in 5000.2 would imply that these procedures take precedence over guidance provided elsewhere, thus giving potential to conflict.

Recommendation 6. Establish and maintain a data base of all National Environmental Policy Act documentation prepared on major Defense acquisition programs for distribution to major buying commands to be used in preparing program-specific environmental documentation.

Comment: Partly Concur. The same results could be obtained at probably less cost by requiring documents be submitted to the Defense Technical Information Center and improving access to center documents.

Recommendation 7. Include in the revisions to Draft Military Standard 499B, "Systems Engineering," requirements for assessing and resolving environmental issues as part of the critical design review process.

Comment: Concur. More appropriate terminology, however, would be addressing environmental issues as part of the design process.

Finding B: Cost and Operational Evaluation of Environmental Effects.

When conducting Cost and Operational Effectiveness Analyses (COEAs) of MDAPs, the DoD Components are not required to assess trade-offs among environmental impacts and program performance, including the costs of environmental research and development, pollution prevention, and mitigating measures. This failure to assess programmatic environmental trade-offs in COEAs occurs because DoD guidance does not specifically require COEA trade-off assessment to consider the effect of an alternative's environmental impact and mitigating measures on the life-cycle cost of a program. As a result, the environmental impact and mitigating measures of an alternative may not be considered and the most cost and operationally effective alternative may not be selected. Further, the life-cycle costs of environmental compliance could be overlooked in the acquisition process, resulting in unanticipated and unfunded costs.

Comment: Concur. DoD is currently working on ways to incorporate total life cycle environmental costs into the COEA process. While some costs such as systems disposal are relatively easy to address, costs such as R&D to satisfy an unidentified need or pollution prevention which should be a reduction on costs, are move evasive and difficult to identify.

DoDIG Recommendations for Corrective Action

We recommend that the Under Secretary of Defense for Acquisition and Technology revise Cost and Operational Effectiveness Analysis procedures in DoD Instruction 5000.2, "Defense Acquisition Policies and Procedures," February 23, 1991, and DoD Manual 5000.2-M, "Defense acquisition Management Documentation and Reports," February 23, 1991, to require that the DoD Components:

1. Assess and specifically identify, in life-cycle cost and trade-off analyses, the environmental consequences and the implementing mitigation measures of alternatives being considered as part of a Cost and Operational Effectiveness Analysis.

2. Coordinate with the Joint Staff to ensure that environmental consequences of a program are considered when the Joint Staff evaluates the alternatives, organizational and operational plans, and joint-Service issues.

3. Coordinate with the Assistant Secretary of Defense (Program Analysis and Evaluation) to ensure that the environmental consequences of a program are evaluated when the Assistant Secretary of Defense (Program Analysis and Evaluation) assesses the adequacy of Cost and Operational Effectiveness Analyses submitted in support of Defense Acquisition Board reviews.

Comment: Partly Concur. While environmental costs need to be incorporated in life-cycle costs and trade-off analyses, simply modifying DoD 5000.2-M to direct the Services to assess and identify these costs will result in potentially three different processes and values. ASD(PA&E) is analyzing this requirement, identifying resources and developing a process to assess environmental costs in Acquisition programs. They are also considering a study which will initiate a capability for routinely including environmental costs in life-cycle cost analyses and will guide establishment of a capability for environmental cost estimating in the OSD Cost Analysis Improvement Group (CAIG). You may obtain information on this very important initiative from Michael Anderberg in PA&E.

Finding C. Assessing the cost of environmental consequences

The DoD has not fully estimated total environmental cleanup and remediation liabilities at Defense installations and contractors, including the portion for which the Government was potentially responsible, and prioritized cleanup and remediation projects on a DoD-wide basis. The lack of an accurate estimate for environmental cleanup and remediation occurred because DoD has not:

- Required contractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance;

- Identified the total costs for environmental cleanup and

remediation liabilities at contractor facilities and the costs of preventive measures;

- Established a data base that prioritizes funding for preventive measures at contractor facilities; and

- Issued policy that prescribes procedures for environmental cost-monitoring reviews.

As a result, DoD cannot estimate the Government's overall liability for environmental remediation, cleanup, and pollution prevention measures; actively monitor and control environmental costs; and identify actual and contingent liabilities for environmental costs.

Comment: Nonconcur. We are very concerned that Finding C demonstrates a fundamental misunderstanding regarding the nature of contractor environmental costs. Whether for preventative or cleanup actions, such contractor costs at contractor owned facilities are not DoD liabilities. They are liabilities only for the contractor involved. DoD may, however, reimburse its allocable share of such costs through the overhead rates applied to its contracts with that contractor, if those costs are determined to be allowable under the Federal Acquisition Regulation (FAR) cost principles.

We must also emphasize that there is no requirement under either the Superfund Amendments and Reauthorization Act or the Chief Financial Officers Act of 1990 for the Department to report on contractor environmental costs at contractor owned facilities. The Superfund Amendments and Reauthorization Act reporting requirements apply only to DoD installations, and contractor environmental costs are neither actual nor contingent liabilities for DoD subject to the reporting requirements of the Chief Financial Officers Act. Therefore, the suggestion offered several times in Finding C, that the Department has underreported pursuant to those two statutes because it has not included data on contractor environmental costs, is wrong.

To date, the only Congressional reporting requirement for defense contractor environmental cleanup cost data was contained in the Senate Appropriations Committee Report (Senate Report 102-408) accompanying the DoD Appropriation Bill for FY 1993. This was a nonstatutory, one-time request for information on a number of issues related to the Department's reimbursement of such costs. In view of the relatively short time-frame for a response and limited resources, we focused our data collection efforts on the 15 contractors where Defense Corporate Executives are assigned, as well as 12 additional defense contractors where significant environmental cleanup costs have been claimed or proposed. We explained this in the July 26, 1993 report to Congress and pointed out that our sample contained 17 of the 1992 top 21 defense contractors.

We believe this was a reasonable approach since those 27 contractors are likely to have the largest environmental cleanup costs for allocation to defense contracts. We are baffled by the criticism that DoD underestimated these data because it "only included in its

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estimate universe the top 15 contractors and 13 other Defense contractors for which significant environmental cleanup costs had been reported, instead of all DoD contractors, including subcontractors" (emphasis added). Surely, the DoDIG is not suggesting it would have been a responsible use of the Department's resources to have attempted a 100 percent survey of all defense prime contractors and subcontractors, in response to this nonstatutory request for data.

The Department has decided to annually update the data for the 27 companies included in our 1993 review, plus any additional contractors where we become aware of significant environmental cleanup costs. There is no statutory requirement to continue to collect such data. We strongly recommend that all of the references to contractor environmental cost issues be deleted in their entirety from the DoDIG audit report.

DoDIG Recommendations for Corrective Action

Revised 55

Recommendation 1: We recommend that the Under Secretary of Defense for Acquisition and Technology direct the Director of Defense Procurement to revise the Defense Federal Acquisition Regulations requiring contractors and subcontractors to separately account for environmental cleanup expenses and expensed and capitalized costs for environmental compliance charged to DoD contracts.

Comment: Nonconcur. This recommendation appears to be based on the erroneous assumption that there is a statutory requirement for DoD to report on contractor environmental costs, and that separate accounting is needed to identify actual and contingent liabilities. As stated earlier, such costs are not DoD liabilities, but contractor liabilities, and there is no pertinent statutory reporting requirement. Certainly, the mandatory accounting treatment being suggested here is not needed for DoD auditors and contracting officers to be able to properly evaluate the allowability of contractor environmental costs on contracts subject to Part 31 of the FAR. The fundamental point here is that the draft audit report offers no valid reason for this additional burdensome reporting requirement.

Recommendation 2: We recommend that the Under Secretary of Defense for Acquisition and Technology direct the DoD Components to:

Revised 55

a. Identify the total costs for environmental cleanup and remediation liabilities at contractor facilities for which the Government is potentially responsible and the costs of preventative measures to reduce future environmental costs and report such costs in the Defense Environmental Restoration Program Annual Report to Congress.

Revised 55

b. Identify separately the funded and unfunded portions of Government environmental liabilities over the Future Years Defense Plan period and report the information in the Defense Environmental Restoration Program Annual Report to Congress.

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c. Establish a data base that prioritizes funding for preventative measures at contractor facilities that can reduce environmental costs.

Comment on Recommendation 2.a.: Nonconcur. This recommendation is based upon the erroneous assumption that contractor environmental costs at contractor owned facilities are somehow a DoD liability. As previously explained, such costs, whether for preventative or cleanup efforts, are a contractor liability. DoD may reimburse its allocable share of such costs through the overhead rates applied to contracts with that contractor, if those costs are determined to be allowable under the FAR cost principles. However, DoD may also choose to contract with a different firm whose overhead rates are more competitive.

In addition, this recommendation calls for the Department to include data for which the Congress has not asked and for which there is no requirement in the Defense Environmental Restoration Program Annual Report to Congress. Pursuant to the Superfund Amendments and Reauthorization Act of 1986, the Defense Environmental Restoration Program applies only to DoD installations, not contractor owned facilities.

Recommendation 2.b.: Identify separately the funded and unfunded portions of Government environmental liabilities over the Future Years Defense Plan period and report the information in the Defense Environmental Restoration Program Annual Report to Congress. Revised 55

Comment on Recommendation 2.b.: Nonconcur. The Defense Environmental Restoration Program does not address, nor was it intended to address, non-Government owned facilities where the Government does not have control over activities performed. It also is impossible to identify potential liabilities for future years at contractors' activities when contracts may or not be granted in the future. As an example, we will buy automobiles in the future. Whose costs do we identify, General Motors, Chrysler Corporation or Ford Motor Company? Do we identify total costs for the corporation, or for just the plant that will manufacture the automobiles, and how do we determine which plant will do the manufacturing?

Recommendation 2.c.: Establish a data base that prioritizes funding for preventative measures at contractor facilities that can reduce environmental costs.

Comment on Recommendation 2.c.: Nonconcur. This recommendation appears to be based on the assumption that Defense Environmental Restoration Account funds are used to pay for pollution prevention costs at contractor facilities. That is not the case. Rather, whatever funds are included on Government contracts awarded to the contractor (e.g., procurement or R&D funds) "pay" for an allocable share of these costs, which are included in the overhead rate. In addition, it would be totally inappropriate for DoD to attempt to

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substitute its judgement for that of a contractor's management regarding prioritization of specific pollution prevention measures.

Revised 55

Recommendation 3: We recommend that the Under Secretary of Defense for Acquisition and Technology direct the Defense Logistics Agency to issue policy that prescribes how and when environmental cost-monitoring reviews should be conducted at contractor facilities.

Comment: Nonconcur. DLA's Defense Contract Management Command (DCMC) does not currently perform environmental cost monitoring reviews of the contractors under its cognizance, and the draft audit report presents no rationale for inaugurating such a major undertaking. As explained previously, the Department has recently directed DCMC to continue collecting defense contractor environmental cleanup cost data, and we will examine that data for management and oversight purposes. However, our analysis of DCMC's initial data suggests that projected contractor expenditures in this area may not be large enough to warrant additional specialized review. Specifically, that data indicates that the Government's estimated maximum allocable share of the projected environmental cleanup costs for the 27 contractors reviewed (who are likely to have the highest costs among all defense contractors) would be $956 million spread over 8.2 years. This works out to an average of $4.3 million per company per year, which in most instances would not have a significant impact on the applicable overhead rates.

Additionally, DCMC has several initiatives underway to ensure contracting officers are able to make appropriate decisions on the allowability of environmental cleanup costs, and to ensure consistent contract administration and oversight of significant environmental issues.

Office of the Assistant Secretary of the Navy for Research, Development and Acquisition Comments

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
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WASHINGTON, D C 20350-1000

27 AUG 1995

MEMORANDUM FOR DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR GENERAL FOR AUDITING

Subj: DRAFT AUDIT REPORT ON ENVIRONMENTAL CONSEQUENCE ANALYSES OF MAJOR DEFENSE ACQUISITION PROGRAMS (PROJECT NO. 2AE-0048)

Ref: (a) Mtg DoDIG, AIG(A)/OASN(RDA)APIA-PP of 27 July 1993.

Encl: (1) DoN Comments on Subject Draft Audit Report.

Department of the Navy is concerned with the findings of the draft audit report which reflect an apparent DoDIG misinterpretation of the requirements of DoD Instruction (DoDI) 5000.2 versus the requirements of the National Environmental Policy Act (NEPA) and its implementing regulations. Throughout the Draft Report, the findings reflect the belief that NEPA documentation must be prepared every time DoDI 5000.2 requires an environmental analysis.

At a meeting with you and your staff (reference (a)), we clearly defined our respective concerns. As agreed during that meeting, the enclosed comments include editorial corrections to clarify the unintended interpretation reflected in the Draft Report. Our comments also provide a discussion on the interrelationship of NEPA and DoDI 5000.2. Finally, the enclosed comments correct several statements in Finding A of the Draft Report which purport to represent the Navy position or explain Navy regulations.

We appreciate your interest regarding the Navy concerns with respect to this important issue and the opportunity to provide our comments on the Draft Report.

Edward C. Whitman

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Department of the Navy Comments
DRAFT DODIG AUDIT REPORT
ON
ENVIRONMENTAL CONSEQUENCE ANALYSES OF
MAJOR DEFENSE ACQUISITIONS PROGRAMS
(June 29..

INTRODUCTION

The purpose of these comments are to: (1) address the fundamental policy issues with respect to the relationship between environmental analyses requirements of DoD Instruction (DoDI) 5000.2 and the requirements of the National Environmental Policy Act (NEPA) and its implementing regulations; (2) provide the editorial clarifications requested by DoDIG representatives, and (3) comment on the accuracy of the findings in Part A of the Draft Report

The Department of the Navy (DON) is concerned about the underlying, but pervasive belief apparent throughout the Draft Report that NEPA documentation must be prepared every time DoDI 5000 2 requires an environmental analysis We strongly believe that this is an incorrect interpretation of the DoD instructions NEPA documentation must be prepared as part of the DOD environmental analysis process only when such documentation would otherwise have to be prepared due to the requirements of NEPA itself A detailed discussion of this point is set forth in
Part I

In view of our concerns, we met with the DoDIG Assistant Inspector General for Auditing and members of his staff on 27 July 1993. During that meeting, the Audit team members stated that they did not interpret DoDI 5000.2 as automatically requiring NEPA documentation to support the programmatic environmental analysis, but rather had determined that in the individual MDAPS they reviewed, in their view, NEPA documentation should have been prepared However, the wording of the Draft Report does not reflect that position At their invitation we agreed to identify those places in the Draft Report that needed to be edited to clarify the Audit team interpretation. Those edits are set forth in Part II of our comments.

In addition, there are several statements within Finding A of the Draft Report that purport to represent the Navy position or explain Navy regulations and instructions. Some of these statements are inaccurate. Our comments and recommendations to clarify Navy positions and regulations are set forth in Part III of these comments. We have no comments on Finding B or Finding C.

Finally, we note that in response to deficiencies noted in this Draft Report as well as the earlier reports, a Navy policy defining and assigning preparation and review responsibilities for the PEA process has been prepared and is under review for anticipated implementation this fiscal year

PART I

NEPA case law demonstrates that it is highly questionable whether a court would order DOD to prepare NEPA documentation at the early stages of acquisition milestone review. There are two key issues in determining when the NEPA obligation is triggered. First, has the agency developed a sufficiently defined "proposal" for which it is preparing to make a decision that will irretrievably commit resources in furtherance of the proposal. Second, will the action being proposed directly impact the physical.natural environment. See, e.g. Kleppe v. Sierra Club, 427 U.S. 390, 408 (1976); Public Citizen v. Nuclear Regulatory Commission, 940 F.2d 679, 684 (D.C. Cir. 1991); City of Waltham v. U.S. Postal Service, 786 F. Supp. 105, 135-36 (D. Mass. 1992).

Although courts recognize the need to apply NEPA early in the decision making process to ensure that meaningful alternatives are identified and evaluated, courts have not forced preparation of NEPA documents where the agency was still in the contemplation phase, where further analysis was planned, and where the decision being confronted would not result in any direct impact on the environment. Courts look to whether the agency is "merely contemplating a project" or whether the agency has "made the 'critical agency decision' that immediately precedes the point where there will be 'irreversible and irretrievable commitments of resources' to action affecting the environment." Sierra Club v. Hathaway, 579 F.2d 1162, 1168, (9th Cir. 1979) (citations omitted). See, e.g., Weinberger v. Catholic Action of Hawaii/Peace Education Project, 454 U.S. 139 (1981) (Navy not required to prepare Environmental Impact Statement (EIS) on project that was only capable of storing nuclear weapons, when no proposal to store nuclear weapons existed); Public Citizen, Inc., v. Nuclear Regulatory Commission, 940 F.2d 679 (D.C. Cir. 1991) (development of policy statement on exposure to radiation levels below regulatory concern does not require EIS, subsequent implementing decisions will require NEPA analysis); Conner v. Burford, 848 F.2d 1441 (9th Cir. 1988) (coal leases with no surface occupancy restrictions allowed without EIS, further evaluation required before surface disturbed); Sierra Club v. Hathaway, 579 F.2d 1162 (9th Cir. 1978) (casual use, i.e. surveys and mapping under geothermal lease, allowed without site-specific EIS, does not constitute development proposal); City of Waltham v. U.S. Postal Service, 786 F. Supp. 105 (D. Mass 1992) (agency allowed to take title to property before completing environmental assessment).

It is clear from the case law that when and whether NEPA has been triggered at a particular point is necessarily fact specific and can only be decided on a case-by-case basis. How this case law should be applied to the major defense acquisition process leads to the second issue, the role of DODI 5000.2. Although the DODI 5000.2 references NEPA and the Council on Environmental Quality regulations, it does not define the actions required using the same terms of art (established by the regulations) used for the traditional implementation of NEPA. The statutory and regulatory references are clearly to the NEPA law and the Council on Environmental Quality regulations implementing NEPA. However, the terms used in DoDI 5000.2 to describe the type of environmental documentation required are specifically not NEPA terms. Based on case law, we believe that the programmatic environmental analysis required by DODI 5000.2 does not in and of itself compel NEPA documents at any one specific point for all acquisition programs, however DODI 5000.2 does require compliance with NEPA at appropriate points.

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PART II

Edits to clarify the relationship of NEPA and DODI 5000.2

Deleted from ii

II-1. Page ii, Summary of Recommendations. sub-item 5,
Insert the words "any necessary" before environmental impact statements, to read:

> "Revise guidance to require that **[any necessary]** environmental impact statement be completed before a Critical Design Review;"

Rationale: An EIS may not be required before every Critical Design Review.

12 **II-2. Page 11,** 4th line from the bottom of the page, replace the word "assessment" with the word "analysis", to read:

> "Consequently, environmental ~~assessment~~ **[analysis]** or evaluation information needs to be available during the acquisition decisionmaking process."

Rationale: The term "assessment" should not be used as that is a term of art for a NEPA document.

14 **II-3. Page 13,** third paragraph, 4th line, inset the words "when NEPA documents were prepared", after the phrase "did not adequately involve the public", to read:

> "In addition, the Military Departments did not adequately involve the public, **[when NEPA documents were prepared]**."

Rationale: Public involvement is required only when NEPA documents are prepared.

14 **II-4. Page 13,** 3rd line from the bottom, the word "Assessment" is incorrect and should be "Analysis".

16 **II-5. Page 15,** bottom paragraph, 1st sentence, move the qualifying phrase "and if necessary" from just before EISs to just before EAs, to read:

> "Not only is the preparation of PEAs, **[and if necessary,]** EAs and EISs required, but the time in which they are done is also crucial to making appropriate decisions."

Rationale: Only PEAs are required by the DODI 5000.2, neither EAs nor EISs may be required for a particular milestone.

16 **II-6. Page 16,** top of page, 3rd line, the word "assessments" should be changed to "analyses".

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Rationale: The term "assessment" should not be used as that is a term of art for a NEPA document.

II-7. Page 29, second paragraph, Program Delays and Increased Costs, inset in the 1st line of the paragraph, the word "NEPA" between review and environmental documentation, to read: 28

> "In addition, the program offices may not be carrying out their missions in a manner consistent with statutory and regulatory environmental policies and procedures, have not made provisions to fully fund associated environmental costs, and have not given the public the opportunity to review **[NEPA]** environmental documentation associated with the program, as required by law."

Rationale: Only NEPA documentation is required by law to be made available to the public.

II-8. Page 30, Implementation of Policies paragraph, 1st sentence, revise to read: 28

> "We believe that all nine MDAPs that we reviewed should have prepared PEAs **[and any necesarry]** EAs~~,~~ and~~, in most instances,~~ EISs."

Rationale: Reflects Audit Team's misunderstanding of the DoDI 5000.1 PEA requirements. EAs are not automatically required and EISs may not or may not be required.

II-9. Page 31, Critical Design Reviews paragraph, in the first line insert the words "if required" just after "EAs and EISs", to read: 30

> "We believe that the preparation of EAs and EISs, **[if required,]** on MDAPS should be prepared before critical decisions points, such as CDRs."

Rationale: EAs and EISs may not always be required.

II-10. Page 32. Recommendations for Corrective Action, item 4, add the words "if necessary" just before "environmental impact statements", to read: 31

> "Revise DoD Instruction 5000.2 to require, that **[any necessary]** environmental impact statements concerning system design, development, and manufacturing process and associated records of decision be completed before critical design review."

Rationale: EISs may not always be required.

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Reference

PART III

Comments on the Accuracy of Statements Supporting Finding A: DoD Environmental Management Structure and Procedures

11 **III-1. Page 11, Department of Defense Directive 5060.1,** lines 5 and 6 of last paragraph on page 11. The text is explaining the requirements of NEPA and states that "EAs must be done. EISs are required if major Federal actions could significantly affect the quality of the human environment." This is not an accurate description of the required NEPA documents. First, EAs are not always required even if NEPA applies to the proposed action. The CEQ regulations recognize categorical exclusions, and allow Federal agencies in their own implementing regulations to identify those categories of actions,

> "which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect. . . and for which therefore, neither an environmental assessment nor an environmental impact statement is required." (40 CFR 1508.4).

Therefore, EAs are done in instances where no categorical exclusion applies and are prepared to help determine whether to prepare an EIS or a Finding of No Significant Impact (FONSI). If a potential significant impact cannot be adequately mitigated within the environmental assessment and subsequent FONSI, then an EIS must be prepared. EISs are not typically prepared if a "major Federal action could significantly affect the quality of the human environment", but only if an EA, or other Department review has found that a major Federal action will have a significant impact.

13 **III-2. Page 12, Secretary of the Navy Instruction 5090.6.** The paragraph at the bottom of the page needs to be edited to reflect the role of the Commandant of the Marine Corps as well as the role of the Chief of Naval Operations. We suggest changes as follows:

> "The Chief of Naval Operations and the Commandant of the Marine Corps or their designees are responsible within the respective service for NEPA compliance. The Chief of Naval Operations and Commandant of the Marine Corps have several responsibilities, including advising major decision points in the chain of command where environmental effects shall be considered. The Chief of Naval Operations determines whether an EA or a FONSI is appropriate. The Commandant of the Marine corps has delegated the responsibility of determining the adequacy of EAs and appropriateness of FONSIs to Commanding Generals. If preparation of an EIS is required, the Chief of Naval Operations and the Commandant of the Marine Corps coordinates, as appropriate, with EPA, DUSD(ES), ASN(I&E), other DOD components, and federal agencies concerned with environmental matters. Additionally, the Chief of Naval Operations and Commandant of the Marine Corps ensure that relevant environmental documentation accompanies all proposals for action through appropriate review process to make the information available to decisionmakers."

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III-3. Page 14, Navy Interpretation of Environmental Policies. This paragraph does not accurately reflect the Navy's position on the interpretation of environmental policies. The Navy does believes that NEPA is mandatory and can be applicable to MDAPS, depending on the facts of the particular procurement and the specific decision that is to be analyzed at the next milestone review. Since no NEPA documentation was identified as required, none was prepared for the milestone decisions reviewed as part of this audit. Moreover, the Draft Report treats as the "Navy position" information contained in a 4 May 1993 Naval Sea Systems Command (NAVSEA) letter, included as Appendix D. The Navy is composed of several individual commands; thus, it is not accurate to identify one command's position as necessarily the position of the Navy. The Department of the Navy submitted extensive comments on the Report on the Joint Standoff Weapon Program that explain in detail the position of the Navy with respect to the interpretation of environmental policies. The following is a suggested rewrite: 15

> "The Navy agrees that NEPA is mandatory; however, the Navy interpretation of applicability of NEPA requirements for MDAPs is that they apply to proposed actions in the milestone review process which have the potential to significantly affect the human environment. Since no NEPA documentation was identified as required, none was prepared for the milestone decisions reviewed as part of this audit. The Navy does typically prepare NEPA documents for shore infrastructure procurement decisions."

III-4. Page 15, Military Departments' Public Involvement. The first paragraph states that, 15

> "The Military Departments did not make a public disclosure of environmental documents during or after the assessment of environmental consequences. Consequently, the decisionmakers, environmental agencies, and the public were not given the opportunity to adequately consider environmental consequences of these programs."

This paragraph does not track. The fact that no public disclosure of the environmental documents were made, does not mean that decisionmakers were not informed. In addition, the sentence should make clear that it is referring only to NEPA documents, as those are the only environmental documents that are required to be made available to the public. Environmental analysis or PEAs done pursuant to DODI 5000.2 are not required to be made public.

III-5. Page 15, Navy. This paragraph is incorrect and should be deleted and replaced with the following. 16

> "The Navy did not prepare any NEPA documents for the acquisition program decisions reviewed by the audit, but when NEPA documents are prepared, as in the shore infrastructure decisions, public disclosure is made of those NEPA documents."

III-6. Page 18, Navy. We disagree with the statement that Navy failed to follow DoD policy; and the further statement of the Navy position is not correct. The report states that, 18

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"For all five Navy programs we reviewed (the V-22 Osprey; the Joint Standoff Weapon; and the SSBN-726, SSN-688, and SSN-21 submarines), the Navy failed to follow DoD policy by not conducting PEAs, including EAs and EISs, over the life cycles of these programs. Unlike the other Military Departments, the Navy does not believe that NEPA and DoD Directive 6050.1 requirements are mandatory and applicable to its MDAPs because the programs do not qualify as major Federal actions and do not have a significant impact on the environment."

With respect to the first statement regarding failure to follow DoD Policy, the only Navy program reviewed that included milestones after the effective date of DODI 5000.2 was the JSOW program. As we stated in our comments on that report, the JSOW Program Office prepared the environmental analysis and documentation for the DAB review within a few months of the effective date of the DODI 5000.2 and made a good faith effort to examine the information available at the time and to provide an environmental analysis that was compliant with applicable directive and available guidance.

The second sentence in the quoted paragraph above is not an accurate statement of the Navy position on the application of NEPA and DODD 6050.1. We do believe that NEPA is mandatory and can be applicable to the MDAPS, depending on the facts of the particular procurement and the specific decision that is to be analyzed at the next milestone review. A further discussion of when NEPA is required for milestone review is contained in our comments to the JSOW Report. We suggest the last sentence of the first paragraph be replaced with the following:

"The Navy did not believe that NEPA or DODD 6050.1 required preparation of EAs or EISs for the stages of the programs reviewed by the audit."

18 **III-7. Page 18, V-22 Osprey.** With respect to the V-22 Program, we note that we are responding to the DODIG review comments and are in the final stages of preparation of a PEA for the next milestone review which is scheduled for Nov 1993.

19 **III-8. Page 18, Joint Standoff Weapon.** The second to the last sentence in the paragraph states that, "Lastly, the Navy had not publicly disclosed the results of the decision." We note that no public disclosure is required unless a NEPA document has been prepared. The DODI 5000.2 environmental analysis that was prepared is not required to be made available for public review and comment.

19-20 **III-9. Page 19-20, Supervisor of Shipbuilding.**

Several statement in this section attributed to interviews at the SUPSHIP Groton are incomplete or misleading. The SUPSHIP personnel did not tell the DODIG that they had not been concerned with environmental impacts and that they had no environmentally trained staff. On the contrary, the SUPSHIP encourages personnel to attend training. They did advise the DODIG that they did not do indepth analyses of environmental programs for submarines at the SUPSHIP. However, they further noted this is not their responsibility, but rather NAVSEA's responsibility to perform the requisite environmental analyses for the submarine programs administered by the SUPSHIP.

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Finally, on page 20, the statement is made that SUPSHIP personnel indicated that the Environmental And Natural Resources Program Manual, OPNAVINST 5090.1A, is not applicable to SUPSHIPS and shipyards. We would like to correct that statement, the instruction is clearly applicable to SUPSHIPS and shipyards. See section 1-1.3 of the instruction which states that, "The policies and procedures in this manual apply to shore activities within the U.S., territories, and possessions and to ship operations worldwide."

III-10. Page 24, Council on Environmental Quality. The first sentence states that, "Council on Environmental Quality definitions and requirements were not established for terms such as "major Federal action" and "significant environmental impact." It is unclear what the report authors intended here, because the CEQ regulations do in fact provide detailed definitions of both terms. See 40 CFR 1508.18 (Major Federal action) and 1508.27 (Significantly). 23

III-11. Page 24, Military Departments Guidance. The bottom paragraph on the page states that, 24

"A lack of adequate oversight and familiarity with applicable environmental laws and DOD environmental policies was evidenced by the Navy stating that the NEPA and DOD environmental policy does not apply to weapon systems acquisition programs."

This statement is not a correct representation of the Navy position on the application of NEPA. The Navy is very familiar and knowledgeable about NEPA and has an effective and active NEPA program. The issue here is how and when NEPA applies to the milestone review process. The auditors apparently have a disagreement with Navy personnel with respect to how NEPA should have been applied to the programs they reviewed. However, it is not accurate to interpret that disagreement as Navy lack of oversight or unfamiliarity with NEPA or DOD environmental policy.

With respect to oversight it is true that no written guidance existed defining the review and oversight responsibilities within the Department for the preparation of DODI 5000.2 required environmental documentation. As stated in the introduction to these comments, a Navy policy defining and assigning preparation and review responsibilities for the PEA process has been prepared and is under review for anticipated implementation this fiscal year.

III-12. Navy. Page 25, the bottom paragraph states that, "However, the Branch officials did not consider NEPA to be applicable to Navy aviation programs and, therefore, did not recommend preparation of NEPA documents." This statement is inaccurate and misleading. The NAVAIR Branch officials did not consider NEPA documentation to be required in all instances. Based on DODI 5000.2, the officials thought that a thorough environmental analysis as contained in Annex E of the Integrated Program Summary would lead to a determination of whether or not NEPA documentation was required. The officials also considered compliance with environmental laws to be both the contractors' and the Navy's responsibility, not solely the contractors' responsibility as inferred in the paragraph. 25

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27 **III-13. Page 28, Implementation of Environmental Policy.** The paragraph describing the role of the NAVAIR Ranges office is confusing and needs to be rewritten to indicate the present procedure. The first two sentences should be replaced with the following:

> "The Navy systems commands review the environmental documentation prepared for each of their procurement programs. For example, the Facilities and Environmental Management Office under the Office of the Deputy Assistant Commander for NAVAIR, Navy Ranges and Field Activity Management, reviews the Annex E of the IPS to determine whether NEPA is applicable to the action under consideration. If NEPA documentation is not required, the Annex E of the IPS is approved and no further action is taken. (Rest of the paragraph as in original)."

29 **III-14. Page 31, Data Base.** The paragraph provides that, "DoD should establish a data base of all NEPA documentation prepared on MDAPS." It is unclear why the data base should be limited to NEPA documentation, it seems more useful if all environmental analyses, including PEAs are included in the data base.

Office of the Director, Program Analysis and Evaluation, Comments

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OFFICE OF THE SECRETARY OF DEFENSE

WASHINGTON, DC 20301-1000

August 17, 1993

MEMORANDUM FOR THE DIRECTOR, ACQUISITION MANAGEMENT, OFFICE OF THE INSPECTOR GENERAL, DOD

SUBJECT: Draft Audit Report on Environmental Consequence Analyses of Major Defense Acquisition Programs (Project No. 2AE-0048)

Thank you for the opportunity to review and comment on your report while still in draft. We agree that environmental issues and costs often receive inadequate attention in the acquisition process. However, we think your appraisal of that problem could be strengthened in several respects.

The draft report rightly emphasizes that acquisition programs must satisfy the requirements of the National Environmental Policy Act (NEPA). However, a reader of this report can easily come to the conclusion that meeting the demands of NEPA will lead to a Programmatic Environmental Analysis (PEA) sufficient to support effective oversight of acquisition programs. In fact, NEPA documents often are drawn narrowly in scope and time, are focussed on matters far from the central purpose of the acquisition, promise categorical solutions, and are written as public documents if at all possible. In contrast, effective OSD oversight depends on the PEA incorporating the results of systems engineering analyses on pollution prevention, hazardous waste management, safety, demilitarization, disposal, and final clean up; the PEA must encompass the program's full scope and life-cycle, provide technical definition to the environmental issues, quantify steps to mitigate environmental effects, and draw on all appropriate information about the program (whether classified or proprietary). We believe it improbable that the NEPA process ever would provide the foundation for treating environmental costs in life-cycle cost analyses of the quality needed at DAB reviews.

The draft report is correct in finding that an absence of training and oversight among Program Managers is key to explaining why your auditors could not find any program that had prepared a PEA. But we think that insufficient guidance is of similar importance. The PEA is sketched briefly in DoDI 5000.2 and DoD 5000.2-M, but mentioned in no other directive or standard; it is not tied to any source documents or activities, including NEPA and the program's systems engineering activity. Only a summary of the PEA is required to appear in the Integrated Program Summary, Annex E; no documentation standards exist for the PEA itself. The 5000.2 series directives establish the concept of the PEA, but the follow-up action to make the PEA a reality has yet to happen.

The draft report (page 37) recommends "... ensure that the environmental consequences of a program are evaluated when the Assistant Secretary of Defense (Program Analysis and Evaluation) assesses the adequacy of Cost and Operational Effectiveness Analyses submitted in support of Defense Acquisition Board Reviews." We concur with this recommendation provided the report makes clear that the intent is for PA&E analysts merely 42

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to assess whether the significant environmental issues were addressed in the COEA and whether their treatment meets our usual analytic standards. The corresponding passage in the Executive Summary (bottom of page ii) transmits a distinctly different message with its recommendation "... that the Assistant Secretary of Defense (Program Analysis and Evaluation) ensure that the environmental impact of a program is evaluated;...." The latter statement appears quite encompassing, lacking any qualification that it is restricted to the COEA context. On its face, the statement easily could imply that PA&E will need to perform substantive reviews of environmental engineering issues, perhaps even evaluating the environmental impact in-house if others have not done an adequate job; such a step would be a distinctly new requirement with significant staffing implications. We would like to preclude such an interpretation, preferring instead that assessments of technical adequacy fall under the purview of the ODUSD (Environmental Security) and that the PA&E role focus on assuring that the findings from such technical assessments are reflected in the cost and performance analyses for the program. A similar division of labor between technical and analytic matters characterizes our relationships with elements of OUSD(A&T).

Should your staff need further information on these comments, please contact Dr. Michael R. Anderberg, 697-0317.

M Leonard

For William J. Lynn
Director
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