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Environmental Audit Program Design Guidelines For Federal Agencies

NOTICE

The **Environmental Audit Program Design Guidelines for Federal Agencies** on-line document does not contain any appendices. These are available in the hard copies only. For more information about this document, please contact Andrew Cherry at 202/564-5011. To obtain a hard copy, call, fax, or write Priscilla Harrington at:

U.S. Environmental Protection Agency
401 M Street, S.W., MC: 2261A
Washington, D.C. 20460

Phone: 202/564-2461
Fax: 202/501-0069

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CHAPTER 1: INTRODUCTION

1.1 OVERVIEW

Environmental regulations are becoming increasingly complex and costly for both private and public sector regulated entities. Federal agencies, however, differ from the private sector in how they must comply with those regulations. The goal of reducing the national debt has led to a simultaneous decrease in available Federal agency budgets for environmental and other program areas. Thus, Federal agencies are being asked to do more with less -- comply with all applicable environmental regulations while utilizing fewer resources to accomplish the goal of full compliance. An environmental audit is one tool that Federal agencies can use to comply with the regulations, as well as to improve the efficiency of operations and conserve limited fiscal and labor resources.

A number of factors must be considered when designing and implementing a Federal agency environmental audit program. In developing an effective audit program, an agency environmental manager must always remain aware that: (1) the audit program should complement and contribute to the agency mission; (2) securing funding for the audit program and the implementation of audit findings must be an integral part of the agency budgeting process; (3) national security issues may impact the nature of the audit program; (4) federal facilities may be owned and operated by different public and private entities; and (5) the missions and operations of federal facilities vary widely and, as a result, the audit program must be flexible enough to be applicable to all agency facilities, while still allowing for the comparison of audit results between facilities.

This document is not a “how to” manual for conducting environmental audits. A detailed discussion of environmental auditing protocols, i.e., the “how to” of environmental auditing is contained in EPA’s *Generic Protocol for Conducting Environmental Audits of Federal Facilities*, (“Protocol”) (EPA # 300-B-95-002). The Protocol provides specific information on the various media and statutes implicated in environmental auditing, and provides detailed descriptions of how to conduct a facility audit and establish an audit program. Careful review and adherence to the Protocol should allow one to develop a sound audit program. In short, the Protocol is an environmental auditing instruction manual as well as a design manual for establishing an environmental auditing program.

This document describes the components of a thorough environmental management program and informs the reader about the kinds of issues that arise and require addressing in environmental audits. It addresses programmatic issues in that it identifies the elements of a sound environmental auditing program, including management elements, resources, both human and capital that are typically required in establishing an auditing system, and provides general guidance on what is required of a thorough environmental auditing program. However, this document does not provide detailed descriptions of how to actually conduct an audit nor does it tell the reader the precise and detailed steps to follow in creating an environmental management program. This document is intended to be informative not instructional, and should be used in conjunction with the Protocols in order to create and undertake an environmental auditing program.

1.2 HOW TO USE THIS DOCUMENT

This guide is organized in two parts: Part I highlights some of the unique issues and legal considerations related to conducting environmental audits at both domestic and overseas federal facilities. Part II contains a detailed discussion regarding the design and administration of effective environmental auditing programs, along with a summary of resources and tools for environmental auditors. Part II also addresses the specific steps to conducting an environmental audit, from pre-audit activities through to on-site activities and post-site activities, including report writing and follow-up. The guide also contains several appendices which contain text of relevant EPA and Department of Justice (DOJ) policies in this area, U.S. Sentencing Commission Guidelines governing the definition of effective “Due Diligence,” and a sample audit pre-visit questionnaire.

1.3 EPA’S 1986 AND 1995 ENVIRONMENTAL AUDIT POLICIES

The U.S. Environmental Protection Agency (EPA) recognizes that environmental auditing -- and sound environmental management generally -- can provide potentially powerful tools toward protection of public health and the environment. In encouraging the use of these tools, EPA has announced the “Environmental Auditing Policy Statement” on July 9, 1986 (51 FR 25004) (1986 audit policy) and the “Incentives for Self-Policing: Discovery, Disclosure,

Correction and Prevention of Violations" on December 22, 1995 (60 FR 66706) (1995 or final audit or self-policing policy).

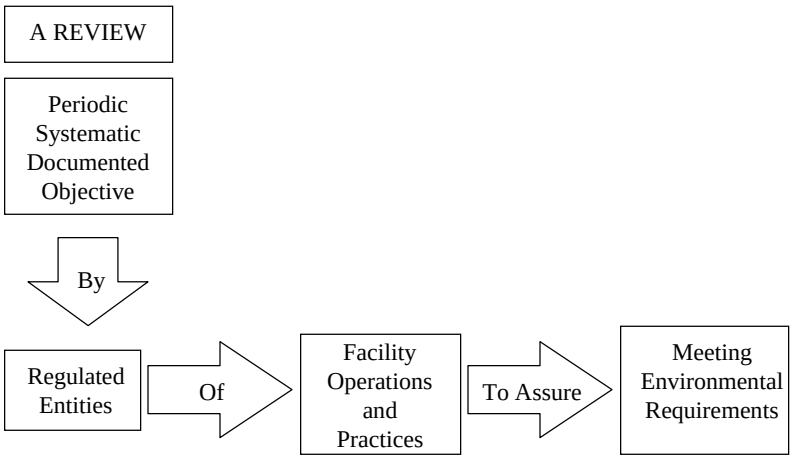
The 1986 audit policy states that "it is EPA policy to encourage the use of environmental auditing by regulated industries to help achieve and maintain compliance with environmental laws and regulation, as well as to help identify and correct unregulated environmental hazards." The policy also specifically endorses environmental auditing at federal facilities. The 1986 EPA policy is presented in Appendix A of this guide.

The 1995 audit policy offers major incentives for entities (including federal facilities) to discover, disclose and correct environmental violations. Under the 1995 policy, EPA will not seek gravity-based penalties or recommend that criminal charges be brought for violations that are discovered through an "environmental audit" (as defined in the 1986 audit policy) or a management system reflecting "due diligence" and that are promptly disclosed and corrected, provided that other important safeguards are met. These safeguards protect health and the environment by precluding policy relief for violations that cause serious environmental harm or may have presented an imminent and substantial endangerment, for example. The effective date of the policy is January 22, 1996. More discussion regarding EPA's 1995 Audit Policy is provided in Chapter 3, Section 3.4 of this document. The 1995 EPA audit policy is presented in Appendix B of this document.

In the 1986 policy, EPA defines environmental auditing as "a systematic, documented, periodic, and objective review of facility operations and practices related to meeting environmental requirements." Figure 1 depicts EPA's definition of environmental auditing. The policy identifies several objectives for environmental audits:

- Verifying compliance with environmental requirements;
- Evaluating the effectiveness of in-place environmental management systems; and
- Assessing risks from regulated and unregulated materials and practices.

Figure 1
EPA Definition of Environmental Auditing



The EPA policy encouraged all Federal agencies subject to environmental laws and regulations to develop environmental auditing programs to help ensure the adequacy of internal systems to achieve, maintain, and monitor compliance with environmental requirements. The policy also notes that Federal agency auditing programs should be designed to identify environmental problems and develop schedules for remedial actions for audit findings.

Subsequent to the development of EPA's 1986 policy, the Department of Justice (``DOJ'') issued a memo explaining DOJ policy on environmental auditing in the context of criminal prosecutions. This memo[1], issued in 1991 (see Appendix C), includes factors that DOJ considers important in evaluating whether to prosecute environmental violations. These factors include voluntary disclosure of the violation, cooperation, preventative measures and compliance programs, persuasiveness of non-compliance, internal disciplinary action, and subsequent compliance efforts. It was the intent of DOJ to encourage self-auditing, self-policing, and voluntary disclosure of environmental violations stating that these activities are considered mitigating factors in the Department's environmental enforcement activities. The necessity of having a

[1] ``Factors in Decisions on Criminal Prosecutions for Environmental Violations in the Context of Significant Voluntary Compliance or Disclosure Efforts by the Violator.''

thorough environmental auditing program cannot be overemphasized. The priority that DOJ assigns to auditing and self-disclosure as critical mitigating factors in environmental criminal prosecutions is an indication of how important it is for federal facilities to develop and implement sound and thorough auditing programs.

On December 12, 1991, EPA published in the Federal Register (56 FR 64785), a clarification on its policy concerning the role of corporate attitude, policies, practices and procedures in determining whether a regulated entity has properly corrected conditions giving rise to a criminal conviction (See Appendix D). The notice indicates that if the entity has properly corrected these conditions, the agency may consider removing the facility from the EPA list of violating facilities. Section IV of this notice specifies the criteria the entity in consideration must demonstrate as proof of a change in corporate attitude. These criteria were adapted from the proposed U.S. Sentencing Guidelines for organizational defendants and were later reflected in the final version of the Guidelines issued by the Department of Justice in 1994. One of the factors stated in the 1991 federal register notice as ''proof of a corporate change in attitude'' included evidence that the regulated entity has put in place an effective program to prevent and detect violations of the law and that the entity exercises due diligence by taking several steps that represent the ''hallmark'' of an effective environmental management program. One step outlined as an indicator of due diligence was ''..the establishment of an effective program for enforcing its standards (e.g., environmental auditing system designed to prevent or detect non-compliance)''. Therefore, as a follow-up to its 1986 audit policy, EPA and the Justice Department again recognized the value of environmental auditing as an integral part of a sound environmental management system.

In November 1994, the United States Sentencing Commission issued amendments to its sentencing guidelines which include mitigating factors to be applied when handling down criminal sentences. These factors include a definition of what the Commission considers to be necessary elements of an effective program of due diligence to prevent and remedy violations of the law and urges the establishment of self-evaluative programs to prevent and remedy criminal violations. A copy of the definition ''an effective program to prevent and detect violations of law,'' taken from

the 1994 Guidelines Manual is provided in Appendix E. Though broadly applicable to many types of activities, the guidelines specify the kind of programmatic elements necessary for auditing and self-evaluation that this audit document is emphasizing. It is the position of the Sentencing Commission that if an organization which has been implicated in criminal activities, including gratuitous and unsanctioned criminal activities of its employees, follows the outlined procedures, a court will consider the implementation of the self-evaluative program to be a mitigating factor when handing down a sentence. It is clear that there is a broad based effort on the part of federal enforcement agencies to encourage and in selected cases compel the development and implementation of environmental audit programs, especially in situations of environmental deficiency.

By Executive Order 12088, EPA has committed to provide technical assistance to Federal agencies to facilitate federal agency compliance with environmental laws. This guidance manual is one form of that assistance. This guide addresses a number of issues related to environmental auditing, including: the purpose of environmental audits; unique aspects of environmental auditing at federal facilities; legal considerations in environmental auditing; as well as audit program design, administration, implementation, and available resources.

1.4 HISTORY OF ENVIRONMENTAL AUDITING

In the early 1970s, a number of private industry managers recognized the benefits of internal auditing and established company programs to conduct these audits. By the late 1970s and early 1980s, governments, consultants, and lawyers had begun to recognize the benefits of well-designed audit programs as well. Cahill and Kane (1989) trace the beginning of the use of environmental auditing as a management tool to actions taken by the Securities and Exchange Commission (SEC) that required three public companies (U.S. Steel, Allied Chemical, and Occidental Petroleum) to perform internal environmental audits to determine the nature and extent of the companies' environmental liabilities for presentation to stockholders in corporate annual reports.

Later, the promulgation of new and complex Federal regulations regarding hazardous materials and wastes, such as the Resource Conservation and Recovery Act (RCRA) in 1976

and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980, highlighted the need for private sector companies to initiate internal environmental auditing programs. Many company environmental managers developed and implemented audit programs as a means of avoiding costs and liabilities associated with non-compliance with these new environmental requirements.

Recently, with the passage of the Federal Facilities Compliance Act and several Presidential Executive Orders, federal facilities are now being subject to the same stringent environmental requirements and liabilities as their private sector counterparts. As a result, Federal agency managers are coming to recognize the benefits of environmental auditing as well.

1.5 FEDERAL FACILITIES AND ENVIRONMENTAL AUDITING

Following the passage of RCRA in 1976, and the Supreme Court's decision in *Hancock v. Train*, 426 U.S. 167 (1976) which required that Federal agencies must comply with the law, President Carter issued Executive Order (EO) 12088, *Federal Compliance with Pollution Control Standards* (1978). This Order required Federal agencies to comply with all substantive and procedural requirements of Federal, state, and local environmental regulations. The EO was a landmark event because for the first time head of agencies were responsible for environmental compliance, and environmental compliance became a measure of agency performance. The EO also stipulates that EPA must aid this effort by providing Federal agencies with technical guidance and assistance to achieve compliance. One way in which EPA complied with this directive was by issuing the Federal Facility Compliance Strategy in 1984 and a revised version of the Strategy in 1988. These documents, commonly referred to as the Yellow Books, describe the usefulness and importance of audits, stressing the benefits of developing a proactive approach to achieving environmental compliance. EPA's Environmental Auditing Policy Statement of 1986 (described above) is another example of EPA's resolve to use environmental audits as tools for attaining high rates of compliance.

1.6 TRENDS IN ENVIRONMENTAL AUDITING

The chemical industry was the first to embrace the environmental audit concept in the 1970s. As regulations became more complex, non-compliance costs increased, and EPA

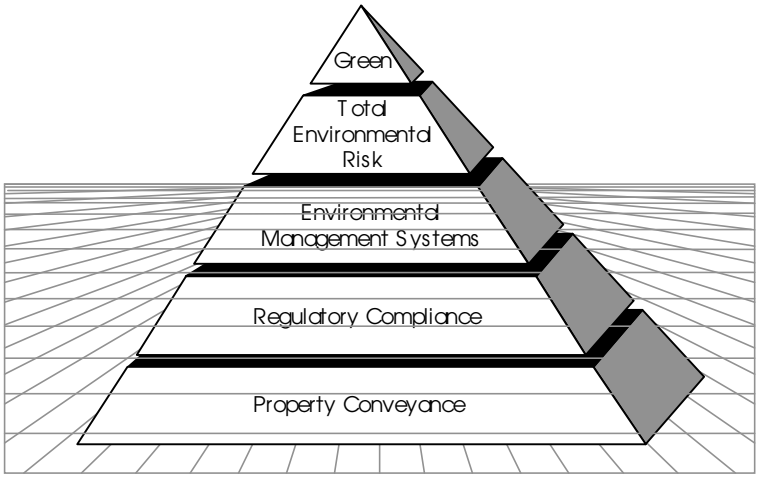
stressed the importance of conducting environmental audits to reduce compliance costs, environmental managers of several Federal agencies began to incorporate audits as essential tools in their operations. As environmental auditing has continued to gain acceptance in both the private and public sectors, new trends in auditing have emerged. Some of the recent national and international developments in the field of environmental auditing include management audits, pollution prevention opportunity assessments, auditing standards, and professional registration.

Figure 2 depicts the variety of audits typically conducted at facilities. Ascending up the pyramid the audit type selected becomes less common but more comprehensive in scope. For example, more compliance audits and property conveyance audits are selected as environmental management tools than audits assessing "Green" practices (recycling and procurement of environmentally preferable products) or "Total Risk" where the auditors assess unregulated risks in addition to regulatory requirements. Also, by ascending up the pyramid, the audit scope also becomes more complex and issues such as non-compliance with regulatory requirements are used as indicators for the findings reported in environmental management systems audits."

1.6.1 Management Audits

Management audits are used to look at the strengths and weaknesses of facility environmental management systems (EMSs). Management audits differ from compliance audits in that management audits evaluate the overall effectiveness of an environmental management program. EPA has developed a comprehensive guidance document which outlines procedures for conducting management audits. The *Generic Protocol For Conducting Environmental Audits of Federal Facilities,* (EPA #300-B-95-002) includes the concept of conducting EMS audits and is designed to help federal agency environmental managers determine the overall effectiveness of their EMS programs. The procedures recommended in "Phase 3" of the EPA Protocol include an assessment of (1) organizational structure, (2)

Figure 2
Pyramid of Audit Types



environmental commitment, (3) formality of environmental programs, (4) internal and external communication program, (5) staff, resources, training and development, (6) program evaluation, reporting and corrective action, (7) environmental planning and risk management, and (8) environmental protection program. In addition, an environmental management audit should assess the organizations ability to assure that the right mix of resources, organization, policies, and procedures are in place.

Management audits are a critical tool in uncovering the “root causes” of environmental management deficiencies and are a more effective method to implement thorough and permanent corrections. For example, a compliance audit observation that waste drums are not properly labeled results in a deficiency report. This problem could turn up repeatedly. A management audit may uncover that due to an insufficient training budget, personnel are not familiar with proper labeling procedures. In this case the “root cause” of an environmental deficiency is not mislabeling but rather budgetary problems. A management audit is intended to identify the problem at a systemic level and recommend corrective action such as increasing the training budget.

1.6.2 Pollution Prevention Opportunity Assessments

Pollution prevention opportunity assessments (or PPOAs) are used by environmental managers to identify opportunities to change facility operations to save money, increase worker safety and morale, and decrease regulatory liability through source reduction techniques. Source reduction techniques include process efficiency improvement, material substitution, improved inventory control, housekeeping, and preventive maintenance. EPA has developed a Pollution Prevention Opportunity Assessment manual, *Facility Pollution Prevention Guide,* EPA/600/R-92/008, 1992, that describes a procedure for identifying pollution prevention opportunities through a formal audit process and continues to conduct training workshops throughout the country to assist federal facilities in conducting the assessments.

1.6.3 Auditing Standards

Many industry organizations have established auditing standards as a means of providing guidelines regarding the conduct and content of thorough environmental audits. In 1993, the International Organization for Standardization (ISO) began work on the ISO 14001, *Standards for Environmental Management Systems (EMSs).* Incorporated within these standards are guidelines for environmental audit tools and procedures. ISO 14001 is expected to be available in final form on or about the summer of 1996.

The International Organization for Standards (ISO) has recently published specific auditing standards that address General Principles for Environmental Auditing (ISO 14010); Auditing of Environmental Management Systems (ISO 14011); and Qualification Criteria for Environmental Auditors (ISO 14012). General Principles include such information as definitions of basic terms, and the principles that should be adhered to in order to undertake a proper audit. An example of what is required by the principles includes the need to establish objectives and scope for an audit; maintaining objectivity, independence and competence of the audit team; use of due professional care and the use of systematic procedures. These are some of the general principles that are recommended in setting up an audit program.

These ISO 14000 standards are the basic framework around which an auditing program may be developed. They are not audit protocols; they provide the standards necessary for establishing specific elements of audit programs and as such are the foundational elements for developing environmental audit programs. The ISO standards are of particular importance

because they represent a formal international standard, accepted by many nations, rather than an ad hoc auditing standard.

1.6.4 Professional Recognition

The trend toward reducing environmental regulatory costs and liabilities through auditing procedures has led to the formation of organizations that focus on the concept of environmental audits. The Environmental Auditing Roundtable (EAR), the Institute for Environmental Auditing (IEA), and the American Society for Testing Materials (ASTM) are a few of the groups that have greatly influenced the field of environmental auditing.

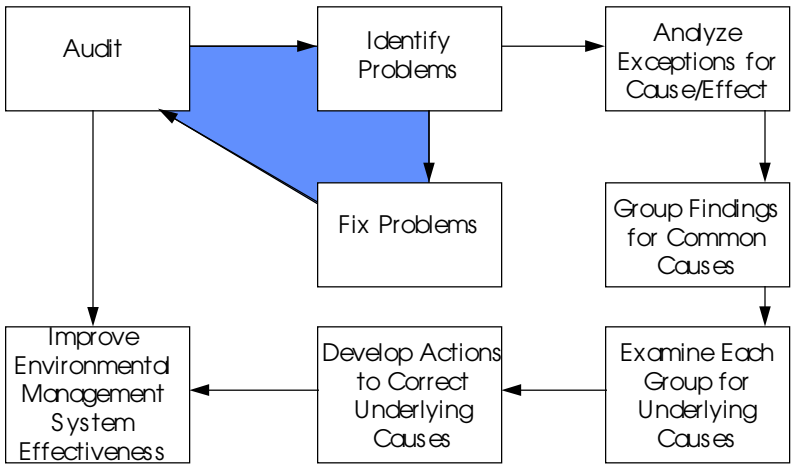
An ASTM technical subcommittee on environmental compliance auditing recently approved (September 10, 1995) two provisional standards regarding environmental compliance audits and evaluations of Environmental Management Systems (PS 11 and PS 12, respectively). PS 11 is designed to explain to all regulated entities the definition and description of accepted practices, procedures, and policies associated with environmental regulatory compliance audits (ASTM, Standard Provisional Practice for Environmental Regulatory Compliance Audits, working document, Jan. 1995). Agency and federal facility environmental managers should keep apprised of the new standards being set by the various organizations to ensure that their audit programs reflect the latest environmental auditing developments.

1.7 RELATIONSHIP OF AUDITING TO EFFECTIVE ENVIRONMENTAL PROGRAM MANAGEMENT

An environmental audit is only one part of an agency's environmental management system. Each agency EMS should be designed to create an organizational culture that strives toward continuous environmental improvement. With the world marketplace becoming more competitive, budgets being reduced, federal facilities increasingly needing to comply with state and local environmental requirements, and citizens demanding more accountability for the activities of facilities in their communities, managers are becoming increasingly aware of the importance of developing an agency-wide philosophy of environmental stewardship. This means not only improving on how a facility achieves environmental compliance, but moving beyond compliance to include issues of environmental management and organization, public satisfaction, worker safety and productivity.

To successfully correct problems, keep problems corrected, and head off finding the same problems at other facilities, the audit process needs to be expanded (see Figure 3). When the audit process is expanded, the agency's corrective action part of its environmental management system becomes more effective. As Figure 3 shows, audit findings are evaluated for underlying or "root" causes, and corrective actions involve developing management solutions to resolve root causes. When the focus of corrective actions is on correcting common root causes, the effectiveness of the audit is increased tremendously. The expanded audit process can be applied at any level (i.e., facility, field division, or bureau or overall agency). Rarely does the root cause for facility problems stop at the facility gate; it usually extends upward into the division or parent agency.

Figure 3
The Expanded Corrective Action Process



To set goals and measure environmental progress, agency managers must determine their starting point for environmental improvements. Environmental auditing can help to provide a benchmark against which environmental programs can be measured (Environmental Auditing, Banff Centre for Management). Audit findings also can be used by agency and facility managers to aid in effective and efficient decision-making on environmental and other agency issues.

CHAPTER 2: UNIQUE ASPECTS OF FEDERAL FACILITY AUDITING

2.1 OVERVIEW

The private sector has realized significant benefits from conducting environmental audits for many years. Many of these same benefits can be obtained by Federal agencies, however, several factors that are unique to Federal agencies must also be considered when developing and implementing agency-wide audit programs. One example of these additional considerations is funding. For Federal agencies, unlike the private sector, the allocation of resources is determined in large part by government policy and regulations that are beyond agency control. For example, the President and Congress, through the Federal budget setting process, have a significant influence on the amount of resources that are available to pursue audit programs and address audit findings. In addition, the process of obtaining funding for environmental programs is time and resource intensive, and follows a complex process predefined by authorities outside the control of the agency, such as the Office of Management and Budget (OMB).

This chapter describes some of the unique issues that Federal agencies may encounter when designing or upgrading agency-wide environmental audit programs. Issues considered in this chapter include:

- Agency mission vs. environmental compliance;
- National security concerns;
- The Federal budget cycle;
- The Federal agency FEDPLAN process;
- Contractor and tenant activities;
- Waiver of sovereign immunity;
- Freedom of Information Act requests;
- Status of environmental auditing at federal facilities; and
- The role of EPA's Federal Facility Enforcement Office.

2.2 AGENCY MISSION VS. ENVIRONMENTAL COMPLIANCE

Private sector business operations are driven by the economics of production, with the costs associated with environmental compliance factored into the overall profit-loss equation. In an effort to maximize profits, the private sector has begun to recognize the value of environmental audits and pollution prevention programs. The unnecessary use of raw materials in production processes and the increased costs associated with waste and emissions management are significant factors in motivating the private sector to establish proactive environmental programs that encourage auditing and pollution prevention. Additionally, liability risks and costs have increased dramatically due to government and third party lawsuits.

Federal agencies, on the other hand, are driven by statutorily-defined missions. These missions are established in the statutes that created each agency, and are further clarified by each agency's mission statement. Environmental compliance has only begun to be "factored" into the agency's bottom line within the last 20 years. Many Federal agencies have now adopted their own formal environmental policy statement.

In addition to internal agency policy statements, other specific statutes and Executive Orders (EOs) require Federal agencies to abide by applicable environmental regulations and policies. For example, the Federal Facilities Compliance Act of 1990 (FFCA) requires Federal compliance with all of the hazardous waste requirements to which private industry is held under the Resource Conservation and Recovery Act (RCRA). Further, EO 12856 requires that federal facilities comply with the provisions of the Emergency Planning and Community Right-to-Know Act (EPCRA), including Toxics Release Inventory (TRI) program reporting requirements. The Executive Order also requires that Federal agencies comply with the Pollution Prevention Act of 1990 (PPA) and prepare pollution prevention strategies and plans to reduce releases of toxic chemicals by specified levels.

Several Department of Defense (DoD) agencies, as well as the Department of Energy, are developing progressive environmental programs that go beyond compliance with Federal requirements by emphasizing environmental audits, pollution prevention, and other proactive programs such as the Total Quality Environmental Management (TQEM) concept created by the Global Environmental Management Institute (GEMI).

Political considerations, changes in agency budget authority and mission, and the current efforts to "reinvent government," have all placed tremendous pressure on Federal agencies to downsize while simultaneously improving delivery of services. In such an atmosphere, agency environmental officials and programs may be caught between the necessity to maintain a sufficiently responsive environmental program and reduced resources. In some cases, agency environmental managers must be able to justify a considerable upfront expense associated with a new program or technology that will prevent future environmental problems and explain how it will yield a long-term payback in reduced costs and liabilities. When dealing with hazardous materials, the expression an ounce of prevention is worth a pound of cure might best be rephrased as, an ounce of pollution prevention is worth millions of dollars in avoided liability and clean up costs. Unfortunately, justifying this to senior management in a period of tight budgets is not easy.

Federal environmental managers are tasked with the responsibility to monitor and evaluate an agency's environmental compliance status and must be conscientious about assessing the degree of regulated and unregulated environmental risk associated with agency activities. This requires an ongoing environmental audit program and a parallel effort to evaluate audit results. The results of this effort will assist agency management and legal staff in their determination of how environmental issues pose a risk to the successful conduct of an agency's mission, and serve as an aid in planning to address such risks.

Finally, environmental audit program objectives must reflect the agency's primary mission and internal environmental policies, while remaining relevant and responsive to an agency's needs. Thus, the manager of an environmental audit program must understand the program objectives for all elements of the agency's primary mission to ensure that the audit program complements, and does not interfere with, the agency's main mission goals. The primary goal of a Federal agency audit program should be to increase understanding of environmental requirements to allow the agency to accomplish its mission in an environmentally sound manner. At a minimum, Federal agencies should use an audit program to improve compliance with Federal, state, and local regulations while carrying out their main mission. Ideally, agencies also should use audit findings to identify and address management, organizational, and operational issues that create inefficiency and allow compliance violations to occur. Chapter 5 of this report provides a more detailed discussion of designing an agency-wide environmental audit program.

2.3 NATIONAL SECURITY CONCERNS

Federal facilities frequently encompass military, intelligence, nuclear-related, and law enforcement functions which present unique security concerns with respect to environmental audit programs. In these cases, managers with audit oversight responsibility must address issues such as facility security regulations and audit team access to associated documents. This may require advanced planning to ensure that necessary security clearances to conduct audits can be obtained. Audit program planners must consider national security issues during the audit design phase to ensure that such issues do not cause delays when the audit is being performed. Ideally, an internal audit program should be designed to provide an adequate number of auditors with the necessary security clearances to expedite the auditing process. If contractor personnel are to perform the audit, clearance status should be one factor in contractor selection. In certain cases, audit planners can design the audit process such that secure areas and documents are not accessed by contractors. With adequate planning, an audit can proceed without compromising national security. In accordance with good audit practices, the audit report should identify any areas or materials that were not inspected or evaluated during the audit. This will prevent inaccurate conclusions to be drawn based upon missing data.

An additional considerations associated with performing audits of facilities or operations with national security missions is the degree to which audit results become publicly available. Section 2.8 of this guide includes discussions relating to the release of audit documents to the public via the Freedom of Information Act (FOIA). This statute exempts documents with national security concerns from the FOIA process. Case law supports the concept that if there is a reasonable danger that disclosure would expose military or state secrets, the materials in question will be protected, even when there is "the most compelling necessity" to disclose the materials (United States v Reynolds, 345 U.S. 1 (1953); Northrop Corp. v McDonnell Douglas Corp., 751 F.2d 395 (DC Cir. 1984)).

2.4 THE FEDERAL BUDGET CYCLE

Assuring funding for environmental auditing programs and addressing audit findings requires a thorough understanding of the Federal budget and appropriations process.

Responsibility for Federal agency budget planning and appropriation rests with Congress and the Executive branch. Within the Executive branch, OMB and the White House play crucial roles, while congressional committees handle this responsibility for the legislative branch. Agency budgets are the result of an extensive deliberative process that includes the input from an agency's budget officers, the chief financial officer, and administrators at all levels of the agency, including federal facilities.

Agency managers must understand the process and timing of the budget process to ensure that funds required to address compliance violations or for critical environmental projects are available. Typically, capital expenditures are line items in an agency's budget. Funding requests for environmental projects generally will arise at the facility level and work their way through the agency hierarchy before eventually being forwarded to the Executive Branch for approval. Where environmental auditing programs have uncovered compliance problems or unregulated risk, it is the responsibility of the facility environmental manager to quantify and submit a budget request in a timely fashion.

Environmental managers must communicate to top management the need to include funding for environmental compliance and control of unregulated risk into the facility or agency budget process. To accomplish this objective, environmental managers must assure that their requests are adequately justified and prioritized. Proper conduct of this task will ensure that budget reviewers understand the implications of rejecting such requests. As part of this process, it is important to distinguish the particular facility need and not hide the request within other budget categories such as operations and maintenance budgets. Because budget planning is a long-term process and can extend over many years, it is critical for agency managers to prioritize projects on both a short and long-term time line and place requests into the appropriate budgetary period.

2.5 FEDERAL AGENCY BUDGET PROCESS[1]

[1] Much of the information for this section was obtained from an EPA guidance document entitled *Federal Agency Environmental Management Program Planning Guidance* (EPA 300-B-95-001, October 1994). This document provides a more detailed discussion of the FEDPLAN process as well as guidance on getting through the regional review process.

EO 12088 (October 13, 1978) directs the head of each Executive agency to ensure that sufficient funds for compliance with applicable Federal, state, and local environmental requirements are requested in the agency budget. Each agency must submit an annual FEDPLAN report to OMB, through the EPA, which describes the agency's plan for the control of environmental pollution.

To help Federal agencies comply with the Executive Order requirements, EPA has offered guidance in the form of a process known as the Federal Agency Environmental Management Program Plan (FEDPLAN). FEDPLAN is a reporting mechanism defined by EPA consisting of a combination of written guidance and a PC-based desktop management information system known as FEDPLAN-PC. The guidance for using the FEDPLAN system is contained in a recently issued EPA guidance document*, Federal Agency Environmental Management Program Planning Guidance* (EPA Publication 300-B-95-001).

The FEDPLAN guidance suggests that Federal agency compliance officers requesting funds for environmental projects should do so by including program management costs in their environmental plans. The program cost definition includes inventories, assessments, surveys, studies, plans, and environmental audits. EPA proposes to make this category a subject of special analysis during agency reviews of individual federal facilities by EPA Regional offices. However, overall Federal agency funding in this area will be reviewed and monitored by EPA Headquarters personnel.

The FEDPLAN planning process is used to develop cost estimates for complying with environmental requirements, and thus is a crucial tool for developing agency budgets for submittal to Congress. The FEDPLAN system tracks environmental requirements from the time they are first identified until they are executed. The process also provides a methodology for analysis of both current and projected funding requirements. It should be understood that, although this system by itself is not the budget request, it is a significant budget support document to the request. FEDPLAN provides the data necessary to verify that Federal agencies are adequately planning and programming for environmental compliance, and to ensure that agencies are requesting funding for all their environmental requirements. It is also used to assess progress in implementing environmental programs at all levels of the organization.

The information generated by the process is used for different purposes, depending on the time periods in the budget cycle that are being addressed. For projects scheduled for implementation during the current fiscal year, the data in the system is used to ensure that the projects for which monies have been budgeted actually get funded. For the budget year, the purpose of FEDPLAN is primarily to reprioritize and reprogram projects consistent with funding levels provided by OMB and/or expected to be received from Congressional appropriations.

It is important to understand that once the current fiscal year begins, normally no "new" money is available. This means that funds for new environmental requirements that develop during the current year must come from other uncommitted environmental funds, or from some other non-environmental program. This is why it is very important to carefully budget estimated costs for audits as well as costs for possible responses to audit findings (e.g., disposal costs, PCB transformer removal, asbestos abatement).

The review process followed by EPA in reviewing Federal Agency Plans has several steps, involving both EPA Headquarters and Regional offices. EPA Headquarters ensures that the required information is submitted by each Federal agency in a timely manner, and also performs a quality control check on the data. Federal agencies submit their Plan to EPA by September 1st, the same date that the agencies normally submit their budgets to OMB. This helps to ensure that the information in FEDPLAN correlates as closely as possible with the information in the agency budget submitted to OMB. EPA Headquarters then conducts an analysis of each agency's environmental plan focusing on each of the media programs and environmental categories. Concurrently, EPA Regions begin their review of projects and programs at the installation or facility level. Using the information provided by the Federal agencies, the EPA Administrator prepares several reports for OMB, each with a different but explicit purpose.

The following is a schedule of the various components of the FEDPLAN review cycle:

Date	*Milestone*
September 1	Most Federal agencies submit their total/entire agency budget request to OMB
September 1	Federal agencies submit both their new and updated FEDPLAN project data

	to EPA HQ for review
September 7	Federal agency FEDPLAN plans are forwarded to EPA Regions for review. Regions schedule meetings with individual federal facilities to discuss key aspects of plans, as appropriate
October 1	Selected analysis of Federal agencies previous fiscal year funding profile is forwarded to OMB
November 15	Completed reviews of Federal agency plans are forwarded by EPA Regions to EPA HQ
January 15	Summary of detailed EPA FEDPLAN comments and suggestions forwarded to Federal agencies for consideration

2.6 CONTRACTOR AND TENANT ACTIVITIES

Most environmental statutes assign responsibility for compliance to "owners or operators." Since the terms owner/operator may include both the landlord and the tenant/contractor, confusion may result when attempting to determine who is ultimately responsible for environmental compliance or who bears responsibility for remediation. For Federally-owned facilities that are operated by government personnel, the U.S. government is the owner/operator (such facilities are referred to as "GOGO" facilities – "government owned/government operated"). However, many federal facilities have tenant relationships with private parties, local or state governments, or other Federal agencies. The following are typical contractor/tenant relationships found at federal facilities:

- Government owned/contractor operated (GOCO)– a facility owned by a Federal agency but operated by private contractors for government services;
- Government owned/privately operated (GOPO)– a facility or lands leased by the Federal government to private operators for their own operation and profit; and
- Privately owned/government operated (POGO)– a facility owned by a private entity where the government leases buildings or space for Federal agency activities.

In a criminal prosecution for violation of an environmental law, the person who committed the crime is the person that is held responsible, regardless of who employs them. However, for administrative and civil actions, responsibility for environmental compliance in landlord/tenant situations often is not clear. The tenant may be held liable (either through direct action or by a previous written agreement) for the consequences of their activities.

Alternatively, the facility owner/operator may be ultimately held responsible by regulators if the owner/operator knew or should have known of the non-compliance, or if the violation or contamination is discovered after the tenant is gone. Prior to conducting an environmental audit at a joint tenant/owner or multiple tenant facility, the following questions should be answered:

- Who owns the property and how many tenants are involved with onsite activities that will be evaluated during the audit?
- Whom does the statute hold responsible for noncompliance? If liability attaches to the owner/operator, both the agency and the other party to the agreement may be held responsible.
- Are there any instruments, including permits, contract provisions or indemnification agreements, lease provisions, operating agreements, etc. that specify or assign responsibility for environmental compliance?

Landlord/tenant and contractor activities typically are bound by the terms of a host/tenant agreement. Contracts for M&O (Management and Operating) contractors at GOCO facilities often define the environmental compliance responsibilities of the contractor and contain other agreements such as a Federal government commitment to reimburse the contractor operator for cleanup charges if the operation is in compliance with the contract, or environmental compliance is in whole or in part an award-fee item. In some instances, Federal agencies should consider conducting environmental audits of the contractor or requiring the contractor to conduct self audits and apprise the agency of the results. This is especially important because the degree of non-compliance could be a factor in assessing liability. If a tenant/contractor commits gross environmental violations, the Federal agency could be held legally responsible if it is determined the agency was “willfully blind” to the non-compliance activities of the tenant/contractor. Likewise, if a tenant/contractor enters bankruptcy, the agency may be held financially responsible for any clean up costs resulting from the tenant’s/contractor’s acts.

If a Federal agency occupies a private facility (e.g., a GSA-leased facility), it is still responsible for a complying with environmental laws and auditing for environmental compliance. Whatever the landlord/tenant situation, the audit should not proceed until the applicable agreements are carefully reviewed and responsibilities for environmental compliance are assigned to the appropriate party or parties.

2.7 WAIVER OF SOVEREIGN IMMUNITY

Sovereign immunity is a long standing, judicially created legal doctrine which prohibits the bringing of a suit against the government. In the United States, the doctrine of sovereign immunity is based upon the Supremacy Clause of the Constitution which provides that the acts of the Federal government are operative as the supreme law of the land. However, Congress may, by legislative action, waive sovereign immunity and permit suits against the Federal government. In those instances where Congress waives sovereign immunity, EPA, States, localities, or private citizens (based upon the specific terms of the waiver) may bring suit against the government for improper activities, including those associated with environmental releases.

The Westfall Act (28 U.S.C. Sec. 2679 et seq.) grants sovereign immunity protection to the decisions and conduct of Federal employees acting in the course and scope of their employment. However, sovereign immunity does not act to protect Federal employees who commit criminal acts such as knowing violations of environmental laws. Further, injured parties are not necessarily precluded from bringing actions against Federal employees. In cases where there is a finding that the individual acted outside the scope of their authority, the Justice Department may withdraw certification that the Federal employee was acting within the scope of employment (28 U.S.C. Sec. 2679(d)(2)). For example, if a third party is injured as a result of an environmental excursion incident at a Federal facility, and a Federal employee is found to be responsible and to have acted outside the scope of their employment, the employee may be personally liable.

The following is a discussion of the doctrine of sovereign immunity as it is embodied in major Federal environmental statutes and applied to Federal agencies.

2.7.1 Resource Conservation and Recovery Act (RCRA)

The waiver of sovereign immunity found in the Resource Conservation and Recovery Act (RCRA), as amended by the Federal Facilities Compliance Act (FFCA) of 1992, constitutes a complete waiver of sovereign immunity with respect to both EPA and states authorized by EPA to administer and enforce their hazardous waste management program. Prior to passage of the FFCA, EPA could not enforce directly against other Federal agencies; and instead could only negotiate Federal Facility Compliance Agreements to bring other Federal agencies into

compliance with RCRA. With passage of the FFCA, Congress gave EPA and authorized state enforcement agencies the power to “initiate an administrative enforcement action against such a department . . . in the same manner and under the same circumstances as an action would be initiated against any other person” (42 U.S.C. 6961(b)(2) (1995)).

2.7.2 Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

The CERCLA waiver of sovereign immunity, contained in 42 USC §962, requires each department, agency, and instrumentality of the United States (including the executive, legislative, and judicial branches of government) to comply with CERCLA in the same manner and to the same extent, both procedurally and substantively, as any nongovernmental entity. In addition, all guidelines, rules, regulations, and criteria which are applicable to: (1) standards of liability (2) assessments; (3) evaluations of facilities under the National Contingency Plan; (4) inclusion on the National Priorities List and (5) remedial actions are applicable to the Federal government.

CERCLA also requires Federal agencies to comply with state laws concerning removal and remedial actions, including laws pertaining to enforcement, for removal and remedial action at facilities owned or operated by a government agency when such facilities are not included on the National Priorities List. However, federal facilities are not subject to state authority where a state law or regulation applies a standard or requirement that is more stringent than the standards and requirements applicable to nongovernment facilities.

2.7.3 Emergency Planning and Community Right-to-Know Act (EPCRA)

Executive Order 12856 requires that all federal facilities comply with the EPCRA emergency planning requirements, including emergency planning notification to local emergency planning committees (LEPCs), provision of information to LEPCs for preparation of comprehensive emergency response plans, emergency notification of releases of extremely hazardous substances, collection and submission of Material Safety Data Sheets (MSDSs), and submission of Toxic Release Inventory Forms (commonly referred to as the "Form R"). The TRI reporting requirements apply to all federal facilities with ten or more full-time employees

that exceed the threshold for manufacture, processing, or use for listed toxic chemicals, regardless of Standard Industrial Classification (SIC) code. In implementing Executive Order 12856, each Federal agency is responsible for identifying all facilities (GOCO and GOGO) subject to TRI reporting, preparing yearly progress reports, and self-monitoring for compliance with the order.

Executive Order 12856 also gives EPA the responsibility for conducting inspections and monitoring agency compliance with the Order, and preparing an annual report to the President on Federal agency compliance. However, section 7-701 of Executive Order 12856 expressly states that the Order does not create any right or benefit, substantial or procedural, that is enforceable against the United states or any federal agency. So, while EPA has the authority to monitor federal agency compliance with the Order, there is no waiver of sovereign immunity as to compliance enforcement.

2.7.4 Pollution Prevention Act of 1992 (PPA)

Section 3-304 of Executive Order 12856 requires federal facilities to comply with Section 6607 of the Pollution Prevention Act. This section requires that federal facilities submit a toxic chemical source reduction and recycling report for each chemical release form (Form R) submitted pursuant to EPCRA Section 313. As with EPCRA, Executive Order 12856 requires compliance by Federal agencies, but specifically does not provide for direct enforcement.

2.7.5 Clean Air Act (CAA)

The Clean Air Act requires "[e]ach department, agency and instrumentality of the executive, legislative, and judicial branches of the Federal government (1) having jurisdiction over any property of facility, or (2) engaged in any activity resulting, or which may result, in the discharge of air pollutants, and each officer, agent, or employee thereof, shall be subject to, and comply with, all Federal, state, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity" (42 U.S.C. §7418(a) (1995)). All Federal agencies also must comply with all applicable provisions of a valid motor vehicle inspection and maintenance program established under the CAA except for vehicles that are designated as tactical military vehicles (42 U.S.C. §7418(c) and (d) (1995)). This section also

waives sovereign immunity with respect to federal facilities' obligation to pay air pollution regulatory fees imposed pursuant to local air pollution district's rules and regulations.

2.7.6 Clean Water Act (CWA)

The Clean Water Act contains a comprehensive and explicit waiver of sovereign immunity as to all departments, agencies, or instrumentalities of the executive, legislative, and judicial branches of the federal government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants. This waiver subjects Federal agencies to compliance with all "Federal, state, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity including the payment of reasonable service charge" (33 U.S.C. §1323 (Supp.1995)).

2.8 FREEDOM OF INFORMATION ACT REQUESTS

The Freedom of Information Act, or FOIA (5 USC: par. 552), applies to all Federal agencies and governs the disclosure of Federal agency documents to the public. For this reason, careful consideration must be given by agency employees in determining how audit reports and audit-generated information will be filed and distributed within the agency. Generally, draft audit reports, preliminary information and auditor notes that contain the auditor's thoughts and observations recorded during an audit site visit may be exempt from FOIA requests. Federal agencies are allowed under the statute to write their own policies and regulations that influence the agency FOIA officer in his or her decision as to whether the information is releasable when it is requested by the public.

To the extent that draft copies of audit reports are pre-decisional and it can be shown that they reflect the agency's deliberative process, they may be exempt from release for reasonable limited periods of time. However, if factual material (e.g., observations made on site during the audit) is requested under FOIA, the agency may have to extract this material from the draft audit report and release it to the requesting party. To protect draft copies within the deliberative process, all reports and related paper should be clearly marked "pre-decisional, FOIA Exempt" or "draft" and circulation should be limited to those offices or audited facilities reviewing the report before producing a final version.

Legal advice from an agency's general counsel may provide additional help when processing FOIA requests for audit-related information. In addition, the effect of FOIA on audit-related information should be considered when designing an audit program or creating a scope of work for Federal agency audits. A more detailed discussion of legal considerations of document protection and FOIA requests is presented in Chapter 3 of this guide.

2.9 STATUS OF ENVIRONMENTAL AUDITING AT FEDERAL FACILITIES

Purpose

As the estimated cost of cleaning up contamination on federal lands rise to hundreds of billions of dollars, environmental auditing is increasingly viewed as a way to foster better environmental practices in operating federal facilities. Environmental audits are comprehensive and systematic reviews of environmental performance used to improve compliance with environmental laws and minimize future environmental damage and cleanup costs.

The Ranking Minority Member of the Senate Committee on Governmental Affairs asked GAO to examine the potential for increasing the use of environmental auditing in the management of federal agencies' operations. Specifically, he requested that GAO (1) examine the experience of organizations that distinguish their programs, (2) determine the extent to which federal agencies use environmental auditing and the benefits that could accrue from its wider use, and (3) identify obstacles and disincentives to the more effective use of environmental auditing by these agencies.

Environmental auditing and EPA's policy providing encouragement and assistance on this matter is relatively new. On July 9, 1986, EPA publicly addressed environmental auditing for the first time when the agency published it's environmental audit policy in the Federal Register (51 FR 25004). At that time, EPA encouraged regulated entities to initiate environmental audit programs to achieve and maintain compliance with environmental regulations. In the 1986 Policy Statement, EPA also encouraged Federal agencies to develop audit programs and stated that EPA would provide assistance to help Federal agencies establish such programs.

Since then, EPA has accelerated it's efforts at encouraging and assisting Federal agencies to design and initiate environmental audit programs. These efforts have included:

- Conducting a survey of Audit Activities at Federal Facilities (1987);
- Sponsoring a nationwide Environmental Auditing Conference for Federal agencies (1988, 1995);
- Issuing guidelines to assist Federal agencies in establishing audit programs ("Environmental Audit Program Design Guidelines for Federal Agencies," EPA #130/4-89-001) (1989); and
- Issuing generic environmental audit protocols as guidance for Federal agencies and encouraging further audit program development ("Generic Protocol for Environmental Audits of Federal Facilities," EPA 130/ 4-89/002 (1989) and "Generic

Protocol for Conducting Environmental Audits of Federal Facilities," EPA #300-B-95-002 (1995)).

Background

During a typical environmental audit, a team of qualified inspectors, either employees of the organization being audited or contractor personnel, conducts a compliance examination of a plant or other facility to determine whether it is complying with environmental laws and regulations. Using checklists and audit protocols and relying on professional judgment and evaluations of site-specific conditions, the team systematically verifies compliance with applicable requirements. The team may also evaluate the effectiveness of systems in place to manage compliance and assess the environmental risks associated with the facility's operations.

No laws currently require environmental auditing. Environmental auditing has been and remains largely a voluntary activity. Companies and public agencies that have adopted the practice have done so for sound business reasons. The adoption of environmental auditing by these organizations represents a management decision to seek compliance proactively, instead of simply reacting to crises. The Environmental Protection Agency's (EPA) 1986 policy of environmental auditing encouraged federal agencies subject to environmental laws to adopt environmental auditing to achieve and maintain compliance. The agency also acknowledged its own responsibility to provide technical assistance to help federal agencies design and initiate audit programs.

2.9.1 GAO Report 1995

The most recent and comprehensive report regarding the status of environmental auditing at federal facilities was released in April 1995 by the Government Accounting Office (GAO). The report, entitled *Environmental Auditing; A Useful Tool That Can Improve Environmental Performance and Reduce Costs*; GAO/RCED-95-37) is the result of an 18-month study. The report details the experiences of both private organizations and Federal agencies in reducing liabilities by performing environmental audits. The report also addresses the extent to which environmental auditing is practiced among Federal agencies and discusses the potential benefit from more extensive use of environmental auditing. The GAO report made a number of findings, including:

- Environmental auditing is rare at most Federal agencies;
- Environmental auditing is least developed at smaller Civilian Federal Agencies (CFAs), which lack the expertise and resources of DoD and DOE;
- EPA's 1986 Audit Policy and the lack of inspections by EPA act as disincentives with respect to CFA senior management attitudes toward implementing audit programs;

- CFA's lack of interest in implementing audit programs has resulted in funding shortfalls for training and developing audit expertise; and
- Federal agencies have been discouraged from auditing due to several incidents in which EPA Regions requested audit reports for reasons other than those allowed under EPA's audit policy.

The GAO report also made a number of recommendations for furthering audit program development at CFAs, including:

- Enforcing EPA's current stated policy of limiting requests of audit reports by personnel in EPA Regions;
- Changing EPA's existing audit and enforcement policies to encourage regulated entities to perform more environmental audits;
- Providing sustained technical assistance to CFAs; and
- Providing a greater show of enforcement at CFA facilities throughout the EPA Regions

2.10 STATUS OF ENVIRONMENTAL MANAGEMENT AT FEDERAL AGENCIES (BENCHMARK REPORT)

In December of 1994, EPA published a report entitled *Environmental Management System Benchmark Report: A Review of Federal Agencies and Selected Private Corporations* (EPA-300R-94-009). This report set forth a benchmark representing ideal organizations, managerial, and operational attributes that Federal agencies should employ as they work to fulfill their environmental responsibilities. Six benchmark elements were identified: Organizational Structure; Management Commitment; Implementation; Information Collection, Communication, Management, and Follow-up; Internal and External Communication; and Personnel Practices. The report detailed characteristics that make up each benchmark element and provided a list of organizational activities and attributes (key indicators) that demonstrate adherence to each benchmark element.

Benchmarking Federal Agencies

An EPA study compared the environmental management systems of CFAs, the Department of Energy, the Army, Navy, and Air Force, and three private sector corporations (Chevron, Xerox, and 3M). As part of the study, a series of detailed ''Best in Class'' descriptors were established in six key areas of environmental performance: organizational structure; management commitment; implementation of programs; information collection, use, and follow-up; internal and external communications; and personnel management. The overall ''Best in Class'' benchmark elements are as follows:

- *Organizational Structure:* Best in Class organizations have an organizational structure that gives authority, input, and voice to environmental performance.
- *Management Commitment:* Best in Class organizations possess and demonstrate a commitment to environmental excellence at each and every stage of the management hierarchy, and insist on integration of environmental awareness and concerns into all relevant business operations.
- *Implementation:* Best in Class organizations carry out their daily business operations in ways that integrate environmental protection into their business conduct.
- *Information Collection/Management/Follow-Up:* Best in Class organizations continually monitor environmental performance through the use of formal tracking and reporting mechanisms. Information acquired through these mechanisms is evaluated, disseminated, and used to continually improve environmental performance.
- *Internal and External Communication:* Best in Class organizations foster and use formal and informal channels to communicate environmental commitment and performance information. Employee communications is encouraged to develop cooperation and commitment, including bringing together employees from different disciplines.
- *Personnel:* Best in Class organizations ensure that employees are capable of developing and implementing environmental initiatives. Employees are hired, trained, and deployed in ways that ensure that staff understand their environmental responsibilities and receive the training and support necessary to achieve environmental excellence.

Source: U.S. EPA, *Environmental Management System Benchmark Report: A Review of Federal Agencies and Selected Private Corporations* (EPA 300R-94-009), December 1994.

The report provides information that can help agencies use audits in ways that move beyond the simple identification of compliance violations. Agencies and facilities that include the review of organizational, managerial, and performance elements into audits can often identify opportunities to improve organizations in ways that reduce the potential for future violations.

2.11 THE ROLE OF EPA'S FEDERAL FACILITY OFFICE

The environmental performance expectations that have been placed on Federal agencies in recent years have required EPA to focus on monitoring federal facility activities and assisting agencies in developing and improving their compliance programs. The relationship

between EPA and other Federal agencies was first prescribed by Presidential Executive Order No. 12088. Signed by President Carter in 1978, the Order directs all departments and agencies of the Federal government to comply with Federal, state, and local environmental laws and regulations. In addition, EPA is directed by the Order to provide technical assistance and guidance to Federal agencies to assist them in complying with these environmental requirements.

To ensure that federal facilities receive the appropriate level of monitoring and guidance, EPA established a separate office reporting directly to the Administrator Assistant for Enforcement and Compliance Assurance (OECA). This office is the Federal Facility Enforcement Office (FFEO). FFEO is responsible for ensuring that federal facilities take all necessary actions to prevent, control, and abate environmental pollution. FFEO coordinates OECA's federal facility enforcement, compliance assurance, and assistance efforts. It also has the lead role for communicating with Congress, other Federal agencies, states, and other stakeholders (e.g., the public) on federal facility matters.

The design of EPA's FFEO embodies many of the principles embraced by EPA's Common Sense Initiative (CSI). It has a sector-orientation, uses strong enforcement combined with compliance assistance, and promotes proactive technical programs such as pollution prevention and environmental auditing. FFEO continually seeks new and innovative ways of working with Federal agencies by offering technical assistance within a partnership setting to other Federal agencies, states, and localities to foster a more collegial approach to environmental problem solving.

CHAPTER 3: LEGAL CONSIDERATIONS

3.1 OVERVIEW

Designing and implementing an environmental audit program requires consideration of a number of legal issues. Chief among these is the protection of audit findings from premature disclosure. A comprehensive environmental audit typically accomplishes three objectives: (1) verify compliance/noncompliance with environmental regulations; (2) evaluate the effectiveness of environmental control systems; and (3) assess potential environmental liabilities from regulated and unregulated materials and practices. To achieve these objectives, the audit findings must be candid, detailed, and accurate. As such, environmental audits often describe actual or potential violations of law, unfavorable situations such as management deficiencies or inadequate staffing, or situations that do not constitute violations per se, but that nevertheless gives rise to potential environmental liabilities. This kind of information can be used to the detriment of a facility or agency, and should be protected to the extent allowed by law.

Public access to Federal agency documents and information in non-litigation situations is controlled by the Freedom of Information Act (FOIA) (5 USC §552 *et seq*.). Once an agency audit report becomes final, it is an agency record and subject to disclosure through a FOIA request. As a result, the amount of time that an agency has to handle an environmental audit as an internal matter, free from outside scrutiny, is limited to that time between the conduct of the audit and the delivery of the audit final report. Typically, a comprehensive environmental audit will contain information adverse to the audited facility. It is therefore important that the audit program be designed to provide for the protection of the audit findings from premature disclosure. Facility and agency personnel should have the opportunity to review and comment on audit findings, and develop a corrective action plan free from public scrutiny so that they can engage in free and frank discussions of regulatory opinion, interpretation and applicability. An understanding of privilege, as it pertains to audit reports, the FOIA law and process, and other legal considerations surrounding audit report handling and preparation will help in designing such a program.

Please note that this discussion does not discuss document requests or subpoenas that arise from civil litigation. Such requests must be handled through agency legal counsel on a case-by-case basis.

3.2 DOCUMENT PROTECTION/FREEDOM OF INFORMATION ACT REQUESTS

Subject to specific exceptions, any person can have access to government factual and investigatory reports, data, and surveys pursuant to the FOIA. A final environmental audit report from a Federal agency does not fall into any of the enumerated exceptions, and the courts uniformly interpret the FOIA exceptions very narrowly[1]. Although there is a governmental official information privilege that protects the suggestions, advice, recommendations, and opinions of government officials, factual and investigatory reports, data and surveys are not protected. Unless exempted by FOIA or some other statute, all Federal agency records are available to the public upon request. There are nine exceptions to this general rule contained in FOIA that are listed at 5 USC §552(b). Subsection (5) exempts "inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with another agency." From this exemption, the courts have created categories of agency documents that are exempt under FOIA, that is they are not available to the public. These documents are referred to as "predecisional" and "deliberative" and must satisfy both criteria to qualify for the exemption and be justified.

Predecisional documents include recommendations, draft documents, proposals, suggestions, and other subjective documents which reflect the personal opinions of the writer rather than the policy of the agency. A predecisional document is deemed a part of the deliberative process if the disclosure of the materials would expose an agency's decision making process in such a way as to discourage candid discussion within the agency, thereby undermining the agency's ability to perform its functions.

The deliberative process is exemplified in a situation where an employee writes a draft document and the agency uses the consultative process, by circulating the draft for comments, or having the draft reviewed up the supervisory or organizational chain to determine what the final version will include. Courts have ruled that when the final document is released, the draft is exempt from disclosure under the FOIA exemption for intra-agency memoranda[2]. Courts have characterized draft reports as predecisional if they are written before the agency decides what the final version will include, and have characterized the process as deliberative if the draft

[1] See, *Nadler v. U.S. Dept. of Justice,* 955 F.2d 1479 (11th Cir. 1992), dealing with what constitutes the ''deliberative'' process; *Assembly of the State of California v. U.S. Dept. Of Commerce,* 968 F.2d 016 (9th Cir. 1992) addressing what is ''predecisional.''

[2] *Marzen v. Dept. of Health and Human Services,* 632 F.Supp 785, *aff'd* 825 F.2d 1148 (7th Cir. 1987).

was submitted to others as the author's input to the decision-making process (the comment and clearance process).

Ultimately, each Federal agency's Freedom of Information Act Officer is responsible for determining whether or not materials are FOIA exempt. Generally, in the context of an environmental audit, the draft audit report, preliminary information and auditor notes concerning his or her thoughts and observations recorded during an audit will be considered predecisional. There is a question, however, as to what extent factual material contained in a predecisional draft is also protected. The U.S. Supreme Court has held that information that is purely factual, even though it may have been used by decision makers in their deliberations, is usually not protected from disclosure under FOIA (*EPA v Mink*, 410 U.S. 73 (1973)). In cases where deliberative process material and unprotected factual material are commingled in a single document, the agency normally must still produce the factual material by producing a document containing only the factual material. If the factual material can not reasonably be separated from material in documents that would reveal the opinions of agency personnel in the deliberative process, it may be exempt from disclosure under FOIA. However, this should not be attempted in order to avoid disclosure as courts take a dim view of such efforts[3].

An environmental audit program should be designed so the audit report is circulated for predecisional review and comment between the audit team and facility personnel, and then forwarded to senior agency personnel for predecisional review and comment, prior to becoming final. The draft report should be segmented and circulated to those personnel appropriate to each section. For example, personnel responsible for hazardous waste management should review that section. If those individuals are not responsible for air issues, they should not review the section dealing with air quality. Given these limitations, the report should be circulated from the bottom-up, with any input or comment clearly marked as "Draft" or "Pre-decisional," and the deliberative process clearly defined within the context of the environmental audit program (i.e., the process is standardized and written into or as an agency policy). Circulation of the draft should be limited. If a document which an agency claims exemption from a FOIA request has been released or disseminated to personnel outside the agency, or if a document otherwise subject to the attorney client privilege is widely disseminated within the agency, then the agency may be precluded from asserting the exemption. The use of consultants, however, does not necessarily constitute release to an outside party so long as the

[3] *United States v. Nixon,* 418 U.S. 683 (1974).

consultant has a “need to know” (e.g., the consultant is conducting or taking part in the audit), and agrees not to further disclose information.

Some aspects of an environmental audit also may be protected from disclosure under the attorney-client, or the attorney work-product privileges. The attorney work-product and the attorney-client privileges should not be looked at as a means for comprehensive document protection, because to routinely conduct an environmental audit program so that is falls under the rubric of the attorney privileges would be a cumbersome and inefficient use of agency attorneys and is not likely to be successful (see discussion of Litigation/Discovery below). In any event, situations that invoke attorney-client and attorney-work product privileges must be approached on a case-by-case basis with full involvement by agency counsel.

In the final analysis, the government carries the burden of proving that audit documentation in draft form falls within an exemption under FOIA . This essentially entails showing that the record is oriented toward the agency’s ongoing development of its position on a specific issue. The case law pertaining to FOIA requests and exemptions offers enough guidance to design and implement information gathering and report drafting procedures to provide protection for audit materials prior to the issuance of the final report. However, as with any case law, the courts are continually refining the law of FOIA. Therefore, the agency Freedom of Information Act Officer and legal counsel should be consulted as to the most current case law and legal precedents in this area.

3.2.1 Litigation/Discovery

In addition to FOIA requests, audit materials may be subject to disclosure as a result of litigation undertaken by an agency or by third parties against an agency. Should an agency become involved in a civil action over an environmental issue, all audit materials that involve observations of facility practices or matters subject to statutory or regulatory reporting requirements (e.g., spill incidents, waste handling or discharge practices, emissions reports) will be discoverable through requests for production of documents, or subpoenas.

There are a number of privileges which, to a limited extent, may be available to protect audit materials. However, agencies should conduct their audits with the understanding that all materials are potentially discoverable. The three legal doctrines that may provide limited protections for audit materials are:

(i) the attorney-client privilege;
(ii) the attorney work-product rule; and
(iii) the self-evaluation privilege.

It is necessary to consult with agency legal counsel to determine appropriate procedures for employing any of the above confidentiality doctrines.

The use of attorneys in conducting audits, or the communication of audit results solely to attorneys, will not protect underlying facts, or matters subject to legal reporting requirements, from discovery. Court pronouncements on this matter have been unequivocal.

While courts may be willing to protect the attorney's notes and memoranda, as well as related communications with non-lawyers, these protection have limits. Wide dissemination of audit results undermines the privilege doctrines. For example, dissemination of the air monitoring section of an audit to the wastewater treatment personnel for review and comment might be grounds for waiver of a confidentiality privilege with respect to the air monitoring results.

When developing and carrying out an audit program, agency management should anticipate that any underlying facts, observations, or data regarding facility environmental practices, will be fully discoverable. Therefore, it is in the best interest of the agency to thoroughly investigate, document, and remedy any problems uncovered in an audit. This appropriately devotes limited resources to corrective action rather than to attempting to protect audit findings from discovery. In addition, attempts to shield audit materials from discovery may be interpreted as bad faith and sour relationships with regulatory agencies.

EPA has developed internal policy regarding the release of environmental audit reports originating at other federal agencies. The policy developed by EPA's Office of General Counsel requires EPA personnel to respond to the FOIA request by either consulting with and obtaining written permission from the agency which originated the document or EPA will transfer the responsibility for responding to the request for records back to the originating agency. Therefore, EPA will not forward audit reports originating from other federal agencies without explicit permission from the affected agency.

3.3 EPA REQUESTS FOR AUDIT REPORTS

In the 1995 audit policy, EPA reaffirms and clarifies its policy outlined in the 1986 audit policy to refrain from routine requests for audits. Eighteen months of public testimony and debate have produced no evidence that the Agency has deviated, or should deviate, from this policy. In general, an audit which results in prompt correction clearly will reduce liability, not expand it. In addition, a review of the criminal did not reveal a single criminal prosecution for violations discovered as a result of an audit self-disclosed to the government.

The 1995 policy states:

> "EPA will not request or use an environmental audit report to initiate a civil or criminal investigations of the entity. For example, EPA will not request an environmental audit report in routine inspections. If the Agency has independent reason to believe that a violation has occurred, however, EPA may seek any information relevant to identifying violations or determining liability or extent of harm."

The EPA's authority to request some or all of an audit report will be exercised on a case-by-case basis where the agency determines that the information is necessary to "accomplish a statutory mission, or where the Government deems it to be material to a criminal investigation" (59 FR 38455 (July 28, 1994)). Examples of this include situations where: (1) audits are conducted pursuant to a consent decree or other settlement agreement; (2) a company has placed its management practices at issue by raising them as a defense in an enforcement action; or (3) where state of mind or intent is at issue as during a criminal investigation or prosecution.

With respect to inspections of self-audited facilities and requests for audit reports, EPA generally will respond to environmental audits conducted by federal facilities in the same manner as it does for any other regulated entity.

3.4 EPA's 1995 AUDIT POLICY

On December 22, 1995, EPA announced the ``Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations,'' (final audit or self-policing policy).[4] Under the new policy, the Agency will greatly reduce civil penalties and limit liability for criminal prosecution for regulated entities that meet the policy's conditions for discovery, disclosure and correction.[5] The final audit policy represents a refinement of the ``Voluntary Environmental Self-Policing and Self-Disclosure Interim Policy Statement'' (interim auditing policy) announced on April 3, 1995.[6]

Policy Incentives: Full and 75% Gravity Mitigation of Civil Penalties; No Criminal Referral to DOJ

Under the policy, EPA will not seek gravity-based[7] civil penalties for violations that are discovered through an environmental audit or through a management system reflecting due diligence, and that are promptly disclosed and expeditiously corrected, provided the other policy conditions are met. Where violations are discovered by means other than an audit or due diligence system, but are promptly disclosed and expeditiously corrected, EPA will reduce gravity-based penalties by 75% provided the other policy conditions are met. The Agency will generally not recommend to the Department of Justice (DOJ) that criminal charges be brought against entities that meet all of the policy conditions.

Safeguards

While the final self-policing policy contains significant incentives for encouraging discovery, disclosure and correction of violations, it also contains very important safeguards to deter irresponsible behavior and protect the public and the environment. For example, the policy requires entities to take steps to prevent recurrence of the violation and to remediate any harm caused by the violation. In

[4] The policy appeared in the Federal Register on December 22, 1995 (60 FR 66706).
[5] A copy of the policy and its comprehensive preamble appears as Appendix B.
[6] 60 FR 16875, April 3, 1995.
[7] The ``gravity'' component of a penalty represents the ``seriousness'' or ``punitive'' portion of penalties. The other major part of a penalty, the economic benefit component, represents the economic advantage a violator gains through its non-compliance.

addition, the policy does not apply to violations which resulted in serious actual harm or may have presented an imminent and substantial endangerment to human health or the environment. Moreover, entities are not eligible for relief under the policy for repeated violations. The policy acts arising from conscious disregard or full will blindness to violations. Finally, EPA retains its discretion to collect any economic benefit gained from non-compliance in order to preserve a "level playing field" for entities that invest in timely compliance.[8]

Incentives and Behavior

The final self-policing policy provides additional incentives for entities to utilize the critical compliance tools of environmental auditing and compliance management systems. These incentives add to the many existing reasons for entities to develop and maintain environmental auditing and compliance management systems. A 1995 Price Waterhouse survey on environmental auditing practices showed that 90% of the corporate respondents that conduct audits did so to find and correct violations before they were found by government inspectors.

In 1986, EPA announced that it was the Agency's policy to encourage environmental auditing as a means to help achieve and maintain regulatory compliance.[9] Toward that end, the 1986 policy sets forth the basic elements of effective environmental auditing programs.

As memorialized in the 1995 final self-policing policy, EPA's policy toward encouraging the use of compliance tools such as auditing and management systems

[8] Under the final self-policing policy, EPA may waive the entire penalty for violations which, in EPA's opinion, do not merit any penalty due to the insignificant amount of any economic benefit.

Some environmental statutes require EPA, in assessing penalties, to consider the economic benefit a violator gains from non-compliance. See, e.g., CWA 309(g), CAA 113(e), and SDWA 1423(c). EPA's longstanding policy has been to collect significant economic benefit gained from non-compliance. See A Framework for Statute-Specific Approaches to (Civil) Penalty Assessments, EPA General Enforcement Policy #GM-22, February 16, 1984; see also the approximately 24 EPA media and program-specific penalty and enforcement response policies. The reason for collecting economic benefit is to preserve a level playing field for entities that make the timely investment in compliance. Recovery of economic benefit can be likened to the IRS requirement of paying interest or fees on taxes paid late.

[9] Environmental Auditing Policy Statement, July 9, 1986 (51 FR 25004).

had evolved into providing penalty incentives and a safe harbor from criminal prosecution. It is important to recognize that this evolution is likely to continue as organizations develop more effective tools to manage the environmental aspects and impacts of their activities, services and products. Environmental management system (EMS) standards such as ISO 14001 and supporting standards hold promise as a means of improving environmental performance. EPA is exploring possible incentives for encouraging the use of such standards insofar as the incentives do not jeopardize protection of human health and the environment.

Policy Conditions

1. Entity Must Discover the Violation through an Environmental Audit or Due Diligence System to Obtain Full Gravity Penalty Mitigation and Criminal Safe Harbor

The final self-policing policy provides full mitigation of gravity-based civil penalties and a criminal safe harbor for entities that discover violations through an environmental audit or system reflecting due diligence, provided the other policy conditions are met. Note that entities that do not discover the violations through an audit or due diligence, i.e., ''random discovery,'' would still obtain 75% gravity mitigation as long as the other conditions are met.

The final policy defines an ''environmental audit'' the same as it is defined in the 1986 auditing policy: ''a systematic, documented, periodic and objective review by regulated entities of facility operations and practices related to meeting environmental requirements.'' Note that this definition covers several types of environmental audits including risk audits and EMS audits as well as compliance audits.

With respect the due diligence systems, the final self-policing policy provides relief to entities that discover violations through an ''objective, documented systematic procedure or practice reflecting the regulated entity's due diligence in preventing, detecting, and correcting violations,'' provided the other conditions are met. ''Due diligence'' is defined as systematic efforts meeting criteria based on the 1991 U.S.

Sentencing Commission Sentencing Guidelines.[10] The Sentencing Guidelines have had an enormous impact in encouraging the development and implementation of due diligence systems in the U.S.

The ''due diligence'' criteria in the self-policing policy include the following:

- the development of compliance policies, standards and procedures to meet regulatory requirements;
- allocation of responsibility to oversee conformance with these policies, standards and procedures;
- mechanisms including monitoring and auditing of compliance and the establishment of a compliance management system (CMS) to assure the policies, standards and procedures are being carried out;
- training to communicate the standards and procedures;
- employee incentives to perform in accordance with the compliance policies, standards and procedures; and
- procedures for the prompt and appropriate correction of violations including program modifications needed to prevent future violations.

The inclusion of ''due diligence'' systems in the final policy represents a very positive and significant revision to the interim auditing policy. Stakeholder written and oral comments indicated that ongoing, comprehensive, and systematic efforts to prevent, detect, and correction violations should be rewarded at least as much as environmental auditing. The difference between a compliance audit and a CMS can be likened to the difference between a ''snapshot'' and a ''video.''

It is also very significant that EPA may require as a condition for penalty mitigation that a description of the entity's due diligence system be made publicly available. This may entail submission of the system to a national electronic docket. This type of public disclosure has the potential to push the state-of-the-art in management systems development and encourage benchmarking. The public availability of systems

[10] United States Sentencing Commission Guidelines Manual, Chapter 8 - Sentencing of Organizations, Part A - General Application Principles (effective November 1, 1991).

descriptions can also provide valuable information for insurers, financial markets, investors and lenders -- providing the basis for "quasi" market-based incentives.

2. Policy Applies to All Violations Except Those Discovered Through Mandated Monitoring or Sampling Requirements, (e.g., CEM, DMRs)

In order to provide maximum opportunity to encourage compliance, and to do so without sacrificing the integrity of critical reporting systems, the policy provides relief on all violations except those discovered through mandated monitoring or sampling requirements, provided the other policy conditions are met. Examples of violations not covered by the policy include emissions violations detected through continuous emissions monitor, violations of NPDES discharge permits detected through required monitoring or sampling, or violations discovered through a compliance audit required to be performed by the terms of a consent order or settlement agreement.

3. Entity Promptly Discloses the Violation in Writing to EPA

Under the policy, the entity must fully disclose in writing to EPA that a violation has occurred or may have occurred, within 10 days after discovery. The inclusion of the ``may have occurred'' language recognizes that in situations where the entity is unsure whether a violation had occurred it is best for the entity to disclose the potential violation to EPA for a definitive determination. EPA may accept disclosures more than 10 days after discovery if more time is needed to make a compliance determination of a complex violation and circumstances do not present a serious threat.

4. Entity Must Disclose the Violation Prior to Imminent Discovery by the Government

The entity must identify and disclose the violation before the regulatory agency has discovered or will discover the violation. Thus, the entity must disclose the violation prior to: commencement of a government inspection or investigation, issuance of an information request, notice of citizen suit, filing of a third-party compliant, or reporting by a ``whistle-blower."

5. Entity Must Expeditiously Correct the Violation and Remedy Harm

The entity must correct the violation expeditiously and within 60 days, certify correction, and take appropriate measures to remedy any harm caused by the violation. If more than 60 days is needed to correct the violation, the entity must notify EPA before the 60-day period has passed. Where appropriate, EPA may require a written agreement, order or decree to satisfy requirements for correction, remediation or prevention measures especially where such measures are complex or lengthy.

6. Entity Must Agree to Take Steps to Prevent Recurrence of the Violation

The entity's efforts to prevent recurrence of the violation may involve modifying its environmental auditing program or compliance management system.

7. The Violation Had Not Occurred at the Same Facility Within the Past Three Years and Was Not Part of a Pattern of Violations at the Parent Company Within the Past Five Years

The policy does not apply to repeat violators. EPA has established ``bright lines'' to determine when repeat violators should not be eligible for relief under the policy. Under the policy, the same or closely-related violation had not occurred at the same facility within the past three years or is not part of a pattern of violations at the facility's parent organization within the past five years. This policy exclusion provides entities with continuing incentives to prevent violations and avoids the unfairness of granting policy relief repeatedly for the same or similar violation.

8. The Violation Is Not One Which Resulted in Serious Actual Harm or May Have Presented an Imminent and Substantial Endangerment, or Does Not Violate the Specific Terms of an Order or Agreement

The policy does not apply to violations which resulted in serious actual harm or may have presented an imminent and substantial endangerment to human health or the environment. Coverage of the policy to such violations would undermine deterrence and reward entities for delinquent management of its environmental activities. The policy also does not apply to violations of the specific terms of any

administrative or judicial order or consent or plea agreement. This is necessary to preserve incentives to comply with the orders or agreements.

9. The Entity Must Cooperate with EPA

At a minimum, the entity must provide information that is necessary and requested by EPA to investigate the violation and any non-compliance problems and environmental consequences related to the violation.

3.5 EPA/DOJ POLICY LETTER ON STATE AUDIT PRIVILEGE LAWS AND POLICIES

EPA will work with states to encourage adoption of policies that reflect the incentives and conditions outlined in the 1995 audit policy described above. In an effort to address some of the perceived concerns regarding government and third party use of audit information, some in the regulated community have turned to state and federal legislation. Since October 1993, twenty states have enacted legislation to create audit privileges and/or penalty amnesty provisions.

As the 1995 audit policy indicates, EPA opposes environmental audit privileges that provide a cloak of secrecy over evidence of environmental violations and that contradict the public's right to know. EPA also opposes blanket immunities or amnesty for violations that reflect criminal conduct, present serious threats or actual harm to health or the environment, allow noncomplying entities to gain an economic advantage over their competitors, or reflect a repeated failure to comply with federal law. Both EPA and DOJ have testified before Congress opposing proposed federal audit privilege legislation and existing state audit privilege and immunity laws. Vice President Gore has also written to Congress opposing the pending House and Senate audit privilege bills. In February, 1997, EPA and DOJ issued a joint policy letter to the General Counsels of Federal departments and agencies stating the administration's position and clarifying that Federal facilities in Executive Branch agencies and contractor operators should not claim that information acquired through self audits is privileged under any state audit privilege laws. In addition, this policy letter points out that no privilege exists between and among EPA and other agencies. The policy letter

encourages Federal facilities to utilize the 1995 EPA audit policy and similar state laws and policies. This policy letter is contained in Appendix F.

In the 1995 policy, EPA restates its pledge to work with states to address any provisions of state audit privilege or penalty immunity laws that are inconsistent with the policy and which may prevent a timely and appropriate response to significant environmental violations. Six states have passed privilege/immunity statutes since the Agency issued its final audit policy in December 1995.

3.6 EPA POLICY REGARDING THE USE OF AUDITING IN LEGAL SETTLEMENTS

Although not explicitly addressed in the final audit policy, EPA will not forgo inspections, reduce enforcement responses, or offer other such incentives in exchange for the implementation of an environmental auditing program.[11] EPA will, however, take into account a facility's efforts at self-auditing for environmental management and compliance in setting inspection priorities and crafting enforcement responses to violations. Specifically, it is the EPA's stated policy to take into account, on a case-by-case basis, the honest and genuine efforts of regulated entities to avoid and promptly correct violations and underlying environmental problems.

Similarly, although not explicitly addressed in the final policy, EPA should not limit its non-penalty enforcement authorities as a provision of settlement. While EPA may consider such a facility to be a lower inspection priority than a facility that is not known to be auditing, whether and when to conduct an inspection should remain a matter of Agency discretion. If the Agency's inspection or other enforcement authorities were limited, this could compromise the Agency's ability to respond to citizen complaints or site conditions posing a potentially serious threat to human health or the environment.

EPA's 1995 audit policy requires discovery of violations to be voluntary in order to obtain any penalty mitigation, and it defines such voluntariness so as to exclude situations where the violations are "discovered through a compliance audit required to be performed by the terms of a consent order or settlement agreement." 60 Fed. Reg. 66706, 66708 (Dec. 22, 1995). This

[11] As stated in the 1986 Policy, and reiterated in the 1994 Clarification on Policies Related to Environmental Auditing.

language, however, should not be read in isolation, because doing so would unduly preclude penalty mitigation under the policy and create a significant disincentive for future settling parties to bind themselves in settlement documents to doing compliance audits. In the same section of the final policy, two key goals are expressed: (1) to encourage the conduct of audits; and (2) to "reward those discoveries that the regulated entity can legitimately attribute to its own voluntary efforts." Id. at 66708.

Where a violator, without any legal obligation to do so, commits to conducting a compliance audit prior to any formal or informal enforcement response (e.g., complaint filing or other circumstance described in Section II.D.4 of this policy), such actions can be considered by EPA to be voluntary and EPA will not automatically disqualify them from obtaining penalty mitigation under the "voluntary discovery" requirement of the final policy, even though the violator later agreed to include such an auditing obligation as an enforceable settlement provision (e.g., in a consent decree or consent order). In such cases, EPA should describe the voluntary nature of the audit provisions that are not eligible for penalty mitigation under the policy. By allowing audit provisions in settlements to be considered voluntary in these limited circumstances, EPA is able to shape the content and timing of audits, ensure their performance through enforceable terms, and more effectively achieve the goals of the final policy.

CHAPTER 4: AUDITING FEDERAL FACILITIES IN FOREIGN COUNTRIES/OVERSEAS

4.1 OVERVIEW

The most important component in designing an environmental audit program for overseas federal Facilities is determining the standards against which compliance is to be evaluated. Such standards may include particular provisions of U.S. law, applicable multilateral or bilateral treaty provisions, regional or community requirements (*e.g.*, European Union), or host-country specific substantive provisions which typically include technical limitations on discharges, emissions, production processes, products, or specific management practices. Ultimately, overseas facilities must comply with the most stringent requirements; these standards, referred to by the Department of Defense (DoD) as ``Final Governing Standards'' or ``FSG,'' implement DoD Directive 6050.16 (DoD Policy for Establishing and Implementing Environmental Standards at Overseas Installations, September 1991) and DoD Directive 6050.7 (Environmental Effects of Major Department of Defense Actions, March 1979) and supplement Executive Order 12088 (October 13, 1978). For the purposes of this guide, the term "final governing standards" refers to the country-specific requirements with which a facility must comply. In cases where a host country has not enacted environmental regulations for a particular media, the applicable U.S. requirements are the final governing standards. Although the role of non-governmental organizations (NGOs) is not delineated in the FSG, such organizations can be valuable sources of information in conducting overseas audits.

4.2 ROLE OF FACILITY MANAGEMENT

Each DoD installation commander must establish an Environmental Protection Council (EPC) (or equivalent) that is responsible for establishing and implementing the installation auditing program. Agency senior management and facility management personnel are ultimately responsible for the environmental compliance of their facility. However, if compliance with the applicable FSG would seriously impair a facility's operations, adversely affect relations with the host country or require immediate,

substantial expenditure of funds not available for such purposes, facility management may request a waiver or authorization to deviate from the particular standards or guidelines.

Administrative procedures at all levels of command should be designed to expedite implementation of the most current directives on environmental matters. Adequate management controls must be in place and in operation to ensure sound environmental performance and avoid potential liability. These controls may include:

- Drafting environmental policies and procedures to ensure compliance with the FSG;
- Following procedures for implementing federal agency overseas environmental policy;
- Developing and implementing employee training programs;
- Incorporating installation environmental compliance auditing into their inspection programs;
- Providing oversight of contractors, subcontractors, and suppliers operations;
- Including provisions requiring the contractor to comply with the FSG in contracts for services or construction, where performance takes place on the installation, and in contracts for the disposal of hazardous waste;
- Purchasing, operating, and maintaining environmental control equipment;
- Developing, budgeting and planning systems for environmental compliance;
- Implementing, monitoring, record keeping, and reporting systems;
- Establishing emergency response plans; and,
- Maintaining internal and external communications and control systems.

These controls must be tailored to fit within the framework of overseas environmental requirements specific to the facility. Thus, facility management must be cognizant of all final governing standards that pertain to that facility. Facility management also must be aware of a host country's national, regional, and local environmental laws and regulations which are not covered in the final governing standards. In cases where the final governing standards are

entirely based on the environmental requirements of the host country, facility management personnel should be familiar with the host country's institutional structure for the implementation and enforcement of environmental requirements. Some countries operate their environmental protection programs on the national level, while others delegate most environmental authority to regional and local offices. In federalist countries, different hierarchies of environmental offices may exist on both the Federal and state levels. An understanding of the environmental regulatory structure of the host nation is necessary for facility management to stay current on environmental regulations, to report situations such as spills and releases that migrate offsite, to request assistance when appropriate, and to be aware of sensitive local environmental concerns.

In some cases, overseas facilities are located in countries that are members of regional, integrated political organizations (such as the European Union). The environmental regulations and requirements of such supranational organizations always must be taken into account when developing an overseas compliance and audit program. Most supranational organizations have an entity solely responsible for environmental protection issues, and often develop environmental requirements that set minimum standards, or are themselves binding on member states. Member nations also may be obligated to adopt or respond to legislation adopted by supranational organizations, causing the member states to modify their environmental regulations. Personnel responsible for an overseas compliance and auditing program will benefit by keeping abreast of legal developments at both the supranational and national levels.

4.3 DESIGNING AN OVERSEAS ENVIRONMENTAL AUDIT PROGRAM

Determining and keeping abreast of the final governing standards for a particular country is a time consuming and labor intensive process. There is no single source of up-to-date information pertaining to overseas regulatory compliance. However, some Federal agencies are farther along in developing overseas environmental programs due to the large number of facilities located overseas. Most notable is DoD, which developed the *Overseas Environmental Baseline Guidance Documen*t (OEBGD) October 1992 and is in the process of developing final governing standards for all locations where U.S. military installations are located. The OEBGD is one example of how a Federal agency with extensive overseas operations determines the environmental compliance baseline for its facilities.

Ultimately, each federal agency is responsible for developing auditing and environmental criteria and standards for its own overseas operations. The OEBGD sets out interpretive guidance and criteria for environmental compliance at DoD installations outside the United States, and contains specific DoD environmental criteria that are used to develop the FSG to be implemented by overseas DoD installations. The actual auditing process is then developed by the responsible personnel for each facility. For DoD installations, the Environmental Protection Council (EPC) (or equivalent) is responsible for establishing and implementing the installation auditing program.

A variety of sources of information exist on procedures for conducting environmental audits. EPA's Environmental Auditing Policy Statement (51 FR 25004) defines elements of an effective environmental auditing program. EPA's Federal Facility Enforcement Offices (FFEO) is co-chairing an inter-agency workgroup to revise auditing guidelines and protocols for federal agencies. Several departments within DoD, including the Department of the Army and the Department of the Air Force, have written procedures for conducting audits. The International Standards Organization (ISO) has developed environmental management standards (ISO 14000) that include auditing procedures. The National Sanitation Foundation in Ann Arbor, Michigan is working on auditing schemes that are intended to be compatible with and augment the ISO standards. In addition, EPA maintains an extensive and current bibliography of environmental auditing publications.

4.4 CONDUCTING AN OVERSEAS AUDIT PROGRAM

Conducting environmental audits of overseas facilities raises a host of logistical and budgetary issues that do not typically pertain to domestic environmental audit programs. Early resolution of these issues will help to prevent problems and delays from occurring before and during the audit process. Some of the issues that should be addressed before the audit process are:

- **Who will conduct the audit?**

  Choices include domestic personnel to be sent overseas, personnel already stationed at the overseas facility, as well as outside consultants. The agency also should consider whether or not it is cost-effective to have personnel stationed permanently or temporarily at overseas locations to conduct audits in regions with a high concentration of agency facilities. Costs to consider include travel, lodging and per diem, communications, and if necessary, visas and temporary work permits. If foreign nationals are used, costs associated with payroll taxes, insurance, and benefits also must be considered. It is often cost-effective to contract with a consulting firm to conduct or assist in some aspects of overseas environmental audits. Many consulting firms have offices around the world, and thus have proximity to facilities as well as knowledge of the legal and institutional framework of the host country. This can be particularly useful in countries experiencing frequent and unexpected changes in legislation and institutional arrangements.

- **How are auditors trained?**

  Personnel conducting audits must be trained on the final governing standards of the nation(s) where they will be conducting the audits. Special training, such as health and safety, radiological health, and security, must also be considered for some facilities.

- **What are the applicable standards?**

  The most important component in designing an overseas environmental auditing program is determining the standards against which compliance is evaluated. The audit team will need to evaluate and determine the applicable criteria and standards and clearly define those criteria and standards in their audit report. In cases where a FSG or other baseline guidance document has not been adopted, facility management will need to determine the appropriate point of contact in the host country (e.g., officials in the host country's Ministry of Foreign Affairs, Ministry of Defense, and Ministry of Environment) to keep the audit team abreast of environmental requirements. In working with facility management, the audit team will need to examine the host country's laws (national, regional and local), applicable international agreements as well as the applicable base rights agreement and Status of Forces Agreement.

- **How will communications be handled?**

  The audit team will need to consult with facility management well in advance of the audit in making arrangements for handling communications during the audit. Computer-based forms of communication will often be the most reliable and easily implemented. However, the audit team may require special approval for the use of portable electronic equipment from facility management. Special documentation for the portable electronic equipment may also be needed for bringing the equipment into the host country.

- **What is the schedule for pre-audit preparations?**

  Preparations for overseas audits will be more complicated and time-consuming than for domestic audits. The audit team will need to be in contact with facility management as soon as possible after the audit team has been selected and a date set for the audit. By not allowing sufficient time for the obtaining of visas and immunizations, the audit team may be precluded from conducting the audit on schedule. A schedule for sending the necessary information to the overseas federal facility should be developed to ensure that facility management is well prepared for the audit team and that all required documentation has been obtained well in advance of the scheduled audit.

- **What languages, customs, or traditions may affect the audit team or process?**

  Facility management should take into account the host country's language, religious observances, and national or local holidays. The audit team should be briefed on local customs and common courtesies to avoid embarrassment or misunderstanding. Care also should be taken to avoid placing audit team members of a specific gender, or religious or ethnic group in uncomfortable or inhospitable surroundings. Advise team members of the possibility of such situations during the audit team planning process.

- **Will the audit program be subject to regional instability or conflict?**

  Prior to sending a team overseas to conduct audits, the agency should consult with facility management personnel stationed overseas to determine regional stability. This is not an issue with most Western countries, but may arise when conducting audits of facilities in non-western and third world nations. The Department of State issues advisories that contain information about potential "hot spots" for U.S. citizens.

4.5 SUMMARY OF KEY ELEMENTS

Facility management will encounter a range of issues in conducting audits of overseas facilities which are not generally applicable to domestic auditing programs. Some special factors to consider include:

- **Early and thorough preparation** is important to ensure an effective overseas compliance and audit program. Environmental management and control practices must be adapted to conform to applicable final governing standards. Such standards may differ for each facility, particularly in cases of facilities located in federated countries with environmental structures and requirements varying between the federal and state levels. Sufficient time must be allocated for not only identifying

the applicable final governing standards but also staying abreast of relevant legal developments.

- **Budgetary constraints and logistical issues** must be considered to determine the ideal means for developing an understanding of the host country's legal, institutional, and regulatory structure, as well as any supranational environmental organizations and requirements. International consulting firms may provide the in-depth knowledge necessary for conducting overseas audits and may prove useful in conducting the actual audit as well.

- **Logistical issues should be resolved** well in advance of commencing the audit. Failure to take into account such matters as the host nation's political stability, work permit and visa requirements, and local customs can delay and unnecessarily complicate an overseas audit program.

4.6 SOURCES OF INFORMATION

There are a wide array of documents, governmental, private, and non-governmental organizations (NGOs) which can assist or provide useful information on a host country's environmental management and protection requirements. Some of these sources are described below.

Organization for Economic Cooperation and Development (OECD): An organization comprising approximately 30 countries, the OECD has an Environment Committee which adopts both binding "Decisions of the Council" and non-binding "Recommendations and Declarations." Both types of instruments serve as guidelines for the development of environmental laws and policies of member nations. Both the OECD's Headquarters office and the Environment Committee are located in Paris, France.

International Chamber of Commerce (ICC): The ICC, which represents a number of countries world-wide, has become more active in promoting voluntary environmental auditing. The ICC, headquartered in Paris, maintains information on the problems encountered by U.S. companies which have conducted audits of their overseas subsidiaries. The ICC published a Position Paper on Environmental Auditing, which was adopted by the ICC Executive Board on this 56th Session in November 1988. In 1991,

the ICC developed and presented *The Business Charter for Sustainable Development* to serve as a guideline for world wide corporate environmental management.

U.S. Agency for International Development (USAID): USAID is headquartered in Washington, D.C. and has local offices in almost every country in the world. USAID personnel typically are placed in-country on a long-term basis and have substantial contacts with host government officials. Often, host country nationals are employed by local USAID offices to handle day-to-day activities in specific sectors, including environmental protection matters.

U.S. Department of Defense: DoD has developed the *Overseas Environmental Baseline Guidance Documen*t (OEBGD) (October 1992) and is in the process of developing final governing standards for all locations where U.S. military installations are located. The OEBGD sets out interpretive guidance, procedures and criteria for environmental compliances at DoD installations outside the United States, and contains specific DoD environmental criteria which are used to develop the final governing standards to be implemented by overseas DoD installations.

United Nations (UN): With over 150 member nations, the UN is headquartered in New York City but is comprised of various organizations and institutions around the world. The United Nations Center on Transnational Corporations, also in New York City, examines corporate environmental practice and develops international codes of conduct. Headquartered in Nairobi, the United Nations Environment Programme develops international environmental policies and assists countries in the development of their environmental protection schemes. The UNEP's Industry and Environment Office, located in Paris, promotes sound environmental management practices. In 1990, UNEP joined the ICC and over 20 major U.S. corporations to form the Global Environmental Management Initiative (GEMI). GEMI develops guidelines for environmental management and sustainable development, promotes the exchange of information on environmental auditing techniques and concerns, and encourages public access to information.

U.S. Environmental Protection Agency, Federal Facility Enforcement Office (FFEO): Under the authority of EPA's Office of Enforcement and Compliance Assurance, FFEO manages the program for monitoring compliance by federal facilities with their environmental obligations. FFEO, located in Washington, D.C., also offers technical assistance and policy guidance on environmental compliance matters at federal facilities.

U.S. Diplomatic Missions: The U.S. embassy or consulate in the host nation can assist facility management and audit team members with logistical matters associated with the overseas audit. Local U.S. embassies and consulates maintain contacts with governmental officials of host countries, including national and local environmental authorities, and often have libraries containing information on a host country's legal requirements. Local embassies and consulates can also assist with the obtaining of temporary work permits, visas, and translation services.

International Standards Organization (ISO): Based in Geneva, the ISO formed the Technical 207 Committee to develop standards for a voluntary international environmental management system. The Committee has prepared two drafts; ISO 14001 covers certification and registration, while ISO 14000 provides practical advice on implementing or improving an Environmental Management System (EMS). ISO member organizations are in the process of voting on the drafts. Subcommittees are continuing to work on drafting standards for Environmental Auditing (14010-12), Environmental Performance Evaluation (14031), and Life Cycle Assessment (14040), among others.

CHAPTER 5: DESIGNING AN AGENDY-WIDE AUDIT PROGRAM

5.1 OVERVIEW

As previously discussed, the environmental audit is an important tool that agency managers can use in building and maintaining effective environmental management programs. However, in designing these programs, environmental program managers must ensure that scope and goals of the program reflect and complement the agency's overall mission and environmental priorities. A well-designed audit program will allow program managers to use audit findings as a means of evaluating progress toward agency environmental program goals.

In contrast to the 1980s, when auditing was narrowly defined as a check-list based approach for evaluating compliance, auditing now includes the review of environmental management programs as a whole. As this section describes in greater detail, the audit program can serve both to identify barriers to meeting environmental goals as well as solutions for resolving problems. In addition, through the incorporation of environmental management strategies, the emphasis in environmental auditing has shifted away from a reactive approach in favor of a preventive approach to environmental problem-solving.

5.2 FACTORS AFFECTING PROGRAM DESIGN

Proper design of an environmental audit program requires careful consideration of desired program goals and objectives, as well as development of a strategy for conducting pre-audit on-site and follow-up activities. A well-designed environmental audit program should meet the needs of the facility or agency environmental management program. Thus, the specified goals and objectives of these programs should be complementary.

Design factors that should be considered when developing an environmental audit program include:

- Scope of audits;
- Frequency of audits;
- Level of effort required;
- Type(s) of audits; and
- Relationships with other inspection agencies.

Considerations that influence these audit design factors are similar to those affecting the overall environmental program. These considerations fall into five general categories: (1) resources available for carrying out the program; (2) the nature of the agency's facility operations and associated environmental issues; (3) the scope of the environmental management program; (4) agency support for environmental programs; and (5) perception of agency environmental commitment. Each of these factors is described in greater detail below.

- **Available resources** - The audit program is subject to the same financial constraints that apply to all government programs. Resources needed to effectively operate an audit program include labor, equipment, and supplies -- with labor comprising the majority of the necessary resources. In considering costs, an agency must evaluate how much auditing it can afford, i.e., whether it can afford both compliance audits and management audits. In addition, agencies must consider if it is necessary to plan their audit activities to coincide with federal budget cycles.

- **Nature of agency operations and environmental issues** - The design of the audit program depends to a great extent on the types of operations carried out by an agency's facilities and their associated environmental issues. Agencies comprised of facilities with primarily administrative functions should require fewer and more limited audits than agencies with industrial operations utilizing a large quantity of hazardous materials. To the greatest extent possible, site-specific factors such as facility location and local environmental issues also should be taken into consideration.

- **Scope of the environmental management program** - The purpose of the audit program is to measure success in achieving the environmental management program's goals, thus program managers should design the audit program to review all aspects of the program, including management systems, standard operating procedures, organizational structure, and compliance with specific environmental requirements. Depending on the nature of the agency's operations, certain

requirements may not apply. As such, the nature and scope of the agency's mission and operations both have a direct influence on the audit program.

- **Agency support** - The level of agency environmental awareness, as well as it's compliance history are factors that affect the frequency of audits. Agencies that have invested in awareness training programs may find that they can conduct audits less frequently because facility personnel have a positive attitude toward environmental protection and that Senior management and other stakeholders will play a leadership role in developing the audit program.

- **Perception of agency environmental commitment** - How an agency views itself and how it is viewed by others with respect to environmental issues is an important aspect affecting audit program design. Whether senior executives are reactionary, compliance oriented, or visionary is a significant element in designing an audit program. While an agency may have a mission that is reactionary by nature, i.e. responding to an environmental disaster, a more visionary posture when dealing with inter-agency environmental issues will affect the overall audit program. Likewise, how others view the agency, stakeholder expectations, is also important in audit program design. It is important to identify who the stakeholders are, i.e. the general public, other agencies, etc., and to adequately consider their expectations with respect to audit program design. This can be especially important with respect to such activities as cleaning up contaminated sites that will be turned over to the public.

5.3 IDENTIFYING AUDIT PROGRAM GOALS

At the outset, environmental audit program managers should clearly establish long-term goals for the audit program. As discussed above, audit program goals should be a complementary sub-set of an agency's goals for achieving a sound environmental management system. Environmental management goals will vary from agency to agency and must be examined within the context of each agency's mission and activities, but may include:

In conformance with Executive Order 12856 (*Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements''),* EPA has developed and issued a Code of Environmental Management Principles (CEMP) for federal agencies. On September 3, 1996, EPA transmitted the CEMP to federal agency executives requesting written commitment to the principles contained in the CEMP.

The CEMP consists of five broad management principles that have been developed to address all areas of environmental responsibility of federal agencies. These five principles include:

1. **Management Commitment:** The agency makes a written top-management commitment to improved environmental performance by establishing policies which emphasize pollution prevention and the need to ensure compliance with environmental requirements.

2. **Compliance Assurance and Pollution Prevention:** The agency implements proactive programs that aggressively identify and address potential compliance problem areas and utilize pollution prevention approaches to correct deficiencies and improve environmental performance.

3. **Enabling Systems:** The agency develops and implements the necessary measures to enable personnel to perform their functions consistent with regulatory requirements, agency environmental policies and its overall mission.

4. **Performance and Accountability:** The agency develops measures to address employee environmental performance, and accountability of environmental functions.

5. **Measurement and Improvement:** The agency develops and implements a program to assess progress toward meeting its environmental goals and uses the results to improve environmental performance.

A copy of the CEMP Principles is presented in Appendix G of this document.

Complementary long-term environmental audit program goals should include:

- Development and implementation of a cost-effective audit program;
- Integration of environmental management systems (e.g., pollution prevention) into audit protocols and facility operations to help an agency to prevent compliance problems by reducing wastestreams and environmental releases to the greatest extent possible;
- Conducting environmental audits to identify environmental problems and develop solutions to enhance agency compliance and overall environmental management.

Establishing an audit program that effectively fulfills its stated goals requires that some groundwork be laid. Laying this groundwork may be one aspect of an overall implementation strategy designed for the audit program. The strategy may specify activities for modifying current environmental policies to incorporate the audit program, securing adequate resources and funding, and assigning responsibilities for carrying out the program. Agencies also should examine internal management practices and organizational structures to determine if changes are warranted. Agencies that currently lack environmental audit programs may consider adopting a "phased-in" approach to program implementation by gradually increasing the scope and/or number of audits conducted over time.

5.4 IDENTIFYING AUDIT PROGRAM OBJECTIVES

Having established goals for the environmental audit program, environmental program managers should continue to develop an implementation strategy by determining short and long-term program objectives. As in the case of the audit program goals, objectives will vary from agency to agency.

The primary short-term objective of the audit program should be to bring the agency into full compliance with existing environmental requirements. Standard audit protocols can be used to determine compliance with each applicable regulation (e.g., RCRA, Clean Air Act, etc.). Using these checklists, audit team members can conduct interviews with shop personnel and record their observations. Compliance audits conducted in conjunction with the assistance of facility staff provide an excellent opportunity to informally train personnel in correct procedures and to raise awareness regarding environmental compliance issues.

Other short term program objectives should be to identify projects for funding under the requirements of E.O. 12088 or agency funds earmarked for environmental compliance projects and to collect or verify environmental information that may be needed for other aspects of the environmental management program (such as hazardous waste generation rates or hazardous materials consumption), or other internal metrics.

Long-term audit program objectives should broaden the program focus from strict compliance with current requirements to include eliminating underlying (root cause) environmental problems and conducting more detailed evaluations of environmental problems and management systems. Standard compliance audits alone cannot meet these long-term objectives. Instead, program managers must use audits tailored to these purposes. Examples of long-term auditing objectives are described below.

- **Eliminate underlying environmental problems** - Auditing can be used to identify the root causes of environmental problems and allow program managers to take steps to eliminate them rather than continuing to rely on temporary stop-gap or control measures. For example, recurrent spills in maintenance shops may be temporarily addressed by using larger quantities of absorbent products. Alternatively, a long-term solution to the problem would be to purchase better fluid handling equipment and improve worker training and supervision.

- **Identify systemic environmental problems** - Agency environmental managers can use audit results to identify systemic environmental problems that must be resolved in cooperation with individual facilities. Strategic planning may be needed to address these systemic environmental problems.

- **Forecast future compliance** - Audits provide an understanding of the current state of agency compliance, but also can be used to determine what activities are necessary to remain in compliance with upcoming or anticipated future regulations.

- **Evaluate effectiveness of internal environmental management program** - This review may identify issues such as insufficient resources, lack of vision, or poor training that may compromise future compliance.

5.5 SELECTING THE TYPE AND SCOPE OF AN ENVIRONMENTAL AUDIT

Over the past decade, the field of environmental auditing has become increasingly specialized. Audits are no longer limited to determining compliance with current requirements. Instead, audits can be used to identify and resolve underlying causes of compliance issues, particularly recurring problems. Federal agencies have a variety of auditing tools at their disposal to evaluate current compliance status, future risk of non-compliance, and opportunities for minimizing the potential for non-compliance.

One such tool is EPA's Generic Audit Protocol. The Protocol is an environmental auditing guide and an environmental management tool specifically developed to assist federal

agencies in assessing or benchmarking their environmental performance. It is also intended to be a resource for identifying and correcting deficiencies and to evaluate and manage environmental risk including the risk of non-compliance with statutes, government regulations, and federal executive orders. This Protocol is especially helpful in providing guidance on how agencies may identify the "root cause" of environmental deficiencies such that these problems will not recur. The Protocol provides federal facilities and agencies with a comprehensive explication of the environmental auditing basics such as compliance audits, as well as auditing of specific environmental management systems, and overall audits of environmental programs.

When designing an audit program, agency environmental management staff should first determine goals and objectives and then select the types of audits to be conducted to best meet the audit program goals. This section provides a discussion of five types of commonly conducted environmental audits: compliance, property transfer assessments, management audits, waste contractor/vendor audits and pollution prevention opportunity assessments. These audits can be used in combination at a facility if appropriate.

5.5.1 Compliance Audits

Agencies use compliance audits to evaluate facilities' compliance status vis-a-vis current environmental requirements. Compliance audits may be performed using in-house staff or a third party, such as a contractor. Typically, the scope of compliance audits is limited to identifying areas of non-compliance and does not include environmental management as a long-term approach for coming into compliance. The remainder of this guide focuses on this type of environmental audit.

5.5.2 Property Transfer Assessments

These types of audits are used by agencies to identify any undisclosed environmental problems associated with a piece of property prior to purchase. The scope of property transfer assessments often is much broader and focuses more on business risks and liabilities as opposed to regulatory compliance. Assessors typically spend more time reviewing records and conducting on-site monitoring than they would during a compliance audit. Examples of the

kinds of environmental issues examined during a property transfer assessment include: asbestos, soil or groundwater contamination, underground storage tanks, PCBs, lead-based paint, urea, formaldehyde, radon, and contaminated drinking water. The level of detail and scope of the assessment will depend greatly on the site history. Sites that were formerly occupied by military or industrial facilities or located near abandoned waste disposal sites will require more extensive site characterization work than sites that are relatively undeveloped.

The conduct of property transfer audits in the context of federal facilities may also raise issues similar to those typically encountered in the corporate sphere of merger/acquisition efforts. This type of property transfer assessment is a "total risk profile" that is focused on the legal and financial risks that can arise in the sale or purchase of properties with the potential for significant environmental liability. For example, military base closure activities may result in the transfer of property to either public or private entities. The entity acquiring the site is likely to insist on a thorough site characterization before accepting title to any portion of a facility that could have an environmental risk potential. Many former military facilities had site activities such as operation of process and production lines that implicate major environmental statutes such as RCRA or CERCLA. If these facilities produced such items as printed circuit boards there could be significant issues surrounding the use of solvents and degreasers with the associated risks particular to those type of industrial activities. A few years back a major federal agency was found by a court to be a potential responsible party under CERCLA for site contamination that occurred almost fifty years in the past. The property in question was a private industrial site at which that agency had exercised management oversight for purposes of war production activities. The present day moral is that an agency that doesn't know what its role was in site environmental issues may face serious future liabilities.

Therefore, it is important for a federal agency or facility to be thoroughly familiar with site activities including historical activities in order to not only characterize its possible contribution to site environmental issues, but to be able to identify situations for which it is not responsible. This is critical in both a divestiture situation as well as an acquisition situation.

5.5.3 Management Audits

These audits are a distinct type of audit designed to evaluate an organization's ability to carry out it's environmental management program. Management audits can be conducted in many ways and utilize either in-house staff or a third-party. Management audits typically involve the review of: organizational structure; staffing levels and resources; roles and responsibilities; standard operating procedures; ability to fulfill the organization's assigned mission; and staff training and expertise. EPA's Generic Audit Protocol describes environmental management audits, referred to as Phase 2 and Phase 3 audits, as audits that target specific management issues and assist facilities in identifying the root causes of environmental deficiencies. Most importantly, because these types of audits focus on the root cause of deficiencies, they help the facility and agency in implementing permanent corrective action measures. The Generic Protocol provides guidance on how to evaluate such programs.

5.5.4 Waste Contractor/Vendor Audits

Some Federal agencies require facilities to audit commercial treatment, storage, and disposal (TSD) facilities prior to issuing a waste management contract. The purpose of this type of audit is to minimize the long-term risk and liability associated with off-site hazardous waste treatment and disposal. Superfund allows EPA, under certain conditions, to impose severe, retroactive, joint and several liability upon any party responsible for the release of hazardous substances into the environment, including environmental damage resulting from TSD operations. Federal agency personnel should be aware that "responsible parties" may include hazardous waste generators.

Federal agencies should seriously consider conducting waste contractor audits at both RCRA-regulated TSDs and non-RCRA facilities such as solid waste and oil recovery facilities. By thoroughly assessing the capabilities and operations of a TSD facility, generators often can reduce the number of facilities utilized for waste treatment and disposal, resulting in a more focused and cost-effective waste management program. In addition, these audits can be used to identify and eliminate the use of facilities that present unreasonable environmental risks that otherwise would not have been evident.

TSD facility audits can be conducted using in-house staff or independent environmental consultants. These audits focus on four primary areas: (1) assessing the risks associated with facility operations; (2) reviewing the financial strength of the TSD facility; (3) understanding current past and present compliance issues; and (4) assessing the facility's management. After completing the audit, the team should prepare a report that allows a comparison of the positive features of the facility and the existing or potential environmental, operational, and financial risks of the site.

5.5.5 Pollution Prevention Opportunity Assessments

Over the last five years, Federal agencies have begun to use pollution prevention opportunity assessments (PPOAs) as a tool for identifying and eliminating the underlying causes of compliance problems. By adopting a pollution prevention approach, agencies can reduce waste generation and environmental releases, and thus prevent compliance problems from occurring. Compliance problems may be resolved through a combination of best management practices, organizational or management changes, or technical modifications (e.g., material substitution or process modifications). PPOAs are broad in scope and combine aspects of both compliance audits and management audits. During the PPOA site visit, the assessment team may examine: facility operations; waste streams and environmental releases; management practices and systems; floor plans and facility lay-out; inventory control procedures; energy and water consumption; and materials usage.

As with other types of audits, PPOAs can be conducted either by in-house staff or independent environmental consultants. However, unlike other audits, conducting PPOAs requires staff with specialized skills and expertise. Assessment team member should have received training in how to conduct PPOAs and should be aware of the resources and technical assistance available for identifying and evaluating pollution prevention options. The assessment team should produce a report which contains a ranked list of pollution prevention options, including cost benefit analysis and an evaluation of the technical feasibility of each opportunity identified.

5.6 TARGETING FACILITIES

In most cases, agencies must set priorities for conducting audits at their facilities due to manpower and resource limitations. Depending on the nature of facility operations, some facilities will require more frequent and more extensive auditing than others. The following factors are frequently used in prioritizing facilities:

- **Size of the facility** - The physical area (both improved and unimproved areas), production levels, waste generation, and/or the number of employees.

- **Risk** - The likelihood of harm to human health or the environment caused by facility operations. Facility risk may include factors such as the type and quantity of toxic chemicals used, the type of products manufactured or processed, the age of the facility and history of accidents, the danger associated with the operations conducted at the facility, and the proximity and density of human population.

- **Environmental factors** - Certain site characteristics may make a location more susceptible to wide-spread environmental damage. Examples include aquifer recharge areas, porous soils, subsurface geology and hydrology, steep grades, prevailing wind direction, and close proximity to bodies of water. In addition, agency environmental staff should consider the presence of endangered or protected species in the area of the facility.

- **Record of compliance** - Facilities with poor compliance records may require more frequent auditing than those with good records (e.g., facilities operating under consent decrees, settlement agreements, etc.). Poor compliance may result from high worker turn-over rates, inadequate training, or a lack of attention to environmental issues on the part of upper management. In this case, environmental management audits may be helpful in demonstrating root causes to non-compliance.

Agency environmental staff should begin to set auditing priorities by compiling information on these factors for each facility. If the agency has many facilities, staff may need to develop a matrix for ranking each facility based on the factors. By ranking the facilities, agency staff can prepare a prioritized list of facilities for auditing and a long-range auditing schedule.

CHAPTER 6: PROGRAM ADMINISTRATION

6.1 OVERVIEW

This chapter discusses the process of initiating and administering an environmental audit program based on the framework and procedures outlined in Chapter 5 of this guidance document. The success of an agency environmental audit program hinges on building a strong program foundation, including launching the program in a positive manner and carefully planning a strategy for each phase of the audit program.

6.2 PROGRAM INITIATION (GENESIS OF THE PROGRAM)

Program initiation activities take as a starting point the work done in establishing the audit program long and short-term goals and objectives. A number of initial steps must be completed prior to formally launching the audit program. These steps should be carried out by the environmental staff under the direction of senior management.

6.2.1 Develop An Environmental Audit Policy

The genesis of an agency environmental audit program often is the development of an audit policy or mission statement. This policy will set help to lay a solid foundation for future agency audit activities, establish the program's purpose and function, and educate and gain the support of agency facilities and employees. An agency audit policy should include:

- A detailed description of the scope, goals, and objectives of the program;
- A management statement that the program is intended to help facility managers improve compliance and reduce the potential for liabilities and is specifically not for the purpose of “checking on” facility managers;
- A discussion of how the audit program will be managed and administered; and
- A signature of an appropriate agency official, with a senior agency official named as head of the program.

In addition to the agency audit policy, environmental managers also should develop a strategy for program implementation. Some of the issues that should be addressed include:

- Securing resources for funding the program;
- Assigning roles and responsibilities for implementation of the program;
- Supporting the audit policy through agency actions; and
- Determining the best way to communicate the goals, objectives, and results of the audit program to interested parties within and outside the agency.

6.2.2 Internal Versus External Audits

Agency environmental staff should determine whether facility audits will be conducted using in-house or external staff early in the planning process. It may be possible to rely on facility staff to conduct audits at larger facilities, while audits at smaller facilities may require the involvement of agency headquarters staff. This decision is important with respect to program success because of the budgetary and internal management issues raised. However, if agency staff are used they should not report directly to line management as this presents the potential to jeopardize the audit's objectivity and ultimately its credibility. Another key issue is the objectivity of audits conducted by facility staff. This is especially important when using in-house staff and in such cases caution should be used to assure the objectivity of the audit. Additionally, agencies may consider the possibility of using outside agency personnel. If budget and personnel constraints permit, it may be desirable to use these personnel to conduct audits at other facilities and simultaneously train agency staff to allow them to conduct their own audits in the future. Finally, agencies should be aware that there is considerable expertise within the Federal government with respect to auditing. Therefore a federal agency may want to involve personnel from other federal agencies to conduct peer reviews of third-party audits to provide credibility and objectivity to the audit. Involving other agency personnel may also provide opportunities to benchmark other audit programs and make improvements to the agency's overall programmatic approach.

6.2.3 Use Of Contractors Versus Agency Staff

Agency managers also should consider the option of using contractor support for conducting environmental audits. Advantages to using contractors for conducting audits include; audit objectivity, auditor qualifications, staffing issues, audit quality assurance, and such issues as medical monitoring for audit personnel. Contractors also may be used as a short-term alternative while agency staff are being trained on audit procedures and protocols.

6.3 PROGRAM MANAGEMENT ISSUES AND ACTIVITIES

Program managers will have to make decisions regarding a wide range of issues as part of the administration of the audit program. Building a program centers around the completion of eight basic activities that are closely related to the activities discussed in the preceding section on program initiation. These include: (1) securing upper management support and resources; (2) securing support from agency field offices; (3) obtaining qualified personnel; (4) conducting medical monitoring of audit personnel; (5) conducting quality assurance and measuring audit program performance including ensuring consistency and objectivity of audit findings; (6) delineating and following audit reporting responsibilities; (7) conducting post-audit activities and implementing corrective measures; and (8) Integrating audit findings into the agency budget process..

6.3.1 Securing Upper Management Support and Resources

Success of an audit program requires a commitment from agency management to support the development, performance, and follow-up of audit findings and recommendations. Senior agency officials' commitment to the program helps to ensure the availability of resources and manpower and a willingness to follow-up on corrective measures in a timely manner. Upper management commitment can be expressed by signing the environmental audit policy, holding briefings with organizational directors and other stakeholders, and publishing articles in Agency newsletters. Management support should include commitments to the following areas of support:

- **Adequate resources and staffing:** This includes such issues as a training of audit staff in environmental technical and regulatory matters and proper interview techniques. It also includes providing equipment and facilities (monitoring and safety equipment, appropriate questionnaires and checklists, and if appropriate office space) so that audits are properly conducted. This aspect of a successful audit program is foundational. Upper management support is irrelevant without properly trained and equipped audit staff.

- **Budget for program development and performance:** This includes setting aside sufficient staff man-hours to plan and develop audit program objectives and overall goals. It is beyond training and staffing issue and is focused on the planning process such that audit program objectives are anticipated and provided for in future years. This might include a commitment to bring more costly audit program activities (but no corrective actions) on-line in a phased approach or expanding beyond compliance audits to management audits. This element is necessary in order for the audit program to develop and thrive over time and is evidence of management's commitment to an audit process rather than a one-shot audit effort.

- **Follow-up with corrective action measures in both a budgetary and programmatic fashion:** This involves the commitment to fund and support the actions necessary to correct deficiencies identified by having committed to the two prior activities. This includes a commitment to systematic permanent or long-term corrective action measures as appropriate. Without a commitment to correct the deficiencies uncovered by the audit findings, the audit program becomes an added liability to the agency as opposed to reducing its overall risk profile.

6.3.2 Support From Field Offices

In addition to the support of agency headquarters management, the success of an environmental audit program requires commitment from the agency's field offices. This support is particularly important because the performance of audit activities generally occurs at the field level office level. This requires the cooperation of facility managers in furthering program objectives and diligence in addressing corrective action recommendations. Because agency senior management at headquarters is frequently far removed from the field office activities, and is more concerned with broader agency issues, it is essential that the field office management take a proactive role in advancing the agency's environmental auditing objectives. One method for ensuring facility level commitment to the agency's program is to appoint one or more individuals to the task of coordinating and tracking field office support for the audit program and then having those individuals report directly to upper management.

6.3.3 Obtaining Qualified Personnel

To a great extent, the quality of the audit program depends on the competency of the auditors conducting the audit. If auditors and audit team members are not proficient in their duties, the audit being conducted will likely be flawed and reflect on the organizations overall environmental management system. Agency management and, in some cases, facility management and their staff will be looking to the audit team for guidance in improving their compliance posture, environmental management systems and overall risk profile. Therefore, it is imperative that the audit team be able to demonstrate having both appropriate knowledge of the issues included in the scope of the audit, and sufficient training and proficiency prior to participating in environmental audits.

The qualifications of the staff assigned to conduct the audit should be commensurate with the objectives, scope and complexities of that particular audit assignment. Although audits will vary in scope, as previously mentioned, they all will require some degree of professional assessment of on-site conditions, and risks related to apparent problems such as areas of non-compliance, and weaknesses in management systems. Auditors must also be able to verify and document observations and findings and use professional judgement to form recommendations for correcting any observed deficiencies. These often include areas outside the scope of compliance requirements and extend to environmental management issues at the facility. Key areas of technical experience and training for environmental auditors should include at a minimum:

- technical training and experience appropriate to the scope of the audit, including an understanding of basic audit concepts, practices and procedures;
- knowledge of environmental regulations, the lines of inquiry and performance objectives contained in the audit protocol, and general standards called for in the scope of the audit;
- general familiarity with the type of process operations to be audited at the site and with the environmental issues likely to be associated with the various processes and related management issues.

Above all, the auditor must be flexible and know when and how to apply certain auditing approaches and theories in different situations. During the course of an environmental audit, auditors may encounter situations that are outside their experience or preparation for the audit. In such circumstances it is important for the auditor to adapt to varied and unfamiliar situations and not be limited to a particular approach.

The auditor also should receive training in agency administrative procedures (e.g., procedures for reporting findings) to ensure that audits will be as consistent as possible from year to year. Along with audit protocols, program managers should develop quality assurance procedures to review each audit and determine whether audit protocols were followed.

The audit team should include individuals whose skills and expertise are complementary. For example, one team member may specialize in air regulations while another specializes in wastewater issues. The optimal skill mix of team members will depend on the type of audit conducted and the Facility being audited. If the audit program involves the conduct of multiple audits, program managers may plan on obtaining resources for preparing and fielding more than one audit team.

In addition to assuring that qualified personnel are involved in the audit, the roles and responsibilities of the audit team leader and audit staff should be clearly identified. The team leader is responsible for the actions of the audit staff and is responsible for any audit staff debriefings and exit interviews, as well as the overall conduct of the audit, and should take the lead in resolving any concerns or issues that might arise between the audit staff and the facility. In addition, the team leader is the contact point for any questions the facility personnel may have regarding the scope and purpose of the audit. The team leader should be qualified to manage a group of auditors and have sufficient experience to address any questions that might arise during the course of the audit. Finally, the team leader is responsible for communication with the facility regarding the report contents as well as the final report. Audit staff are to follow the specific tasks assigned to them prior to the beginning of the audit. Also, they should look to the team leader if they have questions about appropriate activities while on site.

6.3.4 Medical Monitoring

If in-house staff will conduct most of the audits, program managers should secure resources for medical monitoring of team personnel. Medical monitoring is particularly important if team members conduct several audits a year at facilities where occupational exposure is an issue. Medical monitoring of audit staff has as its primary objective the protection of the auditors. Evidence of exposure of audit team members to hazardous substances is an indication of deficiencies in the auditor safety training program and should receive the highest corrective action priority from management. This is especially important because of the potential for liability due to worker exposure.

6.3.5 Quality Assurance and Audit Program Performance Measurement

It is important to adequately document and analyze audit findings and observations to a high degree of quality and competence. This is necessary so that facility management, staff, and/or subsequent environmental auditors can refer to the audit report and can either concur, or if they disagree, understand the original findings and recommendations sufficiently. Therefore, once an environmental audit program is underway, there is a need to assess the consistency and objectivity of the audit findings. This can be accomplished by conducting a periodic (e.g., annual) review of the performance of the audit program. To accomplish these reviews, agency management should consider the use of third parties to evaluate audit program performance. This is a useful method for assessing program objectivity. Program performance review should include examination of past efforts as a tool for implementing future improvements and include assessments of:

- What has the program accomplished?
- Were the program goals and objectives met?
- What were the strengths and weaknesses of program protocols and results?
- What program corrections are needed to improve future audit efforts?

6.3.6 Reporting Responsibilities

Environmental managers should implement a strategy for communicating the results of the audit report to upper management and facility personnel. Upper management and facility personnel should be informed immediately if the team identified any situations that pose an imminent danger either to shop personnel or the environment. In addition to discussing the findings, program managers should prepare an explanation of recommended corrective actions and an estimate of manpower and financial resource needs. Something as simple as an organizational chart with an attached matrix of facilities and identification of corrective action measures by facility may be helpful in informing management of audit program status.

6.3.7 Post-Audit Activities and Corrective Measures

Environmental managers should streamline the process for resolving compliance problems and other issues identified during the audit. Corrective action may involve obtaining funding, preparing new standard operating procedures, site remediation, purchasing new equipment, training, and/or sampling and monitoring. Program managers should create a matrix for comparing and prioritizing corrective action projects. A system for tracking and monitoring corrective action projects may be needed for large facilities with numerous projects.

Corrective measures for compliance problems range from temporary “quick fixes” to long-term preventive action (i.e., pollution prevention). For example, recurring spills in a particular shop may be resolved in the short term by replacing leaking containers. In the long term, depending on the economic feasibility, the shop may invest in improved secondary containment, better bulk storage and materials transfer equipment, as well as worker training and environmental awareness.

6.3.8 Budget Coordination and FEDPLAN

Funding for projects (including environmental compliance and corrective action) typically is initiated at the installation or facility level, usually by the facility compliance officer or person in charge of environmental management. Projects requiring capital expenditures are usually considered line items in an agency's budget. Because of lag times in requesting and securing

funds, it is necessary for agency environmental management to ensure that facilities are audited and budget requests for corrective action measures are submitted in a timely manner. Therefore, scheduling of audits and development of budget needs in response to audit findings should take into consideration the priority of the problems identified in the audit and the budget year cycle. This is critical because a costly compliance problem identified after submittal of an agency's budget could lead to significant problems for the agency.

Once the budget needs have been identified, the agency must submit a report to OMB which describes the agency's plan for addressing environmental problems (refer to Chapter 2, Section 2.5). Agency management must develop a process for communicating the needs identified in the audit process into a report. Identification of compliance problems and development of budget needs based on audit findings will be moot if this is not translated into a request for funds to conduct needed corrective actions. As with the budget process, in scheduling facility audits, management should consider the timing of audits within the calendar year. this will allow sufficient time to address corrective action plans for serious deficiencies within the budget process.

6.4 LEGAL ISSUES

6.4.1 Written V. Oral Reports

The use of oral versus written reports is a consideration when dealing with the disclosure of sensitive materials and/or the discovery of unregulated risk. As discussed in Chapter 3, it is virtually impossible to guarantee that internal investigatory reports will remain confidential. Therefore, in matters concerning possible liability, the use of oral reports is of little value and should not be encouraged. If an agency becomes involved in litigation, the underlying facts and the response to any problems identified by an audit will be uncovered through the civil discovery process. Audit reports will, however, have protection from FOIA requests while they remain in draft or preliminary stage.

An additional problem with oral reports is that they do not exhibit the rigor and careful analysis of a well written report. Without notes, it is difficult to accurately recall and report specific facts discovered in an audit. Also, with oral reports, their immediacy may lead to an

inclination to report in an emotional and opinionated fashion regarding an issue that requires reasoned examination. Further, the oral report and any notes made to produce the oral report may be subject to discovery as previously discussed

In limited circumstances, agencies that deal with high security or matters of unusual sensitivity will be confronted with situations that argue against the written memorialization of an issue. Either the sensitive materials should be recorded in a separate notebook with limited distribution, or the less sensitive information should be written and sensitive material transmitted orally. This is a rare situation applicable to those agencies dealing with national security issues. The security related issues should be developed separately from the primary audit report and must be overseen in their entirety by agency legal counsel. The specifics of invoking national security protections is outside the scope of this document and is best undertaken by agency counsel. Also, there are legitimate procedures for protecting sensitive materials from disclosure and these procedures do not necessitate the use of oral reports.

6.4.2 Exit Interview

Oral reports are appropriate at the exit interview, but must remain focused on facts rather than opinions. For example, it is appropriate to report that the audit team found a red and green substance flowing out of the unbermed hazardous waste storage area, or found crumbling white insulation material adjacent to the HVAC intake structure and will test this substance to determine if it is asbestos. It is not appropriate to report that the team found red and green hazardous waste flowing out of the illegal hazardous waste storage area in violation of state and Federal regulations. Such statements are conclusory and not sufficiently supported by analysis.

6.4.3 Document Protection And Retention

All audit findings should be recorded in indelible ink in bound notebooks with pages that can be neither inserted nor deleted. In addition, all notes should become part of the site file. There are two distinct purposes behind these requirements. First, it provides a single source for audit results, there will be no question about the existence of additional materials. Second, it assures a measure of certainty regarding the recordation of the audit findings. It will be difficult to second-guess the findings with respect to completeness of the audit record if all entries are in bound notebooks written in indelible ink. Subsequent questions about whether some finding was deleted or changed, or whether a particular issue was addressed during the audit can be determined by reference to the notebooks.

Audit team members should clearly identify the time and date the audit began, where on the facility it began, and clearly identify the point where the final walk-through ended. Auditors also should sign the notebooks when the audit is completed. These measures will provide some protection against alteration of audit findings. If there is a need to segregate audit findings because of security reasons, the audit team should not record the sensitive materials in the same notebook with the rest of the audit.

6.4.4 Involvement Of General Counsel

The agency general counsel should be involved in the audit planning and conduct from the beginning to the final report. The general counsel's office role includes furthering agency policy of complying with all applicable Federal, state and local regulations, and this requires involvement at the earliest stages of the audit. The participation of the general counsel is also important in the event significant violations are uncovered, especially those that trigger statutory or regulatory reporting requirements. It is best to consult with the general counsel's office prior to the audit in order to plan for the discovery of violations or unregulated risk.

If violations or significant unregulated risks are discovered, it is important that the general counsel carefully reviews the findings and takes an active role in notifying the appropriate regulatory agency. Violations must not be mischaracterized or omitted such that

the audit be interpreted as an affirmative act of concealment. The perception that concealment is occurring can lead to additional and severe legal consequences. It is counsel's role to stress to audit team members and facility personnel that purposeful failure to report or be informed about violations or negligent conditions could be construed as "willful blindness" and possibly lead to civil or even criminal prosecution. In 1984, a Federal Court upheld the criminal convictions of a plant foreman and service manager finding that the RCRA penalty provisions apply "if they knew or should have known that there had been no compliance with the permit requirement" *(United States v. Johnson & Towers, Inc.*, 741 F.2d 662, 664-665 (3rd Cir. 1984)). As is evident from this decision, turning a "blind eye" to violations may lead to severe legal liability.

An additional and critical role for the general counsel is to assure that compliance is fully documented. It is essential that the agency leave a clear paper trail establishing that it has devoted resources to the management of environmental matters. The agency should ensure that corrective actions taken to address discovered violations are carefully documented in the final report. A prompt and thorough response to problems discovered in an audit is important with respect to minimizing the potential for future liability.

6.4.5 Report Distribution

The audit notebooks and questionnaires should be retained in a central file by the audit team members. These notebooks are not to be disseminated or reproduced for non-audit team members, but should be available to the general counsel's office. The notebooks and the observations they contain are the factual basis for the final report. While it is appropriate to disseminate sections of the audit report to facility personnel for comment, it is best to limit distribution to those individuals qualified to comment on them. For example, the audit report section dealing with the facility wastewater treatment system should be circulated to the personnel responsible for that area, and to facility management. The purpose of the limited distribution is to maintain the confidentiality of the document during its development, while at the same time allowing an opportunity for open discussion of the issues among the responsible parties.

CHAPTER 7: RESOURCES AND TOOLS FOR AUDITORS

7.1 OVERVIEW

This chapter discusses the types of resources and tools auditors should have available to them when conducting environmental audits. All of these materials will not be required for every audit. However, auditors should be aware of and utilize all potential information resources appropriate to the scope and type of audit they are performing.

7.2 PRE-VISIT QUESTIONNAIRE (PVQ)

A PVQ consists of a series of written questions directed at the facility environmental manager to determine the nature and extent of any facility environmental issues, as well as to alert the facility manager as to facility areas and documents to be reviewed during the audit. A PVQ typically is sent to the facility several weeks prior to the audit and should be returned in time to provide the audit team with sufficient opportunity to review the facility's responses and prepare for the site visit. It also is extremely important for facility personnel to fully respond to the questions raised in the PVQ and contact the audit team with any concerns or questions.

The PVQ is an important tool for both the audit team and the audited facility in identifying particular areas of concern and setting priorities for audit efforts. A well crafted PVQ can significantly reduce the on-site time required to conduct the audit, thereby saving valuable and resources for other audit activities. The PVQ is useful in:

- identifying priority areas to review during the site visit;
- budgeting time for physical areas to be visited and issues to be reviewed;
- providing facility personnel with an opportunity to prepare documents and records;
- providing guidance to the facility on subjects that will be of interest to auditors; and
- alleviating the concerns of facility personnel regarding the audit process and results.

To gain the full benefit from a PVQ, the questionnaire should be tailored to the facility being audited, as well as the type of audit being conducted. For example, the questions in a compliance audit PVQ should seek to collect information about the major environmental statutes and media that are of concern at the facility. Questions might include:

- Does the facility generate, treat, store, or dispose of hazardous wastes?
- Where is the facility located in proximity to potential receptor populations?
- Is the facility currently undergoing any regulatory enforcement actions?
- What are the main mission (industrial process) activities at the facility?
- Has the facility been notified of possible involvement at a Superfund site?
- Have analyses of hazardous waste streams been conducted and are the results available?

These types of questions should be developed for each media and issue of environmental significance (such as air, water, PCBs, pesticides, and underground storage tanks). In addition, the PVQ may inquire as to whether the state or the Federal government has primary responsibility for a particular media, or whether local ordinances apply to the facility.

Further, the types of questions asked in PVQs for different types of facilities also will vary. For example, an office complex PVQ might focus on asbestos and the presence of PCB-containing transformers, while an industrial facility PVQ likely would emphasize hazardous waste handling and disposal issues. A sample PVQ used by the U.S. Army in conducting environmental audits is exhibit in Appendix H.

7.3 PROTOCOLS/CHECKLISTS

Protocols and checklists are the actual working documents which provide the audit team with an outline for conducting on-site audit activities. These documents allow the team to evaluate the recordkeeping, operational, and procedural elements of a facility's activities with respect to the regulatory requirements for a particular compliance area. For example, an audit protocol might include a pre-typed form which details facility statutory or regulatory

requirements, the types of issues that should be addressed, where and by whom records are kept, questions or issues to raise to evaluate each of the above matters, and an area for the auditor's notes and comments.

Protocols and checklists are essential tools for assuring that an audit has adequately addressed all Federal and state regulatory matters, including all permits, facility records, and facility environmental practices. They provide a consistent approach that promotes comparison between differing facilities and environmental practices, as well as evaluating the same facility over a period of time. However, protocols and checklists are not a substitute for critical thinking and should be used only as a reference point to affirm that an issue has been examined. In reviewing an environmental audit program, agency management should evaluate protocols and checklists to assure that they:

- are applicable to each type of agency facility;
- are pertinent to of the type(s) of audit(s) to be conducted;
- are periodically reviewed and modified to address new regulatory requirements and changes in audit program objectives; and
- include a review of facility management structure and procedures, especially with respect to chain of command and responsibility for remedial action.

EPA, other government agencies, as well as private companies, have developed audit checklists, protocols, and software to assist auditors in conducting complete and efficient environmental audits. The products, such as EPA's Generic Audit Protocol, can be used as a starting point for audit teams in developing more targeted audit checklists and protocols that meet agency and facility-specific needs. The Generic Audit Protocol, as discussed elsewhere in this document, (See Section 5.5) is an excellent tool developed specifically for federal facilities for the purpose of assessing and managing a sound environmental program. Figure 4 contains portions of a sample checklist and worksheet from EPA's Generic Audit Protocol.

Figure 4
Sample Checklist and Worksheet from EPA's Generic Audit Protocol

Compliance Category: **Hazardous Waste Management**	
Regulatory Requirements:	**Reviewer Checks:**
HW.54. The handling of incompatible wastes, or incompatible wastes and materials in containers at generators must comply with safe management practices (40 CFR 262.34 (a)(1)(i) and 265.177).	Verify that incompatible wastes or incompatible wastes and materials are not placed in the same containers unless it is done so that it does not: generate extreme heat or pressure, fire, or explosion, or violent reaction produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions damage the structural integrity of the device or facility by any other like means threaten human health or the environment (NOTE: Incompatible wastes as listed in Appendix 4-6 should not be placed in the same drum.) Verify that hazardous wastes are not placed in an unwashed container that previously held an incompatible waste or material. Verify that containers holding hazardous wastes incompatible with wastes stored nearby in other containers, open tanks, piles, or surface impoundments are separated or protected from each other by a dike, berm, wall or other device.
HW.55. Containers used to store hazardous waste at generators should be managed in accordance with specific management practices (MP).	Verify the following by inspecting container storage areas: containers are not stored more than 2 high and have pallets between them containers of highly flammable wastes are electrically grounded (check for clips and wires and make sure wires lead to ground rod or system) at least 3 ft (0.91 m) of aisle space is provided between rows of containers
Satellite Accumulation Points	
HW.56. Generators may accumulate as much as 55 gal of hazardous waste or 1 qt of acutely hazardous waste in containers at or near any point of initial generation without complying with the requirements for onsite storage if specific standards are met (40 CFR 262.34(c)).	(NOTE: The type of storage is often referred to as a satellite accumulation point.) Verify that the satellite accumulation point is at or near the point of generation and is under the control of the operator of the waste generating process. Verify that the containers are in good condition and are compatible with the waste stored in them and the containers are kept closed except when waste is being added or removed. Verify that the containers are marked HAZARDOUS WASTE or other appropriate identification. (NOTE: See Appendices 4-1, 4-2, 4-3, 4-4, and 4-5 for a guidance list of hazardous and acute wastes.) Verify that when waste is accumulated in excess of quantity limitations, the following actions are taken by interviewing the shop managers: the excess container is marked with the date the excess amount began accumulating the waste is transferred to a 90 day or permitted storage area within 3

Compliance Category: Hazardous Waste Management	
Regulatory Requirements:	**Reviewer Checks:**
	days.

7.4 LEGAL REFERENCES

Legal references are source materials that provide agency and facility personnel with the text of regulatory or statutory language, or provide interpretation of statutes or regulations. Such references are necessary to determine compliance requirements and to guide environmental staff in carrying out their duties. Without adequate statutory and regulatory references, facility environmental staff cannot conduct a proper environmental management program and the audit team cannot properly assess facility compliance status.

Agency management ultimately will bear the responsibility for the quality and effectiveness of their agency's environmental programs. Environmental staff should have ready access to source material and be knowledgeable about environmental statutes and regulations. It may be useful to have facilities identify those environmental statutes and regulations that impact their operations and organize these materials in a comprehensive file for facility reference. Facilities should have a single location that can be accessed for all facility statutory and regulatory guidance. The following is a list of basic print references that environmental staff should, at a minimum, have at their disposal:

- Code of Federal Regulations (CFRs) - Regulations specific to media and subject areas.
- Environmental Statutes - Federal, state, and local that apply to facility compliance areas.

Additional selected materials that may be investigated as facility source materials include:

- Bureau of National Affairs (BNA) - Published annotated guides and references on environmental matters by media and cross-media issues which address legal concerns and Executive Orders that are either topical or fundamental to sound environmental management. The Environmental Reporter is a particularly useful source.
- CD ROM Software - Many Federal and state regulations and statutes are now available on CD and dramatically increase efficiency in searching for statutory or regulatory citations.

- Environmental newsletters specific to media compliance areas which provide abstracts of impending regulations or alert environmental personnel to upcoming issues. Examples include *Inside EPA* and *Hazardous Waste News*.

7.5 PHOTOGRAPHY EQUIPMENT

An instamatic camera is an invaluable aid in documenting facility conditions and serving as a reminder to the auditor of specific areas and issues that require analysis in the audit report. Photographs are also useful for making a point regarding facility conditions without reference to a lengthy explanatory text. With a photograph, it is possible for subsequent auditors or even facility personnel to see exactly what conditions existed at the time of the audit. Further, photographs can be a valuable permanent record for the facility file. The audit team should obtain written permission to take photographs and should be briefed about areas where photographs are not permitted (i.e., high security or sensitive areas). The issue of photographs should be addressed prior to the actual site visit, either in the PVQ or at the initial on site meeting.

7.6 FIELD ASSESSMENT EQUIPMENT

Typically, field assessment equipment is not a major component of an audit. However, field sampling equipment can provide a snapshot of particular conditions at the time the sample is collected. Sampling is most useful in verifying an auditor's assessment, but is not a substitute for critical and thorough review of facility records, site assessment, and interviews with facility personnel. Agencies should assess the cost of field sampling equipment, some of which is quite expensive to acquire and maintain and may require special training for personnel, prior to including site sampling in the agency audit protocol. If the use of field assessment equipment is deemed necessary, the facility should be informed of any planned sampling in the PVQ.

Field sampling equipment may be useful in uncovering hidden problems that would normally escape detection. For example, field equipment capable of detecting organic vapors either in the soil or near suspect areas of contamination (e.g., stained soil or concrete) may lend more evidence to an audit observation and finding. Explosimeters, instruments that

measure the concentration of methane gas, can alert auditors to the presence of such gases in concentrations before they become dangerous. If a facility is on a former sanitary landfill site, methane gas build-up, especially in confined spaces could be a problem. A simple device like an explosimeter can alert the audit team to the need for remedial measures such as proper venting of gas away from structures. Likewise, a portable gas chromatograph can allow auditors to determine whether a soil stain is or isn't evidence of serious contamination.

7.7 PROTECTIVE CLOTHING

Protective clothing may be necessary in certain situations to protect audit team members from exposure to hazardous materials. Such clothing may be as simple as hard hats and protective eye wear, or as elaborate as respirators and chemical suits. For facilities that handle hazardous materials or conduct industrial operations, protective clothing may be required for entry into facility. For example, a facility that repairs military equipment may conduct complex industrial activities such as metal fabrication and chemical handling that would require hard hats, protective eye wear, steel toed boots, tyvek suits, and respirators. The need for protective clothing should be identified and audit personnel should be trained in the proper use of such equipment prior to arrival on site.

7.8 COMPUTER CAPABILITIES FOR TRACKING AND REPORTING

The volume and complexity of environmental information collected during an environmental audit makes the use of automated information systems helpful in the effective management of an agency's environmental audit program. A number of commercial software packages have been developed to assist auditing efforts. Based on auditor inputs, these systems can: assist the audit team in developing PVQs and checklists/protocols; identify situations of non-compliance with statutes or regulations and flag these for further review; and provide report outputs that identify deficiencies, assist in corrective action recommendations, and detail positive attributes of the facility environmental program. Many systems also have data management capabilities that allow for the tracking of audit results and corrective actions, and alert the reviewer if the corrective action is not addressed. In addition, automated systems often have an extensive library of environmental statutes and regulations, as well as a glossary

of statutory/regulatory terms. Most systems are user-friendly and provide on-screen help capabilities.

Audit software should allow for customization of investigatory efforts and permit the development of outputs and report formats that are appropriate to a particular agency's mission and environmental issues. For example, a software package that does not have the ability to review and address pathological or infectious waste handling issues, or cannot be easily customized for that purpose, will be of little value for an audit of a health care facility.

7.9 ACCESS TO TECHNICAL REFERENCES

Technical references such as U.S. Geological Survey (USGS) maps and soil survey maps/booklets can be useful in evaluating details about potential environmental risks posed by a facility. Such risks may include surface and groundwater contamination, as well as air emissions to local communities. Maps are useful for review of topographic features such as direction of water flow which could be important with regard to a facility′s stormwater management plan or possible impact of facility operations on a nearby wetland. Local area maps displaying the location of structures such as schools and recreation areas may be important in assessing facility planning in response to accidental release of chemicals. A wind rose is a graphical representation of prevailing wind direction and intensity. It is useful in situations where facilities have significant air emissions issues, including defining areas potentially impacted by the emissions plume. These materials should be reviewed prior to each facility audit and kept as a permanent part of the facility audit record.

7.10 CHAIN OF TITLE REPORTS

Chain of Title reports provide a sequential record of the ownership of a property based upon land title records. Land title records usually are maintained at the county courthouse in which the facility is located. Local firms often specialize in researching and writing such reports. A Chain of Title report is mandatory in a property transfer assessment, but can be equally valuable when conducting other types of audit activities. These reports can be an important component of audit findings, particularly if they reveal that the facility is located on property

formerly owned by an industry or entity with significant environmental issues. If an audit uncovers onsite contamination, the Chain of Title report will be necessary in determining who owned the property at the time of the contamination and is therefore potentially responsible for site remediation. A Chain of Title report need not be undertaken for each audit event. Rather, a single report kept in a facility's permanent record is adequate.

7.11 AERIAL PHOTOGRAPHS

Aerial photographs are invaluable as a reference point for reviewing facility structures and land use status. Review of aerial photographs over a period of years can reveal changes in land use activities and significant modifications in buildings and grounds at the facility, as well as adjacent land uses that could significantly impact facility operations. For example, historical photographs could reveal a former drum storage area or a wetland that is now filled in.

Aerial photographs are available from a variety of Federal, state and local sources. These include Federal land stewardship agencies such as the Bureau of Land Management (BLM), the Department of Agriculture (USDA), or the Forestry Service (USFS). State and local sources include county zoning agencies and agriculture extension services. If appropriate and available, aerial photographs should be made a permanent part of a facility's audit record.

CHAPTER 8: PRE-AUDIT ACTIVITIES

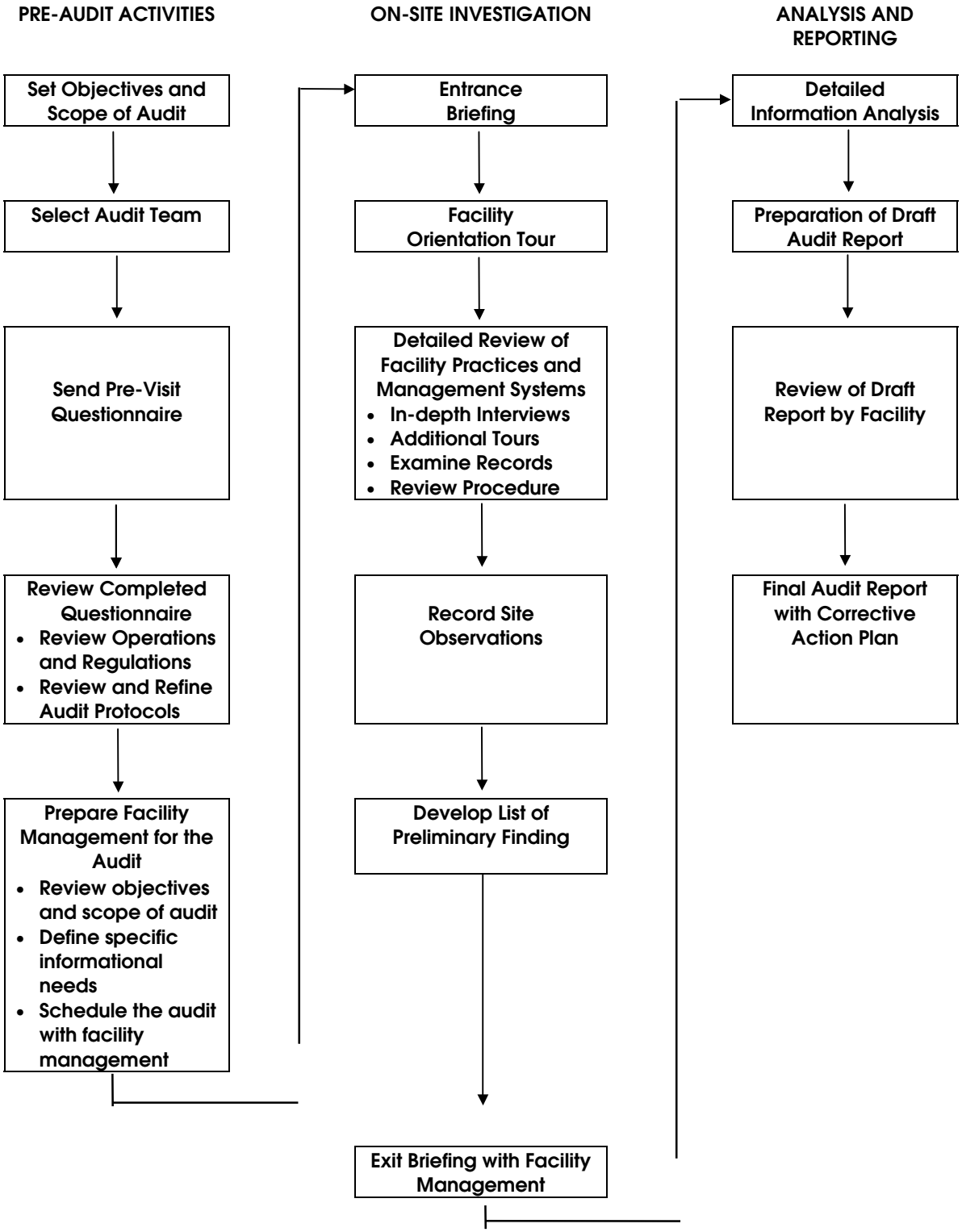
8.1 OVERVIEW

An environmental audit is conducted in basically three major parts or phases including: (1) pre-audit activities; (2) on-site activities; and (3) post-site activities. Figure 5 provides a schematic overview of the audit process. Although accurately defining the objectives and scope of the audit are critical to its success and determining the depth of the investigation, it is important to understand that the numerous activities of the audit are not restricted to only a site visit. Careful planning prior to the on-site investigation and appropriate verification of audit findings and observations are just as critical to the success of the audit as the proper conductance of a site visit and related inspections.

Careful preparation helps to ensure that the audit team accomplishes its goals during the site visit while using the least possible resources and labor time. Pre-audit preparation involves: (1) setting the objectives and scope of the audit; (2) planning and preparing the audit team for the site visit; and (3) preparing facility management for the audit. All pre-audit activities should be conducted based on a thorough understanding of the entire audit process.

This chapter addresses the importance of setting the objectives and scope of the audit and the specific pre-audit activities that should be conducted by the audit team prior to the site visit. These activities include: developing the objectives and scope, planning and preparing the audit team for the site visit by developing a pre-visit questionnaire, reviewing relevant regulations, reviewing and refining protocols, and developing a detailed audit agenda. In addition, the importance of properly preparing facility management for the audit to ensure the success of the site visit will also be discussed.

Figure 5
Schematic Overview of the Audit Process



8.2 SETTING THE OBJECTIVES AND SCOPE OF THE AUDIT

Accurately defining the objectives and scope of the audit are necessary in order to ensure that the audit achieves the desired results. Clear and explicit objectives define the needs and expectations of the audit and establishes a benchmark against which the performance of the auditors or audit team can be judged. The scope determines the depth and boundaries of the investigation and determines what will be assessed and verified through the audit process. It is critical to the success of the audit that both facility management and the audit team members clearly understand and agree upon the scope and objectives of the audit. In addition, the audit objectives and scope should be clearly communicated along with the results of the audit to those who authorized it as well as to all recipients of the audit report.

The objectives define the purpose of the audit and establish performance criteria for the auditors or audit team. The objectives are often determined by agency management or policies and reflect the needs of the agency environmental program and related policies. Facility management representing the facility to be audited may also have objectives for the audit. For example, the audit site visit may serve as a training mechanism for facility environmental staff, or a new storm water management plan may have been recently developed and facility management may be interested in a review and critique by the audit team members. Therefore, in addition to evaluating and documenting areas of apparent environmental problems and risks, the audit may provide the training of facility staff and an evaluation of the new document.

After the audit objectives are determined, it is necessary to define the scope of the audit. The scope of an audit usually defines a specific procedure or area of investigation and can be influenced by factors such as facility conditions, cost, staff availability or other resource constraints. For example audits can focus on basic media areas (e.g., air, water, solid waste) if the environmental aspects and impacts of that facility obviate the need for investigating other areas of concern. (e.g., there are no underground tanks or petroleum storage vessels at the facility). However, for other facilities, a more comprehensive scope may be necessary to fully assess all

environmental risks. In another example, a scope may focus only on areas on non-compliance if the environmental program at the agency is relatively new and limited funding for an audit program requires agency environmental management to prioritize immediate informational needs. Conversely, a more mature program at another agency may determine that the scope should focus on management systems (environmental management system audits) rather than compliance issues in order to identify root causes of the symptomatic problems at the site (e.g., persistent non-compliance with regulations).

8.3 PLANNING AND PREPARING THE AUDIT TEAM FOR THE SITE VISIT

Environmental staff responsible for organizing the audit will spend a significant amount of time planning for an audit. Careful planning is crucial to ensuring that the limited time typically available for the site visit is used most effectively. Careful planning also minimizes the time necessary for follow-up activities after the site visit. Some of the factors environmental staff typically consider when planning an audit are: (1) the goals and scope of the audit; (2) the size and complexity of facility operations; (3) the facility's compliance history; (4) the audit team's familiarity with the site; (5) resources available for conducting the audit; and (6) the desired form and content of the final audit report.

If a contractor will be conducting the audit, environmental management staff should develop a scope of work that clearly establishes roles and responsibilities for each phase of the audit (i.e., pre-audit, on-site, post-audit). If in-house staff are conducting the audits, the team leader should select team members and assign roles and responsibilities. Many of these roles as well as other important planning activities can be addressed in the pre-audit meeting. In addition to defining the roles and responsibilities of each audit team member, the audit team can strategize on important areas to be evaluated at the site and review necessary precautions such as the need for protective clothing and equipment (e.g., respirators) and procedures for entering controlled areas at the site. In addition, other concerns such as security clearances and the site visit agenda should be reviewed by the team to ensure conformance with established policies and agreements required by facility management. Regardless of who performs the audits, as part of the planning phase, the lead auditor or team leader should ensure that the members of the audit team:

- clearly understand the goals and scope of the audit;
- understand audit team roles and responsibilities vs. team leader;
- understand the facility's operations, wastestreams, and environmental releases;
- are aware of potential health and safety issues and are prepared to handle them while on-site;
- have the correct checklists and protocols and understands how to use them;
- agree to follow the detailed audit agenda;
- understand how information collected on-site will be managed and presented in the final report; and
- have received a correct and completed PVQ from facility management.

8.3.1 Review Relevant Regulations

Prior to the site visit, audit team members should review the environmental statutes and regulations pertinent to the facility activities. As discussed in Chapter 7, the PVQ can be useful in determining which statutes and regulations are significant. Special attention should be given to high risk activities and major facility activities. Regulations should be reviewed down to the level of specific audit items. For example, regulatory review for wastewater discharges should include:

Federal Regulations:

- NPDES Permit Requirements (40 CFR 122)
- General Pretreatment Regulations for Existing and New Sources (40 CFR 403)
- Toxic Pollutant Effluent Standards (40 CFR 129)
- Oil Spill Prevention Control and Countermeasures (SPCC) Requirements (40 CFR 112)
- Designation of Hazardous Substances (40 CFR 116)
- Determination of Reportable Quantities for Hazardous Substances (40 CFR 117)

State Regulations:

- Water Quality Standards
- Effluent Limitations for Direct Discharges
- Permit Monitoring/Reporting Requirements
- Operator and Superintendent Classifications and Certification
- Collection, Handling, Processing of Sewage Sludge
- Oil Discharge Containment, Control and Cleanup
- Standards Applicable to Indirect Discharges (Pretreatment)

Regulatory review should include Federal, state, and local regulations. This may, at times, require a determination of which regulatory authority has jurisdiction over a particular issue. In some cases, this will require contacting local authorities to obtain sewer ordinances or local air quality management district regulations.

As noted in the previous chapter, many Federal and state regulations are now available on CD ROM or on-line data services that also provide key word search capabilities. Agencies may wish to consider obtaining these services as a means to achieve significant savings in research time.

8.3.2 Review and Refine Audit Protocols

Audit protocols should be reviewed prior to each site visit. Based upon the PVQ completed by the facility, the audit team should revise the protocols to emphasize those areas that are high risk, involve complex issues unique to the facility, or which pertain to major facility activities. For example, if a facility has 100 above ground storage tanks, but does not store or treat hazardous waste, the audit team may wish to modify the protocol to devote additional effort to the review of the facility Spill Prevention, Control, and Countermeasure plan (SPCC) or tank integrity testing issues, but minimize or eliminate those sections of the protocol covering 40 CFR 264 and 265 requirements under RCRA.

Audit protocols are not static, one size fits all documents. They are as different as each facility, although they may involve review of similar issues. Protocols also will change over time as regulations are revised and updated. As a result, protocols should be reviewed whenever major regulatory or statutory revisions occur, and revised as necessary. In addition, audit objectives may change over time. This is especially true if an agency achieves a high level of compliance and turns its attention to management audits or audits of unregulated risk. Protocols should be periodically reviewed to reflect these changes.

After the audit is completed, audit team members should set aside a few moments to review the audit protocols to determine if they adequately addressed audit objectives. Based upon that review, the agency should consider making changes to the protocols as appropriate, or expand the site visit agenda to allow for an investigation or additional areas that were not reviewed.

8.4 PREPARING FACILITY MANAGEMENT FOR THE AUDIT

Agency environmental staff should contact the facility first by telephone and follow-up with a letter prior to the site visit. Developing a positive relationship with the facility point of contact (POC) is vital to the success of the audit. Environmental staff should take care to set the right tone when contacting facility personnel. Environmental staff should communicate:

- **Review Objectives and Scope of the Audit** - Facility staff should be fully aware of the audit's objectives and scope. In addition, facility staff should understand how the audit results will be used both by their agency and, if appropriate, other outside agencies (e.g., EPA). Facility understanding of how the audit results will be used is particularly important in the case of compliance audits and management audits. A facility's expectations about the audit and its subsequent use should follow from any up-front agreements reached with the audit team.

- **Critical person(s) needed for interview** - Agency environmental staff should work with the facility to develop a list of persons to be interviewed during the site visit. Examples of typically individuals interviewed as part of a site visit include environmental staff, satellite accumulation point managers, and shop supervisors and personnel.

- **Information needs** - Agency environmental staff should provide the facility with a list of records and documents that will be reviewed during the site visit (e.g., permits, hazardous waste manifests). Providing the list of information needs prior to the

audit helps to ensure that the facility has time to collect the documents and have them available for review during the site visit.

- **Time schedules** - Agency environmental staff should work with the facility to develop a detailed agenda and schedule for the audit. The time schedule will depend on the size and complexity of the facility and the number of individuals that need to be interviewed.

As discussed in Chapter 7 of this guide, the audit team should submit a Pre-Visit Questionnaire (PVQ) to the facility prior to the site visit to inform the facility about the audit. The PVQ also alerts the facility environmental manager as to reports and documents that should be available to the audit team and the facility personnel that the audit team will want to interview. A timely and well crafted PVQ will save the audit team considerable time by answering fundamental questions about facility practices and allows the audit team to focus the site visit on high risk issues or matters requiring a more detailed investigation.

It is important to stress to the facility environmental manager the need to have the PVQ returned several weeks prior to the site visit. The PVQ and a follow-up phone call can aid the audit team in developing a good working relationship with facility personnel prior to the site visit and reassure the environmental manager about the purpose and goals of the audit.

CHAPTER 9: ON-SITE ACTIVITIES

9.1 OVERVIEW

This chapter provides a discussion of some of the primary issues that an audit team must address during a site visit. The emphasis in this chapter is on developing a consistent procedure for on-site activities. By developing and implementing a consistent audit policy, agency environmental managers will be able to compare and contrast the effectiveness of audit efforts across a spectrum of facility types, including those with distinctly different environmental concerns and compliance issues.

9.2 INTRODUCTIONS WITH FACILITY MANAGEMENT

Agency environmental staff should provide the facility with sufficient advanced notice of the upcoming audit and should arrange a meeting time prior to the arrival of the audit team on site. The pre-audit meeting serves a number of purposes -- it reassures the facility's management about the purpose of the audit and provides an opportunity to adequately schedule site walk-through and interview times, and ensure the availability of documents and reports needed by the audit team. The meeting also provides an opportunity to discuss issues that the facility managers wish to raise and allows auditors to gauge facility management cooperation with the audit process.

9.3 SITE INTERVIEW WITH PERTINENT FACILITY STAFF

A sound audit program should identify the structure and chain of command (names and titles) for environmental issues at the facility prior to the initiation of the audit. When addressing a specific environmental issue, audit team members must be careful to direct their questions to the appropriate individuals. This is particularly important with respect to line staff who are involved in the day-to-day conduct of activities, but will likely be unaware of detailed environmental regulations. Auditors also must determine if the personnel they are interviewing have environmental responsibilities as a primary or secondary job assignment, and identify who is responsible for remedial action or remediation of violations if any are discovered.

Examples of pertinent facility staff to interview may include:

- environmental staff;
- production supervisors;
- purchasing personnel; and
- accounting department staff.

The interview provides an opportunity to develop a dialog with facility personnel prior to the site walk-through. It also affords the audit team a chance to review audit checklists and protocols as a means of planning for the walk-through. The audit team also can use interviews to clarify unclear PVQ responses and answer any questions the facility may have regarding information needs prior to the records review.

Additionally, it is important to review with facility management audit objectives and scope. Not only will this make facility management feel they are part of the audit effort, it also may produce a more thorough audit. Facility managers that fully understand the audit scope and objectives may be able to provide information or insights that they would not otherwise realize are important to the audit effort.

Finally, it cannot be sufficiently emphasized how important it is to identify all facility staff needed for audit interviews as well as confirming that resources needed by the audit team will be available. Also, as mentioned in Chapters 7 and 8, safety requirements (the need for hard hats, steeled toed boots, respirators, etc.) should be fully discussed prior to the site visit.

9.4 SITE WALK-THROUGH

With the exception of the post site visit contacts with regulators and vendors, the site walk-through is the culmination of the data collection phase of an audit. The success of the walk-through is, in part, a product of leveraging the information collected in the PVQ, interviews with facility staff, and the other pre-site visit efforts. Ideally, the auditors should be sufficiently familiar with the facility and applicable regulations so that the walk-through helps to complete and enhance a previously developed understanding of the facility. Therefore, in developing a sound audit program, the agency should view the site walk-through as only one of many critical

components of an audit. The walk-through should include a physical inspection of facilities, as well as observation for evidence of spills or other unpermitted releases or environmental impairment such as stained soil and pavement, or discolored vegetation or water bodies.

During the site walk through it is a requirement that auditors stop at various points along the walk through and actively document their observations and findings in writing and not wait to return to a briefing or assembly room to record their notes. This is also the appropriate time to take any photographs, if permitted by facility management.

The physical inspection should cover all environmental media and areas of concern (water, air, solid and hazardous wastes, PCBs, asbestos, and chemical and waste storage areas). If applicable, treatment systems (e.g., air scrubbers, wastewater treatment equipment) also should be inspected. The physical inspection should include an examination of all emission points, emission control devices and equipment, chemical handling areas including process chemicals, and environmental monitoring equipment. Also, auditors should examine the appearance of berm walls for cracks or staining, as well as tanks and piping for signs of deterioration. Both positive and negative observations and findings regarding facility conditions should be recorded at the time of inspection.

It is important that reports regarding observations of release or environmental impairment, such as stains, be as factual as possible without resorting to subjective opinions. Information that should be collected regarding observed impairments includes:

- What is the physical observation made at the site (e.g., leak, spill)?
- What is the evidence of the nature and extent of contamination?
- When did it occur?
- How did it occur?
- Who is/was responsible for reporting it?
- Did corrective action occur and what was the outcome?
- Who is/was responsible for corrective action?

Inspection of remote facility areas also is critical to the success of the walk-through process. Remote areas often are unintentionally neglected with respect to compliance and risk

review, or may unknowingly be subject to dumping by third parties. This is particularly important for those agencies that oversee large facilities with many structures or significant acreage.

As previously noted, agencies should encourage the taking of photographs of areas and equipment that will likely become principle findings (both positive and negative) if appropriate. This provides a convenient record for future reference and, in the event of liability issues, can be useful in establishing that the photographed area was inspected. As previously noted, audit team members should verify permission to take photographs prior to commencing the audit.

9.5 RECORD/DOCUMENTATION REVIEW

The site visit at the facility should include a record and documentation review addressing Federal, state and local permits including air, water, and solid and hazardous materials and wastes (such as pesticides, PCBs, asbestos, and radioactive materials). If the facility is involved in the handling of hazardous materials, the audit should include a review of documentation such as MSD sheets, RCRA waste manifests, monitoring data, and regulatory permits. The records should include a review of all permit limits and conditions, permit renewal dates, and any monitoring required by the permit. Monitoring data should be carefully reviewed and reconciled against permit limits for that particular source. In addition, the audit team should evaluate the facility's environmental record-keeping procedures. Facility management should be alert as to the accuracy and completeness of the reporting data, and whether the monitoring has been reported to the appropriate agency. A sound monitoring program should include systematic inspection activities for all media sources.

Documentation and record reviews should also include review of correspondence and/or notices pertaining to past or present enforcement actions or agreements, notices of violation, or compliance schedules. This is particularly important for two reasons. First, it provides a history of how the facility has performed and an indication of where it is headed, especially with respect to how the environmental enforcement agencies perceive that facility. Second, if the facility has inadequate records related to any of the above issues, it serves as a warning that the facility is not properly documenting is environmental status and may be keeping inadequate records in other respects.

Manifests and bills of lading for chemical and waste materials also should be reviewed by the audit team. Environmental managers should have accurate records of who is removing wastes and/or hazardous materials from the facility, where the wastes are sent, and who at the facility is responsible for monitoring this activity. The review should include a meeting with the individual who signs the manifests/bills of lading. This is particularly important with respect to the disposal of hazardous waste and non-hazardous wastes. Removal of wastes by unauthorized haulers or removal to unauthorized treatment/disposal facilities is a violation of the law for which the agency can be held responsible.

If a facility is using chemicals which require that MSDSs and other safety records be kept on site, it is important that the audit team identify these materials and assess their availability to personnel that are handling the chemicals. The audit team also should determine if the facility is placing adequate warning labels on chemical containers.

9.6 EXIT INTERVIEWS

If the audit team leader chooses to conduct an exit interview, he or she should be careful about what is said and to whom. In these cases, the audit team leader must exercise sound judgment. Exit interviews should be conducted by the team leader, they should be limited to a brief oral summary of findings and should be conducted with facility management present. Auditors should avoid conclusory statements about possible violations and potential liability unless there is imminent danger of harm or release of hazardous materials. Conclusions regarding facility status typically should be discussed in final audit reports rather than in exit interviews. In most cases, conclusions are the product of careful and reasoned analysis of audit findings. Therefore, any discussion of audit findings should be confined to a recapitulation of the facts. This is especially important with respect to unregulated risks, as such issues may require additional review by agency management including consultation with the agency's general counsel.

In some cases, it may be necessary for audit findings to be kept confidential until the agency has an opportunity to address matters uncovered by the audit. If confidentiality is important, sensitive issues should be reserved solely for examination and discussion by top level facility personnel and any written communications should be marked as draft or provisional. For example, if an auditor has strong suspicions about possible criminal violations of environmental laws, he or she should not use such pejorative terms in an exit interview but must call the

agency's or facility's attention to the gravity of the situation. In such cases, it may be necessary to inform facility management that there are additional issues that require confidential reporting. In these situations, it is critical that the information be fully disclosed so that an investigation can be undertaken. It is especially important that sensitive matters not be discussed at exit interviews, except with those individuals that will bear responsibility for acting on them. Dissemination of information, either verbally or in writing, to large numbers of facility personnel could compromise confidentiality privileges.

CHAPTER 10: POST SITE ACTIVITIES

10.1 OVERVIEW

This chapter will address the post site activities that should be conducted upon completion of the on-site activities discussed in Chapter 9 of this guide. Post site activities include audit team debriefing, substantiation of significant findings, and gathering additional audit data.

10.2. AUDIT TEAM DEBRIEFING

10.2.1 Preliminary Issues

Prior to the audit team debriefing, a meeting agenda should be circulated to all team members. The audit team debriefing should review the list of significant findings, discuss audit findings that requiring immediate action (i.e., the priority issues), and confirm report writing responsibilities, including regulatory reviews and contacts with vendors and regulators. The audit team should also begin formulating recommendations for corrective action while the audit experience is still fresh in their minds. Time should be set aside for team members to raise questions about the audit and/or request additional resources. The debriefing also is an excellent opportunity for regular review of audit protocols. A question and answer session can inform other audit team members of issues about which they have information requirements and is an opportunity to critique the audit effort and identify means for strengthening the audit program. Keep in mind that this debriefing is solely for the audit team. Facility exit interviews were discussed in the previous chapter.

10.2.2 Develop List of Significant Findings

The audit team should organize it's significant findings in a manner that reflects the intent of the audit and the type of audit conducted. A compliance audit should be organized around compliance areas, while a risk liability audit may be best organized by media and level of risk, or by facility function and level of risk. For example, the audit findings for a compliance audit could be reported as follows:

- Record Keeping

- Overall environmental management
- Water and wastewater
- Hazardous materials
- Hazardous wastes
- Toxics (e.g., PCBs)
- Other areas (e.g., EPCRA, pathological wastes)

By contrast, a risk liability audit might focus on the most significant liability areas regardless of any other issues, or evaluate risk by media or governing environmental statute. Risk liability audits might also be reported by facility area, i.e. liabilities concerning a process operation that encompasses air, water, and solid waste issues might be discussed as a discrete unit rather than be divided among separate discussions of air, water, and solid waste.

The audit team debriefing should address all of these areas, including a discussion of positive findings for each area, as well as areas of deficiency or negative findings. The list of findings also should consider whether deficiencies are regulatory or procedural. Procedural deficiencies are those that are not in keeping with agency or facility practices but do not involve reportable violations of Federal or state regulations or statutes. It may also be helpful to break out or separate deficiencies into different media areas such as waste management, air emission management, etc.

10.2.3 Prioritize Audit Findings

Each agency should develop a system for setting priorities among audit findings that allows for a consistent approach to addressing deficiencies. A consistent approach for addressing deficiencies includes targeting areas that pose the greatest liability potential or risk to the facility or agency such as immediate endangerment to human health and the environment. This requires a high degree of experience and professional judgment. These high priority issues will require an immediate response. If the most serious problem is a minor one, such as a recordkeeping violation, it should still be given the highest priority and dealt with as soon as possible. The system also should recognize excellence in environmental management. It also is important to identify and highlight sound environmental practices as these set an example for other facilities and departments.

Two possible systems for setting priorities are described in greater detail below. Both systems take into consideration the specific activities and media/compliance matters at a facility. The first sets priorities on the basis of overall risk, regardless of the media at issue. The second establishes priorities on the basis of deficiencies within a specific media, without distinguishing whether deficiencies of equal rank within one media are more serious than those of equal rank in another media.

The first system takes into consideration the specific activities and media/compliance matters at a facility and rates them on a hierarchy of risk. For a compliance audit, the media or compliance area that poses the greatest risk at the facility should be ranked first overall in terms of priority. Determination of the most important area can be made by the audit team alone or in conjunction with agency legal staff, and may be based upon any number of factors such as the media of concern or degrees of mass compliance area with the most number of problems or issues of concern; the area with the highest volume of waste production; or the area with the greatest potential for liability because of unique hazard characteristics (e.g., acute toxic or hazardous waste or proximity to receptor populations). The level or significance of the deficiency is then ranked (prioritized) in descending order from the highest to lowest. This is a subjective ranking which rates risks and deficiencies on the basis of specific facility activities. For example, if the asbestos abatement program is considered to be the greatest area of vulnerability or risk at the site, then a high level deficiency in this area would be the most significant one at the facility. This approach requires auditors to draw conclusions about which deficiencies pose the greatest overall risk potential, regardless of media or compliance area, and rates them accordingly.

The second system is to rate the audit findings from the highest risk (a significant deficiency) to lower risks (such as major or minor deficiencies), within each media area, without assigning an overall highest risk. A significant deficiency is one that poses an imminent risk of release, endangerment of human health, threat to the environment, or threat to the successful conduct of the facility's mission. A major deficiency is one that requires action, but not necessarily immediate action. Major deficiencies typically are of a magnitude to result in a reportable violation to a regulatory agency but do not pose an imminent threat of release or endangerment. A minor deficiency is one that is primarily administrative such as recordkeeping violations (e.g., failure to sign a waste manifest form).

The two suggested systems are quite different. The first subjectively prioritizes deficiencies on the basis of overall risk regardless of the media and defines a single worst risk. The second system uses environmental media as general categories and prioritizes risk by media without establishing an absolute hierarchy of which risk is most significant. The second system provides the agency or facility with flexibility in carrying out corrective action because it does not prioritize or rank deficiencies which are of the same category, but in different media areas. Thus, a significant deficiency in the water program would be of equal weight to a deficiency in the air program. However, for facilities with serious deficiency problems, such a system may not provide sufficient structure and direction with respect to corrective action.

10.2.4 Clarify Assignments for Audit Team Members

An audit report typically contains an executive summary, a discussion of the audit process, an overview of the facility, and a discussion of findings and recommendations. The assignment of responsibility for writing these sections is up to the audit team leader, however, all audit team members should have the opportunity to review and comment upon the final report.

With respect to writing the audit findings section, the auditor that reviews a particular area should be responsible for preparing the report section for that area (i.e., the report writing responsibilities should mirror the auditing process). For example, if one auditor reviewed all machine shop activities and its related media issues, the report may include a discussion of air, water, and hazardous materials issues for the shop prepared by that auditor. Ideally, report writing responsibilities should be allocated prior to the audit so that the individuals conducting the audit are aware of their responsibilities while on site. Assigning report writing responsibilities prior to the site visit also helps to better focus the auditors attention on details and the need to be thorough.

If the report authorship is divided by functional areas as stated above, the audit team might consider a two-tiered review process in which selected individuals have responsibility for report review by environmental media. These individuals would review all findings for their assigned media (such as air, water, or solid waste), regardless of who actually audited or wrote the report section for a particular physical area of the facility. Finally, completion schedules for draft and final report sections should be determined at the time the assignments are made.

10.3 SUBSTANTIATION OF SIGNIFICANT FINDINGS

10.3.1 Regulatory Reviews

A regulatory review should include a determination of what regulations apply to the facility, whether the facility is in compliance with the regulations, how the facility assesses or evaluates it's compliance, and whether and how facility environmental managers stay informed of regulatory changes.

As a first step, the audit team should establish which federal, state, and local regulations (i.e., compliance areas) apply to the facility. For each compliance area, the auditors should determine who are the primary and secondary regulatory authorities (i.e., Federal, state, or local) and determine if there are overlapping authorities. Typical compliance areas include:

- Air
- Water and wastewater
- Solid waste
- Hazardous materials (PCBs, pesticides, organic chemicals)
- Hazardous wastes
- Community right to know
- Underground storage tanks

There may be numerous issues at a given facility for each compliance area. For example, at a large Federal facility, water and wastewater issues may include NPDES permits, sludge permits, monitoring reports, indirect discharge issues, stormwater discharges, treatment plant operations, certification/licensing of plant operators, drinking water sampling and analysis, and related drinking water reporting requirements. If germane, each of these issues should be examined.

The regulatory review should address whether the facility is in compliance with appropriate regulations and cover all media, including an affirmation if a particular media is not of concern. The review also should document records of all reportable non-compliance situations and corrective actions. Depending upon the scope of the audits to be performed, the

audit team should ensure the existence of management procedures to prevent future non-compliance issues.

A sound regulatory review also should include inquiries as to how facility personnel are kept informed of changes and updates in regulations and how regulatory evolution affects their responsibilities.

10.3.2 Phone Calls/FOIA Requests to Regulators

Contact with regulators is helpful in substantiating audit findings. At the Federal and state levels, it is likely that responsibility for each environmental media will be handled by a different regulator. FOIA requests may take weeks or months to complete and therefore should be planned accordingly. Local health and/or environmental departments also should be contacted if findings indicate deficiencies or overlapping authority for a particular media area. As a general rule, these calls should:

- state identity and purpose of caller;
- avoid divulging unconfirmed non-compliance situations;
- determine when the facility was last inspected;
- ask about next planned inspection date;
- ask about any past or recent violations or enforcement actions;
- inquire into outstanding attributes about facility environmental practices;
- ask who the regulator deals with at the facility; and
- inquire if any of the facility vendors have been investigated or cited.

10.3.3 Vendors

Improper or illegal environmental practices on the part of waste management or disposal vendors can be a source of facility liability with respect to cleanup costs if the facility is identified as a potentially responsible party under CERCLA. When investigating hazardous waste disposal vendors, auditors should make sure that vendors are properly handling and disposing of facility wastes. Auditors should also evaluate whether the vendor is competent to handle facility wastes. This is particularly important for liability purposes if it is later determined that the agency/facility failed to investigate the technical competence of the vendor. Also,

auditors should carefully evaluate the prices charged by disposal vendors. Waste disposal prices that are unusually low or below market rates may be reason for further investigation.

In addition there are a number of data bases that can be valuable in investigating vendors. CERCLIS is a data base that allows for identification of treatment/disposal facilities or even abandoned sites that are PRPs. This is particularly useful in identifying vendors that have CERCLA liability problems including those vendors that may have moved or opened a new location. Also, RCRIS is a data base that identifies RCRA facilities that have committed Class I violations of RCRA. If a RCRA facility is facing five-million dollars in RCRA clean-up liability but only has two-million dollars available to clean-up the violations, the auditors should be aware of the potential for the audit facility to become liable for future clean-up expenses. Keep in mind, however, that vendors also can be an information source to confirm facility management practices and audit findings, or a source of technical and/or compliance assistance for a facility.

Vendor contacts should include verification that they in fact provide the reported services or equipment to the facility. Also, in the case of waste transportation or disposal vendors, the call should verify who the vendor deals with at the facility, how long they have been under contract, and where wastes are being sent.

10.4 IDENTIFY AND GATHER ADDITIONAL DATA

It is not unusual for an audit team to identify additional data needs following the site visit. Typically, this involves verification of findings and observations on a particular issue or may include the need to follow a “paper trail” regarding reporting or monitoring requirements. In these situations, the need to collect additional data should be established as early as possible and one team member should coordinate all requests for the additional data, collect all questions from audit team members, and forward these to the facility for immediate action. The audit team should avoid repeated calls to the facility for additional data.

As stated above, additional data needs typically should focus on securing monitoring data, reports, and other documentation and records. It is not usually intended that sampling and analysis be performed. For certain situations, such as stains on the ground, a sample can be useful in determining if a serious problem exists. If review of the audit findings indicates the need for sampling, this activity will require a significant lead time to complete and should be

scheduled as a separate follow-up activity after the completion of the audit. Post-audit sampling is not intended to be an audit activity. Post-audit sampling is usually conducted in discrete phases. For example, an audit can be considered a Phase I investigation to evaluate and document the general range of apparent problems associated with the facility. A Phase II investigation is used to evaluate and characterize the nature and scope of environmental contamination and is beyond the scope of an audit or Phase I activity. A Phase III investigation is the point usually where field samples are collected and analyzed to confirm the nature and extent of contamination.

In addition, post-audit sampling creates uncertainty regarding the situation at the time of the audit compared to the time of the sample collection. For example, an auditor may report the presence of discoloration in the effluent from the wastewater treatment system but return to the facility to find that the water is no longer discolored and that sampling reveals the wastewater well within permit limits for all parameters. Post-audit sampling, like securing written documentation should be limited to verifying observations and audit findings and is not intended as a means of expanding the scope of the audit. In those cases in which limited sampling is necessary and appropriate, as an assurance on validity, samples should be collected by experienced sampling technicians and preserved and analyzed in accordance with EPA sampling and analysis procedures. This includes the use of specialized sampling containers, the use of preservation techniques such as keeping samples cooled below a certain temperature, and in some cases, observing requirements for limited holding times.

CHAPTER 11: REPORT WRITING AND FOLLOW-UP

11.1 OVERVIEW

The audit report is the culmination of the environmental audit. The primary purpose of the report is to describe the findings of the audit team and provide a blueprint to assist facility staff in achieving and maintaining compliance. It is necessary to prepare properly both during and after the audit to produce a report that meets these needs. This chapter addresses a number of issues that should be considered in writing the audit report and conducting audit follow-up activities.

11.2 FIELD PREPARATION

Audit team members can take several steps while still in the field to ease the report writing process. These include:

- **Review and update notes on a daily basis** to ensure that information is complete and identify any compliance areas that may have been overlooked.
- **Schedule a few minutes following interviews to summarize the results in writing.** The effort should be aimed at memorializing specific sets of facts and impressions regarding the interview. This will be invaluable in writing the report when the team has returned to the office and the interviews begin to run together in the auditor's recollection.
- **Develop an annotated outline of findings.** This also will prepare the auditor for the audit team debriefing, assure that all areas of the audit have been covered, and will help to organize field notes for later report writing.
- **Assemble and critically evaluate the audit findings** as a means of tightening and focusing collected information. This will aid in exposing flaws in the audit methodology and in identifying inadequately supported conclusions.
- **Prepare a well developed audit team debriefing.** These debriefing materials can form the nucleus of the audit report to be prepared.

11.3 REPORT PREPARATION

It is essential that the audit report be prepared as soon as possible upon the conclusion of the site visit and post site activities. As discussed above, an annotated outline is helpful in this regard. Auditors should consider organizing notes by compliance area and writing introductory paragraphs for each section as soon as possible, perhaps even prior to the debriefing. Regardless of the format used, each agency should adhere to a consistent format to ensure that subsequent audit reports are prepared in the same manner. This allows for comparison of reports between different facilities to be made against common elements. It also allows for an easier assessment of how a specific facility is (or is not) improving its compliance status over time by comparing findings in one report to the findings in subsequent audit reports.

The audit report should be written in clear concise language, with adequate supporting information. Indefinite adjectives such as “very,” “some,” “significant,” “small,” “high,” “large,” should not be used. Sensational language or hyperbole, such as “dangerous,” “negligent,” “willful,” “criminal” also should be avoided. Auditors should actively avoid unsupported conclusions and inadequate descriptions. Nothing should be left to the subjective interpretation of the reader. All acronyms used in the report should be spelled out at their first usage.

The report should contain accurate descriptions (distance and compass direction) of locations where specific items or situations are noted. When items are described, the specific item(s) being discussed is(are) should be identified (e.g., do not say that three drums were leaking; rather, identify precisely which three drums are leaking, either by indicating the exact location of the drums or be referencing something unique about those three drums such as an identification number).

A good rule of thumb to use when writing a report is to provide a level of detail that is adequate to allow someone else to go into the facility and accurately identify what is being described in the report and understand the auditor’s concerns with the issue(s). Overall, the report should be as short as possible without compromising on necessary details.

11.4 SAMPLE REPORT FORMAT

Audit reports can take many forms and be organized in a number of ways, depending on agency needs and audit scope and goals. The following is a description of generic audit report.

Section I: Description of administrative aspects of the audit. This includes the date the audit was conducted, who at the facility was interviewed, who performed the audit, what office or department was responsible for conducting the audit, and any limitations or exclusions regarding the audit scope or methodology, e.g., if the facility management refused auditors access to certain areas.

Section II: Brief executive summary written for upper-level facility and agency personnel that highlights the key findings and recommendations of the audit report including a summary of compliance status.

Section III: Description of each audit findings, priority rank or media category, and regulatory citation. This section should include the physical description of the facility and provide a detailed description of related facility media management areas and emission sources as well as a discussion of how there are controlled.

Section IV: Recommendations or suggested corrective actions for the facility to come into compliance. These may range from simple administrative suggestions to recommendations for a capital improvement. The recommendations also may focus on the need for additional investigation or further analysis before a final solution is proposed. When presenting recommendations in the audit report, keep in mind that the final report is subject to public disclosure under the Freedom of Information Act. As a result, recommendations for corrective actions must be implemented by the facility or the facility may face increased liability risk. If there is some doubt regarding the implementation of the audit team's recommendations due to lack of resources, staffing or funds, then agency management and legal counsel should be consulted about the situation and plans for corrective action.

Section V: Supporting data and information to provide relevant backup information (such as analytical data, any enforcement actions taken by regulatory agencies, copies of Notices of Violations, plot plans or maps, schematic diagrams, or photographs) should be presented here. The benefits of including supplementary material should be weighed against the impact that such material could have when the audit report is subject to public release.

11.5 REPORT FOLLOW-UP (COURTESY DRAFT TO FACILITY MANAGEMENT)

All environmental compliance audit reports should undergo rigorous review by agency counsel, who should ensure that legal references are correctly stated and applied. The draft report written in the weeks following the audit also should be submitted to and signed by the

facility manager, who should solicit comment from facility staff as appropriate. The draft report should then be submitted up the agency chain of command as appropriate. Chapter 2 of this guide addressed a number of recommendations for protecting draft reports from premature disclosure under FOIA under the predecisional and deliberative draft exemptions. Chapter 2 also discussed EPA's new audit policy regarding incentives to audit and that careful consideration should be given by facility management, agency general counsel, and agency senior management regarding the benefits of seeking treatment of audit findings under the 1995 EPA audit policy. Report distribution should be limited to those individuals with a "need to know." Numbering of draft reports is one method for controlling distribution. Each agency also should develop a formal records retention policy for auditors notes, draft reports, associated documents, and final reports.

11.6 DEVELOP ACTION PLANS AND CORRECTIVE MEASURES

A sound audit program includes provisions for follow-up action on audit findings and recommendations. Audit reports should include a list of action items and an individual designated with responsibility for seeing the these items are addressed. Tracking can be as simple as follow-up phone calls to facility managers or may involve conducting a follow-up audit. Rather than setting a final date for a corrective action, it may be useful to set milestones for beginning, conducting, and completing corrective measures.

11.7 COMMUNICATIONS WITH SENIOR AGENCY OFFICIALS ON SIGNIFICANT REPORTS FINDINGS

Communicating with agency officials regarding findings that have high potential for affecting agency liability, image, and budget is critical. As discussed previously, if the agency becomes involved in litigation concerning an audited facility, the audit report and supporting materials will be subject to discovery. If there are matters which appear to raise serious liability issues, agency legal staff or general counsel's office should take the lead in managing the distribution and dissemination of sensitive materials. This is done not as an attempt to conceal findings, but to inform and allow counsel adequate time to develop a response. The report should be written and sufficiently detailed such that agency management can make informed decisions regarding the audit findings and recommendations. Dissemination of sensitive

findings to other than counsel and senior agency officials may compromise the agency's ability to address compliance or liability problems and should therefore be tightly controlled.

11.8 ENTER AUDIT FINDINGS AND RECOMMENDATIONS INTO A FORMALIZED TRACKING SYSTEM

The environmental audit process should include the use of a formalized tracking system for recommendations. This is necessary to assure that findings and recommendations are specifically addressed on a definite schedule. The tracking system should identify the item, the planned action, and the anticipated date for completing action on that item even if the schedule calls for a long-term, multi-year effort.

A number of commercial software audit packages are available that generate "tickler reports" on a predetermined schedule to alert facility or agency personnel regarding compliance or action item deadlines. Tickler reports are time sensitive reports that selected software packages can generate automatically, if instructed by the user, so as to alert the user that an important deadline is upcoming. Some of these systems will actually flash a message on the users computer screen on predetermined dates, alerting the user to a deadline. If an agency has responsibility for a large number of facilities, or is responsible for a few facilities with a significant number of issues, such products should be investigated. Further, it is important for an individual to be charged with specific responsibility for this task. If no one is specifically tasked with this responsibility, it may never be adequately addressed.

11.9 BUDGET FOR CORRECTIVE ACTIONS AND COORDINATE WITH FEDERAL BUDGET CYCLE

Budgeting for corrective action and coordination with the facility budget requires cooperation between the audit team and either facility or agency financial staff. As an aid to federal facility personnel, EPA has developed the FEDPLAN program which is described in Chapter 2. In developing a budget for corrective actions, environmental audit team members should consider all aspects of the audit including non-compliance issues and unregulated risk that require funding.

Audit team leaders should consider developing a hierarchy of compliance problems and unregulated risks and assign these to one of two budget needs categories; (i) capital expenditures, and (ii) management/training needs. These two categories should be prioritized to identify the most pressing problems within each category. Timely development of budget requests and integration with the agency budget planning process is essential for securing needed funds for corrective action and control of unregulated risks. To assure that the budget is developed and forwarded to management in a timely fashion, it may be necessary to assign responsibility for this activity to one or more persons. These individuals should identify all corrective action and unregulated risk issues that require immediate funding and forward these to agency management. Audit team members involved in this effort should be aware of the Federal year budget cycle and anticipate budget needs accordingly.

11.10 FOLLOW-UP AUDITS AND VERIFICATION THAT CORRECTIVE MEASURES HAVE BEEN IMPLEMENTED

By developing action items and using tracking systems, an agency will have put in place only part of what is necessary to assure that corrective actions have been implemented. As discussed above, follow-up phone calls or even secondary audits addressing specific action items may be included in the audit process.

Verification that corrective measures have been taken should include a paper trail. For example, if there is an action item to remove two leaking drums of hazardous waste, the verification should include manifests for where the waste was sent and paper work on the disposal or destruction of the leaking drums. Failure to implement corrective actions may result in outside pressure and adverse public relations if the final report is publicly released pursuant a FOIA request, or serious liability problems if legal proceedings are initiated against the agency.