

ID-21-08

Effective Date: 4/1/2021
Expiration Date: 5/31/2022

Interim Directive

Subject

Bluesheeting of all Level 1–5 controlled documents.

Purpose

Effective April 1, 2021, this interim directive (ID) is being issued to initiate the change of all contract and contractor-related information in all Level 1–5 controlled documents.

Directive and Associated Changes

On April 1, 2021, RSI EnTech, LLC, (RSI) assumed responsibility as prime contractor for the Legacy Management Support (LMS) contract under IDIQ Contract # 89303020DLM000001. RSI has performed a qualitative survey of Level 1–5 controlled documents and authorizes their continued use until they are revised to reflect RSI as the prime contractor.

To ensure a timely incorporation of bluesheet information, all Level 1–4 controlled documents¹ must incorporate bluesheet information according to the deadlines, by organization, listed below:

January 31, 2022	Environment, Safety, Health, and Quality Assurance
March 31, 2022	Site Operations
May 31, 2022	All other organizations, including Archives and Information Management; Asset Management; Business Services; Education, Communication, History, and Outreach; Emergency Management; Employee Support and Coordination; Information Management; Information Technology; LMS Program Manager; Program Management Office; Project Services

Document Management will follow up with emails that provide instructions and reminders about the bluesheet incorporation process to all managers responsible for controlled documents.

Since Level 5 documents are not regularly re-issued, they are exempt from the deadlines for bluesheet incorporation listed above.

¹ For an explanation of what controlled documents are and a description of Levels 1–5, see Section 2.2 in *LMS Document Types, Processes, and Responsibilities* (LMS/POL/S32426). A link to this document is on the [Document Management homepage](#) under **Quick Links > Useful Resources**.

Contractor to U.S. Department of Energy Office of Legacy Management

If document points of contact opt to update only contractor information, this will be considered an administrative review, not a comprehensive review,² and the comprehensive review due date will remain unchanged.

The bluesheet information to be incorporated is listed below:

1. All contract and contractor-related information, including logos, shall be updated to:

RSI EnTech, LLC (RSI)
IDIQ Contract # 89303020DLM000001

2. Any references to Legacy Management Strategic Partner (LMSP) should be changed to LMS, except where the appropriate use of LMSP and LMS is being described (e.g., in branding guidelines).
3. Any references to the Legacy Management (LM) office in Westminster, Colorado, should be changed to the Legacy Management Operations Center (LMOC) at Westminster, Colorado.
4. Any references to the LM office at Grand Junction, Colorado, should be changed to LM Field Support Center (LMFSC) at Grand Junction, Colorado.

Point of Contact

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Affected Organizations

All managers responsible for controlled documents.

Affected Documents

All Level 1–5 controlled documents.

Approved

Michael Logan

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Mike Logan, Program Manager

Electronic Distribution

Employee News to LMS-All

Document Management's **Interim Directives** webpage

Appended to the front of all Level 1–5 documents on Document Management's **LMS Controlled Documents** webpage

² Section 3.2.2.1 in *LMS Document Types, Processes, and Responsibilities* (LMS/POL/S32426) provides a summary description of comprehensive reviews: what they are, when they are conducted, and by whom. Section 4.12 in *Document Management Services, Resources, and Procedures* (LMS/PRO/S32818) provides a more detailed description of how comprehensive reviews are done. There are links to both these documents on the **Document Management homepage** under **Quick Links > Useful Resources**.

LM-Procedure-3-20-12.0-0.2

LMS/POL/S04346-5.1

Issue Date: 03/31/2021

Effective Date: 03/31/2021

Environmental Management System Description



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Environmental Management System Description Document History

Version No./ Revision No.	Revised	Description of Changes
5.1	March 2021	Made changes to incorporate a new LMS information management system. Made revisions to reflect partial revocation of Executive Order (EO) 13834, <i>Efficient Federal Operations</i> . Incorporated the requirements of the new EO 13990, <i>Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis</i> . Changed citations from SharePoint webpages to LM Portal webpages. Added "Forms Referenced in this Manual" page.
5.0	May 2020	Incorporated requirements of the following Interim Process (IP) Directives: IP-19-05, " <i>Training Program Description</i> retired"; IP-19-10-01, "Executive Order (EO) 13693, <i>Planning for Federal Sustainability in the Next Decade</i> , was rescinded by EO 13834, <i>Efficient Federal Operations</i> "; IP-20-02, " <i>Quality Assurance Program Description</i> retired"; and IP-20-08, "Operating Experience (OpEx) Procedure (Lessons Learned) reference and terminology changes." Performed a comprehensive review as required by contractor controlled-document procedure.
4.0	May 2018	Revisions include changes to address Executive Order (EO) 13693, "International Organization for Standardization Standard 14001:2015," IP Directive IP-17-07, "Terminology change for Legacy Management Support (LMS) contractor management," and DOE Orders; remove EOs 13423, 13514, and 13653; address corrective actions, and additional changes based on results of complete comprehensive review. Performed a comprehensive review as required by contractor-controlled document procedure.
3.1	March 2015	Revisions made to update LM Environmental Policy and LMS Program Manager.
3.0	August 2014	Revisions made to shorten and update manual to reflect current practices and remove detailed descriptions of processes covered in other manuals. More detail provided on environmental compliance activities. Performed a comprehensive review as required by contractor-controlled document procedure.
2.1	August 2012	Changes made to revise frequency of EMS awareness training and remove FedCenter reference to lessons learned.
2.0	January 2012	Updated to include new DOE Orders 436.1 and 430.1B, remove DOE Orders 450.1A and 430.2B and DOE P 430.1.
1.0	May 2009	Revision resulting from external and internal audit findings.
0.0	July 2008	Initial issue under the Legacy Management Support contract.

Approved:

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Appendix

Appendix A Issues Potentially Relevant to Achieving EMS Outcomes

Abbreviations

DOE	U.S. Department of Energy
EC	Environmental Compliance
EHSS	Office of Environment, Health, Safety, and Security
EMPD	Emergency Management Program Description
EMS	Environmental Management System
EO	Executive Order
EPM	Environmental Program Management
FRAM	Functions, Responsibilities, and Authorities Manual
ISMS	Integrated Safety Management System
ISO	International Organization for Standardization
IWCP	Integrated Work Control Process
LM	Office of Legacy Management
LMS	Legacy Management Support
NEPA	National Environmental Policy Act
OpEx	operating experience
QMS	Quality Management System
Q&PA	Quality and Performance Assurance
S&H	Safety and Health

Forms Referenced in This Manual

LMS forms are accessible at
LM Portal > Services > Document Management > Libraries > LMS Forms.

<i>Plan of the Day/Plan of the Week</i>	LMS 2130
<i>Project or Activity Evaluation (PAE)</i>	LMS 1005

LM forms and templates are accessible at
LM Portal > Services > Controlled Documents > LM-Federal Controlled Documents.

<i>Environmental Review Form</i>	LM-Form-4-20.3-4.0
<i>Periodic Review and Cancellation Form</i>	LM-Form-4-20-4.2

1.0 Introduction

This *Environmental Management System Description*, referred to herein as the EMS Description, describes the Environmental Management System (EMS) that is jointly administered by the U.S. Department of Energy (DOE) Office of Legacy Management (LM) and Legacy Management Support (LMS) contractor.

Implementation of an LM/LMS EMS is required and is integral to LM's mission and to achieving excellence in environmental stewardship. It instills values stated in environmental, safety, and health policies throughout LM's activities in pursuing its mission.

The LM/LMS EMS is a systematic process for reducing environmental impacts that result from LM work activities and services, and for helping achieve the following intended outcomes:

- Fulfillment of compliance obligations
- Enhancement of environmental performance
- Achievement of environmental objectives

The EMS is part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources by which LM and the LMS contractor accomplish environmental policy. LM's EMS applies to all personnel performing work related to the LM mission.

Through the EMS, LM identifies opportunities for improving work processes and performing work activities. LM also sets goals and establishes programs aimed at minimizing waste generated, reducing the quantity and toxicity of discharges to the environment, and identifying opportunities for improving energy efficiencies in daily activities. With the EMS, LM integrates environmental protection, fulfillment of compliance obligations, and pollution prevention into work planning and execution throughout all work areas as a function of the LM Integrated Safety Management System (ISMS). In this document, the term "EMS" refers to the joint LM/LMS EMS, and it represents an integrated ISMS and EMS approach to all work activities in this document.

1.1 Purpose of the EMS Description

The purpose of this EMS Description is to provide a summary of systems and processes used to implement the EMS and provide reference to pertinent documents. The EMS Description defines the elements of LM's EMS that support LM's work and describes the following: the responsibilities of LM, the planning necessary to achieve goals and objectives, the process of identifying significant environmental aspects, and procedures for implementation and operations, performance evaluation, and continual improvement.



Note

In this document, a reference to "LM" represents both LM and the LMS contractor, and the abbreviation "EMS" refers to the joint LM/LMS EMS, unless specifically noted otherwise.

1.2 Background

LM established and implemented an EMS in October 2005 in accordance with the International Organization for Standardization (ISO) 14001:2004, *Environmental Management Systems—Requirements with Guidance for Use*, standard in effect at that time and in compliance with a variety of agency-specific and federal directives, regulations, and policy statements.

Since then the EMS has been aligned to the 2015 revision of ISO 14001:2015, *Environmental Management Systems—Requirements with Guidance for Use*, as required by DOE Memorandum AU21-16-N1-0050, *Departmental Use of Environmental Management Systems* (DOE 2016). The LM EMS also has been aligned to the 2016 revision of ISO 14004:2016, *Environmental Management Systems—General Guidelines on Implementation*.

The EMS will continue to evolve with the issuance and implementation of new directives and guidance documents by the federal government.

1.3 ISMS and EMS Commitment

In accordance with the *Workforce Environment, Safety, and Health Posture* (LM and LMS 2019), LM and the LMS contractor are fully committed to the safety of their workers and the public, as well as protection of the environment. The agreement document states that the work will be implemented using management systems such as ISMS and EMS. Integration of EMS with ISMS provides a unified strategy to manage resources, control and attenuate risks, and establish and achieve environment, safety, and health goals. Fundamental to attainment of goals set forth in both EMS and ISMS are personal commitment and accountability, open communications, continual improvement, employee involvement, and management responsibilities for environment, safety, and health protection.

All personnel are empowered and have a responsibility to identify and report to management any potential hazards, unsafe conditions, risks to the environment, and compliance infractions and, if necessary, to suspend work activities to prevent injuries, accidents, or harm to the environment. Personnel analyze and review work activities for potential safety and health risks and environmental impacts before their performance. The Workflow Process diagram in the *Integrated Work Control Process* (LMS/POL/S11763) provides a more detailed description of the work planning and hazard identification process.

LM and its contractors are committed to systematically integrating environmental protection, safety, and health into management and work practices at all levels. This allows the mission to be accomplished in a manner that protects workers, the public, and the environment. Under ISMS, the term “safety” encompasses not just human health but also the environment, as described in the following policies or requirements:

- DOE Order 450.2 Chg 1, *Integrated Safety Management*
- DOE Policy 450.4A, *Integrated Safety Management Policy*
- LM Policy 436.1C, *Environmental Policy*
- LM Policy 450.4, *Safety and Health Policy*
- LMS/POL/S14226, *Navarro Safety and Environmental Policy*

- LMS/POL/S14463, *Integrated Safety Management System Description for LMS in Support of DOE Legacy Management Sites*
- LMS/POL/S20043, *LMS Safety and Health Program*

2.0 LM's EMS Framework

ISO 14001:2015 provides a framework with interacting elements for integrating environment, safety, and health protection into management and work practices. The framework is supported and improved by using a four-part continual cycle of Plan-Do-Check-Act. In defining its EMS, LM applies this framework (Figure 1) by considering its organizational context and scope and having leadership commit to producing the intended outcomes.

2.1 Context of the Organization (Applicability of the EMS)

Organizational context determines the level of detail and complexity of the EMS. The following information was considered in defining LM's organizational context and is periodically reviewed.

2.1.1 Internal and External Issues

LM determined external and internal issues that are relevant to its purpose and affect its ability to achieve intended outcomes of its EMS. Such concerns include environmental conditions affected by or capable of affecting LM. Appendix A provides the list of identified issues that could affect LM's ability to achieve intended outcomes.

2.1.2 Needs and Expectations of Interested Parties

LM determined relevant interested parties, what interested parties' needs and expectations are, and which needs and expectations should be considered part of its compliance obligations.

The parties that have an interest and expectations in LM sites were identified as follows:

- DOE
- LM
- Other federal agencies (e.g., U.S. Bureau of Land Management, U.S. General Services Administration, U.S. Bureau of Indian Affairs)
- State, local, and tribal governments
- Private businesses and landowners
- Stakeholder and community interest groups

Needs and expectations of interested parties are captured as community concerns during the significant environmental aspects process.

LM's EMS Framework

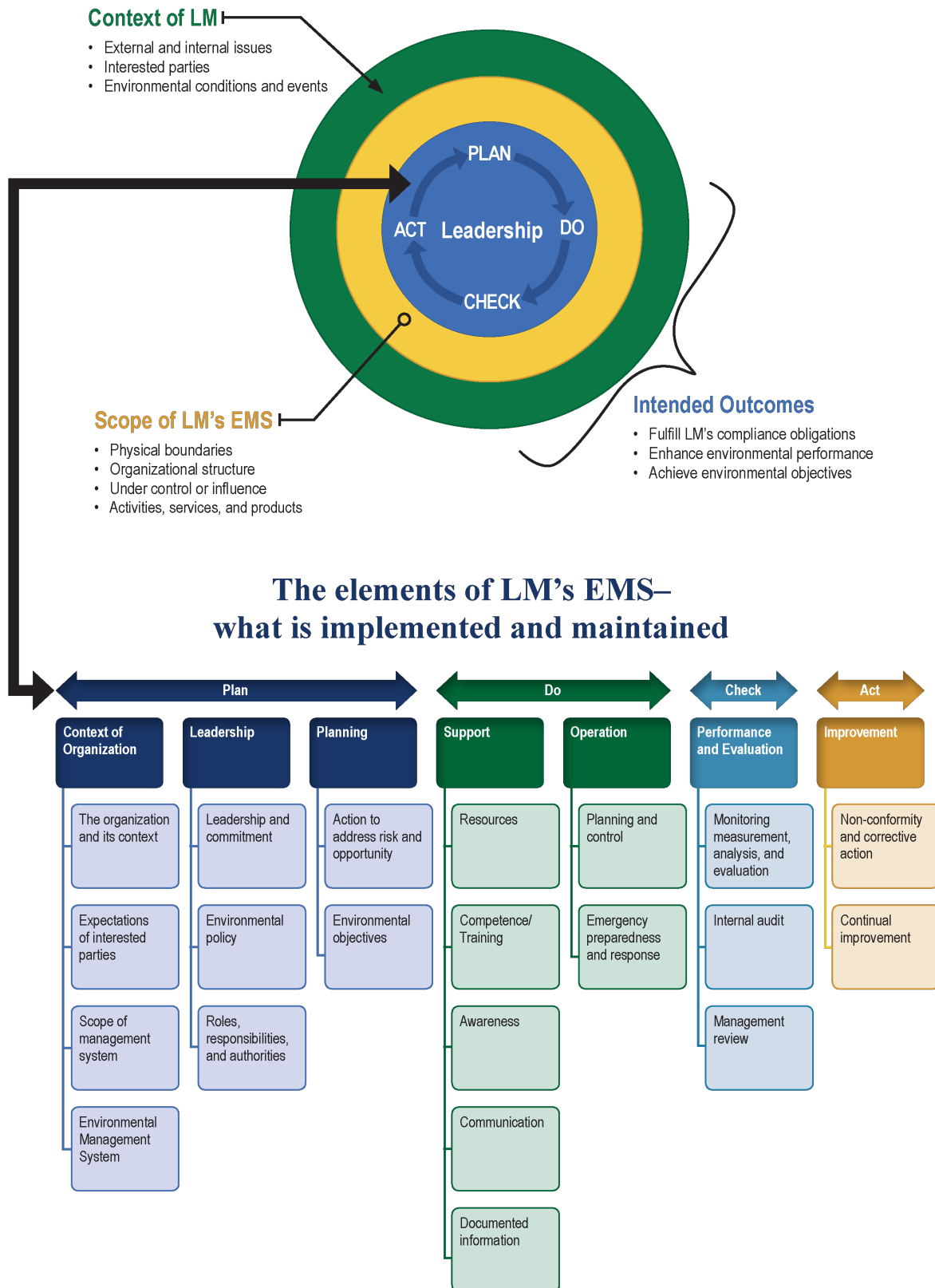


Figure 1. EMS Framework

2.1.3 Environmental Conditions and Events

LM identified any known environmental condition or event that could occur at one of its many sites spread throughout the United States, including Puerto Rico, based on consideration of meteorological, geological, hydrological and ecological information and historical disaster information.

An environmental condition that could affect the organization's activities, products, and services can include, for example, a drought that could prevent reestablishing vegetation in an area impacted by an erosion repair project.

An example of an environmental event is a tornado, which could affect how hazardous substances are stored to prevent pollution.

2.2 Scope of the Environmental Management System

2.2.1 Physical Boundaries

LM embodies excellence in environmental stewardship while performing its primary mission of managing DOE postclosure legacy sites. Overall, LM manages, maintains, or has interest in more than 89,000 acres at 100 sites in 30 states and Puerto Rico. Legacy site histories vary, as do regulatory regimes under which sites are managed. Regulatory framework examples include: the Comprehensive Environmental Response, Compensation, and Liability Act; DOE Defense Decontamination and Decommissioning Program; Formerly Utilized Sites Remedial Action Program; Resource Conservation and Recovery Act; and Uranium Mill Tailings Radiation Control Act. Additionally, LM manages five radiometric calibration models; administers the Defense-Related Uranium Mines Program to verify and validate conditions at abandoned uranium mines on state, private, and federal land managed by the U.S. Bureau of Land Management and U.S. Forest Service; manages over 25,000 acres in Colorado that encompass the Uranium Leasing Program; retains records at the Legacy Management Business Center in Morgantown, West Virginia; and conducts office work at multiple locations.

Activities range from fieldwork to office work. There are established offices in Washington, D.C.; Morgantown, West Virginia; Largo, Florida; Fernald, Ohio; Weldon Spring, Missouri; Westminster, Colorado; Grand Junction, Colorado; Tuba City, Arizona; Window Rock, Arizona; and Monticello, Utah. A list of the legacy sites is available on the LM public website.

2.2.2 Organizational Structure

EMS applies to all personnel who perform work related to LM's mission.

LM-wide "umbrella" EMS activities include: communications, training, assessments or audits, and records. Beyond these EMS umbrella activities, LM has two primary EMS focus areas: environmental compliance and environmental sustainability. Environmental compliance areas consist of regulatory compliance and monitoring programs that implement federal, state, local, and tribal requirements, agreements, and permits. Environmental sustainability areas promote

and integrate initiatives such as energy and natural resource conservation, waste minimization, green construction, and using sustainable products and services.

The level of an individual's involvement in EMS depends on his or her role in LM:

- Federal staff or contractor staff:
 - For overall EMS implementation, LM and the LMS contractor work jointly.
 - For environmental compliance, LM provides oversight and direction, whereas the LMS contractor is responsible for implementation.
 - For sustainability implementation, LM and the LMS contractor work jointly.
- Site operations or business operations staff:
 - Both business operations and site operations contribute to the overall effectiveness of the EMS.
 - Site operations staff are more heavily involved with environmental compliance.
 - Both business operations and site operations contribute to sustainable activities and goals.
- Site-specific compliance or programmatic compliance:
 - Environmental Program Management (EPM) managers are responsible for organizing and collating programwide environmental compliance efforts.
 - LM site managers, LMS site leads, and Environmental Compliance (EC) points of contact are responsible for addressing site-specific environmental compliance.
 - Sustainability teams are responsible for identifying projects at sites and offices across LM and pursuing the best site options for programmatic performance.

Additional details on employee involvement are discussed in Section 2.4.

Figure 2 illustrates the flow-down relationships covered under the EMS scope.

2.2.3 Under LM Control or Influence

Any activities that can affect the environment and are within the area of influence of LM employees are inside the scope of the EMS. Activities by other entities involved with LM sites but not employed or under the direct control of LM or its contractors (e.g., regulator inspections, uranium-leasing activities, and property owners' operations and maintenance activities at leased facilities) are outside the EMS scope.

In determining LM's authority and ability to exercise controls and influence, LM places the focus on visitors and subcontractors. All site and office visitors are indirect participants to the EMS during their visits. LM makes extra efforts to educate visitors about EMS and sustainability at LM visitor and interpretive centers and through various outreach programs. Subcontractors are not required to develop their own separate EMS, but subcontractors must participate in the LM EMS. LM employs a graded approach to determine the level of expected subcontractor participation.

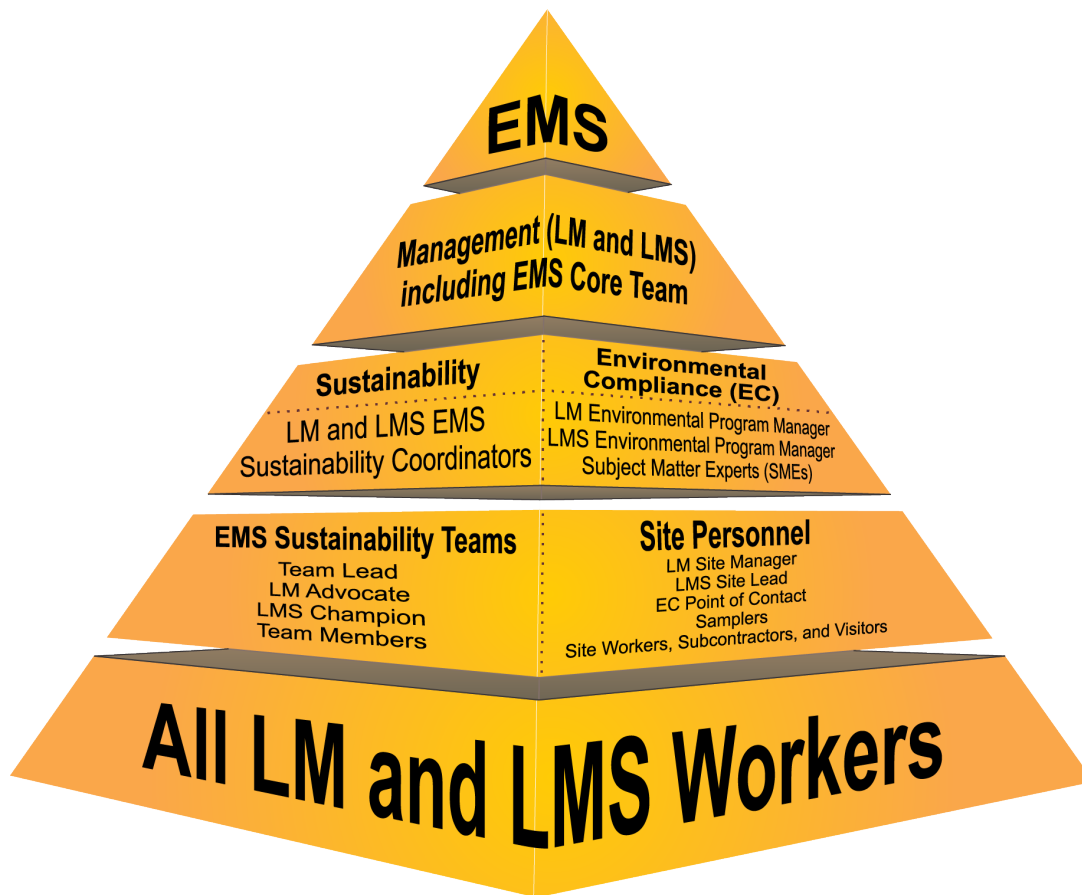


Figure 2. EMS Organizational Structure

2.2.4 Activities, Services, and Products

Under contract DE-LM0000421, the LMS contractor conducts soil and groundwater assessments and remediation, radioactive and hazardous waste management, long-term surveillance and maintenance of DOE closure sites, environmental and ecological restoration, program management, environmental monitoring and surveillance, regulatory compliance, and records and data management activities for LM. These activities have the potential to generate various kinds of waste; release effluents of regulated pollutants to the environment; and consume energy, water, fuels, and natural resources. LM provides oversight of LMS activities and conducts assessments.

In addition to the LMS contractor, employees from Chenega Infinity LLC (the security contractor at one LM site) and TI Verbatim Consulting Inc. fall under this EMS if they are working at LM locations. Although the scope of work is specific to security operations, they too are required to abide by the tenets of this EMS for the roles and responsibilities of all employees.

2.3 Leadership and Commitment

2.3.1 Environmental Policy

LM commits to achieving the highest standards of environmental quality in performing its work and providing a safe and healthy workplace for all employees, including performing daily operations and activities in compliance with applicable requirements. Environmental policies reinforce this philosophy and promote a workplace culture founded upon core values of safety, compliance, integrity, and quality. These environmental policies are the foundation of LM's EMS.

LM's *Environmental Policy* (LM Policy 436.1C) declares LM's commitment to the protection of the environment and serves as the foundation for the EMS. This policy aligns with LM's core mission and includes a commitment to continual environmental improvement, pollution prevention, the integration of EMS and ISMS, and fulfillment of compliance obligations. The LM policy is available on the LM Portal and communicated to the public through the LM public website.

The *Navarro Safety and Environmental Policy* reaffirms that the LMS contractor remains committed to the safety of its workers and protection of the environment. This policy applies to Navarro Research and Engineering, Inc., and its teaming partners and subcontractors. This environmental policy statement aligns with LM's core mission and includes a commitment to comply with the letter and spirit of applicable laws, to prevent pollution, and to work toward continual improvement with integrated systems and processes. In addition, it communicates LM's expectation for safety, including an ISMS, that will enable DOE's mission goals to be accomplished efficiently while ensuring safe operations at all departmental facilities and in all activities. This policy is available on the LM Portal on the **LM-Federal Controlled Documents** webpage.

LM communicates policies to all employees through EMS orientation and general awareness training and various EMS-related publications (e.g., this document and posters). LM posts copies of the policies in all staffed locations and expects all employees to be familiar with and to understand the respective policies. LM will provide copies to external parties if requested.

2.4 Organizational Roles, Responsibilities, and Authorities

Since the LM EMS is a joint system, both LM and LMS employees participate and contribute to the success of the system. LM and the LMS contractor have different implementation roles and responsibilities in the EMS, but both commit to the Plan-Do-Check-Act model of continual improvement when conducting daily business and both follow parallel paths in implementing the elements of the EMS. Employees should consider and be aware of how their activities and services interact with the environment. The *LM Functions and Responsibilities* (LM-Plan-2-20-1.2) manual describes the functions and responsibilities required of the LM, and the *LM Authorities, Delegations, and Concurrence* (LM-Procedure-2-20-1.1) procedure describes the authorities within LM. The *LMS Functions, Responsibilities, and Authorities Manual (FRAM)* (LMS/POL/S04319) describes the functions, responsibilities, and authorities required of the LMS contractor.

2.4.1 All Employees

As identified in policy statements, all employees are responsible for protecting the environment, preventing pollution, complying with regulatory obligations protecting biodiversity and ecosystems, incorporating resilience into operations and facility activities, and promoting sustainable practices that may be as simple as printing and copying documents double-sided or recycling plastic water bottles. It takes the commitment of the entire work force to meet the responsibilities of enhancing environmental performance, fulfilling compliance obligations, and achieving environmental objectives. Sharing environmental responsibility at all levels is essential for ongoing successful implementation of the EMS.

2.4.2 Senior Management

Senior management demonstrates leadership and commitment with respect to the EMS by:

- Taking accountability for the effectiveness of the EMS.
- Ensuring that environmental policies and objectives are established and are compatible with the strategic direction and the context of the organization.
- Ensuring integration of requirements into organization business practices.
- Ensuring that the resources needed are available.
- Communicating the importance of effective environmental management and conformance to requirements.
- Ensuring that the EMS achieves its intended outcomes.
- Promoting continual improvement.
- Directing and supporting staff to contribute to the effectiveness of the EMS.
- Supporting other managers in demonstrating their leadership in their areas of responsibility.

Senior management assigns and communicates the responsibilities and authorities for relevant roles within the organization for these activities by:

- Ensuring that the EMS conforms to the requirements of the current ISO 14001:2015.
- Reporting on the performance of the EMS.

Senior management communicates these assignments, responsibilities, and authority by:

- Providing written communication to the responsible parties.
- Including details in responsible parties' performance plans.

Senior management responsibilities include:

- Building awareness related to EMS and environmental performance.
- Establishing and maintaining environmental policies.
- Participating in the annual EMS Management Review and assigning responsibilities for any identified action items.
- Approving annual targets.

- Reviewing and approving the EMS Description.
- Endorsing environmental excellence in their organizations.
- Promoting the continual improvement of the EMS and environmental performance.
- Addressing findings or implementing corrective actions for areas under their purview.

2.4.3 Line Management

Line management is a chain composed of managers, beginning at the first level, with the person in charge who directs work in the field and flowing up through the hierarchy to the LMS program manager and LM director. This includes the following LM personnel: director; deputy and directors of site operations and business operations; team leaders; and site, program, and office managers. LMS personnel include the program manager; task assignment, subtask, and functional managers; and site and facility leads. Line management is responsible for implementing the EMS in accordance with applicable Executive Orders (EOs), DOE policies, professional standards, and this manual. They are responsible for ensuring that staff work in an environmentally safe and compliant manner. Their responsibilities include:

- Integrating functional organizations (e.g., Quality and Performance Assurance [Q&PA], and Safety and Health [S&H] groups) into their work planning and authorization processes.
- Participating in defining, updating, and approving significant environmental aspects and environmental objectives and targets.
- Ensuring that approved, budgeted resources are available and promulgating programmatic and technical direction promptly.
- Ensuring support staff are assigned to activities promptly.
- Ensuring documented procedures or written instructions control work.
- Identifying and reporting threats to human health or the environment, taking immediate actions to mitigate environmental impacts, and issuing stop-work orders for threats they are unable to mitigate.
- Endorsing environmental excellence and promoting the continual improvement of the EMS and environmental performance.

2.4.4 Site, Program, and Office Managers and Leads

These LM employees perform environmental-related activities, including:

- Ensuring adequate resources are available to support anticipated EC site activities and are included in the appropriate task assignment including:
 - Ensuring personnel conduct environmental reviews before starting projects.
 - Ensuring identification of cultural resources and protecting properties or items with historical significance.
 - Ensuring identification and protection of natural resources such as floodplains, wetlands, and endangered species along with their habitats.
 - Ensuring National Environmental Policy Act (NEPA) reviews are completed before activities occur.

- Reviewing and approving environmental objectives and targets.
- Approving environmental reports issued to regulators and posted on LM public website.

2.4.5 Environmental Program Managers/EMS Coordinators

The LM EPM manager oversees the scope, budget, and schedule of programmatic activities under the EMS. The LM EPM manager and the LMS EPM manager are the primary points of contact for the environmental compliance portion of the EMS and for requesting adequate funding to support anticipated activities. The LM EPM manager also serves as the LM EMS coordinator and the LM sustainability coordinator. The LM and LMS EMS coordinators establish or approve the level of operational controls and integrated work controls for EPM programmatic activities.

The LMS EPM manager is responsible for:

- Ensuring that adequate resources are requested to support anticipated EMS activities and are included in the appropriate task assignment.
- Identifying and communicating applicable environmental requirements.
- Ensuring that the contractor's work activities are performed in compliance with environmental regulations.
- Integrating processes to ensure EMS goals and targets are recognized and achieved and progress is reported.

The EPM managers will coordinate with each other regularly.

2.4.6 LMS Environmental Compliance Group

EC is a cross-functional support group with the mission of providing compliance oversight support across all LM programs and projects. Specific EC responsibilities include:

- Identifying, tracking, and communicating environmental requirements to project management for implementation.
- Providing qualified technical resources to support implementation of environmental requirements by programs and facilities.
- Assisting in the initial identification of environmental aspects and scoring for significance.
- Ensuring the consistent application of environmental requirements.

2.4.7 EMS Sustainability Coordinators

The EMS sustainability coordinators are the primary points of contact for the EMS programmatic and sustainability areas. Responsibilities include:

- Overseeing the development and implementation of the EMS.
- Actively participating in the EMS Core Team.
- Reporting progress to management.
- Conducting management reviews and facilitating management involvement in EMS.

- Establishing or approving the level of operational controls and integrated work controls for sustainability activities.
- Performing quality control checks and data validation on annual reporting.

2.4.8 EMS Core Team

The EMS Core Team oversees the EMS teams and is management's EMS steering committee. It includes both an LM and LMS senior management sponsor, LM and LMS EPM managers, EMS sustainability coordinators, LM team advocates, LMS team champions and team leads, and other representatives from applicable programs and projects and various levels of management and project support as needed. Their responsibilities include:

- Overseeing the ongoing implementation and continual improvement of the EMS.
- Functioning as the steering committee for management-level decisions.

2.4.9 EMS Sustainability Teams

LM has nine individual sustainability teams. These teams are an integral part of the LM EMS and are involved in all LM activities that fall under the scope of the EMS. EMS sustainability teams consist of a team lead, an LM advocate and LMS management champion, and several other knowledgeable employees. Each sustainability team is responsible for:

- Implementing, managing, and promoting its individual sustainability area.
- Identifying a specific achievable mission, along with metrics to assist in evaluating progress toward the required objectives.
- Reporting progress in the quarterly EPM report available on the LM Portal on the EMS **Key Reports** webpage.

3.0 EMS Planning: The “Plan” Step of Plan-Do-Check-Act

Project and program planning is a fundamental part of the EMS. Planning includes identification of new work or activities, assembly of planning teams, and development of the specific details and evaluation methods based on factors such as engineering feasibility, environmental requirements, schedule considerations, and site needs. Planning occurs with staff at all levels of the organization and includes consideration of technological options and financial, operational, and business requirements. Planning assists in ensuring achievement of the EMS's intended outcomes, prevents or reduces undesired risks, and identifies opportunities for continual improvement.

3.1 Actions to Address Risks and Opportunities

Both LM and LMS have both developed high-level environmental risk registries associated with LM activities. Additional information on LMS risk management can be found in the *LMS Risk Management Plan* (LMS/POL/S27571).

Management uses a graded approach to evaluate environmental risks and considers the following factors in determining relative risks and the application of controls:

- Importance of an item or activity with respect to the safety and protection of workers, the public, and the environment
- Importance of the data to be generated
- Need to demonstrate compliance with specific regulatory requirements
- Magnitude of a hazard or consequences of failure
- Life-cycle stage of a facility or item
- Particular characteristics of a facility, item, or activity (e.g., complexity, uniqueness, history, or the necessity for special controls or processes)
- Stakeholder and community concerns, needs, and expectations
- Technological options and feasibility

3.1.1 General

Planning is critical in determining and taking actions to ensure the EMS can achieve its intended outcomes. LM establishes, implements, maintains, and improves processes based on changing circumstances and inputs and outputs of EMS. Planning helps identify and focus resources on areas that are most important for protecting the environment. In addition, planning helps LM fulfill compliance obligations and achieve environmental objectives. As part of the planning process, LM considers:

- Context of LM and its mission, and environmental compliance obligations.
- Needs and expectations of interested parties captured as community concerns in the significant environmental aspect identification process detailed in the *EMS Support and Project Teams Manual* (LM-Manual-3-20-5.0, LMS/POL/S28895).
- Scope of the EMS and determination of risks and opportunities related to its environmental aspects, compliance obligations, and other issues or requirements that need to be addressed to:
 - Ensure that the EMS can achieve its intended outcomes.
 - Reduce or prevent undesired effects, including the potential for external environmental conditions to affect LM.
 - Determine potential emergency situations that could have an environmental impact.
 - Achieve continual improvement.

LM maintains documented information of any risks and opportunities that need to be addressed. The level of management and controls will vary as a function of the degree of confidence needed to achieve the desired quality of an item or activity.

3.1.2 Environmental Aspects, Compliance with Legal and Other Requirements, and Associated Environmental Objectives, Targets, and Goals

Environmental aspects are the attributes of project and program activities, products, and services that interact with the environment. The environmental aspect of an activity is the part that creates a possibility for an environmental impact, either positive or negative. It is equivalent to the concept of “hazard” in safety, which is also defined as the possibility of a negative event.

LM and LMS evaluate assigned work periodically to identify and update the environmental aspects of the LM program and their impacts, their associated objectives, the associated targets and goals, compliance with legal obligations and other requirements, and the expectations and needs of interested parties. The identification of the environmental aspects includes evaluation of compliance obligations (legal and other requirements and the identification of environmental impacts). Figure 3 shows two examples of LM activities and their associated environmental aspects and environmental impacts. Figure 4 shows two examples of LM activities and their associated compliance obligations and environmental impacts. Compliance obligations are discussed further in the next section.

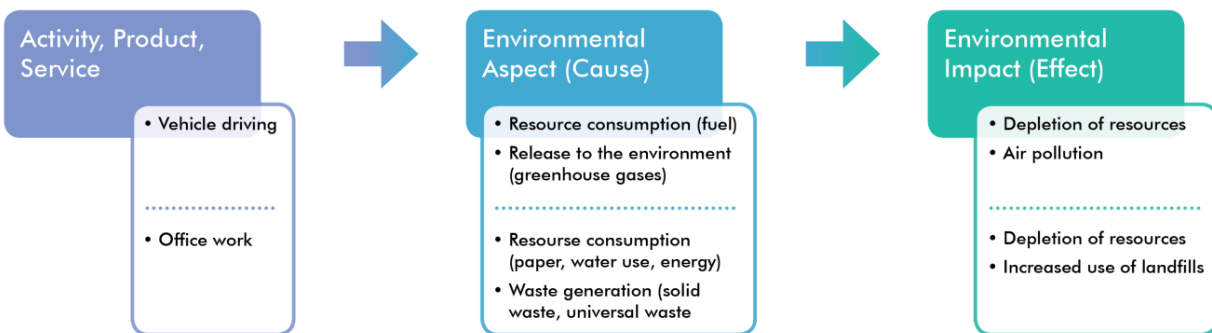
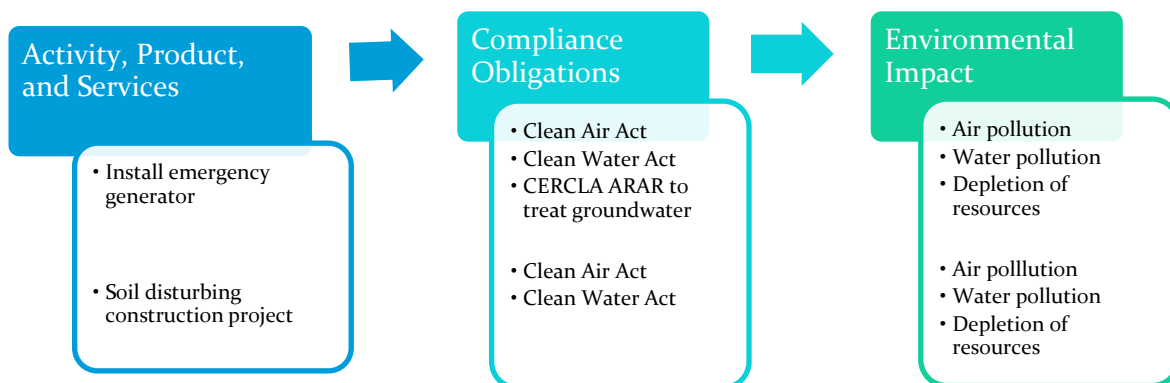


Figure 3. Examples of LM Activities and Their Environmental Aspects and Impacts



Abbreviations: ARAR = applicable or relevant and appropriate requirement; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

Figure 4. Examples of LM Activities and Their Compliance Obligations and Environmental Impacts

3.1.3 Compliance Obligations

LM determines external issues that are relevant and could affect its ability to achieve the intended outcomes of its EMS. This determination includes applicable federal, state, local, and tribal regulations and requirements, agreements, and permits during planning, implementation, checking, and management of activities. Coordination with various agencies, states, or other governmental entities helps ensure adherence with compliance obligations, including annual reporting.

LM implements and updates its EMS in response to this variety of agency-specific and federal directives, regulations, legal agreements, and policy statements. LM used the overall guidance and requirements for EMS procedures, requirements, and implementation described in ISO 14001:2015 and ISO 14004:2016 to determine which needs and expectations become LM's compliance obligations. Compliance obligations vary significantly across LM sites.

Several sites have site-specific agreements, permits, or both with multiple agencies. These agreements include federal facility agreements, comprehensive legacy management and institutional control plans, and long-term surveillance and maintenance plans. The site-specific pages under the Sites page on the LM public website provide information on these agreements. Figure 5 shows examples of types of LM compliance obligations.



Figure 5. Examples of LM's Compliance Obligations

LMS EC is responsible for conducting regulatory reviews. The procedure for conducting this activity resides in the LMS *Environmental Instructions Manual* (LMS/POL/S04338). The list of LMS Directive and Regulation Responsibility/Implementation requirements is available on the LM Portal on the **LMS Contract** webpage.

LMS's Q&PA group maintains a list of DOE directives, federal laws, policies, and regulations applicable to actions and management of LM sites. The Q&PA group screens DOE directive alerts and *Federal Register* notices for new or changed information that may affect the contract, coordinates and tracks subject matter expert review of directives and regulations and provides

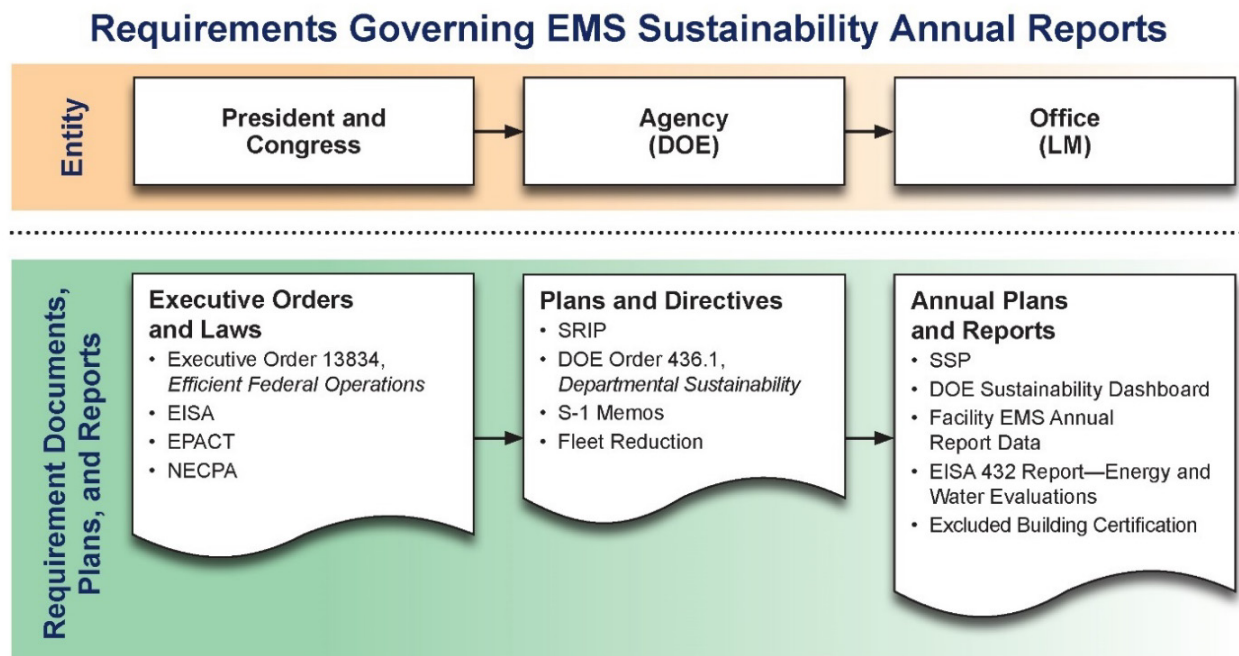
recommendations for contract changes to the LMS contract administrator to provide to the LM contracting officer representative. Chapter 9.0, “References,” provides a current list of DOE and other documents that describe the EMS requirements. Attachment K of the LMS contract on the LM Portal on the **LMS Contract** webpage provides a list of applicable statutory requirements.

In addition to federal, state, local, and tribal regulations and DOE directives, the activities conducted for LM are also subject to any specific requirements of the contract. The *LMS Environmental Protection Manual* (LMS/POL/S04329) and the *Environmental Instructions Manual* describe processes that specifically outline how the LMS contractor complies with LM’s environmental compliance obligations.

In addition, the high degree of variation in environmental conditions and geographic settings from one location to another is a factor in the variations in application of requirements to a given site. For example, some sites are in the arid southwest, while others are in mountainous areas or prairies with dense forest or grasslands. The wildland fire management plans, for example, vary dramatically between these types of sites.

Many EMS compliance obligations require periodic written reports. These reports might be programmatic or site-specific and can cover a variety of topics, including sustainability or environmental compliance. The *DOE Programmatic Reports Table*, on the LM Portal EMS **DOE-LM Programmatic Reports & Activities** webpage, provides an explanation of the reports, including report description, receiving entity, regulatory requirement or driver, and frequency of reporting. Separately, some site-specific reports are available on the individual site webpages on the LM public website.

Figure 6 below shows some examples of the sustainability requirements and their mandated reports.



Abbreviations: EISA = Energy Independence and Security Act; EPACT = Energy Policy Act; NECPA = National Energy Conservation Policy Act; S-1 = Secretariat Officer; SRIP = Sustainability Report and Implementation Plan; SSP = Site Sustainability Plan

Figure 6. EMS Sustainability Reports

Figure 7 shows examples of LM programmatic and site-specific environmental compliance requirements and compliance reports.

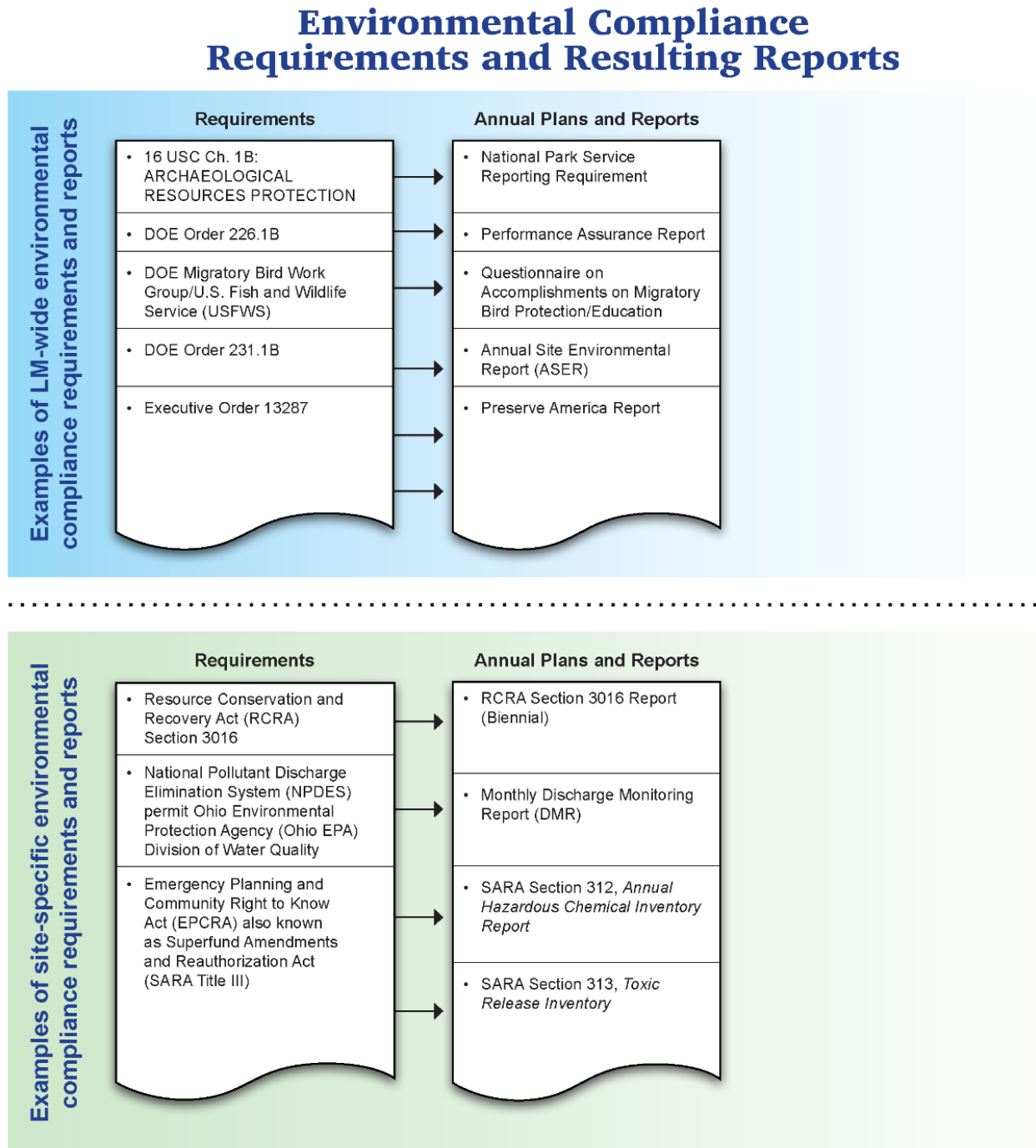


Figure 7. Examples of Environmental Compliance Programmatic and Site-Specific Requirements and Resulting Reports

3.1.4 Planning Actions

A task assignment is the mechanism LM uses to plan, approve, and fund a specific activity. A task assignment is an agreement between LM and LMS defining the specific scope of work and associated baseline and schedule. LM authorizes performance of work for the LMS contract via task assignments. The LMS contractor submits proposals for task assignments to LM, which evaluates and approves or revises and negotiates via the contractual process for award in accordance with contractual guidelines.

LMS is responsible for implementation of a project once the task assignment is approved. LM is responsible for monitoring the performance of the contractor against the Task Assignment Plan and the stipulated deliverables and milestones. Environmental goals should be included in the task assignments as appropriate, so resources can be planned for achieving these goals.

3.2 Environmental Objectives and Planning to Achieve Them

3.2.1 Environmental Objectives

Environmental objectives describe the goals for environmental performance. Environmental objectives will be consistent with the environmental policy and will be measurable, monitored, communicated, and updated as appropriate. Some are quantifiable, while others are qualitative.

Environmental targets are specific and measurable steps taken to obtain the environmental objectives.

Figure 8 below shows an example of several activities, their environmental objectives, and targets.

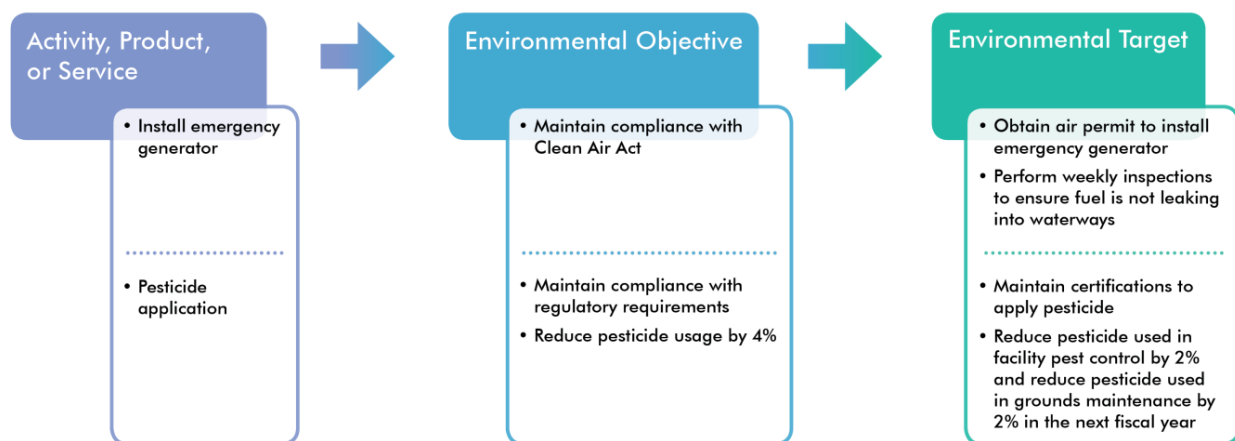


Figure 8. Activity Examples with Environmental Objectives and Targets

3.2.2 Planning Actions to Achieve Environmental Objectives

LM evaluates assigned work periodically to identify and update associated environmental aspects and evaluate compliance obligations and the expectations or needs of interested parties. LM establishes environmental objectives while identifying environmental aspects. The *EMS Support and Project Teams Manual* provides detailed steps on the identification of environmental aspects and environmental impacts; development of environmental objectives, targets, and resources; compliance with legal and other requirements; consideration of the technological options; and concerns of interested parties.

During work planning, the guiding principles and core functions in ISMS apply to protecting the environment and protecting employee and public safety and health. Thus, as part of work planning, the potential hazards and environmental reviews are documented on the appropriate work planning document (e.g., *Project or Activity Evaluation [PAE]* form [LMS 1005], *LM Environmental Review Form* [LM-Form-4-20.3-4.0]) as described in the *Integrated Work Control Process*.

LM enlists individual sustainability teams to promote, address, and meet the sustainability goals under the EMS. The *EMS Sustainability Teams Manual* (LM-Manual-3-20.3-1.0, LMS/POL/S11374) describes the teams and includes their process descriptions and implementation plans. It also describes support teams and ad hoc project teams, including process descriptions and instructions for identifying significant environmental aspects and conducting the annual EMS Management Review.

The LMS *Environmental Protection Manual* summarizes applicable federal acts, policies, and regulations that are considered during activity planning or assessment (e.g., Clean Water Act). The LMS *Environmental Instructions Manual* is a procedure for implementing environmental compliance requirements.

For emergency management, LM maintains the *LM and LMS Emergency Management Program Description (EMPD)* (LM-Procedure-3-20.0-2.0, LMS/POL/S14748), which provides LM and the LMS contractor the framework for all emergency management activities, including emergency planning, preparedness, response, mitigation, readiness assurance, and recovery activities to ensure LM and LMS can respond effectively and efficiently to all operational emergencies.

For radiation protection, LMS maintains the *Environmental Radiation Protection Program Plan* (LMS/POL/S13339) manual, which provides guidance for LMS work scope involving radiological hazards and ensures compliance with DOE Order 458.1 Admin Chg 4, *Radiation Protection of the Public and the Environment*.

These manuals, in addition to others referenced throughout this document, are available on the LM Portal on the **LM-Federal Controlled Documents** webpage.

4.0 Support: The “Do” Step of Plan-Do-Check-Act

4.1 Resources

LM determines and provides the resources needed for the establishment, implementation, maintenance, and continual improvement of EMS. EMS helps LM use its finite resources wisely to minimize wastes and adverse environmental impacts and comply with compliance obligations (e.g., laws, regulations, DOE requirements, and other applicable requirements) that protect the environment and public health. EMS enables LM to implement sustainable environmental stewardship practices that enhance the protection of air, water, land, and other natural and cultural resources affected by DOE operations. Implementing the EMS is integral to LM’s mission and to achieving excellence in environmental stewardship.

EMS is an established structure with senior management leadership, coordinators, EMS teams, and the EC group. The EPM managers lead EMS and serve as the EMS coordinators, and two EMS sustainability coordinators lead the EMS sustainability teams. In each case, one of the coordinators is an LM employee and the other is an LMS contractor employee. The coordinators are the points of contact for the EMS.

The EMS sustainability coordinators, LMS team leads, LM advocates, and LMS champions meet periodically (monthly or every other month, depending on activities) and provide a quarterly status update to senior management. LMS’s EC group meets weekly, provides monthly and quarterly status reports, provides quarterly reports on changing requirements, and provides other reports periodically as required. In addition, the annual EMS Management Review allows LM’s leaders to assess the strengths and weaknesses of EMS and provides information that helps them make decisions affecting the future of the program.

The EMS Core Team includes representatives from applicable programs and projects from LM and LMS contractor management. Their responsibilities include: (1) overseeing the development and implementation of the EMS sustainability teams, (2) approving EMS goals and targets, and (3) functioning as the steering committee for management-level decisions.

Each EMS sustainability team consists of a team lead, an LM advocate, an LMS contractor senior-management champion, and several other LM and LMS employees. Each team is responsible for managing and implementing its individual sustainability initiatives and coordinating with other teams on crosscutting goals. The EMS training team assists each sustainability team in updating its respective sections within EMS training courses. The EMS Communications Team helps the sustainability teams update their team webpages as needed and provides awareness articles, which are published in the internal quarterly newsletter *E2SH&Q Outlook* (formerly titled *ECHO Outlook*) at least once every 2 years for each team. Related posters, email announcements, contests, and activities sometimes accompany the articles.

The environmental compliance aspect of EMS consists of regulatory compliance and monitoring programs that implement federal, state, local, and tribal requirements, agreements, and permits. The LMS work planning and authorization processes describe integration of the LMS EC group into program and project implementation from planning through completion. This integration ensures that when activities are performed, steps are taken to protect both public safety and the environment.

4.2 Competence

Management determines the necessary competence of the people doing work under its control. LM's environmental performance and its ability to fulfill compliance obligations are assured through hiring staff with the appropriate education, training, or experience. EMS training will be commensurate with the scope, complexity, and importance of activities; technical objectives; requirements of applicable codes and standards; and the education, experience, duties, and proficiency of employees. LM identifies training needs specific to EMS and, where applicable, takes additional actions to acquire the necessary competency. LM then evaluates the effectiveness of actions taken to acquire additional competency through either the performance appraisal process or the corrective action process if needed.

The LMS Learning and Development department *Training Policies and Procedures Manual* (LMS/POL/S15034) provides the training policy for work performed by LMS. LMS training plans identify training needs, sources of training, and frequency. The LMS *Learning and Development Department Desktop Procedures* (LMS/PRO/S08943) provides desktop procedures for training elements the LMS contractor uses to administer and maintain a comprehensive training program for LMS contractor employees, teaming partners, and subcontractors. The training elements include the design, development, implementation, maintenance, and control of the training program in support of the LMS contract. The LMS contractor maintains EMS training records in DOE's Learning Nucleus learning management system.

DOE Order 360.1C, *Federal Employee Training*, and *LM Federal Employee Training and Development* (LM-Procedure-2-4-2.1) provide the training policy and procedures for LM. The LM training matrix identifies mandatory training, sources of training, and frequency.

LM uses three types of training: new employee training, general awareness training, and functional training. LM provides training to ensure that all employees:

- Have the knowledge and skills necessary to perform their job functions safely and in an environmentally responsible manner.
- Comply with federal, state, tribal, and local environmental laws, regulations, and permits and with LMS requirements and policies.
- Increase their awareness of environmental protection practices and pollution prevention and waste minimization opportunities.
- Take appropriate actions in an emergency.
- Know the implications of not conforming to the EMS requirements, including not fulfilling compliance obligations.
- Know about the requirements, objectives, and targets of the EMS.

The EMS Training Team fosters the development of training to support the EMS. This team integrates members of both LM and LMS learning and development groups. The *EMS Support and Project Teams Manual* provides detailed information on EMS training.

4.3 Awareness

Senior management is responsible for ensuring awareness related to EMS and environmental performance. Building awareness enhances knowledge and promotes behavior that supports the environmental policies and core values of safety, compliance, integrity, and quality. EMS orientation and awareness training courses ensure that personnel performing work are aware of:

- Environmental policies.
- Significant environmental aspects and related actual or potential environmental impacts associated with their work.
- The importance of their contribution to the effectiveness of the EMS, including the benefits of enhanced environmental performance.
- The importance of including EMS-related actions in task planning, budgeting, and implementation.
- The implications of not conforming with the EMS requirements, including not fulfilling the organization's compliance obligations.

4.4 Communication

4.4.1 General

Integrated environmental management requires effective communications to coordinate staff internally and maintain open, clear lines of communication with external stakeholders. With respect to LM's mission and goals, LM and the LMS contractor are committed to communicating environmental information to their employees and to the public and to receiving input from employees and external stakeholders. This section describes how LM communicates its EMS activities and its community outreach initiatives to employees and interested parties.

LM communicates relevant environmental performance information internally and externally, as identified in its communication process and required by its compliance obligations (see Figure 9). The *EMS Support and Project Teams Manual*, *Internal Communications Manual* (LMS/POL/S07641), *Public Affairs Manual* (LMS/POL/S11690), and *Communication Products Manual* (LMS/POL/S18461) provide detailed internal and external communications instructions.

The *Public Dissemination of Information* procedure (LM-Procedure-3-3-1.0) provides information on how information is disseminated to the public.

Environmental Management System (EMS) Communication Flow

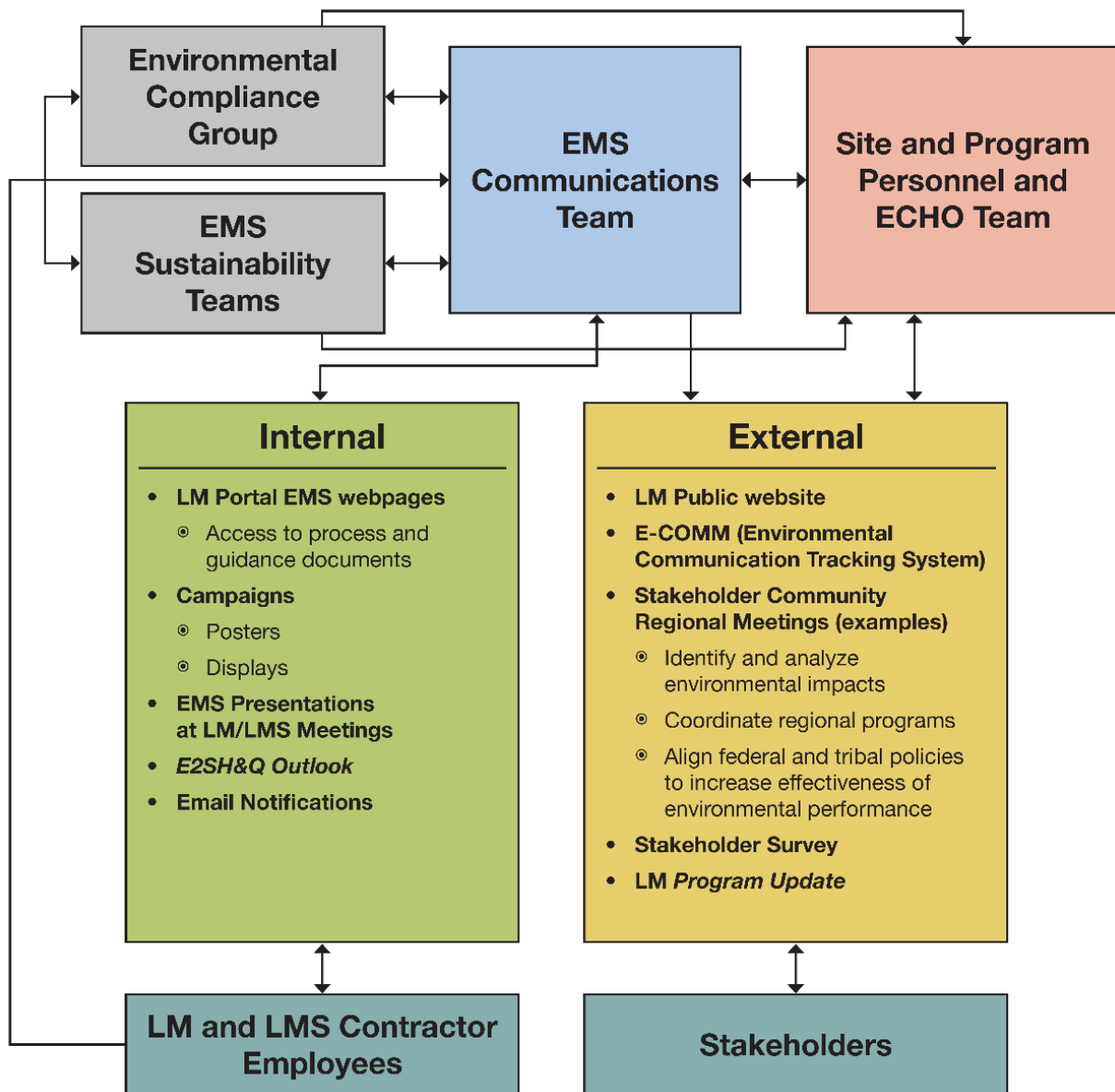


Figure 9. EMS Communication Flow

4.4.2 Internal Communication

LM uses various forms of internal communications to maintain employee awareness of EMS initiatives, to communicate employee roles and responsibilities, and to motivate employees. Effective communication is a two-way process. Employees may report environmental issues or concerns through their immediate supervisor or contact their EMS management representative directly. LM and the LMS contractor are committed to receiving, evaluating, and responding to all comments, concerns, and recommendations.

4.4.3 External Communication

LM 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 government entities. LM communicates information relevant to the EMS to external parties as established by communication processes and as required by its compliance obligations.

In addition to satisfying the ISO 14001:2015 requirements of tracking relevant environmental communication, the LM Environmental Communication Tracking System (or E-COMM) was established. LM's *Tracking and Analysis of Relevant Environmentally Related External Communication* (LM-Procedure-3-20-10.0) defines which communications to track and what systems to use to document the relevant communications.

4.5 Documented Information

4.5.1 General

LM's EMS includes documented information required by ISO 14001:2015 and any documented information determined by LM for the effectiveness of the EMS. Both LM and the LMS contractor maintain proper documentation to provide interested parties with information related to the EMS. This information enables parties such as employees, regulators, potential customers, and stakeholders to understand the processes, operational controls, and integrated work controls LM uses to manage its work and mitigate environmental impacts.

The LMS contractor provides status reports on environmental performance routinely in an EPM report, which is available on the LM Portal on the EMS **Key Reports** webpage.

LM reviews and updates this *Environmental Management System Description* document every 2 years or more frequently if necessary. Each review considers assessments, nonconformities, and associated corrective actions. LM makes revisions and notifies LM and LMS contractor employees.

Figure 10 shows the variety of document types used to implement the EMS.

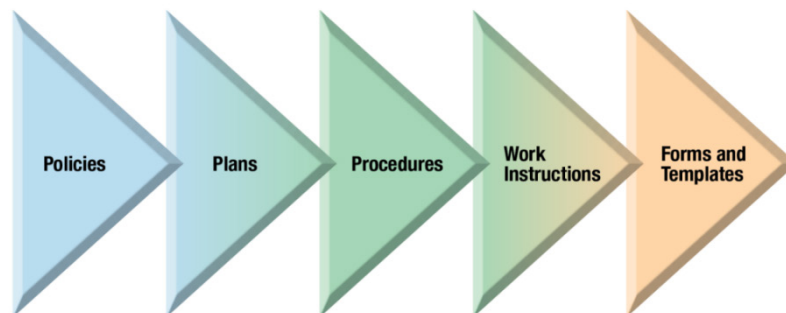


Figure 10. EMS Implementation Documents

Chapter 9.0, “References,” provides a complete list of EMS implementing procedures.

4.5.2 Creating and Updating

Controlling the release, access, and revision of EMS documentation ensures each employee has access to the current version of the documents. The LMS EC group reviews recommendations for changes to this document as well as changes to the *LM EMS Sustainability Teams Manual*, *EMS Support and Project Teams Manual*, *LMS Environmental Protection Manual*, and *LMS Environmental Instructions Manual*. Both LM and the LMS contractor revise these documents to reflect any changes in compliance obligations and incorporate lessons learned or continual improvements.

LMS-generated documents follow document hierarchy and review schedules described in the LMS FRAM, *LMS Quality Assurance Manual* (LMS/POL/S04320), and *LMS Document Types, Processes, and Responsibilities* (LMS/POL/S32426); and *Document Management Services, Resources, and Procedures* (LMS/PRO/S32818).

The *LMS Document Types, Processes, and Responsibilities* manual includes specific requirements for creating and updating LMS documents. LMS controlled documents comprise:

- Level 1, high-level contractor planning documents (including the FRAM).
- Level 2, contractor programmatic plans, procedures and policies.
- Level 3, contractor functional procedures and plans.
- Level 4, site-specific plans and procedures.

The LM Quality Management System (QMS) *Control of Documents* procedure (LM-Procedure-2-10.0-4.1) establishes required layout and process for publishing procedures, forms, guidebooks, templates, and various other types of documents. Initial release of procedures and procedures requiring major changes must go through LM management for review with the positions designated in the LM *Control of Documents* procedure.

LMS controlled documents are available on the LM Portal on the **LMS Controlled Documents** webpage. LM controlled documents are available on the LM Portal on the **LM-Federal Controlled Documents** webpage.

4.5.3 Control of Documented Information

For QMS controlled documents, the LM quality assurance manager can authorize minor changes to a document with concurrence from the document's subject matter expert in accordance with the LM *Control of Documents* procedure. Additionally, the *Periodic Review and Cancellation Form* (LM-Form-4-20-4.2) may be used for documenting the periodic review of an LM controlled document, and a document can be archived if a subject matter expert or the document's owner determines the document is no longer needed.

In general, QMS controlled documents encompass procedures, programs, plans, forms, guides, and instructions that ensure all employees perform safe, regulation-compliant, and high-quality work in an approved manner. LM maintains control of all LM documents in accordance with the LM *Control of Documents* procedure. In accordance with the *LMS Document Types, Processes, and Responsibilities* manual which addresses specific requirements for creating and updating documents, the LMS Document Management group is the single point of contact for all

LMS controlled documents and manages them to ensure consistency among documents and allow control of electronic files, hard-copy documents, and documents displayed on the LM Portal and on the **LMS Controlled Documents** webpage.

In accordance with the *LMS Communication Products Manual*, which addresses specific procedures for creating and updating webpage requirements, the LMS Communications Products Team manages information posted on the LM Portal and on the LM public website.

4.5.4 Records

EMS records include plans, procedures, and related documents; the results of management assessments; audits; environmental aspect, objective, and target identification process; reports; responses to data calls; and the results of management reviews. EMS records show proof of conformance to associated requirements. All records are considered documented information and are traceable, legible, and retrievable. LM maintains EMS records in accordance with standard protocols defined in the LM policy *Records and Information Management* (LM-Policy-1-11-1.0).

5.0 Operation

5.1 Operational Planning and Control

Planning, work authorization, and efficient control of work activities is fundamental to safe, environmentally protective work execution and supports implementation of the EMS and ISMS. Personnel prescribe and perform activities and services in accordance with documented instructions, procedures, or drawings that include or reference appropriate quantitative or qualitative acceptance criteria for determining satisfactory accomplishment of the prescribed activities. Planning teams describe the activity to a level of detail commensurate with the complexity of the activity and the need to assure consistent and acceptable results. The complexity of the task, the significance of the item or activity, work environment, and worker proficiency and capability (education, training, experience) determine the need for, and level of detail in, written procedures or instructions. The EMS coordinators are responsible for establishing or approving the level of programmatic operational controls and integrated work controls for environmental programs and sustainability team activities.

The LMS workflow process guides project and activity leads and ensures nationwide consistency in work planning and execution. The *LMS Projects and Programs Manual* (LMS/POL/S05760) describes the workflow process and the mechanisms for integrated work controls. Key elements of the workflow process are work scope definition, work planning, hazard identification and mitigation, work authorization, performance of work, and project closeout, all of which are also components of DOE's ISMS and EMS. Hazard identification and mitigation includes identifying environmental impacts and environmental requirements and obtaining necessary permits or additional approvals. Work planning and controls use a graded approach consistent with the complexity of the activity, the work environment, and worker proficiency.

The *LMS Integrated Work Control Process* (LMS/POL/S14463), also called the IWCP manual, details the process for initiating, authorizing, performing, and conducting work within the scope of the contract. The IWCP manual defines LMS work categories, provides guidance for

determining when each work category is applicable, and defines the integrated work control requirements for each work category. The LMS Integrated Work Control Process (IWCP) overall is applicable to all work activities managed and performed by the LMS contractor at LM sites and facilities. The IWCP also applies to all subcontractor work performed at LM sites and facilities, and the requirements flow down to subcontractors in accordance with subcontract terms and conditions.

Several other manuals, such as the LMS *Environmental Data Validation Procedure* (LMS/POL/S15780), address specific instructions for performing operations such as data validation. In addition, site-specific procedures provide instructions for site activities. The LM Portal **LMS Controlled Documents** webpage contains a complete list of contractor and joint LM and LMS manuals. LM maintains its list of QMS controlled documents (i.e., procedures, plans, manuals, guides, templates, and forms) on the LM Portal **LM-Federal Controlled Documents** webpage.

5.2 Emergency Preparedness and Response

LM establishes, implements, and maintains a process to prepare for and respond to potential emergency situations in accordance with DOE Order 151.1D Chg 1, *Comprehensive Emergency Management System*. The EMPD provides the framework for LM and the LMS contractor for all emergency management activities, including emergency planning, preparedness, response, mitigation, readiness assurance, and recovery activities ensuring LM and the LMS contractor can respond effectively and efficiently to all operational emergencies.

6.0 Performance Evaluation: The “Check” Step of Plan-Do-Check-Act

6.1 Monitoring, Measurement, Analysis, and Evaluation

6.1.1 General

The histories of the LM sites vary, as do their regulatory regimes and what is monitored and measured at each of them. Therefore, LM monitors, measures, analyzes, and evaluates its environmental performance with a variety of methods. LM self-evaluations may be addressed within the identifying group or may be elevated to those with the responsibility and authority to initiate appropriate action.

LM determines:

- What needs to be monitored and measured.
- When monitoring and measuring occur.
- What methods to use for monitoring, measurement, analysis, and evaluation, as applicable, to ensure valid results.
- What criteria the organization will use to evaluate its environmental performance and appropriate indicators.

- When the results need to be reliable, reproducible, and traceable.
- When the results from monitoring and measurement will be analyzed and evaluated.

The *LMS Contractor Assurance System Program Description* (LMS/POL/S13369) brings together the processes LMS uses to monitor and evaluate the content and implementation of LMS activities regarding the environment; safety and health, including quality assurance and integrated safety management; safeguards and security; cybersecurity; and emergency management. The *LMS Contractor Assurance System Program Description* ensures the elements of these programs align with DOE Policy 226.2, *Policy for Federal Oversight and Contractor Assurance Systems*. In addition, it ensures the elements meet the regulatory and contract requirements, as defined by Attachment 1, “Contractor Requirements Document,” of DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy*.

The *LMS Quality Assurance Manual, Quality Assurance Desk Instructions* (LMS/PRO/S04341), and *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites* (LMS/PRO/S04351) provide more detailed information on the processes, including calibrating equipment and data validation. Site-specific quality assurance plans and sampling and analysis plans provide additional information on the methods for calibration and verification of monitoring and measurement equipment. The *ESDM Environmental Data Management Team Work Procedures* (LMS/PRO/S13473) provides additional information on data management. The *Environmental Data Validation Procedure* (LMS/PRO/S15870) provides additional information on data validation activities.

LM may conduct environmental monitoring at any LM site and at locations surrounding a site. Federal, local, state, or tribal regulations or site-specific agreements may require general monitoring of environmental media such as air, surface water, and groundwater to identify the nature and extent of contamination or to demonstrate compliance with regulatory standards or that existing contamination is acting as predicted. Offsite sampling may require site access agreements. The LM and LMS *Real Property Management* manual (LM-Manual-3-13-3.0, LMS/POL/S04335) provides information on obtaining offsite monitoring locations access.

Required environmental monitoring includes both general and project-specific or permit-specific monitoring. Monitoring, measuring key characteristics, maintaining, and calibrating equipment are performed in accordance with site-specific laboratory and field procedures. Results of this environmental monitoring determine compliance strategies and ensure the integrity of remedial actions.

Monitoring and measuring targets, objectives, goals, and fulfillment of compliance obligations; performing internal assessments; participating in external audits; resolving nonconformances; and conducting preventive and corrective actions are all part of the “Check” and “Act” steps of the Plan-Do-Check-Act model of continual improvement.

In addition to techniques identified above, LM evaluates environmental aspects, identifies significant aspects, and selects targets to minimize environmental impacts and achieve environmental objectives. The *EMS Support and Project Teams Manual* provides detailed information on the aspect evaluation process.

EC maintains a list of the current environmental objectives, targets, and goals; tracks progress toward the goals; and periodically reports the status to management. The quarterly EPM report provides status on significant environmental aspect targets and sustainability team annual targets.

LM retains evidence of the monitoring, measurement, analysis, and evaluation results as formal records in accordance with the LM policy *Records and Information Management*.

6.1.2 Evaluation of Compliance

LM establishes, implements, and maintains the processes to evaluate fulfillment of its environmental compliance obligations. LM determines the frequency of the evaluations, evaluates compliance and acts as needed, maintains knowledge and understanding of its compliance status, and documents evidence of the compliance evaluation results. In addition, the LMS EC group uses several internal tools to facilitate continued compliance, including the following:

- **Quarterly regulatory review reports:** The EC group publishes a regulatory review report every quarter of new or revised environmental laws, regulations, and DOE directives. Each report (1) analyzes the applicability of the regulations to LM and the LMS contractor and (2) recommends changes to plans and procedures if warranted. Copies of the quarterly regulatory review reports are available on the LM Portal on the EMS **Regulatory Reviews** webpage.
- **DOE-LM Programmatic Environmental Reports & Activities table:** This table summarizes environmental programmatic reports and includes information such as a task, description of the task, frequency, receivers, general due date, receiving entity, and regulatory drivers. There is a link to the current *DOE Programmatic Reports Table* on the LM Portal EMS **DOE-LM Programmatic Reports & Activities** webpage.
- **Navarro Information Management Systems (NIMS):** This database identifies major EC reports and actions required for LM sites as well as programmatic deliverables. The database schedule information is used to track commitments each month and provides a brief description of the report or action, regulatory driver, responsible personnel, and due date. This database is being replaced by a SharePoint list.

Management assessments, self-assessments, independent internal assessments, and surveillances evaluate compliance with legal requirements applicable to the defined environmental aspects.

6.2 Audits, Assessments, and Management Review

6.2.1 General

LM evaluates its environmental performance and the effectiveness of EMS activities using management assessments and self-assessments, oversight assessments, internal and external audits of the EMS, an independent triennial external audit of the EMS, and management reviews. The LMS *Quality Assurance Manual* and *Quality Assurance Desk Instructions* provide detailed instructions on the various types of performance and effectiveness assessments. The LM *Quality Assurance Program Plan* (LM-Procedure-1-10.0-1.0), LM *Corrective Action and Improvement* procedure (LM-Procedure-2-10.0-3.0), and LM *Quality Assurance Policy* (LM Policy 414.1B) address the 10 quality assurance management, performance, and assessment criteria of

DOE Order 414.1D Chg 2, *Quality Assurance*. In addition, DOE Order 226.1B provides guidance on conducting oversight assessments, while the LM *Oversight* procedure (LM-Procedure-2-10.0-1.0) implements oversight requirements within LM.

The LMS contractor conducts these activities according to an oversight schedule maintained by the LMS Q&PA group. The scope and purpose of each of these activities is determined in advance through consultation between project management and the organization performing the activity. LM performs oversight assessments.

Assessment planning is flexible to permit special requests and changes in work scope, consider past performance, and allow monitoring activities to provide management the most useful information and ensure compliance with all requirements over time.

Any findings require cause analysis and corrective action determination. The LMS contractor tracks corrective actions in an electronic tracking system until completion. LM tracks corrective actions in the corrective action tool until the objective evidence of completion can be captured and documented.

6.2.1.1 LM Oversight and Self-Assessments

LM conducts oversight in accordance with LM-Procedure-2-10.0-1.0, *Oversight*, which may include assessment methods to measure item and service quality and the adequacy of work performance and to promote improvement in accordance with LM Policy 414.1B.

6.2.1.2 LMS Management Assessments

Management assessments are self-assessments performed by those responsible for the work. Qualified assessment personnel who are not involved in the work perform independent assessments and surveillances. The LMS *Quality Assurance Manual* defines the policy, qualifications, and procedures for assessments. Additional information on management assessments is in the LMS *Quality Assurance Desk Instructions*. The LMS Q&PA group maintains a schedule for oversight assessments and communicates it to management. A copy of the Assessment Schedule is available on the LM Portal **Quality & Performance Assurance** webpage.

6.2.2 Audits of the EMS

LM conducts audits at planned intervals to provide information about whether the EMS conforms to LM and ISO 14001:2015 requirements and is effectively implemented and maintained.

6.2.2.1 Internal Audit

LM implements and maintains an established internal audit program. The program includes frequency, methods, planning requirements, responsibilities, and reporting of its internal audits. LM or the LMS contractor staff audits parts of the EMS annually when an external audit is not scheduled. Auditor qualification, knowledge of EMS requirements, and independence are required for all audit team members. The LMS contractor is responsible for coordinating or conducting internal independent and external audits. A third-party subcontractor, another DOE

group, Navarro corporate, or others who have not been involved in the design of the EMS may be involved in performing audits to ensure independence. LM considers these types of audits “independent assessments.”

LM defines the audit criteria and scope for each audit; selects qualified auditors and conducts audits to ensure objectivity and impartiality of the audit process; reports results to the relevant management; and retains documented information as evidence of implementation of the audit program and the audit results. The audits will consider the environmental importance of the processes concerned; changes affecting the organization; and the results of previous audits.

6.2.2.2 External Audit

The EMS must have a formal audit by a qualified party outside the control or scope of the EMS before LM management can declare full implementation of the EMS. LM chose to use the self-declaration process outlined in DOE Order 436.1 to maintain an EMS in accordance with ISO 14001:2015. To maintain a fully implemented status, a qualified independent outside party is required to conduct an audit every 3 years to verify conformance with ISO 14001:2015 and so LM can declare self-conformance.

6.3 EMS Management Review

LM and the LMS contractor senior management review the EMS annually and at periodical intervals to ensure its continuing adequacy, effectiveness, and suitability and to determine if the EMS is achieving the desired level of environmental performance and to assess opportunities for improvement, identify if any changes are necessary, and provide direction and resources for any actions necessary to make the changes. The involvement of the LMS contractor’s senior management in the annual management review enhances the acknowledgement that all employees are important to the success of the EMS in reducing environmental impacts of project activities.

6.3.1 Management Review Process

EMS coordinators compile information on the status of EMS goals and initiatives, programs, and relevant changes to applicable orders and present the information to management for review. The management review team consists of LM and the LMS contractor senior management and others as appropriate. They make recommendations, if needed, to ensure the system achieves the desired level of environmental performance. The management assessment process documents the results of the review in the form of meeting notes with an action item list and as an LMS management assessment report. Specific steps for conducting the EMS management review, including the required inputs and outputs, are in the *EMS Support and Project Teams Manual*.

In addition to the annual EMS Management Review, LM:

- Reports progress at EMS Core Team and managers meetings and at periodic LM program review meetings.
- Reports progress quarterly in the EPM report and *Performance Assurance Measures* report.
- Distributes periodic management review information packages throughout the year via email to minimize the amount of material for management to evaluate at one time.

7.0 Improvement: The “Act” Step of Plan-Do-Check-Act

7.1 General

LM determines opportunities for improvement and implements necessary actions to achieve the intended outcomes of EMS. Improvement is integral to an effective EMS.

7.2 Nonconformity, Corrective Action, and Preventive Action

Personnel have the responsibility and authority to identify and correct potential nonconformances during their work. Identification of nonconformance situations allows proper analysis, resulting in mitigation of impacts and corrective action. Types of nonconformances affecting the environment include the following:

- Regulatory noncompliance
- Unexpected/changed conditions
- Failure to follow procedure
- Improper use of mitigation techniques
- Subcontractor failure to meet requirements

When nonconformity occurs, management will:

- React to the nonconformity and, if needed:
 - Act to control and correct it, including mitigating adverse environmental impacts.
 - Evaluate the need for action to eliminate the causes of the nonconformity so it does not reoccur elsewhere.
- Review the nonconformity to:
 - Determine its cause.
 - Determine if similar nonconformities exists or could potentially occur.
- Implement any action needed and:
 - Prevent recurring nonconformances.

LM compiles and tracks corrective actions in an electronic tracking system in accordance with LM procedures. LM assigns and tracks corrective actions via an LM tracking sheet in accordance with the LM QMS *Corrective Action and Improvement* procedure.

The LMS contractor reports nonconformances as specified in the LMS *Quality Assurance Manual*. The LMS contractor tracks until completion any corrective actions identified through assessment activities in an electronic tracking system. The LMS contractor’s Q&PA group routinely reports to management on the status of corrective actions. A senior management representative will review evidence of closure before approval of corrective action completion.

Lessons learned are either positive or negative lessons to promote improvements and provide information to help with other unexpected conditions. LM uses DOE, LM, and LMS lessons

learned in planning new work and improving work processes; designing and operating facilities or equipment; and determining quality, safety, and cost-effectiveness for LM operations. The LMS contractor uses an operating experience (OpEx) repository to document lessons learned, best practices, success stories, project feedback and other knowledge shares (collectively known as operating experiences) to produce better project outcomes and improve the efficiency and effectiveness of LMS processes. The *LMS Operating Experience (OpEx) Procedure* (LMS/POL/S28783) provides additional information on lessons learned. At the project level, lessons learned can be identified during feedback and project closeout and entered in the OpEx repository.

LM posts lessons learned on the LM Portal on the **Operating Experience** webpage. The DOE Office of Environment, Health, Safety, and Security (EHSS) maintains DOE lessons learned in the Lessons Learned Database on the DOE EHSS webpage.

8.0 Definitions

activities, products, and services: A phrase referring to all of the elements at a facility or organization that can interact with the environment.

audit: A systematic, independent, and documented process for obtaining evidence and evaluating it objectively to determine the extent to which the EMS criteria are fulfilled.

competence: ability to apply knowledge and skills to achieve intended results.

compliance obligations: Legal and other requirements, such as applicable regulations and federal, state, local, and tribal laws; agreements; and permits. Includes contractual relationships, agreements with community groups or nongovernmental organizations, or voluntary commitments that an organization has to comply with and other requirements that an organization has to or chooses to comply with.

continual improvement: The process of enhancing EMS to achieve improvements in overall environmental performance in accordance 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.

controlled document: Any document for which distribution and status are to be kept current by the issuer to ensure that authorized holders and users of the document have the latest version.

corrective action: A measure taken to reduce or eliminate conditions adverse to quality and, where necessary, to prevent recurrence.

effectiveness: extent to which planned activities are realized and planned results achieved.

electronic tracking system: A database used to maintain and track corrective actions resulting from surveillances, incidents, and assessments.

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, including communication of the results of this process to management.

environment: Surroundings in which an organization operates, including the physical environment (e.g., air, water, land, natural resources, and cultural resources) and the human environment and their interrelationships.

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

environmental conditions and events: state or characteristic of the environment as determined at a certain point in time.

environmental impact: A change to the environment, whether adverse or beneficial, resulting from an organization's activities, products, or services.

Environmental Management System (EMS): A systematic approach to managing an organization's environmental concerns. The expected outcome is continual improvement in environmental performance.

environmental monitoring and measurement: A systematic approach for measuring and monitoring an organization's environmental performance. This includes the collection and analysis of samples or other direct measurements of environmental media.

environmental objective: An overall environmental goal, associated with the stated environmental policy.

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. The policy provides a framework for action and for the setting of its environmental objectives and targets.

environmental target: A detailed performance requirement, quantified where practicable, that applies to the organization or parts of it; it arises from the environmental objectives and needs to be established and met to achieve those objectives.

finding: A statement of fact relating to compliance or noncompliance with previously agreed-upon procedures, policies, plans, codes, standards, specifications, or other forms of contractual or legal obligation. Findings should be supported by specific examples.

independent assessment: An assessment performed by a qualified individual, group, or organization not directly responsible for the work being assessed. Independent assessment is synonymous with independent audit.

Integrated Safety Management System (ISMS): A management system providing a formal organized process whereby people plan, perform, assess, and improve the safe conduct of work efficiently and in a manner ensuring protection of workers, the public, and the environment. This management system systematically integrates safety into management and work practices at all levels to accomplish missions while protecting the public, workers, and the environment.

interested party: A person or organization that can affect, be affected by, or perceived itself* to be affected by a decision or activity. (*The party must make this perception known to LM.) An interested party is also known as a stakeholder.

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

life cycle: Consecutive and interlinked stages of a product (or service) system, from raw material acquisition or generation from natural resources to final disposal.

line management: Line management is a chain of line managers; it begins at the first level, directing work in the field, and flows up through the hierarchy to the program manager. It includes the LM program manager, office and site managers, and team leaders. LMS contractor line management personnel include the program manager; task, subtask, and functional managers; and site and facility leads.

management assessment: An evaluation process used to identify organizational strengths and weaknesses through existing information.

Office of Legacy Management (LM): A DOE program office tasked with managing the agency's post-closure responsibilities for legacy land, structures, and facilities and ensuring the future protection of human health and the environment. LM consists of the Office of the Director (LM-1), the Office of Business Operations (LM-10), and the Office of Site Operations (LM-20).

operational controls: Operational controls can take various forms, such as procedures, work instructions, physical controls, trained personnel, or any combination of these. The specific control methods depend on a number of factors, such as the skills and experience of people carrying out the operation and the complexity and environmental significance of the operation itself. In addition to procedures, work instructions, and other control mechanisms, operational controls can include provisions for measurement and evaluation and for determining operating criteria status.

operating experience (OpEx): The sharing and application of lessons learned, best practices, success stories, project feedback, and other knowledge shares to produce better project outcomes and improve the efficiency and effectiveness of LMS processes.

person in charge: The person responsible for oversight, implementation, or performance of a work activity as identified on the *Plan of the Day/Plan of the Week* form (LMS 2130) (e.g., construction site supervisor, project lead, operations lead, or designee).

Plan-Do-Check-Act: An iterative four-step management method used for achieving continuous improvement. ISO 14001 is founded on this approach, which is a cycle of continual planning, implementing, evaluating, and improving work processes.

program management: LM program managers, LM team leads, and LMS task assignment managers who provide oversight of their respective programs and sites and have authority to make decisions and direct staffing and funding for the site, the office or facility, or the project.

relevant communication: Any two-way communication relating to LM's environmental performance that originates from an external interested party and results in a formal written response from DOE.

risk: potential adverse effects (threats) and potential beneficial effects (opportunities).

senior management: The level of management with authority to make decisions for the LM program. Equivalent to ISO definition of top management.

significant environmental aspect: An environmental aspect that has or can have one or more significant environmental impacts.

Site Sustainability Plan (SSP): A plan required of DOE elements and offices by DOE Order 436.1 that identifies specific monitoring and checking requirements to ensure attainment of sustainability goals mandated by laws, Executive Orders, and other requirements (e.g., EISA; EO 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*; Sections 6, 7, and 11 of EO 13834, *Efficient Federal Operations*; and the DOE *Sustainability Report and Implementation Plan*).

surveillance: The collection and analysis of samples or direct measurements of air, water, soil, biota, or other media from DOE sites for 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.

Sustainability Report and Implementation Plan (SRIP): A plan required of all federal agencies by Sections 6, 7, and 11 of EO 13834 that integrates sustainability planning into DOE's programming and budget development process; addresses policy, procedural, and operational challenges that limit the ability to reduce water, energy, and fuel use and waste; and leverages corporate culture to emphasize sound environmental stewardship over the long term.

task assignment: An agreement between DOE and the LMS contractor to perform a specific scope of work within a specific schedule and budget.

9.0 References



Note

DOE directives and other references listed in this manual are current at the time of publication. However, after the manual is published, DOE directives might change, and those changes might not be reflected in this manual until the manual is revised in accordance with the controlled document policies.

Documents	Cited in This Manual	EMS Requirements	LM EMS Operational Control Documents
DOE Documents			
DOE (U.S. Department of Energy), 2016. <i>Departmental Use of Environmental Management Systems</i> , Memorandum AU21-16-N1-0050, October 24	X	X	
DOE (U.S. Department of Energy), 2019. <i>Sustainability Report and Implementation Plan</i> , report to The White House Council on Environmental Quality and Office of Management and Budget, June	X		
DOE Order 151.1D Chg 1, <i>Comprehensive Emergency Management System</i> , U.S. Department of Energy, October 4, 2019	X		
DOE Order 226.1B, <i>Implementation of Department of Energy Oversight Policy</i> , U.S. Department of Energy, April 25, 2011	X		
DOE Policy 226.2, <i>Policy for Federal Oversight and Contractor Assurance Systems</i> , U.S. Department of Energy, August 9, 2016	X		
DOE Order 360.1C, <i>Federal Employee Training</i> , U.S. Department of Energy, July 6, 2011	X		
DOE Order 414.1D Chg 2, <i>Quality Assurance</i> , U.S. Department of Energy, September 15, 2020	X		
DOE Order 430.1C Chg 2, <i>Real Property Asset Management</i> , U.S. Department of Energy, September 17, 2020	X		
DOE Order 436.1, <i>Departmental Sustainability</i> , U.S. Department of Energy, May 2, 2011	X	X	
DOE Order 450.2 Chg 1, <i>Integrated Safety Management</i> , U.S. Department of Energy, January 17, 2017	X		
DOE Policy 450.4A, Chg 1, <i>Integrated Safety Management Policy</i> , U.S. Department of Energy, January 28, 2018	X		
DOE Order 458.1 Admin Chg 4, <i>Radiation Protection of the Public and the Environment</i> , U.S. Department of Energy, September 15, 2020	X		
White House Documents			
EO (Executive Order) 13186, <i>Responsibilities of Federal Agencies to Protect Migratory Birds</i> , January 10, 2001			X
EO (Executive Order) 13834, <i>Efficient Federal Operations</i> , May 17, 2018 ^a	X	X	
EO (Executive Order) 13990, <i>Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis</i> , January 20, 2021	X		
Executive Office of the President, 2019, <i>Instructions for Implementing Efficient Federal Operations Executive Order (EO) 13834</i> , Council on Environmental Quality, May 3, 2019		X	

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Documents	Cited in This Manual	EMS Requirements	LM EMS Operational Control Documents
ISO Standards			
ISO 14001:2015, <i>Environmental Management Systems—Requirements with Guidance for Use</i> , third edition, International Organization for Standardization, September 2015	X	X	
ISO 14004:2016, <i>Environmental Management Systems—General Guidelines on Implementation</i> , third edition, International Organization for Standardization, March 2016	X	X	
LM Documents			
<i>Authorities, Delegations, and Concurrence</i> , LM-Procedure-2-20-1.1, Office of Legacy Management	X		
<i>Control of Documents</i> , LM-Procedure-2-20.0-4.1, Office of Legacy Management	X		X
<i>Corrective Action and Improvement</i> , LM-Procedure-2-10.0-3.0, Office of Legacy Management	X		X
<i>Cultural Resource Management Plan</i> , LM-Plan-3-3-1.0, LMS S07371, Office of Legacy Management			X
<i>Environmental Policy</i> , LM Policy 436.1C, Office of Legacy Management	X		X
<i>Functions and Responsibilities</i> , LM-Plan-2-20-1.2, Office of Legacy Management	X		X
LM (DOE Office of Legacy Management) and LMS (Legacy Management Support), 2019. <i>Workforce Environment, Safety, and Health Posture</i> , joint statement, January 29	X		
<i>LM Federal Employee Training and Development</i> , LM-Procedure-2-4-2.1, Office of Legacy Management	X		X
<i>Oversight</i> , LM-Procedure-2-10.0-1.0, Office of Legacy Management	X		X
<i>Public Dissemination of Information</i> , LM-Procedure-3-3-1.0, Office of Legacy Management	X		X
<i>Quality Assurance Policy</i> , LM Policy 414.1B, Office of Legacy Management	X		X
<i>Quality Assurance Program Plan</i> , LM-Plan-1-10.0-1.0, Office of Legacy Management	X	X	X
<i>Records and Information Management</i> , LM-Policy-1-11-1.0, Office of Legacy Management	X		X
<i>Safety and Health Policy</i> , LM Policy 450.4B, Office of Legacy Management	X		X
<i>Tracking and Analysis of Relevant Environmentally Related External Communication</i> , LM-Procedure-3-20-10.0, Office of Legacy Management	X		X
LM/LMS Controlled Documents (continually updated, prepared by Navarro Research and Engineering, Inc., for the U.S. Department of Energy Office of Legacy Management)			
<i>EMS Support and Project Teams Manual</i> , LM-Procedure-3-20-5.0, LMS/POL/S28895	X		X
<i>EMS Sustainability Teams Manual</i> , LM-Manual-3-20.3-1.0, LMS/POL/S11374	X		X
<i>LM and LMS Emergency Management Program Description (EMPD)</i> , LM-Procedure-3-20.0-2.0, LMS/POL/S14748	X		X
<i>Real Property Management</i> , LM-Manual-3-13-3.0, LMS/POL/S04335	X		X

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Documents	Cited in This Manual	EMS Requirements	LM EMS Operational Control Documents
LMS Controlled Documents (continually updated, prepared by Navarro Research and Engineering, Inc., for the U.S. Department of Energy Office of Legacy Management)			
<i>Contractor Assurance System Program Description, LMS/POL/S13369</i>	X		X
<i>Document Management Services, Resources, and Procedures, LMS/PRO/S32818</i>	X		X
<i>Environmental Data Validation Procedure, LMS/POL/S15870</i>	X		X
<i>Environmental Instructions Manual, LMS/POL/S04338</i>	X		X
<i>Environmental Protection Manual, LMS/POL/S04329</i>	X		X
<i>Environmental Radiation Protection Program Plan, LMS/POL/S13339</i>	X		X
<i>ESDM Environmental Data Management Team Work Procedures LMS/PRO/S13473</i>	X		X
<i>Facility Management Plan, LMS/POL/S05299</i>			X
<i>Fleet Management Plan, LMS/POL/S11157</i>			X
<i>Functions, Responsibilities, and Authorities Manual (FRAM), LMS/POL/S04319</i>	X		X
<i>Integrated Safety Management System Description for LMS in Support of DOE Legacy Management Sites, LMS/POL/S14463</i>	X		X
<i>Integrated Work Control Process, LMS/POL/S11763</i>	X		X
<i>Internal Communications Manual, LMS/POL/S07641</i>	X		X
<i>Learning and Development Department Desktop Procedures, LMS/PRO/S08943</i>			X
<i>LMS Document Types, Processes, and Responsibilities, LMS/POL/S32426</i>	X		X
<i>LMS Projects and Programs Manual, LMS/POL/S05760</i>	X		X
<i>LMS Safety and Health Program, LMS/POL/S20043</i>	X		X
<i>Navarro Safety and Environmental Policy, LMS/POL/S14226</i>	X	X	X
<i>Operating Experience (OpEx) Procedure, LMS/POL/S28783</i>	X	X	X
<i>Communication Products Manual, LMS/POL/S18461</i>	X	X	X
<i>Public Affairs Manual, LMS/POL/S11690</i>	X	X	X
<i>Quality Assurance Desk Instructions, LMS/PRO/S04341</i>	X		X
<i>Quality Assurance Manual, LMS/POL/S04320</i>	X		X
<i>Risk Management Plan, LMS/POL/S27671</i>	X		X
<i>Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites, LMS/PRO/S04351</i>	X		X
<i>Training Policies and Procedures Manual, LMS/POL/S15034</i>	X		X

Note:

^a EO 13990 revokes all of EO 13834 except for Sections 6, 7, and 11.

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Appendix A

Issues Potentially Relevant to Achieving EMS Outcomes

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The following table describes external issues, internal issues, and environmental conditions that could affect LM's ability to achieve intended EMS outcomes.

External Issues		
Potential External Issues	Applicability	Can Affect EMS Outcomes?
Competition	LM is not in competition with any local organizations with similar purpose.	No
Cultural: Includes sacred sites, heritage properties, availability of specific resources such as medicinal plants, food used in cultural context for ceremonies, religious system, and aesthetic values	One example of how cultural issues impact LM work is that Riverton crayfish near the Amchitka, Alaska, Site are used in medicine and as food sources. The impacts of cultural issues often are site-specific and not LM-wide, but they could affect how LM conducts operations.	Yes
Economic: Availability of utilities	Availability of utilities could affect LM operations, but that potential was determined to be not significant, as any utility outage would most likely be short term.	No
Financial: System type and availability and access to resources	Availability and access to financial resources could affect LM operations and LM's ability to perform them.	Yes
Legislative: Statutory, regulatory, and other legal requirements	Change in administration could likely affect the framework within which LM operates.	Yes
Market and public demand: Current and future market trends for products and services	LM purchases products but not in significant quantities, so market or public demand likely would not significantly affect operations.	No
Natural: Current and future climate conditions, biodiversity, rare or endangered species, ecosystems, and resource availability and physical conditions	Changes in natural conditions or the presence of rare or endangered species could affect LM operations.	Yes
Political: Type of system, level of interference in business development, and willingness to exercise power effectively	Change in the type of political system and how politicians exercise political power could affect LM operations.	Yes
Social: Ethnic values, gender, bribery, work-force availability, level of work-force education, criminal activity	LM has a large number of sites in different locations. While some site vandalism has occurred, it was determined that social issues are not likely to significantly affect LM operations.	No
Supply chain	Supply chains could affect LM, but effects would be site specific, not LM-wide. Example: acid deliveries for the Fernald Preserve, Ohio, Site.	Yes
Technological: Availability and access to technology relevant to LM	Existing technology: One example is that LM uses solar panels at the Tuba City, Arizona, Disposal Site. Alternative power from the grid or generators would be available if required, so it was determined that this availability would not affect LM operations. New technology: The use of drones for surveying and photography is changing the way LM does work at many sites.	Yes

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Internal Issues		
Potential Internal Issues	Applicability	Decision
Capacity and capability: Resources, work-force knowledge, and skills	It was determined that the capacity and capability of resources and work force could affect how LM conducts operations.	Yes
Contracts: Content, form, and extent of contractual relations	It was determined that the content, form, and extent of contractual relations could affect how LM conducts operations.	Yes
Information systems: Information flow and decision-making processes	It was determined that the flow of information and decision-making processes could affect how LM conducts operations.	Yes
Legal compliance: Status and trends	It was determined that status and trends in legal compliance could affect how LM conducts operations.	Yes
Management systems: Strengths and weaknesses of existing systems, guidelines, and models	It was determined that the strengths and weaknesses of existing systems, guidelines, and business models, such as those for accounting quality and safety, could affect how LM conducts operations.	Yes
Organization and structure: Organization governance and structure, national and contractual governance frameworks, organization structure type	It was determined that organization governance and structure, national and contractual governance frameworks, and organization structure type (matrix, project-based) could affect how LM conducts operations.	Yes
Organizational style and culture: Management style, open- or closed-door policies, and decision-making processes	It was determined that changes to organization style or culture could affect how LM conducts operations.	Yes
Policies, objectives, and strategies	It was determined that policies, objectives, and strategies, and any changes in them, could affect how LM conducts operations.	Yes
Relationships: Relationships with, values of, and perception of internal people	Personal values, perceptions, and relationships with other personnel could affect how LM conducts operations.	Yes

Environmental Conditions and Events		
Potential Environmental Conditions and Events	Applicability	Decision
Emergencies: Emergency situation reports and incidents with environmental consequences	Emergencies with environmental consequences could affect LM operations. Examples cited include site closure due to rail car accident with phosphorus fire and a Hallam, Nebraska, Decommissioned Reactor Site earthquake.	Yes
Environmental monitoring data	Results from environmental monitoring data could change how LM conducts operations.	Yes
Environmental permits	Changes to existing environmental permits or new permits could affect how LM conducts operations.	Yes
Historical disaster information	Historical disaster information related to LM operations would be site-specific but could be applicable to LM operations. Examples include areas that tend to flood or that have a high risk of wildfires.	Yes
Environmental conditions: Meteorological, geological, hydrological, and ecological conditions	Changes to meteorological, geological, hydrological, and ecological conditions could affect LM operations. For example, the City of Miamisburg's act of dewatering an aquifer affected Mound, Ohio, Site groundwater treatment operations.	Yes
Previous reports: Reports from previous assessments, audits, or reviews	Improvements or changes made based on information from previous assessments, audits, or reviews could change or affect how LM conducts operations.	Yes