DOE–LM/GJ1204–2006
Rev. 2

U.S. Department of Energy
Office of Legacy Management

Environmental Management System

System Description

May 2006

U.S. Department of Energy

Office of Legacy Management

Work Performed Under DOE Contract No. DE–AC01–02GJ79491
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U.S. Department of Energy
Office of Legacy Management

POLICY

LM P 450.1

Approved: 08-29-05

SUBJECT: ENVIRONMENT, SAFETY AND HEALTH POLICY

OBJECTIVE : To establish the Office of Legacy Management's (LM) policy on environment, safety and health (ES&H) issues according to DOE Order 411.1, "Safety Management Functions Responsibilities and Authorization Policy," and DOE Order 450.1, change 1 "Environmental Protection Program."

POLICY: LM will make ES&H an integral part of our work. LM will follow safe and environmentally sound practices in the conduct of its work for the benefit of our employees, visitors, the public, and the environment. It is our policy to protect Government property against accidental loss and damage; assure compliance with regulatory standards applicable to all phases of operations; and require Office Directors to be responsible for effective ES&H performance in their programs.

LM will systematically and fully integrate ES&H considerations into management and work practices at all levels so that the mission of LM is successfully accomplished while protecting the public, the worker and the environment. LM operations will be conducted in compliance with applicable Federal, state, and local regulatory requirements, DOE directives, and in a manner consistent with the hazards and environmental risks associated with the work. Work processes will be continuously evaluated through an ongoing self-assessment program designed to ensure that the mission of LM is carried out in a safe and environmentally effective manner.

LM will maintain an Environmental Management System, which is built upon DOE's Integrated Safety Management System's Guiding Principles and Core Functions.

LM will work to continually improve our Environmental Management System, with the goal of increased environmental, safety, and health performance. Performance will be measured against objectives and targets stated in the Environmental Management System.

We will objectively and fully communicate ES&H information to LM employees, to contractor personnel, to research associates, to LM stakeholders and to the public.

Michael W. Owen
Director
Office of Legacy Management

DOE−LM/GJ1204−2006
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U.S. Department of Energy
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Appendix

Appendix A: Attachment K of DOE Contract Number DE-AC01-02GJ79491: List A (Applicable DOE Orders), and List B (Applicable Federal Laws and Regulations)

Acronyms

CTMS	Commitment Tracking Management System
DEAR	Department of Energy Acquisition Regulation
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
EM	U.S. Department of Energy, Office of Environmental Management
EMP	Environmental Management Program
EMS	Environmental Management System
EO	Executive Order
EPC	Environmental Procedures Catalog
ES	Environmental Services
H&S	Health and Safety
ISMS	Integrated Safety Management System
ISO	International Organization for Standardization
LM	U.S. Department of Energy, Office of Legacy Management
NESHAP	National Emission Standards for Hazardous Air Pollutants
NEPA	National Environmental Policy Act
QA	Quality Assurance
SOW	Statement of Work
TAC	Technical Assistance Contract
TO	Task Order
UMTRA	Uranium Mill Tailings Remedial Action Project

End of current text

1.0 Introduction

This *Environmental Management System* (EMS) has been developed for the U.S. Department of Energy's (DOE) Office of Legacy Management (LM). This EMS also applies to work conducted for the Office of Environmental Management (EM) under the Technical Assistance Contract (TAC) (DOE Contract No. DE-AC01-02GJ79491) and any other contracts that may be subsequently assigned to these offices. DOE and its contractor(s) will operate under and comply with the elements of this EMS.

Under the TAC, the contractor conducts soil and ground water assessment and remediation, radioactive and hazardous waste management, facility decommissioning, long-term surveillance and maintenance of DOE closure sites, environmental restoration and program management, environmental monitoring and surveillance, regulatory compliance, and records and data management services for LM and EM project sites located in 22 states. As a result of performing these activities, various radioactive, hazardous, mixed, and industrial wastes are generated; effluents and emissions of regulated pollutants are released to the environment; and energy, fuels, and natural resources are consumed. This EMS has been developed specifically to review the work processes and activities that DOE and it's contractor perform under the TAC and any other contracts that may be subsequently assigned to these DOE offices. Additional contracts will require review and update of this document.

This EMS will: identify opportunities for improving how work processes and activities are performed; set goals and establish programs aimed at minimizing the wastes generated; reduce the quantity and toxicity of emissions and discharges to the environment; and identify opportunities for improving energy efficiency in conducting day to day operations. This EMS is designed to integrate environmental protection, environmental compliance, and pollution prevention into work planning and execution throughout all work areas as a function of the Integrated Safety Management System (ISMS).

The term EMS will be used throughout this document to represent the integrated ISMS/EMS approach to all work activities. This EMS program is founded in the five core elements of the *International Organization for Standardization (ISO) 14001 Environmental Management Systems—Requirements for Guidance and Use*: policy, planning, implementation and operation, checking and corrective action, and management review.

1.1 ISMS/EMS Commitment

DOE and its contractor(s) are committed to systematically integrating environmental protection, safety, and health into management and work practices at all levels so that the mission is accomplished in a manner that protects workers, the public, and the environment. The integration of this EMS with the DOE *Integrated Safety Management System Description* applies to all work processes and activities performed under the referenced contract and any other contracts that may be subsequently assigned to these DOE offices. Fundamental to the attainment of the goals set forth in both ISMS and EMS are: personal commitment and accountability, open communications, continual improvement, employee involvement, and line management

responsibility for safety and environmental protection. All personnel are empowered to identify and report potential hazards, unsafe conditions, and environmental risks and/or infractions to management and, if necessary, to suspend work activities if warranted in order to prevent injuries, accidents, or environmental harm.

2.0 Purpose

Executive Order 13148, *Greening the Government Through Leadership in Environmental Management* was signed by President Clinton on April 21, 2000. The objective of this Executive Order (EO) was to ensure that Federal Agencies take "… all necessary actions … to integrate environmental accountability into agency day-to-day decision-making and long-term planning processes, …activities and functions." Furthermore, EO 13148 mandated that all Federal Agency facilities must implement an EMS no later than December 31, 2005. This EMS establishes a framework for identifying measurable environmental goals, objectives, and targets, which are reviewed and updated annually.

DOE has implemented the requirements of EO 13148 through issuance of DOE Order 450.1, *Environmental Protection Program* (January 15, 2003). The objective of this Order is to "implement sound stewardship practices that are protective of the air, water, land, and other natural and cultural resources impacted by DOE operations and by which DOE cost effectively meets or exceeds compliance with applicable environmental, public health, and resource protection laws, regulations and DOE requirements." This EMS fulfills the requirements of DOE Order 450.1, which requires DOE organizations and contractors to develop and implement an EMS. Development and implementation of this EMS is also required in the contractor's contract with DOE.

This Order further stipulates that EMSs must be integrated into a site's ISMS program, which is required pursuant to DOE Policy 450.4, *Safety Management System Policy* (October 15, 1996). Accordingly, this EMS is fully integrated with the *Integrated Safety Management System Description* (STO 10).

The purpose of this EMS Description is to provide a summary of the mechanisms that implement the EMS Program and to provide reference to pertinent documents. The EMS is a continuing cycle of planning, implementing, evaluating, and improving processes and actions undertaken to achieve environmental goals. This EMS Description defines the elements of DOE's EMS Program as implemented in support of its work performed for DOE−LM. This document also presents DOE's systems and processes developed to implement its EMS, and specifically describes:

- **EMS Scope and Applicability (Section 3.0).** This section introduces the business conducted under LM and how contracted work flows from DOE. It presents a diagram of what offices, contractors, and programs are specifically considered in this EMS.
- **EMS System Requirements (Section 4.0).** This section discusses general EMS requirements, presents DOE's Environmental Policy Statement, and discusses specifically how the EMS program is integrated into the ISMS program.
- **EMS Planning and Identification of Significant Aspects, Objectives, and Targets (Section 5.0).** This section discusses the general planning processes used to: identify work scope and activities; analyze environmental hazards, impacts, and compliance risks; and establish measurable environmental goals.
- **EMS Implementation and Operation (Section 6.0).** This section describes roles and responsibilities for implementing the EMS; how the goals and objectives of the EMS are

communicated to employees; specific EMS training requirements; and EMS document and operational control requirements.

- **Checking and Corrective Action (Section 7.0).** This section describes the programs and processes used to conduct independent audits of the EMS program for the purposes of evaluating compliance and environmental protection performance, and for providing feedback to ensure continual environmental improvement.
- **Management Review and System Maintenance (Section 8.0).** This section outlines the management review process and how the system will be updated.

3.0 Scope and Applicability

This EMS is intended for use by all DOE-LM and contractor personnel and applies to all contracts performed under the direction of DOE. This EMS applies to all subcontractors, vendors, and temporary employees by definition of appropriate EMS requirements in the procurement documents. Figure 3−1 illustrates the DOE Offices, contracts (tasks), and contractor personnel covered under the "umbrella" of this EMS.

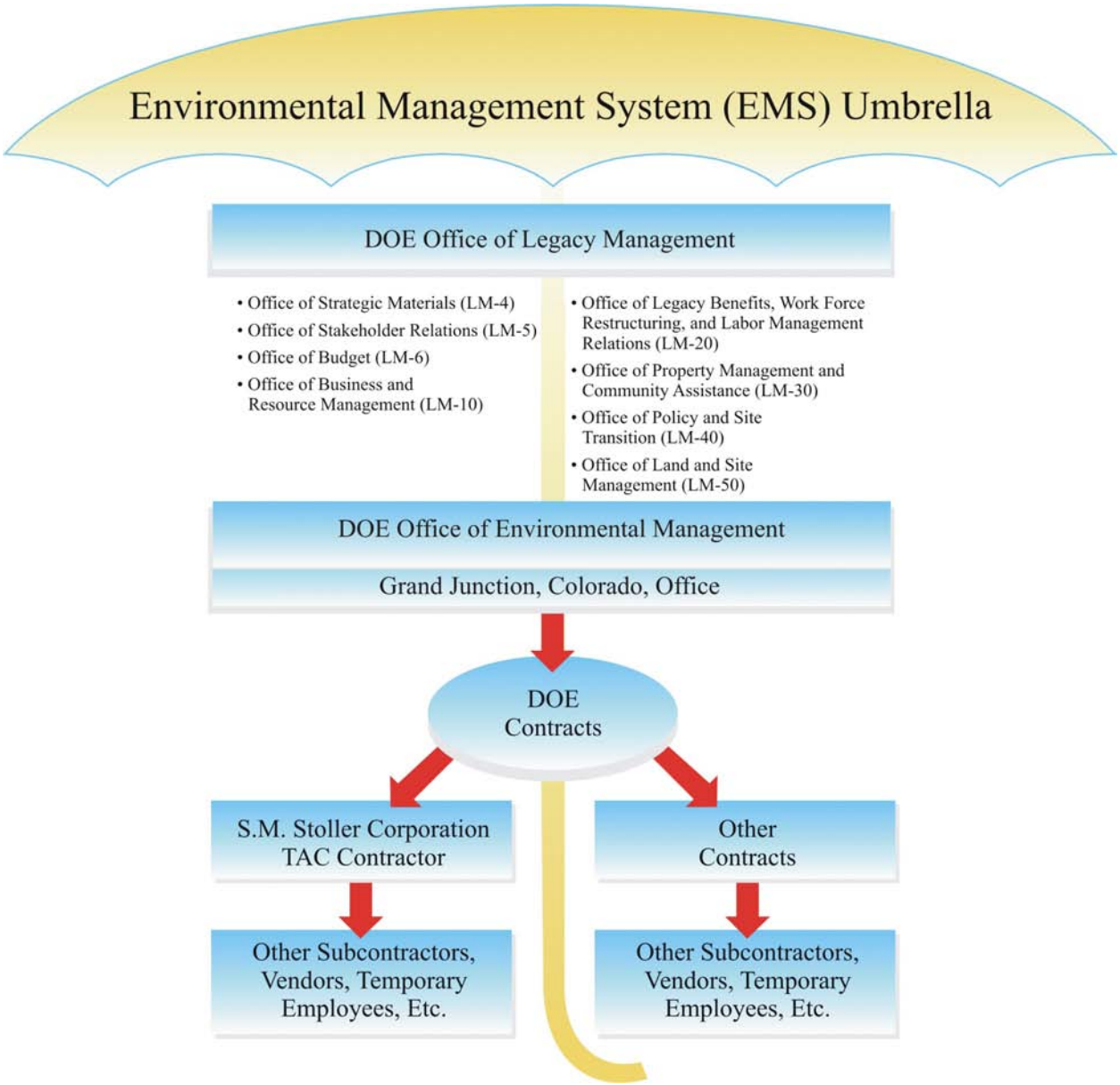

Figure 3–1. EMS Umbrella Diagram

3.1 DOE Contracts

The scope of this EMS Description applies only to those facilities and operations that are managed by the DOE offices previously described and to any other contracts that may be subsequently assigned to these DOE Offices. This EMS applies to all work assigned under the LM contract that has the potential to impact the air, water, land, natural resources, historic or cultural resources, vegetation, wildlife, or surrounding populations.

3.1.1 Office of Legacy Management

DOE−LM has offices in Washington, D.C.;[1] Broomfield, Colorado; Grand Junction, Colorado; Morgantown, West Virginia; Germantown, Maryland; and Pittsburgh, Pennsylvania. These offices are staffed with both DOE and contractor personnel. LM project sites are currently located in 22 states around the nation. An organizational chart for LM is provided in Figure 3−2.

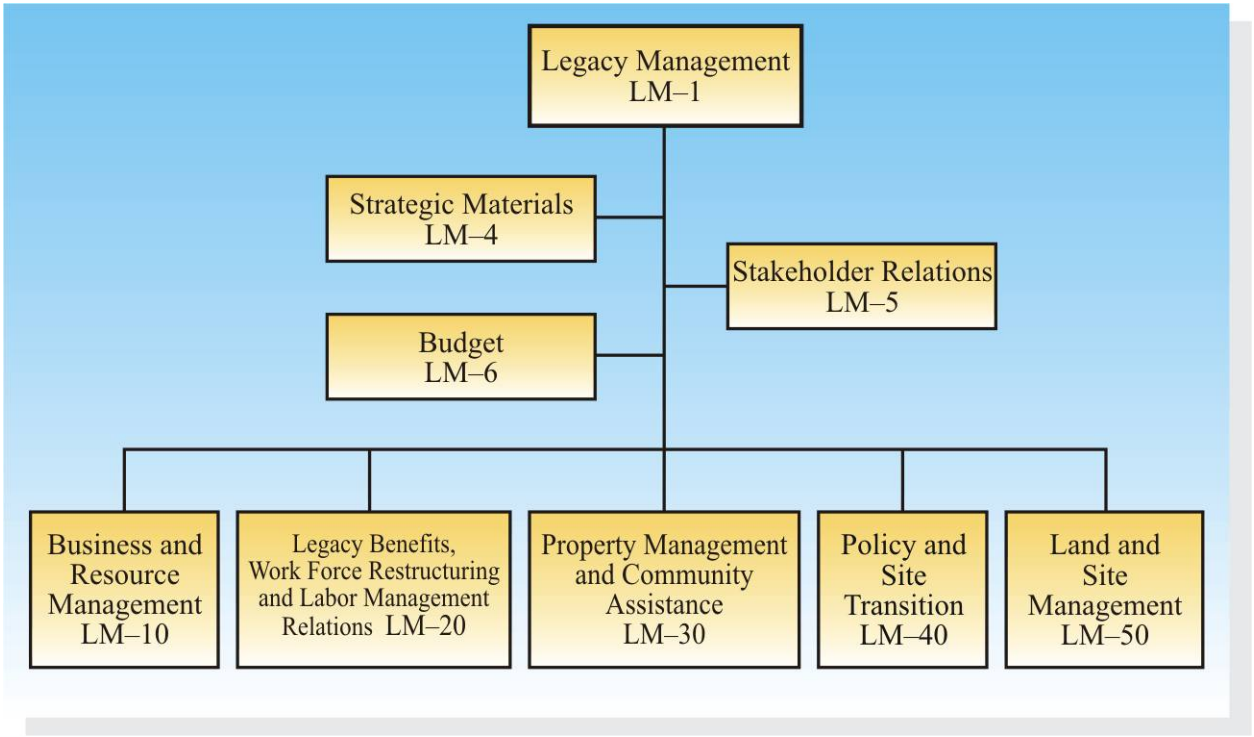

Figure 3–2. Office of Legacy Management Organizational Chart

The mission of LM is to manage the Department's post-closure responsibilities and ensure the current and future protection of human health and the environment. This Office has control and custody for legacy land, structures, and facilities and is responsible for maintaining them at levels suitable for their long-term use. Specific functions of this Office include:

- Protects human health and the environment through effective and efficient long-term surveillance and maintenance of closure sites;

[1] The Washington, D.C. DOE-LM Office operates under a separate EMS.

- Preserves and protects legacy records and information;
- Supports an effective and efficient work force structured to accomplish Departmental missions;
- Implements Departmental policy concerning continuity of worker pension and medical benefits in consultation with the Office of Management, Budget, and Evaluation and the Office of General Counsel;
- Manages and dispositions legacy land assets, emphasizing safety, reuse, and disposition;
- Mitigates community impacts resulting from the cleanup of legacy waste and changing departmental missions; and
- Actively liaisons and coordinates all issues with appropriate Departmental elements consistent with their responsibilities.

3.1.2 Office of Environmental Management

This EMS also applies to work activities performed for the DOE−EM Grand Junction, Colorado, office. The DOE−EM activities and projects covered by this EMS include:

Moab, Utah Uranium Mill Tailings Remedial Action (UMTRA) Project: The Moab UMTRA Project Site is an abandoned uranium milling facility located on the banks of the Colorado River near Moab, Utah. DOE took possession of the Moab Site in October 2001, and is currently evaluating the disposition of 11.9 million tons of uranium mill tailings and tailings-contaminated materials that remain on site. DOE is also implementing various ground water remediation strategies to mitigate and control the release of contaminated ground water from the tailings pile into the Colorado River. DOE has prepared an *Environmental Impact Statement* wherein various remedial alternatives relative to the long-term stabilization and disposition of the tailings pile and associated contaminated materials were considered.

End of current text

4.0 EMS Requirements

This section provides an overview of the general requirements of an EMS program as specified by DOE Order 450.1; presents DOE's Environmental Policy; and discusses the integration of DOE's EMS with the ISMS program.

4.1 General Requirements

An EMS is a systematic and structured approach to address the environmental consequences of an organization's activities, products, and services. DOE Order 450.1 defines an EMS as "a continuous cycle of planning, implementing, evaluating, and improving processes and actions undertaken to achieve environmental missions and goals." Most Federal Facilities have adopted the ISO 14001 EMS standard as the framework upon which their EMS programs are built. Similarly, DOE's EMS is based on the standard elements identified in ISO 14001 and integrates these elements into the core functions of the contractor's ISMS Program.

The basic ISO 14001 EMS model (Figure 4−1) is based on the "Plan, Do, Check, Act" cycle of continuous planning, implementation, evaluation, and improving work processes.

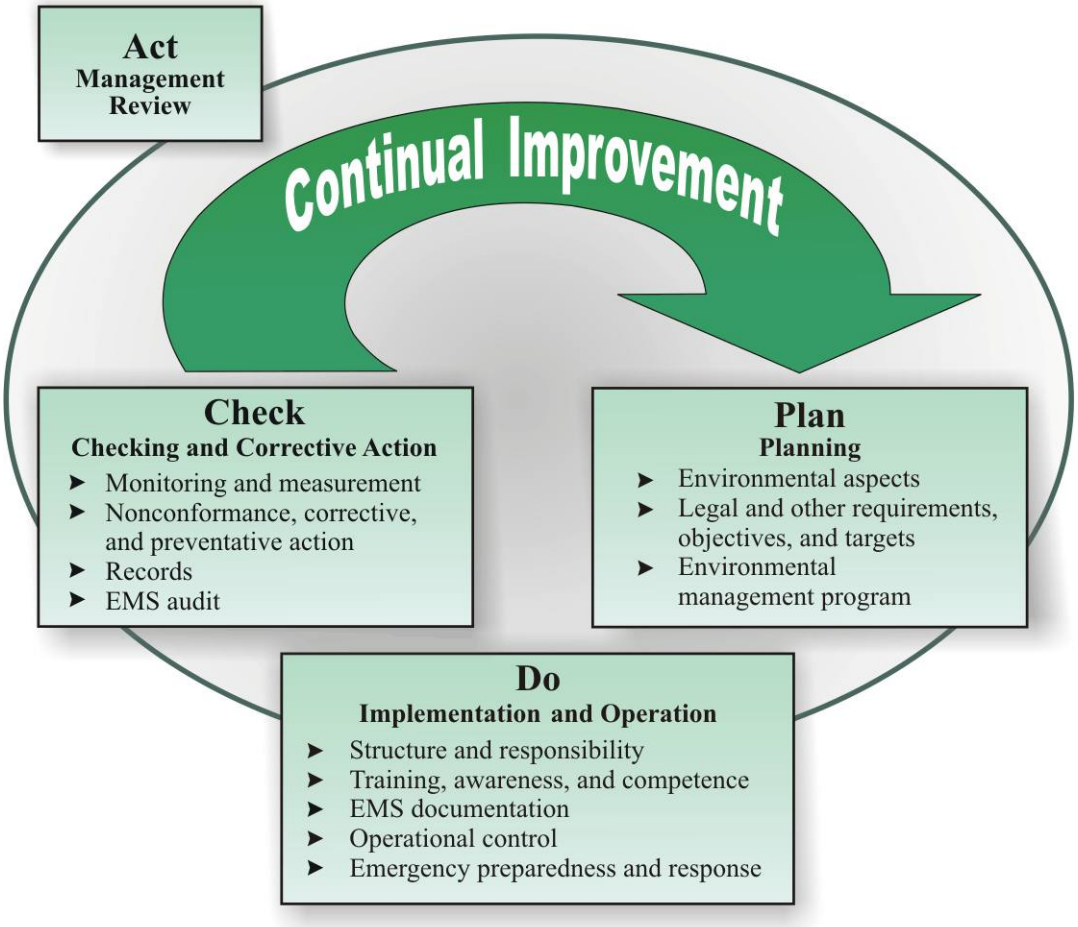

Figure 4–1. ISMS/EMS Plan, Do, Check, Act Cycle

- **Planning Phase ("Plan"):** During this phase, the organization identifies how its operations might negatively affect the environment, and develops methods (objectives and programs) to manage and/or mitigate these impacts.
- **Implementation and Operations Phase ("Do"):** The organization implements specific programs or activities to manage its interactions and impacts with/upon the environment. The organization will prepare and implement procedures during this phase to address specific needs.
- **Checking and Corrective Action Phase ("Check"):** The overall effectiveness of the EMS system and the programs established by the organization to manage environmental interactions and impacts are assessed during this phase.
- **Management Review ("Act"):** During this phase, the organization determines what changes are necessary based on the performance assessment of the programs and activities that have been implemented and designed to reduce negative environmental impacts. As a result of the management review, it may be necessary to adjust programs, objectives, and procedures. Findings and information obtained from this phase are fed back into Phase I, Planning, to make necessary changes and additions designed to bring the EMS to the desired level of effectiveness. This feedback system propels the continual improvement of the EMS.

The EMS continually moves through this cycle, fine-tuning its management of those areas of the organization's operations and activities that may negatively affect the environment. This "continual improvement cycle" is a core tenet of the EMS, and allows the system to adapt to the dynamic nature of the organization's operations.

4.2 Environmental Policy Statement

DOE is committed to achieving the highest standards of environmental quality in performing its work, and to providing a safe and healthful workplace for employees and contractors. Daily operations and activities must be performed in compliance with applicable Federal and state laws, regulations, permits, and other applicable DOE Orders and requirements.

This philosophy is reinforced through an Environmental Policy Statement, and promotes a workplace culture that is founded upon the values of safety, compliance, integrity, and quality. The Environmental Policy Statement prepared for this EMS is found at the front of this document, immediately behind the front cover. The values espoused by the Environmental Policy Statement are implemented through the programs described in this EMS, and by integrating these practices into the principles of the ISMS.

The Environmental Policy Statement is communicated to all employees through the EMS general awareness training, various EMS-related publications (e.g., this document, brochures, posters), and is available via links on the local intranet. This policy is communicated to the public through the DOE−LM Internet site at http://www.lm.doe.gov/. Copies of the policy are also posted in all of the locations that conduct activities for the DOE Offices previously described.

The Environmental Policy Statement is a declaration of senior management's commitment to protection of the environment, and serves as the foundation for this EMS. All employees are

expected to be familiar with and understand this policy. This policy is aligned with DOE's core mission and includes a commitment to continual environmental improvement, pollution prevention, and regulatory compliance. The procedures and processes for implementing the commitments in this policy are described in this document, and in the documents referenced herein. Conformance with the EMS is evaluated through the compliance monitoring and EMS auditing programs also described in Section 7.0 this document.

4.3 Integration of EMS into ISMS

DOE Order 450.1 requires DOE organizations to ensure that site ISMSs include an EMS. The integration of an EMS into an ISMS provides a unified strategy to manage resources, to control and attenuate risks, and to establish and achieve the organization's environmental, safety, and health goals. Under ISMS, the term "safety" also encompasses health and environment (DOE Policy 450.4); therefore, the guiding principles and core functions in ISMS are as applicable to the protection of the environment as they are to the protection of employee health and safety.

As stated earlier, both the ISMS and the EMS programs strive for continual improvement through a plan-do-check-act cycle. Figure 4−2 depicts how the EMS elements and ISMS core functions relate to each other.

Figure 4–2. Overlap of ISMS Core Functions and EMS Elements

To help integrate DOE's EMS and ISMS, an EMS Core Team was assembled. This team is comprised of key Health and Safety (H&S), Environmental Services (ES), Quality Assurance (QA), and project management personnel from both DOE and contractor staff. This Core Team is responsible for scoping, developing, implementing, and auditing the integrated ISMS/EMS programs.

As part of the EMS/ISMS integration process, gap analysis techniques are used to:

- Assess whether existing programs, procedures, and controls fully address the EMS elements required by DOE Order 450.1;
- Identify any need for new or revised programs and procedures;
- Establish significant environmental aspects of DOE's activities, products, and services; and
- Identify measurable goals, objectives and target to address the significant environmental aspects.

The EMS Core Team accomplishes a gap analysis by reviewing existing ISMS and other documents, identifying needed procedures, analyzing information to determine initial aspects and their significance, and setting objectives and targets to address those significant aspects.

Environmental "incidents or occurrences" may also result in worker injury and/or health risks; therefore, an integral element of integrating the EMS into the ISMS requires that all work activities are analyzed and reviewed for potential health and safety risks and environmental impacts prior to their performance. This combined review is discussed in greater detail in Section 5.2.1, and is designed to benefit both occupational health and safety, and environmental protection.

4.4 Self-Declaration Process

DOE has chosen to use the *Self-Declaration* procedure outlined in DOE Guidance 450.1-1 to document that this EMS conforms with DOE Order 450.1. Self-declaration is a mechanism whereby a site publicly asserts that it conforms to the Order. Self-declaration provides for effective and objective assessment of the integrated ISMS/EMS in a manner that not only ensures a system that meets the requirements of DOE Order 450.1, but that is also designed for ongoing evaluation and continual improvement.

In August 2005, an independent, internal audit of the EMS was conducted by a third party QA organization[2] using the Self-Declaration procedure provided in DOE Guidance 450.1-1, Attachment 2. This procedure was developed pursuant to the *Agency Self-Declaration Protocols for Appropriate Federal Facilities* (September 10, 2003), which was developed by the EO 13148 Interagency Working Group. As a result of this audit, DOE-LM was able to self-declare on October 13, 2005, that its EMS conforms with the requirements of DOE Order 450.1.

[2] Chris J. Reimer, Registrar Accreditation board, Environmental Management Systems Lead Auditor.

5.0 Planning and Aspects Identification

5.1 Environmental Aspects

In accordance with DOE Guidance 450.1-2, DOE and its contractors evaluate their activities, products, and services to identify the significant environmental aspects of work activities that have the potential to negatively impact the environment, the public, or to result in a noncompliance with regulatory requirements. This EMS is designed to control and reduce, where possible, the impacts associated with the identified aspects.

Environmental aspects will be identified annually, and determination of aspects will be initiated during the Task Order development process, as specific work tasks are negotiated between DOE and its contractor(s). Determining the significant environmental aspects during the task order process ensures that resources will be dedicated to addressing those aspects that have a potential impact upon the environment or health and safety. Additionally, the EMS provides a framework whereby environmental performance is continually evaluated and the activities having impacts may be periodically adjusted to bring its performance into alignment with stated goals and mission objectives.

5.1.1 Procedure for Identifying Environmental Aspects and Associated Objectives and Targets

Annually, DOE and its contractor(s) must evaluate assigned work to identify and update the significant environmental aspects. The EMS Core Team is responsible for updating the environmental aspects and the EMS, as appropriate. The EMS Core Team identifies applicable environmental aspects and further determines the *significant* environmental aspects each year prior, during, or after the negotiation of Task Orders between DOE and its contractor(s). There is a potential that not all significant environmental aspects will have associated objectives and targets. However, any significant aspects that can be identified during the Task Order process should be included in the Task Order to ensure adequate funding and resources. It is potential that not enough detail on work activities will be available during the Task Order process to determine significant aspects. In these cases, significant aspects will be identified when the work scope is executed. Once Task Orders negotiations have been completed and the contract deliverables and schedules have been established, the EMS Core Team will set the goals, targets, and objectives for the significant environmental aspects.

The following steps outline the basic process for re-evaluating existing aspects and for determining new significant environmental aspects.

Step 1: The EMS Core Team uses employee and line management input (surveys), professional knowledge, physical walkthroughs and inspections to develop and/or update a comprehensive list of the activities, products, and services and their interactions with the environment. Based on this information, new aspects and impacts are captured on a matrix (Table 5−1) that is used to evaluate and score the aspects.

Table 5–1. Example Environmental Aspects and Scoring Table for Work Activities

Environmental Aspect	Scoring Criteria						Total Score (Sum Columns 1 thru 5, then Multiply by Column 6)
	(1) Degree to Which Aspect is Regulated by Federal, State, Local Regulations, or DOE Orders	**(2) Potential for Regulatory Violation: (How Likely is it that a Regulation Might be Violated?)**	**(3) Severity of Consequences Resulting from Violating a Regulation**	**(4) Significance of Impacts to Health & Safety or Environment**	**(5) Impacts to Mission**	**(6) Frequency of Occurrence of the Aspect: (At How Many Sites does this Aspect Occur?)**	
Paper Consumption / Use (Report / Document production)	3	1	1	2	2	2	**18**
Staff Transportation / Travel	1	1	1	4	4	5	**55**

Key to Scoring:

- Degree of Regulation: 1 = Not Regulated 3 = Somewhat Regulated 5 = Stringently Regulated
- Potential for Violation: 1 = Not Likely 3 = Somewhat Likely 5 = Very Likely
- Severity of Consequences: 1 = Not Serious 3 = Somewhat Serious 5 = Very Serious
- Significance of Impacts to H&S or Environment: 1 = Insignificant Impacts 3 = Somewhat Significant Impacts 5 = Very Significant Impacts
- Impacts to Mission: 1 = Insignificant Impacts 3 = Moderate Restrictions / Impacts 5 = Unable to accomplish mission
- Frequency of Occurrence (Number of Sites): 1 = Few Sites 3 = Some Sites 5 = All Sites

Note: A score can range from 1 to 5; it does not have to literally be a 1, 3, or a 5. For example, for the “Frequency of Occurrence” criterion, a score of “4” could mean “most sites.”

Step 2: Significance for any given environmental aspect is evaluated and influenced by two factors: (1) a numerical composite ranking / score that is jointly assigned by the EMS Core Team, senior management, and key project staff; and (2) the activities and deliverables that are specified in the annual Task Orders that are negotiated between DOE and the contractor(s).

Step 3: The criteria used to numerically evaluate each environmental aspect include: (1) the degree to which the aspect is regulated by Federal, State, or Local regulations, or by DOE Orders; (2) the potential for a regulatory (non-compliance) violation to occur; (3) the severity of consequences resulting from violating applicable regulations; (4) the relative significance of impacts to the environment, or to health and safety; (5) the impacts to DOE's ability to perform and/or complete their mission; and (6) the occurrence (i.e., frequency) of the aspect (i.e., is the aspect common or an isolated/infrequent event?).

Step 4: In conjunction with key senior management and project personnel, the EMS Core Team will evaluate each of the environmental aspects and assign numerical scores according to the criteria described above. A composite score will then be calculated for each environmental aspect.

Step 5: The EMS Core Team and senior management will review the composite scores of all environmental aspects, and those environmental aspects that are directly tied to specific activities, products, or services required by upcoming Task Orders. Using best professional judgment, "significant" environmental aspects will be mutually agreed upon. In some instances, a Task Order between DOE and the contractor may require a specific activity, product, or service that is not even identified on the matrix of environmental aspects that were previously identified. In this event, the activities, products, and services specifically identified by DOE in the Task Order will take precedence over any other aspects identified during the updating procedure, regardless of its numerical score.

Step 6: Each year the EMS Core Team and affected project staff will finalize the list of significant environmental aspects and will establish targets and objectives appropriate to the significant aspects. The EMS Core Team and project staff will then develop a summary of the resources and schedules required to meet the goals, targets, and objectives during the coming year. This summary will be submitted to senior management for approval and authorization. Once approved by senior management, significant environmental aspects and their associated goals, targets, and objectives will be posted on the EMS Internet web page. Table 5−2 provides an example of potential impacts, goals, targets, and objectives that were identified as significant environmental aspects. Table 5−3 provides an example of resources required to implement specific goals, targets, and objectives.

Step 7: With approval from senior management, the EMS Core Team may revise, delete, or add to any of the significant environmental aspects (and their associated goals, targets, and objectives) identified for a given fiscal year. The ability to update identified aspects, goals, targets, and objectives is an integral part of the Plan, Do, Check, Act cycle of continual planning, evaluation, and improvement. The EMS Core Team may convene and consider new aspects or changed circumstances as needed throughout the year. Changes to the list of significant aspects may be necessary due to changes in work scope, changes in work processes/procedures, or if the

Table 5–2. Example Significant Environmental Aspects, Objectives, and Goals/Targets Table

Significant Environmental Aspects	Activities/Products/Services	Impacts (Environment / Worker Health and Safety)	Objectives	Goals/Targets
Paper Consumption / Use	Preparation of reports / documents General office work Use of faxes, copiers, business machines Cleaning / maintaining office space Sampling activities	Depletion of natural resources Impacts to local landfill space Non-hazardous waste generation	Improve reporting processes and make greater use of electronic capabilities Move towards a “paper-less” work environment Promote “Virtual Office” concept Make greater use of tele-video conferencing	Develop plan /process to make greater use of electronic capabilities in the following tasks: 1) Task Order Requests, Plans, and Mods; 2) Invoices; 3) Monthly and Quarterly Status Reports; and, 4) Prime Contract Mods
Staff Transportation / Travel	Travel to and from office (essential work activities) Travel to and from remote sites (essential work activities)	Fuel consumption / depletion of natural resources Automotive air emissions Waste generation Employee accident / injury and property damage	Determine transportation needs, then optimize usage Ensure efficient use of GSA vehicles Minimize employee accidents and injuries Minimize property damage to GSA vehicles Reduce Health and Safety incidents (Occurrence Reports)	Perform analysis of vehicle usage to ensure that existing vehicle mix is appropriate for work activities
Energy Consumption				
Waste Generation				
Air Emissions				
Etc.				

Table 5–3. Example Resources Required for Implementing Goals, Targets, and Objectives for Significant Environmental Aspects

Significant Aspects	Activities/Products/ Services	Impacts (Environment / Worker Health and Safety)	Objectives	Goals/Targets	Resources (Estimated hours)	Task Order Modification Needed
Paper Consumption / Use	Preparation of reports / documents General office work Use of faxes, copiers, business machines Cleaning / maintaining office space Sampling activities	Depletion of natural resources Impacts to local landfill space Non-hazardous waste generation	Improve reporting processes and make greater use of electronic capabilities Move towards a “paper-less” work environment Promote “Virtual Office” concept Make greater use of tele-video conferencing	Develop plan /process to make greater use of electronic capabilities in the following tasks: 1) Task Order Requests, Plans, and Mods; 2) Invoices; 3) Monthly and Quarterly Status Reports; and, 4) Prime Contract Mods	S. Brady, No added resources needed	NA
Staff Transportation / Travel	Travel to and from office (essential work activities) Travel to and from remote sites (essential work activities)	Fuel consumption / depletion of natural resources Automotive air emissions Waste generation Employee accident / injury and property damage	Determine transportation needs, then optimize usage Ensure efficient use of GSA vehicles Minimize employee accidents and injuries Minimize property damage to GSA vehicles Reduce Health and Safety incidents (Occurrence Reports)	Perform analysis of vehicle usage to ensure that existing vehicle mix is appropriate for work activities	M. Gardner 32 hrs-MG 8 hrs – MH (40 hrs tot)	NA
Transportation of Regulated Materials (DOT Issues)	Shipping samples for analysis Hauling contaminated materials on public highways Use of equipment with radioactive sources	Non-compliance with DOE regulations Negative impacts to program objectives / goals	Ensure that low-level RRM can be transported efficiently and in a manner that meets programmatic needs	1) Apply for Radioactive Materials Transport exemption. 2) Finalize sample shipping procedures to describe process for shipping in compliance with DOT exemption	J. Berwick	NA

current aspects are determined to be impractical, insufficient, cost prohibitive, or would result in little or no overall benefit to DOE. The initial document and the final document from each revision will become a controlled document that will be available via the website to all employees and interested stakeholders.

5.2 Legal and Other Requirements

As defined by DOE Guidance 450.1-2, "Legal and Other Requirements" that may apply to a site include various federal, state, and local regulations, executive orders, DOE Orders, and other internal DOE policies. To address the "Legal and Other Requirements" that apply to work performed by the contractor, the contractor will maintain the *Environmental Management Program Implementation Manual* (STO 11). The *Environmental Management Program Implementation Manual* provides specific procedures, which outline the program elements of how DOE is complying with the applicable legal and other requirements.

The range of activities occurring at the sites and locations covered by this EMS vary from inactive closure sites on one end of the spectrum to intricate pump and treat ground water treatment and remediation sites with offices and support staff on the other end. Consequently, the applicability of various "Legal and Other Requirements" is expected to vary significantly from site to site. Additionally, the environmental conditions and geographic settings are highly variable from one location to another, and to some extent, factor into which of the above elements may, or may not be applicable to a given site.

To address this high degree of variation in activities from one site to another, Site-Specific Program Plans are prepared as needed to address site conditions or circumstances that are unique to each location. For example, some sites are located in the arid southwest regions of the United States, characterized by sparse vegetation and little precipitation, such as Shiprock, New Mexico, or Mexican Hat, Utah. Other sites are located in mountainous or prairie-land areas with dense growths of forests or grasslands, such as Lowman, Idaho, or Falls City, Texas. The requirements for a Wildland Fire Management Plan, for example, will differ dramatically between these two types of sites. Site Specific Program Plans may also be prepared to address specific activities that are expected, or have the potential to result in negative impacts to the environment, such as the demolition of buildings that may be eligible for historic landmark registration; installation of a haul road across lands that may result in the disturbance of archaeological resources; or removing willows in a riparian area that could provide potential habitat for threatened and endangered bird species.

In addition to federal, state, and local laws and regulations and DOE Orders, the activities conducted for DOE are also subject to any specific requirements of a contract. The legal requirements that apply to the contractor under the TAC are identified in List A (contract Attachment K, Section J, Part III) and List B (contract Attachment K, Section J, Part III):

- List A identifies DOE Orders, Guides, Manuals, Notices, and other DOE requirements.
- List B includes the list of applicable Federal laws and regulations, and was developed in accordance with Department of Energy Acquisition Regulation (DEAR) 970.5204-78, *Laws, Regulations, and DOE Directives* (June 1997).

In performing work under this contract, the Federal and contractor personnel shall comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency. A List of Applicable Laws and Regulations may be appended to this contract for information purposes. Omission of any applicable law or regulation does not affect the obligation of the contractor to comply with such law or regulation pursuant to this paragraph.

As orders and regulations are revised, the newer document is used without revision to these lists. A complete listing of the applicable DOE Orders and Requirements, and Federal Laws and Regulations is provided in Appendix A.

5.2.1 Procedure for Identification and Communication of Legal and Other Requirements and Description of Basic Work-Flow Process

For new work activities or changes in scope of existing projects, this EMS outlines the work–flow process for identifying applicable health and safety and environmental requirements and communicating these requirements to the appropriate functional groups and program/project personnel.

The work-flow process is required for any work activity that meets the following criteria:

- Requires a Statement of Work (SOW) to be issued for field work;
- Will result in the disturbance of waterways, wetlands, or floodplains;
- Could result in the disturbance of, or impacts to environmentally sensitive areas, such as threatened and endangered species habitat, riparian areas, areas with archaeological and/or historical resources, etc.;
- Will occur in radiologically contaminated areas or areas suspected to be radiologically contaminated and will require working with or generating regulated hazardous substances or wastes; or
- Will require the use, transportation, or handling of regulated hazardous materials or hazardous chemicals.

If a given project or activity meets any of the above criteria, the following procedure outlines the basic work-flow process that will be followed to ensure that all legal requirements, environmental impacts, and health and safety hazards are identified and communicated to the appropriate functional groups and program/project personnel.

The basic elements of this procedure follow the Plan, Do, Check, Act cycle of continual planning, evaluation and improvement as depicted in Figure 5−1.

Plan: (Steps 1 through 7)

As discussed in Section 5.1, the Task Order process is the primary mechanism whereby DOE plans and schedules work activities, and establishes deliverables and performance objectives for the contractor. At the project and functional level, the contractor follows the work-flow process to: define the work scope; identify environmental aspects, specific hazards, compliance risks, potential impacts, and applicable environmental requirements; and develop task-specific

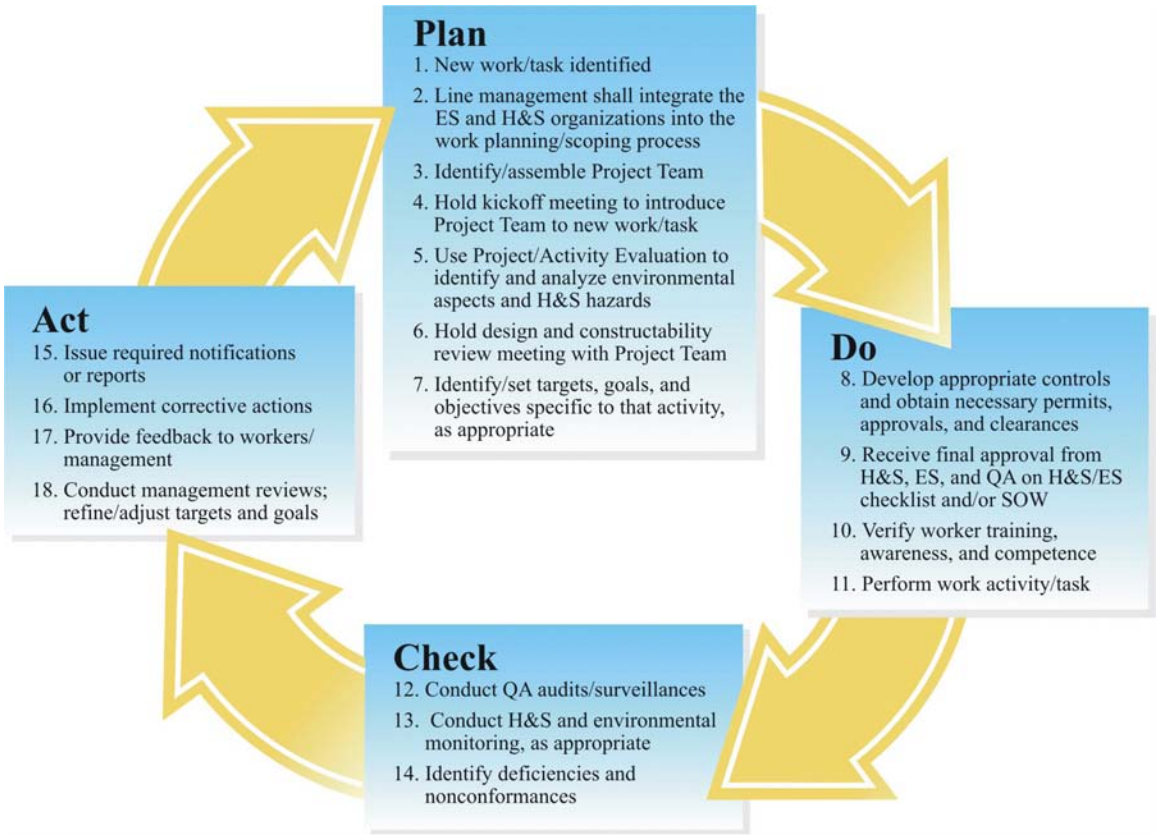

Figure 5–1. Overlay of Basic Work-Flow Process and the Plan, Do, Check, Act Cycle

procedures, plans, and other controls as needed. Project staff should consider the work to be done and use a graded approach to establish Project Review Teams and to conduct activity reviews.

Step 1: DOE requests a proposal for required work, negotiates the tasks to conduct the work, and authorizes the task or new activity.

Step 2: The Site Lead/Line Manager will integrate ES and the H&S organizations into their work planning and scoping process as soon as possible after receiving new tasks or work assignments that have the potential to affect worker health and safety, the environment, or the public.

Step 3: Depending on the work or activity to be conducted, the Site Lead/Line Manager will identify and assemble the core Project Review Team. The core Project Review Team comprises at least one representative from each of the following organizations: ES, H&S, QA, and other appropriate project and functional staff. This core Project Review Team is an integral component of the work-flow process and ensures that a multi-disciplinary, comprehensive review of the project or activity is performed.

Step 4: The Site Lead/Line Manager is responsible for calling the core Project Team together for a project Kick-Off meeting. The purpose of this meeting is to introduce the project to the core Project Team and provide initial scoping details.

Step 5: In cooperation with ES and H&S staff, the Site Lead/Line Manager will complete the appropriate sections of the Project/Activity Evaluation Checklist (Figure 5−2). This Project/Activity Evaluation Checklist is the mechanism whereby specific environmental requirements and impacts and health and safety hazards are determined and the need for controls or mitigative measures is identified.

Step 6: The Site Lead/Line Manager is responsible for holding reviews such as Design, Constructability, or Activity Readiness Review meetings with a core Project Team for activities that are complex or that have significant health and safety or environmental components. The Project/Activity Evaluation can be used to help determine needed reviews.

Step 7: As appropriate, the EMS Core Team, in cooperation with the line manager, is responsible for setting targets and objectives for the specific activity/project in accordance with the EMS process. These targets and objectives are designed to mitigate the potential environmental impacts and hazards that are associated with the activity or project.

Do: (Steps 8 through 11)

Step 8: The Site Lead/Line Manager will develop administrative and engineered controls as appropriate for safe work processes and protection of the environment. These controls are a product of the information obtained from the Project/Activity Evaluation Checklist. ES and the H&S organizations are responsible for establishing these controls and obtaining the required permits. During this step, all permits (e.g., Air Emissions Permit, Waste Water Discharge Permit, Safe Work Permit), clearances, and authorizations needed to conduct the work in a safe and compliant manner are obtained.

Step 9: After all controls, requirements, and permits have been identified, the Site Lead/Line Manager is responsible for obtaining final approval and authorization signatures from the manager of the ES and H&S organizations on the bottom of the Project/Activity Evaluation Checklist. This final approval signifies that the project has been cleared and authorized by the ES and H&S organizations to proceed.

Step 10: The Site Lead/Line Manager is responsible for ensuring that all workers supporting the project meet the applicable competence, awareness, and training requirements. Training requirements applicable to any given task or project are defined by the Site Lead/Line Manager.

Step 11: Contractor performs the work activity or task.

Check: (Steps 12 through 14)

In this portion of the Plan, Do, Check, Act cycle, the contractor will monitor performance, track and correct deficiencies, take preventive actions, and manage records.

Step 12: The QA organization conducts audits and surveillances to determine if work is being conducted according to approved procedures, directives, and contract requirements.

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Project/Activity Evaluation
General Project/Activity Information

Requisition No. _____ Project/T.O. _____ Performance Period _____

Work Scope _____ Work Site _____

Type of Work (Line Supervisor — check all that apply)

- ☐ Construction/demolition
- ☐ Environmental remediation
- ☐ Facility maintenance
  - ☐ Electrical
  - ☐ Grounds keeping/landscaping/weed control
  - ☐ Mechanical
  - ☐ Road maintenance
  - ☐ Structural
  - ☐ Welding/cutting/grinding
- ☐ Hazardous material transportation
  - ☐ Type of material _____
- ☐ Land cleaning/excavation
- ☐ Office work (technical support)
- ☐ Site inspection
- ☐ Treatment system maintenance
- ☐ Water/soil sampling
- ☐ Well installation/drilling/decommissioning
- ☐ Other _____

Hazard Assessment

Anticipated Hazards (Line Supervisor and Health and Safety — check all that apply)

- ☐ All-terrain vehicles
- ☐ Asbestos
- ☐ Biological hazards
- ☐ Brush-cutting equipment
- ☐ Buried or overhead utilities
- ☐ Chemicals (list) _____
- ☐ Cold stress
- ☐ Compressed gas cylinders
- ☐ Confined spaces
- ☐ Drilling
- ☐ Drowning
- ☐ Earthmoving equipment
- ☐ Electrical
- ☐ Ergonomic
- ☐ Eye injury
- ☐ Excavations
- ☐ Falls (to lower working level)
- ☐ Forklift
- ☐ Hands/feet injury
- ☐ Hazardous atmospheres
- ☐ Hazardous energy (LO/TO)
- ☐ Hazardous material shipping/receipt
- ☐ Head injury
- ☐ Heat stress
- ☐ Heavy lifting > 50 lb
- ☐ Hot work
- ☐ Ladders
- ☐ Machinery
- ☐ Manlift
- ☐ Mechanical hoisting (lifts)
- ☐ Noise
- ☐ Power tools
- ☐ Radiological
- ☐ Scaffolds
- ☐ Slips, trips, falls (same level)
- ☐ Working alone
- ☐ Other _____

Health and Safety (H&S) Requirements (determined by H&S staff)

- ☐ Daily safety briefing
- ☐ H&S Plan or Project Safety Plan
- ☐ H&S section in SOW
- ☐ Initial site/work briefing
- ☐ Job coverage by Stoller personnel
- ☐ Job safety analysis (JSA)
- ☐ Personnel or atmospheric monitoring _____
- ☐ Personnel protective equipment
- ☐ Safety permit type _____
- ☐ Subcontractor competent person
- ☐ Training required _____
- ☐ Other _____

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(see second page)

Figure 5–2. Project/Activity Evaluation Checklist

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Environmental Aspects Checklist

Anticipated Environmental Aspects (Line Supervisor and Environmental Staff — Check all that apply)

Would the action involve, generate, or result in changes to any of the following? These environmental aspects may be subject to federal and/or state regulation.

- ☐ Air emissions, fugitive/visible dust emissions
- ☐ Asbestos
- ☐ Biological hazards
- ☐ Biota
  - ☐ Migratory birds
  - ☐ Noxious weeds
  - ☐ Threatened and endangered species
- ☐ Chemical use and storage
- ☐ Contaminated medium disturbance
- ☐ Cultural/historical sites
  - ☐ Removal of structures
- ☐ Discharge to ground water
- ☐ Discharge to surface water
- ☐ Discharge to wastewater system
- ☐ Explosives use/management
- ☐ Floodplains/wetlands
- ☐ National/state monuments/parks
  - ☐ Designated wilderness areas
- ☐ PCB contamination
- ☐ Pesticides/herbicides
- ☐ Petroleum products use/storage
- ☐ Public exposure to or release of radioactive materials or wastes
- ☐ Reclamation/revegetation activities
- ☐ Recycle and reuse of materials
- ☐ Surface/storm water runoff
- ☐ Storage tanks (other than water)
- ☐ Transportation of regulated materials
- ☐ Underground injections
- ☐ Underground storage tanks
- ☐ Waste generation/management
  - ☐ Hazardous waste
  - ☐ Industrial waste
  - ☐ Mixed waste
  - ☐ Radioactive waste
  - ☐ Solid waste
- ☐ Other

_____
_____
_____

Environmental Requirements (determined by ES staff)

- ☐ NEPA documentation sufficient
- ☐ Covered by existing policy and procedures — no action
- ☐ Follow-up required — see Environmental Services staff
  - ☐ Consumptive use of water (water rights)
  - ☐ Monitoring requirements
  - ☐ Permits
  - ☐ Reporting requirements

Line Supervisor _____ Date _____
H&S review _____ Date _____
Environmental review _____ Date _____

Distribution: Site Supervisor/Line Supervisor
Task Order Manager
ES File
Project File
H&S File

File Index Number _____

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Figure 5−2 (continued). Project/Activity Evaluation Checklist

Step 13: Project staff conducts task-specific health and safety and environmental monitoring for tasks that have the potential to significantly impact worker health and safety or the environment. Monitoring needs are determined by the appropriate H&S and ES staff in consultation with the Site Lead/Line Manager.

Step 14: The QA organization identifies and documents any deficiencies or nonconformances by conducting audits or surveillances. It is the responsibility of every employee to notify their immediate supervisor if they become aware of any non-compliant condition or activity associated with their work duties.

Act: (Steps 15 through 18)

The primary objective of this portion of the Plan, Do, Check, and Act cycle is to: ensure that deficient conditions are communicated to management and workers; implement corrective actions and prevent reoccurrence; provide feedback to workers and management; and refine and adjust targets and goals as necessary.

Step 15: The QA organization is responsible for issuing notifications, findings, or reports of deficient or non-compliant conditions observed during audit and surveillance activities and for communicating findings to the appropriate organizations in a timely manner. In the event of an environmental release or occurrence, the Manager of ES must be notified immediately, and if necessary, must follow the emergency notification procedures as outlined in project-specific environmental and health and safety plans as appropriate.

Step 16: The Site Lead/Line Manager responsible for the deficient condition has the responsibility to analyze their work processes and activities, develop a corrective action plan, and to implement and monitor corrective actions to ensure that the deficient condition has been remedied.

Step 17: The functional manager / supervisor to whom the finding was issued is responsible for communicating the corrective actions and providing feedback to the affected workers and management. Affected workers are responsible for implementing the corrective actions as identified.

Step 18: A DOE and contractor Senior Management team will conduct management reviews of the EMS annually. Unlike an audit or surveillance that focuses on specific details of a work task, the management review is intended to focus on the “bigger picture perspective” to determine if the EMS is adequate, effective, and beneficial to supporting DOE’s goals and mission.

5.3 Objectives and Targets

Objectives and targets are based on the environmental policy, legal and other requirements, and consideration of significant environmental aspects, stated goals and mission, and the views of affected stakeholders. Although DOE and the contractor(s) are operating jointly under this EMS, the objectives and targets that are appropriate to their respective significant environmental aspects are determined independently; that is to say, DOE and the contractor are each responsible for determining the objectives and targets that apply to its own respective work activities. This

separation is necessitated by the fact that the nature of the work performed by DOE and the work performed by the contractor is inherently and significantly different. Therefore, it follows that the environmental objectives and targets, likewise may be different; however, the *process* or *system* for identifying these objectives and targets is the same for either entity.

At a minimum, objectives and targets shall be reviewed annually (i.e., when Task Orders are developed and negotiated) and updated as appropriate. As with the identification of significant environmental aspects, DOE and the contractor rely on the Task Order process as the primary planning tool for the identification of objectives and targets. As described in the procedure outlined in Section 5.1.1, once significant environmental aspects have been determined, the EMS Core Team and project staff will develop objectives and targets for each significant aspect for approval by senior management. The EMS objectives describe the goals for environmental performance and, if possible, should be measurable. The EMS targets are specific and measurable immediate steps that can be implemented to obtain the objectives. Once the objectives are established, they are broken down into more specific, subordinate targets.

After objectives and targets have been established, the EMS Core Team and affected line managers will estimate the resource requirements needed to implement each target. These resources include financial requirements, equipment needs, and labor resources needed to achieve the targets. This information will be captured in a summary table such as that shown in Table 5−3, “Example Resources Required for Implementing Goals, Targets, and Objectives for Significant Environmental Aspects.” The final task in formalizing objectives and targets is for management to review and approve the descriptions of the objectives and targets, and the resource estimates required to achieve these goals. Once management has approved the objectives, targets, and estimated resources, the EMS Core Team is responsible for tracking and documenting the status/progress of objectives and targets at periodic intervals (at least quarterly, or as otherwise appropriate).

5.4 Environmental Management Program

The Environmental Management Program (EMP) provides specific program requirements to DOE and the contractor for complying with applicable legal requirements identified in DOE Order 450.1 The EMP and various implementing documents provide specific procedures to manage, control, and mitigate impacts associated with work activities conducted under DOE Contract Number DE-AC01-02GJ79491 and under any other contracts that may be subsequently assigned to these DOE Offices.

The program elements of the EMP are embodied in the *Environmental Management Program Implementation Manual* (STO 11). The program elements presented in the EMP are as follows:

Section 1.0 General Environmental Management Program
Section 2.0 Environmental Regulatory Compliance and Oversight
Section 3.0 National Environmental Policy Act Planning Program
Section 4.0 Environmental Monitoring Program
Section 5.0 Ground Water Protection Program
Section 6.0 Surface Water Protection Program
Section 7.0 Air Quality Protection Program

Section 8.0 Natural Resources Management Program
Section 9.0 Cultural Resource Management Program
Section 10.0 Waste Management Program
Section 11.0 Pollution Prevention Program
Section 12.0 Transportation of Hazardous and Radioactive Materials and Wastes
Section 13.0 Chemical Management Program
Section 14.0 Wildland Fire Management Program

These individual sections provide a summary of the various programs that are implemented in order to achieve compliance with the elements of DOE Order 450.1. Due to the diverse nature (and locations) of the work covered under DOE Contract Number DE-AC01-02GJ79491, these programmatic descriptions are broad in scope and discuss the general approach and procedures for implementing these various programs.

Other implementing documents that describe various components of DOE's EMP include:

- Site-Specific Program Plans. These documents implement the EMP elements of the *Environmental Management Program Implementation Manual* (STO 11). For example, protection of cultural resources is not an issue at every site; however, when cultural resources could potentially be disturbed or encountered as a result of DOE activity, a Site-Specific Program Plan will be prepared specifically to address how the resource will be protected and the impacts mitigated for any given site and activity.
- Site-specific sampling, analysis, and monitoring plans. Typically, these plans are prepared for specific tasks/projects and provide details regarding sample collection activities, objectives, requirements, locations, and frequency.
- Environmental Procedures Catalogue (EPC). The EPC is compilation of administrative and technical sampling procedures, methodologies, and protocols used by contractor personnel when collecting samples from various media and waste types. These sampling procedures ensure that sample collection activities are standardized and performed the same at all locations. In addition, using standardized procedures assures regulators that sample collection activities are being conducted according to industry accepted and approved standards, and helps to insure that the samples being collected are indeed representative of the media from which they were obtained and meet applicable QA and quality control requirements.
- Other programmatic documents (e.g., Long-Term Surveillance Plans, Ground Water Compliance Action Plans, National Environmental Policy Act [NEPA] planning documents) as may be applicable.

6.0 Implementation and Operation

This section describes the basic organizational structure and roles and responsibilities of both DOE and contractor personnel, and key responsibilities as they apply to implementation of this EMS. Additionally, this section also discusses training requirements and responsibilities in implementing the EMS, the development and implementation of operational controls, how DOE and the contractor communicate relevant information to the workforce and the public, the document control system, and the emergency response process.

6.1 Structure and Responsibilities

Although DOE and the contractor(s) are operating jointly under this EMS Description, their respective roles and responsibilities with respect to implementation of the EMS are inherently different. These differences are outlined below:

6.1.1 DOE Roles and Responsibilities

One of the primary differences between DOE and the contractor is how work is administered and executed. DOE's role is to approve, fund, and oversee work activities. This is primarily accomplished through the Task Order process. The Task Order process allows DOE to acquire supplies and/or services during a fixed time period by establishing performance-based agreements with the contractor. A Task Order is a contract between DOE and the contractor to perform a specific scope of work within a specific schedule and budget.

DOE EMS Coordinator

The DOE EMS Coordinator is the DOE−LM Environmental Compliance Lead and serves on the EMS Core Team. The DOE EMS Coordinator is the point-of-contact for the DOE EMS organization and implementation. Responsibilities of the DOE EMS Coordinator include:

- Oversight of the development and implementation of the joint DOE and Contractor EMS in accordance with DOE Order 450.1;
- Planning for and ensuring that adequate funding to support anticipated EMS activities is identified and included in the appropriate Task Orders;
- Defining significant environmental aspects, targets, and objectives for DOE activities;
- Ensuring that targets and objectives for DOE activities are tracked and progress is reported to DOE management;
- Coordinating and participating in audits of DOE's EMS performance;
- Facilitating DOE management involvement in the EMS process, and participating in the joint DOE / Contractor Management Review process.

Task Order Initiation

DOE is responsible for initiating the Task Order process by issuing Task Orders Assignments for discreet projects (i.e., tasks) with a definite beginning and end. DOE and the contractor negotiate and finalize the Task Order Plan, which includes agreed upon deliverables with measurable

milestones. DOE is responsible for monitoring the performance of the contractor against the Task Order Plan and the stipulated deliverables and milestones. The basic elements of the Task Order process are depicted in Figure 6−1.

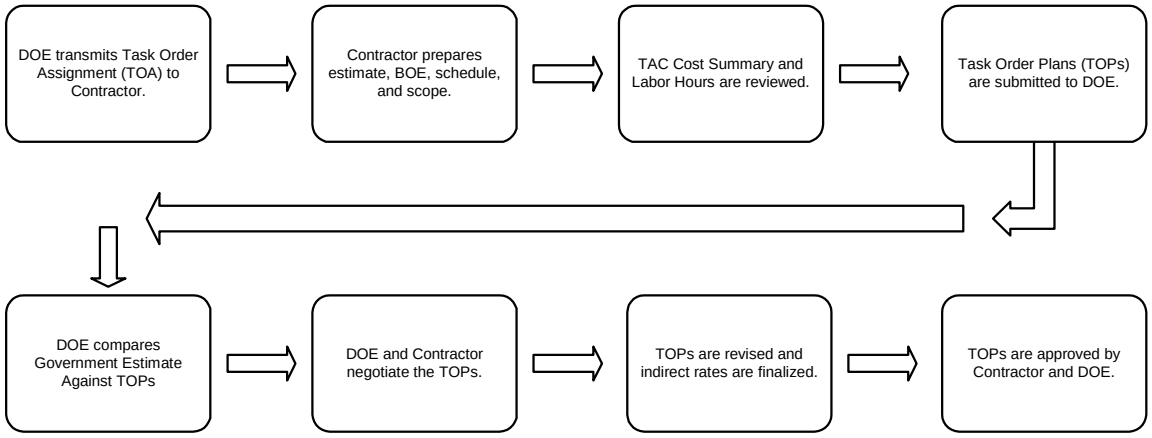

Figure 6–1. DOE Task Order Process

Although DOE's primary functions are related to the administration, oversight, and monitoring of contractor activities, DOE is also committed to the Plan, Do, Check, Act cycle of continual environmental improvement in how day-to-day business is conducted. As described in Section 5.0, DOE and the contractor follow parallel paths with respect to implementing the elements of this EMS. DOE is responsible for evaluating their day-to-day activities to identify how their activities, products, and services interact with, and impact the environment. The "continual improvement" objective of the Plan, Do, Check, and Act cycle requires that DOE conduct and manage their work activities in a manner that is energy efficient, minimizes the generation of wastes and pollution, and protects the environment and natural resources.

6.1.2 Contractor Roles and Responsibilities

The contractor organizational structure is shown in Figure 6−2. The contractor uses a balanced matrix approach whereby programs plan their work through the Task Order process and budget their needs for personnel with specific expertise. Contractor organizations then assign qualified personnel to support specific projects and programs.

<u>Contractor EMS Management Representative</u>

The EMS Management Representative is the ES Manager (Organization 150 on Figure 6−2). The EMS Management Representative is the point-of-contact for the contractor EMS organization and implementation. Responsibilities of the EMS Management Representative include:

- Establishing and maintaining the EMS in accordance with DOE Order 450.1;
- Preparing and submitting an annual update of this EMS System Description;
- Planning for, and ensuring that adequate funding to support anticipated EMS activities is identified and included in the appropriate Task Orders;

- Ensuring that all EMS training requirements (i.e., general awareness training and specialized competence training) are conducted as appropriate;
- Facilitating management involvement;
- Coordinating the Management Review process;
- Ensuring targets and objectives are defined and tracked, and progress is reported to DOE and contractor management; and
- Reporting EMS performance to contractor and DOE management including recommended changes.

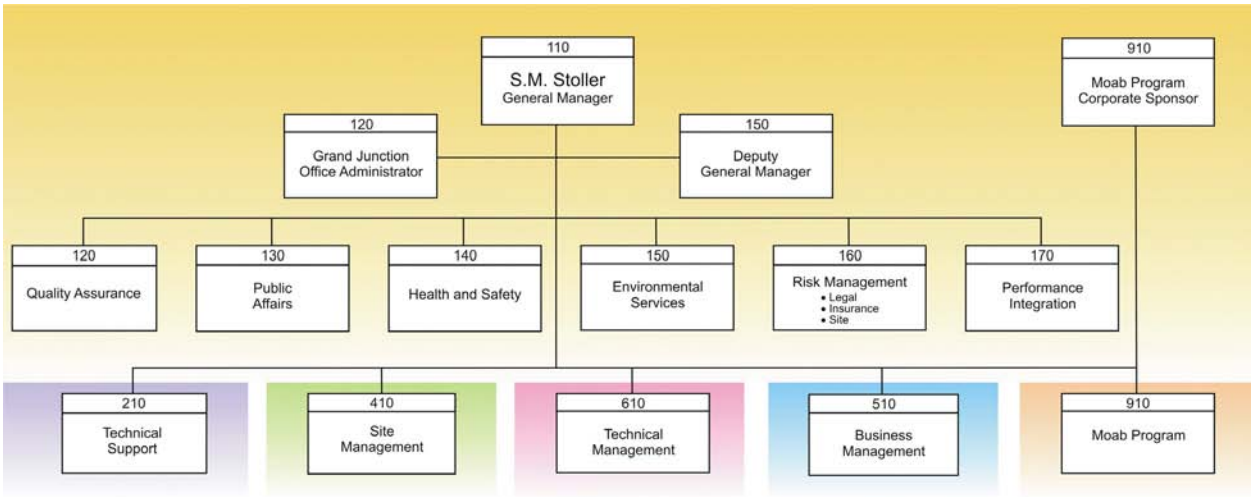

Figure 6–2. Technical Assistance Contractor Organizational Structure

Task Order Implementation

Once DOE has issued the Task Order Assignment, and the terms and conditions of the Task Order are negotiated and finalized, the contractor is responsible for implementation of the work scope described within the Task Order. This is accomplished primarily by planning, executing, and controlling the work scope. Contractor Senior Management is responsible for managing the overall contract and establishing priorities among the projects and programs. Each Site Lead/Line Manager is accountable for the scope and budget assigned to his/her group. The Task Order Manager is ultimately responsible for assembling the resources required to successfully complete the Task Order within the specified schedule and budget. All employees are responsible for performing only the scope of work defined in the task orders and conducting that work with appropriate attention to health and safety and environmental protection.

Contractor Senior Management

Senior management includes the General Manager and the senior managers (organizations 120, 130, 140, 150, 160, and 170 on Figure 6−2) that report directly to the General Manager. With respect to the EMS, senior management is responsible for:

- Establishing and maintaining the Environmental Policy;

- Participating in annual management reviews of the EMS;
- Endorsing environmental excellence of the company;
- Committing resources needed to maintain the EMS;
- Promoting the continual improvement of the EMS and company environmental performance; and
- Appointing a management representative that is responsible for leading the creation, implementation, and maintenance of the EMS.

Contractor Line Management

Line management is defined as the level of managers that reports directly to the contractor senior management. Line management has the following responsibilities:

- Implement the environmental policy and EMS by conducting work in an environmentally safe and compliant manner;
- Integrate ES and the H&S organizations into their work planning and scoping process. Line management will ensure that all work activities are evaluated using the Project/Activity Evaluation Checklist (Figure 5−2) and the procedure described in Section 5.2.1;
- Ensure that all work or tasks related to environmental compliance are conducted only with the approval and oversight of the ES manager, or designee. All actions must be reviewed by the ES Manager, or designee, in accordance with current, applicable regulations;
- Establish and maintain operational controls, monitoring and measurement practices, and training for activities that have the potential to significantly impact the environment;
- Endorse environmental excellence and promote the continuous improvement of the EMS and environmental performance;
- Ensure accountability for environmental performance and implementation of the environmental policy;
- As directed by ES, implement all environmental requirements as identified in regulations, permits, closure plans, environmental checklists, and other documents and procedures;
- Assist the EMS Core Team in defining targets and objectives and the resources needed to accomplish the objectives;
- Identify noncompliant conditions, report them to senior management and ES, and take prompt actions to resolve them;
- Take immediate actions to mitigate impacts of a noncompliant condition. If necessary, a stop work order shall be issued if a threat to human health or the environment is identified;
- Ensure that employees under their direction are adequately trained and qualified;
- Conduct management assessments to evaluate environmental compliance performance within their organization.

All Employees

All employees have the following responsibilities:

- Be aware of, understand, and implement the elements of this EMS as they apply to their job duties and responsibilities;
- Understand and implement the Environmental Policy;
- Report environmental concerns and observations to management and ES;
- Be energy efficient, minimize wastes produced, prevent pollution to the greatest extent possible, and perform work activities in a manner that minimizes impacts to the environment and natural resources;
- Stop work (by notifying supervisor) if there are environmental, safety, or health concerns or infractions associated with work being performed on behalf of DOE or the contractor.

Environmental Services

The ES organization is responsible for coordinating the actions required to develop, maintain, and continuously improve the EMS. ES is the primary organization responsible for identifying and communicating environmental requirements to line management for implementation. Specific ES responsibilities include:

- Tracking, evaluating, and commenting on proposed regulations; interpreting existing and new regulations; determining applicability of environmental requirements; and developing and maintaining the company environmental program requirements documents;
- Developing environmental guidance, procedures, and other implementing instructions as necessary to support work activities;
- Providing qualified technical resources to support implementation of environmental requirements by programs and facilities and ensure their consistent application;
- Coordinating all activities necessary to maintain the EMS;
- Preparing, obtaining, and modifying environmental permits;
- Preparing all NEPA documentation;
- Providing waste and chemical management services;
- Coordinating, preparing and submitting all compliance related reports, documents, and notifications that may be required by DOE Order, site-specific environmental permits, or Federal, State, or local statute (e.g., waste water effluent discharge monitoring reports, annual National Emission Standards for Hazardous Air Pollutants [NESHAPs] reports, annual site environmental reports, chemical inventory reports, etc.);
- Identifying environmental training requirements and communicating those requirements to management and the contractor Training Coordinator. ES will provide subject matter expertise to assist in the development of applicable training, and to ensure that the environmental protection training meets site and employee needs;

- Coordinating and conducting environmental monitoring, surveillance, and measurement activities as appropriate to support mission objectives and goals.

6.2 Training, Awareness, and Competence

Environmental training is provided to ensure that all employees possess the knowledge and skills that are necessary to:

- Perform their jobs in a safe, effective, and environmentally responsible manner;
- Comply with Federal, State, and Local environmental laws, regulations and permits, and company requirements and policies;
- Increase their awareness of environmental protection practices and pollution prevention/waste minimization opportunities; and
- Take appropriate actions in the event of an emergency.

Two types of training are required under this EMS: General EMS awareness, and competence training.

Line management / hiring supervisors may only hire people sufficiently qualified and skilled to perform the duties to which they are being hired. Line management is responsible for ensuring that all employees are competent, skilled, and appropriately trained to safely and efficiently perform their respective duties and job assignments. Basic qualifications and competence requirements are defined in the job descriptions developed for each position.

6.2.1 EMS Awareness Training

EMS Awareness Training is required training for all contractor and DOE employees, and is developed and administered cooperatively through the contractor Training Coordinator and the EMS Management representative. EMS Awareness Training will focus on why an EMS is required, the Environmental Policy Statement, the role and responsibilities of each employee with respect to conducting their work activities in compliance with this policy, and the potential consequences of failing to exercise sound environmental practices and stewardship. This training addresses the following topics:

- Why an EMS is required for DOE and the contractor;
- An overview of the elements contained in this joint DOE/contractor EMS;
- The Environmental Policy Statement and how it applies to all employees;
- The environmental programs that have been established to implement this policy;
- Instructions on the use of the Project/Activity Evaluation Checklist as a planning tool for any and all new activities;
- Why pollution prevention and waste minimization are integral parts of the EMS and how they are implemented by DOE and the contractor;
- Identification of recyclable and non-recyclable office materials, and ways employees can practice waste minimization and pollution prevention at work;

- Roles and responsibilities of all employees in implementing the Environmental Policy Statement; and
- Roles and responsibilities of the ES organization with respect to implementing the EMS.

6.2.2 EMS Competence Training

Competence training is provided to employees whose work activities have the potential to significantly impact the environment. Examples of job assignments that could significantly impact the environment and that would be subject to this additional, specialized training include employees who are engaged in water treatment plant operations, handling or use of hazardous chemicals, management and/or treatment of hazardous wastes, excavation or construction related activities, etc. This specialized training is focused on identifying the potential environmental impacts that could occur as a result of employee negligence or an accident, and the operational controls that are in place (or needed) to prevent negative impacts from occurring.

The Site Lead/Line Manager, the EMS Management Representative, and the Training Coordinator will identify employees and/or job assignments that should receive competence training.

6.3 Communication

Effective integrated environmental management demands effective communications to coordinate staff internally and to maintain open, clear lines of communication with external stakeholders. With respect to DOE's mission and goals, DOE and the contractor are committed to communicating environmental information to its employees and the public, as well as receiving input from employees and external stakeholders. DOE is also committed to fully disclosing environmental issues to applicable regulatory agencies and working with these agencies to remedy any deficient or non-compliant conditions that may arise. This section describes the programs and mechanisms whereby DOE communicates its EMS, environmental program activities, community outreach initiatives, etc. to employees and external stakeholders.

6.3.1 Internal Communications

Various forms of internal communications are used to maintain employee awareness of EMS initiatives, communicate their roles and responsibilities, and motivate employees. The primary tools used for internal communications include:

- The EMS web page located on the DOE−LM intranet address. This web page is designed for access by DOE and contractor employees and provides links to various elements of the EMS Program, including the system description, the Environmental Policy Statement, and objectives and targets. This location may also communicate ongoing and planned EMS initiatives, events, and accomplishments.
- Posters, brochures, presentations, displays, and other visual communications issued through the EMS Management Representative.
- EMS annual training curriculum (both general awareness and competence training). The annual computer-based training required of all employees is one of the most effective and

efficient tools for keeping employees informed of EMS requirements and the environmental aspects, potential impacts, and the objectives and targets that are identified from year to year.

- Special presentations are conducted at all-hands meetings.
- Using the work-flow process and the Project/Activity Evaluation Checklist as described in the procedure in Section 5.2.1 also serves to communicate environmental requirements to employees engaged in planning, designing, and implementing specific work activities and tasks.
- Findings and reports issued from audits, surveillances, management reviews, performance assessments, and lessons learned are effective means to communicate not only non-compliant or deficient conditions, but also to educate personnel in environmental and procedural requirements that apply to the work activities that they are engaged in.

Effective communication is a two way process. Employees may report environmental issues or concerns either through their immediate supervisor or they may contact the EMS Management Representative directly. DOE and the contractor are committed to receiving, evaluating, and responding to all comments, concerns, and recommendations.

6.3.2 External Communications

DOE is committed to openly communicating with, and soliciting feedback from the public, stakeholders, and other interested parties such as news media, regulatory agencies, and other governmental entities. DOE facilitates two-way communication and interaction with the public and solicits ideas and suggestions regarding DOE's EMS Program, and its significant environmental aspects and work activities. The following mechanisms are available to the public whereby specific information may be requested; specific activities conducted by DOE may be researched; and feedback, suggestions, and other input may be provided:

- Internet access to various home pages for the DOE−LM and DOE−EM offices and programs are made available to the public and stakeholders. The Internet addresses for the web sites are as follows: DOE−EM Moab Project (http://gj.em.doe.gov/Moab; and moabcomments@gjo.doe.gov); and DOE−LM (http://www.lm.doe.gov/; and lm@hq.doe.gov);
- Toll free telephone numbers also have been established for use by the public. The toll-free phone number for the DOE−EM Moab Project is 1-800-399-5618; the toll-free phone number for the DOE−LM Office is 1-877-695-5322;
- Both DOE and the contractor are staffed with a Public Affairs Officer who issues news releases, interfaces with the public, and coordinates press conferences as appropriate;
- Annual Site Environmental Reports are prepared and distributed for specific sites; these documents discuss environmental management performance and communicate environmental monitoring and radiological exposure data to the public;
- Public notification is often required for cleanup decisions and environmental permits issued through various environmental regulations (e.g., NEPA, Comprehensive Environmental Response, Compensation, and Liability Act, Resource Conservation and

Recovery Act, and State water right laws and regulations). The public comment process may require that DOE prepare and distribute newsletters, fact sheets, and schedule and hold public meetings, hearings, and document the results. Notices of upcoming meetings and events are distributed to target audiences including federal, state, and local government officials and members of the general public;

- When appropriate, DOE also establishes Stakeholder Involvement Organizations, which serve to integrate local citizens and stakeholders into the planning and decision making process; and
- DOE provides information to interested parties through the Freedom of Information Act process.

6.4 EMS Documentation

Maintaining proper documentation of DOE's EMS program provides information to interested external parties in how the EMS program was designed and implemented. This information is essential for enabling external parties such as registrars, regulators, potential customers, and stakeholders to understand the processes and operational controls whereby DOE manages their work activities, and mitigates environmental impacts. This EMS Description describes the core elements of DOE's EMS program and serves as the primary record documenting the development and implementation of that program.

All EMS records are indexed and kept in an automated records system, called the Hummingbird Records and Document Control System, that facilitates retention and easy retrieval. Records retention is performed in accordance with National Archives protocols. Other documents related to the implementation of certain core elements of the EMS are identified in Table 6−1.

6.5 Document Control

Contractor Records Management/Document Control is responsible for ensuring that controlled documents receive an annual review. Notice is provided to the ES Manager for the annual review and update of the EMS. The ES Manager is responsible for incorporating any changes resulting from the annual Management Review and for reviewing the EMS annually and updating the document as needed.

The current version of the EMS will be posted to the website as described in Section 6.3.1. Controlled documents available electronically are considered uncontrolled when printed. If hard copies of the EMS are required, contractor Records Management/Document Control staff will

Table 6–1. Other DOE EMS Program Implementing Documents

Reference Number	Title	Related EMS Element
Contract No. DE-AC01-02GJ79491	S.M. Stoller Corporation Prime Contract with the U.S. Department of Energy	Legal and Other Requirements
Contract No. DE-AC01-02GJ79491	Section J, Attachment K, List A, DOE Orders	Legal and Other Requirements
Contract No. DE-AC01-02GJ79491	Section J, Attachment K, List B, Regulations	Legal and Other Requirements
STO 1	*Quality Assurance Manual*	Checking and Corrective Action: Monitoring and Measurement, EMS Audit, and Management Review
STO 2	*Health and Safety Manual*	EMS Requirements: Integration of EMS into ISMS
STO 3	*Site Radiological Control Manual*	EMS Requirements: Integration of EMS into ISMS
STO 4	*Training Manual*	Implementation and Operation: Training
STO 6	*Environmental Procedures Catalog*	Planning and Aspects Identification: Environmental Management Programs
STO 8	*Emergency Preparedness and Response Plan*	Implementation and Operation: Emergency Preparedness and Response
STO 9	*Records Management Manual*	Checking and Corrective Action: Records
STO 10	*Integrated Safety Management System Description*	EMS Requirements: Integration of EMS into ISMS
STO 11	*Environmental Management Program Implementation Manual*	Planning and Aspects Identification: Environmental Management Program
STO 12	*Project Management Control System Manual*	Planning and Aspects Identification
STO 203	*Field Services Procedures Manual*	Implementation and Operation
STO 210	*Environmental Sciences Laboratory*	Implementation and Operation
Site Specific	*Long-Term Surveillance Plans*	Planning and Aspects Identification: Environmental Management Programs
Site Specific	*Public Participation Plans*	Implementation and Operation: Communication
Site Specific	*Public Outreach Fact Sheets*	Implementation and Operation: Communication
Site Specific	*Plans and documents required by DOE Order 450.1*	Planning and Aspects Identification: Environmental Management Programs

provide distribution following the contractor's established document control system. The *General Administrative Procedures Manual* (STO 100) Section 2.0, "Manual Preparation, Control, and Distribution," specifies document control for internal documents. This process addresses document review, approval, update, availability at the workplace, use of revision numbers and document numbers, and handling obsolete documents.

6.6 Operational Control

Operational controls are established for those activities that affect significant environmental aspects. Operational controls consist of policies and procedures, trained personnel, physical or administrative controls, process monitoring and specific acceptance criteria stated in procedures. Operational controls exist in contractor manuals, desk instructions, and plans that are generated, produced, and controlled according to established contractor protocols. Specific operational controls are applied through planning, procurement, subcontracting, design, construction and

facility operation. Language is included in all statements of work to inform subcontractors of the Environment, Safety, and Health Policy and to convey environmental requirements to all subcontractors. Safety, environmental, and quality reviews of plans and procedures ensure all needed controls are included.

The *Quality Assurance Manual* (STO 1), Criterion 5, “Work Processes” and QAI 5.1, “Instructions and Procedures” define requirements for procedures. Criterion 1, “Quality Assurance Program” and QA 1.3, “Administrative and Technical Planning,” define requirements for plans.

6.7 Emergency Preparedness and Response

The *Emergency Preparedness and Response Plan* (STO 8) provides for (a) identifying and categorizing potential accidents and emergencies; (b) responding to accidents and emergencies, including the prevention or mitigation of adverse environmental impacts; (c) testing the adequacy of emergency response procedures, personnel training, and equipment through periodic drill and exercises; (d) evaluating emergency drills, exercises, and actual accidents or emergencies for lessons learned; and (e) reviewing and, when necessary, revising emergency preparedness and response plans and procedures to incorporate applicable lessons learned from conducted drills and exercises or from actual accidents and emergency events. Required qualifications and training for emergency response personnel are identified, implemented and maintained.

In support of the *Emergency Preparedness and Response Plan* (STO 8), individual projects and programs may have either project safety plans (for construction activities) or H&S plans (for hazardous waste operations) to provide site specific direction related to emergency response actions.

Emergency response resources and actions are based on the degree of risk posed by the unique operations for the particular site or project for which the plan was developed. It should be noted that the current scope of work addressed by this EMS is low hazard, non-nuclear, and the Emergency Preparedness and Response Program uses a graded approach based on this hazard potential.

End of current text

7.0 Checking and Corrective Action

Monitoring and measuring targets and objectives, performing internal assessments, resolving nonconformances, and conducting preventive and corrective actions are part of the "check" and "act" steps of the Plan, Do, Check, and Act cycle of continual improvement.

Actions are appropriately tracked to closure by the organization identifying a deficiency. Nonconformance reports, corrective action reports, internal independent assessments, surveillances, management assessments, and external assessments are tracked to closure.

7.1 Monitoring and Measurement

ES maintains a current list of objectives and targets, tracks the progress toward the targets, and reports the status to DOE and contractor management periodically. The achievement of target performance will be evaluated periodically by the EMS Core Team and annually during the Management Review.

7.2 Procedures for Evaluation of Compliance

Compliance with legal requirements applicable to the defined environmental aspects is integrated with other management assessments, independent internal assessments, and surveillances. These activities are conducted according to an annual schedule maintained by the group responsible for performing the activity. Planning remains flexible to allow for response to special requests, past performance, and changes in scope of work, as well as to allow the monitoring activities to provide the most useful information to management. Changes to the schedule are communicated to senior management.

The scope and purpose of each of these events is determined in advance through consultation between line management and the organization performing the activity.

Management assessments are self-assessments and can be performed by those responsible for the work. The policy and procedures are defined in the *Quality Assurance Manual* (STO 1), Criterion 9, "Management Reviews and Assessments," and QAI 9.1, "Management Assessments."

Qualified assessment personnel independent of the work perform internal assessments and surveillances. The policy and procedures are identified in the *Quality Assurance Manual* (STO 1), Criterion 10, "Independent Assessment," QAI 10.1, "Internal Independent Assessments," and QA 10.2, "Surveillances." Lead auditors must be certified through a nationally recognized agency and maintain current certification.

All these assessment activities are documented in the Commitment Tracking and Management Database (CTMS). Any corrective actions identified through assessment activities are tracked in the CTMS until completion. Quality Assurance routinely reports to management on status of corrective actions.

7.3 Records

EMS records will show proof of conformance to requirements. The records will be traceable, legible, and retrievable. Standard protocols are defined in the *Records Management Manual* (STO 9) used for records identification, maintenance, protection, and disposition.

EMS records will be maintained by the issuing organization according to established protocols. Records include this EMS document, records of review, records of distribution and control, targets and objectives, reports to management, and assessment report packages. Records of operational controls and for site-specific activities will be maintained as defined in related site-specific records indexes.

7.4 Nonconformance, Corrective, and Preventive Action

Identification of nonconformance, corrective action, or preventive action situations allows proper analysis, mitigation of impacts, correction of specific instances, and prevention of similar instances. Types of nonconformances that may affect the environment include:

- Audit findings
- Accidents
- Emergencies
- Management Reviews
- Regulatory noncompliances
- Negative performance trend
- Subcontractor not meeting requirements

Nonconformance reports and response to corrective actions will be conducted as specified in standard procedures. Following completion of any identified correctives actions, an independent evaluation will be performed prior to closure. Preventive action is practiced in all elements of work activities. Personnel have the responsibility and authority to identify and correct potential nonconformances in the course of their work.

Associated policies and procedures:

Stoller *Quality Assurance Manual*

Criterion 3, “Quality Improvement”

QAI 3.2, “Nonconformance Reporting, Disposition and Closure”

Criterion 10, “Independent Assessment”

QAI 10.1, “Internal Independent Assessments”

QAI 10.2, “Surveillances’

QAI 10.3, “External Assessment Tracking and Response”

7.5 EMS Audit

Audit teams for each element (DOE−LM, DOE−EM, and contractor) will conduct an annual EMS audit of the aspects of the EMS process under their responsibility. Auditor qualification,

knowledge of EMS requirements, independence and ethics are required for all audit team members. Independence in performing audits may be accomplished by use of a third party subcontractor, DOE−HQ, Stoller Corporate, or others who have not been involved in the design of the EMS process.

Conditions including findings, conclusions, and recommendations identified as a result of assessments are documented in a report and the necessary corrective and preventive actions identified. Responsibility and authority for addressing non-conformances found in the EMS program and for implementing the actions to mitigate any adverse impacts will be specified in the report. The reports will be shared with DOE and contractor management. Findings identified in the reports and resulting corrective actions will be tracked to closure by the audit team.

Additional periodic audits may be conducted to ensure that management systems are being maintained and implemented. Requirements of the EMS and implementation of the requirements may be evaluated during these audits. The audits are conducted according to established schedules and procedures.

Associated policies and procedures:

- Stoller *Quality Assurance Manual*
  - Criterion 2, “Personnel Training and Qualification”
    - QAI 2.1, “Certification of Personnel”
  - Criterion 10, “Independent Assessment”
    - QAI 10.1, “Internal Independent Assessments”
    - QAI 10.2, “Surveillances”
    - QAI 10.3, “External Assessment Tracking and Response”

End of current text

8.0 Management Review and System Maintenance

Management Review and System Maintenance provide periodic evaluation of the EMS and allow management to plan for the future. These activities fall under the "check" and "act" steps of the Plan, Do, Check, and Act cycle.

8.1 Management Review

An annual management review of all EMS elements confirms that the EMS is suitable, adequate and effective in achieving the organization's goals of environmental stewardship.

The EMS Core Team gathers information on the EMS elements at the end of each fiscal year to produce an agenda for the management review. Information sources include any of the following that are related to the EMS during the last fiscal year:

- Internal assessments, surveillances and management assessments
- Review of compliance audits and actions from previous management reviews
- Nonconformances, corrective and preventive actions
- Progress toward goals and objectives
- Resources supporting EMS
- EMS trends
- Changing circumstances
- Recommended improvements
- Any communication from stakeholders

The EMS Core Team arranges a Management Review before goals and objectives are established at the beginning of each fiscal year. The Management Review Team consists of DOE−LM, DOE−EM, and contractor top management and others as appropriate. The Management Review Team will complete the review following the agenda and produce meeting minutes that provide improvement recommendations for the EMS. The meeting minutes are shared with all affected personnel and serve as the record of the annual Management Review. The EMS Core Team tracks improvements specified in the meeting minutes to completion.

Associated policies and procedures:
Stoller *Quality Assurance Manual*
Criterion 9, "Management Review and Assessment"

8.2 Updating the EMS

The EMS will be reviewed annually by the ES Manager and updated as needed. This review will closely follow the Management Review to allow input of management's recommendations as well as those of the EMS Core Team. EMS revisions follow the same review, approval, documentation, electronic posting and distribution requirements as the original EMS. The annual review will also consider assessments, nonconformities, and associated corrective actions when making revisions to the EMS. DOE and contractor employees will be notified when the EMS is revised.

End of current text

9.0 Definitions

Activities, Products, and Services—A phrase referring to all of the elements at a facility or organization that can interact with the environment.

Continual Improvement—The process of enhancing the EMS to achieve improvements in overall environmental performance in line with the organization's environmental policy.

Contractor—An organization or entity that is performing work for DOE according to the terms and conditions of a formal, binding contract.

Deficiency—A deviation from a written requirement.

DOE—The U.S. Department of Energy, Office of Legacy Management, and the Office of Environmental Management—Grand Junction, Colorado, office.

EMS Audit—A systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organization's EMS conforms to the EMS audit criteria set by the organization, and for communication of the results of this process to management.

Environment—Surroundings in which an organization operates, including air, water, land, natural resources, cultural resources, flora, fauna, humans and their interrelation.

Environmental Aspect—Elements of an organization's activities, products, or services that can interact with the environment. The environmental aspect of an activity is that part of it that creates a possibility for an environmental impact. As such, it is equivalent to the concept of "hazard" in safety, which is also defined as the mere possibility of a negative event.

Environmental Impact—A change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's activities, products, or services.

Environmental Management System (EMS)—The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, integrating, implementing, achieving, reviewing, and maintaining environmental policy; a continuing cycle of planning, implementing, evaluating, and improving processes and actions undertaken to achieve environmental goals.

Environmental Monitoring—The collection and analysis of samples or direct measurement of environmental media. Environmental monitoring consists of two major activities: effluent monitoring and environmental surveillance.

Environmental Objective—An overall environmental goal, arising from the environmental policy, that an organization sets itself to achieve, and which is quantified where practicable.

Environmental Performance—Measurable results of the EMS, related to an organization's control of its environmental aspects, based on its environmental policy, objectives, and targets.

Environmental Policy—A statement by the organization of its intentions and principles in relation to its overall environmental performance, which provides a framework for action and for the setting of its environmental objectives and targets.

Environmental Surveillance—The collection and analysis of samples, or direct measurements, of air, water, soil, biota, or other media from DOE sites for the purpose of determining compliance with applicable standards and permit requirements, assessing radiation exposures of members of the public, and assessing the effects, if any, on the environment.

Environmental Target—A detailed performance requirement, quantified where practicable, and applicable to the organization or parts thereof, which arises from the environmental objectives, and which needs to be established and met to achieve those objectives.

Integrated Safety Management System—A DOE management system that provides a formal, organized process whereby people plan, perform, assess, and improve the safe conduct of work efficiently and in a manner that ensures protection of workers, the public, and the environment. This management system shall be used to systematically integrate safety into management and work practices at all levels so that missions are accomplished while protecting the public, worker, and the environment.

ISO 14001 Standard—Internationally recognized voluntary EMS standard that provides organizations with the elements of an effective EMS that can be integrated with other management requirements to help organizations to achieve environmental and economic goals.

Line Management—Any management level within the line organization, including contractor management, that is responsible and accountable for directing and conducting work.

Office of Environmental Management—Within the context of this EMS, this term applies only to the DOE-EM office located in Grand Junction, Colorado.

Office of Legacy Management—An element of DOE that is comprised of the following offices: LM-4, the Office of Strategic Materials; LM-5, the Office of Stakeholders Relations; LM-6, the Office of Budget; LM-10, the Office Business and Resource Management; LM-20, the Office Legacy Benefits, Work Force Restructuring, and Labor Management Relations; LM-30, the Office of Property Management and Community Assistance; LM-40, the Office of Policy and Site Transition; and LM-50, the Office of Land and Site Management.

Operational Controls—Procedures that help an organization to implement and achieve its environmental policy, objectives, and targets.

Plan, Do, Check, Act—Based on the ISO 14001 EMS model, this is a cycle of continuous planning, implementing, evaluating, and improving work processes.

Self-Declaration—The process by which an organization determines that it is in full conformance with the requirements of a recognized standard and publicly asserts that it conforms to the specifications of the standard.

Senior Management—The level of management that has authority to make decisions for the site/facility.

Task Order—A contract between DOE and the contractor to perform a specific scope of work within a specific schedule and budget.

End of current text

10.0 References

DOE Order 450.1, *Environmental Protection Program*, U.S. Department of Energy, Office of Environment, Safety and Health, January 24, 2005.

DOE Guide 450.1-1, *Implementation Guide for use with DOE O 450.1, Environmental Protection Program*, U.S. Department of Energy, Office of Environment, Safety and Health, February 18, 2004.

DOE Guide 450.1-2, *Implementation Guide for Integrating Environmental Management Systems into Integrated Safety Management Systems*, U.S. Department of Energy, Office of Environment, Safety and Health, August 20, 2004.

DOE Policy 450.4, *Safety Management System Policy*, U.S. Department of Energy, Office of Environment, Safety and Health, October 15, 1996.

Executive Order 13148, Greening of the Government Through Leadership in Environmental Management, 2000.

ISO 14001, Environmental Management Systems Requirements with Guidance for Use, International Organization for Standardization, 2004.

STO 1. *Quality Assurance Manual*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

STO 2. *Health and Safety Manual*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

STO 3. *Site Radiological Control Manual*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

STO 6. *Environmental Procedures Catalog*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

STO 8. *Emergency Preparedness and Response Plan*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

STO 9. *Records Management Manual*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

STO 10. *Integrated Safety Management System Description*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

STO 11. *Environmental Management Program Implementation Manual*, continuously updated, prepared by S.M. Stoller Corporation for the U.S. Department of Energy, Grand Junction, Colorado.

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Appendix A

Attachment K of DOE Contract Number DE-AC01-02GJ79491

PART III

SECTION J

ATTACHMENT K

LIST A

DOE ORDERS

End of current text

LIST A
DOE Orders Applicable to Department of Energy Office of Legacy Management

Order No.	Subject	OPI	Dated
DOE O 110.3	Conference Management	MA	11-03-99
DOE O 130.1	Budget Formulation Process	CR	09-29-95
DOE N 142.1	Unclassified Foreign Visits and Assignments	SO	07-14-99
DOE O 151.1A	Comprehensive Emergency Management System	SO	11-01-00
DOE O 200.1	Information Management Program	SO	09-30-96
DOE N 205.1	Unclassified Cyber Security Program	SO	07-26-99
DOE N 205.2	Foreign National Access to DOE Cyber Systems	SO	11-01-99
DOE N 205.3	Password Generation, Protection, and Use	SO	11-23-99
DOE O 210.1	Performance Indicators and Analysis of Operations Information	EH	09-27-95
DOE O 224.1	Contractor Performance-Based Business Management Process	FM	12-08-97
DOE O 231.1	Environment, Safety, and Health Reporting	EH	09-30-95
DOE O 231.1A	Occurrence Reporting and Processing of Operations Information	EH	07-21-97
DOE O 232.1A	Occurrence Reporting and Processing of Operations Information	EH	07-21-97
DOE M 232.1-1A	Occurrence Reporting and Processing of Operations Information	EH	07-21-97
DOE O 241.1A	Scientific and Technical Information Management	OSTI	08-17-98
DOE G 241.1-1	Guide to the Management of Scientific and Technical Information	SO	05-08-00
DOE G 242.1-1	Forms Management Guide	SO	05-08-00
DOE O 311.1A	Equal Employment Opportunity Program	ED	12-30-96
DOE O 350.1	Contractor Human Resource Management Programs	MA	09-30-96
DOE O 413.1	Management Control Program	CR	12-06-95
DOE O 413.3	Program and Project Management for the Acquisition of Capital Assets	CR	10-13-00
DOE O 414.1A	Quality Assurance	EH	09-29-99
DOE O 420.1	Facility Safety	EH	10-13-95
DOE O 430.1A	Life-Cycle Asset Management	FM	10-14-98
DOE O 435.1	Radioactive Waste Management	EM	07-09-99
DOE G 435.1	Implementation Guide for DOE Order 435.1, Radioactive Waste Management	EM	07-09-99
DOE M 435.1-1	Radioactive Waste Management Manual	EM	07-09-99
DOE O 440.1A	Worker Protection Management for DOE Federal and Contractor Employees	EH	03-27-98
DOE O 442.1	Department of Energy Employee Concerns Program	ED	02-01-99
DOE O 451.1A	National Environmental Policy Act Compliance Program	EH	06-05-97

Order No.	Subject	OPI	Dated
DOE N 470.2	Reporting Unofficial Foreign Travel	SO	12-15-00
DOE N 473.4	Department of Energy Badges	SO	05-26-00
DOE O 481.1A	Work for Others (Non-Department of Energy Funded Work)	MA	01-03-01
DOE M 481.1-1A	Reimbursable Work for Non-Federal Sponsors Process Manual	MA	01-03-01
DOE O 534.1	Accounting	CR	09-29-95
DOE O 542.1	Competition in Contracting	PR	06-30-97
DOE O 551.1A	Official Foreign Travel	CR	08-25-00
DOE M 573.1-1	Mail Services User's Manual	MA	07-12-00
DOE O 1230.2	American Indian Tribal Government Policy	CI	04-08-92
DOE G 1324.5B	Guide for DOE 1324.5B Records Management	HR	07-19-96
DOE 1332.1A	Uniform Reporting System	FM	10-15-85
DOE O 1340.1B	Management of Public Communications Publications and Scientific, Technical, and Engineering Publications	CI	01-07-93
DOE O 1350.1	Audiovisual and Exhibits Management	CI	10-28-81
DOE O 1450.4	Consensual Listening-in to or Recording Telephone/Radio Conversations	HR	11-12-92
DOE O 2030.4B	Reporting Fraud, Waste, and Abuse to the Office of Inspector General	IG	05-18-92
DOE O 2110.1A	Pricing of Departmental Materials and Services	CR	07-14-88
DOE O 2300.1B	Audit Resolution and Follow-up	CR	06-08-92
DOE O 2320.1C	Cooperation with the Office of Inspector General	IG	05-18-92
DOE O 2321.1B	Auditing of Programs and Operations	IG	05-14-92
DOE 3792.1A	Employee Assistance Program	MA	05-14-92
DOE O 4330.4B	Maintenance Management Program	FM	02-10-94
DOE 4700.1	Project Management System	FM	03-06-87
DOE O 5400.1	General Environmental Protection program	EH	11-09-88
DOE O 5400.5	Radiation Protection of the Public and the Environment	EH	02-08-90
DOE O 5480.4	Environmental Protection, Safety, and Health Protection Standards	EH	05-15-84
DOE O 5530.3	Radiological Assistance Program	SO	01-14-92
DOE 5700.2D	Cost Estimating, Analysis, and Standardization	FM	06-12-92
ID O 420.A	Fire Safety Program	TS	07-13-99
ID O 433.A	Maintenance Management Program	EM	0818-00
ID O 450.D	Offsite Response and Use of the Radiological Assistance Program for Incidents When Personnel and/or Equipment from the INEEL are Suspected of Being Radiologically Contaminated	EM	03-16-00

PART III

SECTION J

ATTACHMENT K

LIST B

REGULATIONS

End of current text

LIST B
Regulations Applicable to Department of Energy
Office of Legacy Management

The List of the Applicable Laws and Regulations (List B) has been developed in accordance with DEAR 970.5204-78, *Laws, Regulations, and DOE Directives (June 1997).*

In accordance with DEAR 970.5204-78, List B is appended to this contract for information, and omission of any applicable law or regulation from List B does not affect the obligation of the contractor to comply with such law or regulation pursuant to the terms of the contract. List B is a compilation, for information, of the major laws and regulations, major permits, and major agreements with regulators applicable to work performed under the terms and conditions of this contract.

Executive Orders are not included in List B. Direction contained in Executive Orders that affect performance of work under Department of Energy Contracts is normally assimilated into appropriate laws and regulations, which include the Federal and Department of Energy Acquisition Regulations. The Department Procurement Executive may, on a case basis, issue direction in the form of Procurement Letters directing specific implementation actions based on Executive Orders.

The contractor shall make recommendations annually for update to List B in conjunction with the annual update to the Safety Management System Description Document as discussed in DEAR 970-5204-2, *Integration of Environment, Safety, and Health into Work Planning and Execution (June 1997).*

NUMBER	TITLE
Public Laws	
PL 85-256 (42 U.S.C. 2012, et seq.)	Price Anderson Act
P.L. 95-604 (42 U.S.C. 7901)	Uranium Mill Tailings Radiation Control Act of 1978
PL 101-189	National Competitiveness Technology Transfer Act of 1989
PL 102-486	Energy Policy Act of 1992
PL 104-113	National Technology Transfer and Advancement Act
5 U.S.C. 552	Freedom of Information Reform Act of 1986
	Privacy Act of 1974
7 U.S.C. 136	The Federal Insecticide, Fungicide and Rodenticide Act of 1972
16 U.S.C. 470, et seq.	National Historic Preservation Act of 1966
16 U.S.C. 470aa-470mm	Archeological Resource Protection Act of 1979
16 U.S.C. 1531 et seq.	The Endangered Species Act of 1973
7 U.S.C. 4201 et seq.	Farmland Protection Policy Act
15 U.S.C. 2601 et seq.	The Toxic Substances Control Act of 1976
17 U.S.C. 401 et seq.	Copyrights
25 U.S.C. 3001, et seq.	Native American Graves Protection and Repatriation Act
33 U.S.C. 1251 et seq.	The Clean Water Act of 1977
33 U.S.C. 2705 et seq.	The Oil Pollution Act of 1990
35 U.S.C. 101 et seq.	Patents

35 U.S.C. 200 et seq.	Rights in Inventions Made with Federal Assistance
41 U.S.C. 35 et seq.	Walsh-Healey Public Contracts Act
41 U.S.C. 51 et seq.	Anti-Kickback Act of 1986
41 U.S.C. 351 et seq.	Service Contract Act of 1965
42 U.S.C. 300	The Safe Drinking Water Act
42 U.S.C. 1996 et seq.	American Religious Freedom Act
42 U.S.C. 2011 et seq.	Atomic Energy Act of 1954
42 U.S.C. 2021	The Low-Level Radioactive Waste Policy Act
42 U.S.C. 4321 et seq.	The National Environmental Policy Act of 1969
42 U.S.C. 5901 et seq.	Federal Non-Nuclear Energy Research and Development Act of 1974
42 U.S.C. 6201 et seq.	Energy Policy and Conservation Act
42 U.S.C. 6901 et seq.	The Resource Conservation and Recovery Act of 1976
42 U.S.C. 7401 et seq.	The Clean Air Amendments of 1977
42 U.S.C. s/s 9601	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
42 U.S.C.9601 et seq.	The Superfund Amendments and Reauthorization Act of 1986
42 U.S.C. 10101 et seq.	Nuclear Waste Policy Act of 1982
42 U.S.C. 11001 et seq.	The Emergency Planning & Community Right-To-Know Act of 1986
42 U.S.C. 13101 et seq.	Pollution Prevention Act of 1990

NUMBER	TITLE
Code of Federal Regulations	
Title 10 – Energy	
Chapter I	Nuclear Regulatory Commission
Part 19	Notices, Instructions, and Reports to Workers: Inspection and Investigations
Part 20	Standards for Protection Against Radiation
Part 21	Reporting of defects and noncompliance
Part 73	Physical Protection of Plants and Materials
Chapter III	Department of Energy
Part 707	Workplace substance abuse programs at DOE sites
Part 708	DOE contractor employee protection program
Part 745	Protection of human subjects
Part 781	DOE patent licensing regulations
Part 783	Waiver of patent rights
Part 830	Nuclear Safety Management
Part 835	Occupational Radiation Protection
Part 962	Byproduct material
Chapter X	Department of Energy (General Provisions)
Part 1021	National Environmental Policy Act implementing procedures
Part 1022	Compliance with floodplain/wetlands environmental review requirements
Title 29 – Labor	
Chapter IV	Office of Labor – Management Standards, Department of Labor
Parts 401-459	Labor Management Standards
Chapter V	Wage and Hour Division, Department of Labor
Parts 500-899	Regulations, Statements of General Policy or Interpretation Not Directly Related to Regulations, Other Laws, and Garnishment of Earnings
Chapter XIV	Equal Employment Opportunity Commission
Parts 1600-1691	Regulations for equal pay, affirmative action, discrimination guidelines
Chapter XVII	Occupational Safety and Health Administration, Department of Labor
Part 1903	Inspections, citations and proposed penalties
Part 1904	Recording and reporting occupational injuries and illnesses
Part 1910	Occupational safety and health standards

Part 1913	Rules of agency practice and procedure concerning OSHA access to employee medical records
Part 1925	Safety and health standards for Federal service contracts
Part 1926	Safety and health regulations for construction
Part 1990	Identification, classification, and regulation of potential occupational carcinogens
Title 36 - Parks, Forests, and Public Property	
Chapter VIII	Advisory council on historic preservation
Part 800	Protection of historic and cultural properties
Chapter XII	National Archives and Records Administration
Part 1220	Federal Records; general
Part 1222	Creation and maintenance of federal records
Part 1228	Disposition of Federal records
Part 1230	Micrographic records management
Part 1232	Audiovisual records management
Part 1234	Electronic records management
Part 1236	Management of vital records
Title 40 – Protection of Environment	
Chapter I	Environmental Protection Agency
	Subchapter C – Air Programs
Parts 0-99	Clean Air Act
Parts 100-149	Clean Water Act
Parts 190-399	Solid Waste Act
Part 192	Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings
Subpart A	General Provisions
Subpart B	General Provisions
Subpart C	General Provisions
Part 761	Toxic Substance Control Act
Title 42 – Public Health	
Part 84	Approval of respiratory protective devices
Title 43 – Public Lands: Interior	
Part 7	Protection of Archeological Resources
Title 44 – Emergency Management and Assistance	
Chapter I	Federal Emergency Management Agency
	Subchapter D – Disaster Assistance
Part 351	Radiological emergency planning and preparedness
Title 48 – Federal Acquisition Regulations System	
Chapter 1	Federal Acquisition Regulation
	Subchapter H – Clauses and Forms
Part 52[(2)]	Solicitation provisions and contract clauses
Part 53[(2)]	Forms
Chapter 9	Department of Energy
	Subchapter H – Clauses and Forms
Part 952[(2)]	Solicitation provisions and contract clauses
	Subchapter I – Agency Supplementary Regulations
Title 49 – Transportation	
Subtitle A	Office of the Secretary of Transportation
Part 40	Procedures For Transportation Workplace Drug Testing Programs
Subtitle B	Other Regulations Relating to Transportation
Part 107	Hazardous Materials Program Procedures
	Subchapter B – Oil Transportation
Part 130	Oil spill prevention and response plans
	Subchapter C – Hazardous Materials Regulations
Part 171	General Information, Regulations, And Definitions

Part 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, And Training Requirements
Part 173	Shippers – General requirements For shipments and packaging
Part 177	Carriage by public highway
Part 178	Specifications for packaging
Part 180	Continuing qualification and maintenance of packaging
Chapter III	Federal Highway Administration, Department of Transportation
	Subchapter B – Federal Motor Carrier Safety Regulations
Part 382	Controlled Substances And Alcohol Use And Testing
Part 385	Safety Fitness Procedures
Part 387	Minimum Levels Of Financial Responsibility For Motor Carriers
Part 390	Federal Motor Carrier Safety Regulations; General
Part 399	Employee Safety And Health Standards