

SUBJECT: INTEGRATED SAFETY MANAGEMENT

1. PURPOSE. To ensure that the Department of Energy (DOE), including the National Nuclear Security Administration (NNSA), systematically integrates safety into management and work practices at all levels, so that missions are accomplished efficiently while protecting the workers, the public, and the environment. Throughout this Order, “safety” is used synonymously with environment, safety, and health (ES&H).
2. CANCELLATION. This Order supersedes DOE Order O 450.2, dated 4-25-11. Cancellation of a directive does not, by itself, modify or otherwise affect any contractual or regulatory obligation to comply with the directive. Contractor Requirements Documents (CRD) that have been incorporated into a contract remain in effect throughout the term of the contract unless, and until, the contract or regulatory commitment is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements.

3. APPLICABILITY.

- a. Departmental Applicability. Except for the equivalencies and exemptions in paragraph 3.c., this Order applies to all Departmental Elements.

The Administrator of NNSA will assure that NNSA employees comply with their responsibilities under this Order. Nothing in this Order will be construed to interfere with the NNSA Administrator’s authority under section 3212(d) of Public Law (P.L.) 106-65 to establish Administration-specific policies unless disapproved by the Secretary.

- b. DOE Contractors. This Order is not applicable to DOE contractors. Contractor requirements for integrated safety management (ISM) are implemented via the Department of Energy Acquisition Regulation (DEAR) clause at 48 C.F.R. 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution, where prescribed by the DEAR. See 48 C.F.R. 923.7003, 952.223-71, and 970.2303-3.

- c. Equivalencies/Exemptions.

- (1) Equivalency. In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 U.S.C., sections 2406 and 2511, and to ensure consistency through the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this Directive for activities under the Director's cognizance, as deemed appropriate by the Director.

- (2) Exemption. Consistent with Secretarial Delegation Order Number 00-033.00B to the Administrator and Chief Executive Office of Bonneville Power Administration (BPA), this Order does not apply to BPA.

4. REQUIREMENTS.

- a. DOE line management¹ organizations must document their approach for ensuring that both their DOE offices and their contractors establish ISM systems, including the implementing mechanisms, processes, and methods to be used in an ISM System Description Document. The ISM System Description Document must be consistent with the hazards and complexity of the facilities and work performed. Furthermore, this document must clearly describe how ISM Guiding Principles and Core Functions (see DOE P 450.4) have been applied and how relevant safety goals and objectives are established, documented, and implemented.
- b. DOE line managers must determine the adequacy for approval and frequency of updates of both their DOE offices' and their contractors' ISM System Description Documents.
- c. DOE line managers must determine the need for, and frequency of, DOE ISM Declarations (i.e., the status and effectiveness of ISM system implementation, including planning and execution of work) for facilities and activities based on hazards, risks, and contractor performance history and document their decisions concerning high consequence activities, such as high-hazard nuclear operations.
- d. DOE line managers responsible for program and site offices' overall ISM system implementation must designate a representative to serve on the ISM Champions Council.
- e. ISM Champions Council, functioning in accordance with its charter,² must support line management in developing and sustaining vital, mature ISM systems throughout the Department so that work is reliably accomplished in a safe manner.
- f. DOE Safety Culture Improvement Panel, functioning in accordance with its charter³, must provide sustained leadership, consistent implementation, and an enterprise-wide cross-organizational focus to continuous safety culture improvement.
- g. To ensure adequate safety in contractor management of DOE facilities while meeting mission goals, DOE line management must ensure that appropriate requirements are incorporated into contracts, oversee compliance, assess

¹ DOE line management refers to the unbroken chain of responsibility that extends from the Secretary of Energy to the Deputy Secretary, to the Secretarial Officers who set program policy and plans and develop assigned programs, and to the program and Field Element Managers who are responsible for execution of these programs.

² The ISM Champions Council Charter is available on the DOE ISM Champions Web site.

³ The Safety Culture Improvement Panel charter is available on the DOE Safety Culture Improvement Panel web site.

contractor performance against established performance measures, analyze relevant trends, and obtain relevant operational information for use as feedback to improve safety.

- h. Line management and support organizations, with safety management responsibility, must develop, issue, and maintain, separately or as part of the ISM System Description Document, an organizational Functions, Responsibilities, and Authorities (FRA) document that:
 - (1) Describes the organization and management structure;
 - (2) Identifies the safety management functions applicable to the organization;
 - (3) Identifies the organization's functions and authorities that have been transferred to or from another organization or derived from a DOE safety directive or applicable governmental agency regulation;
 - (4) Identifies who within the organization has the responsibility and authority to perform those functions;
 - (5) Lists the delegated authorities;
 - (6) Explains the general process for control and revision of the FRA document and the process used for delegations of authority;
 - (7) Is readily accessible to all organizational employees;
 - (8) Is approved by the head of the DOE organization to which the FRA document applies; and
 - (9) Is reviewed annually and updated, if needed, to reflect changes to the delegations of authority and changes in responsibilities and authorizations as specified in DOE safety directives, applicable governmental agency regulations, and Secretarial memoranda.
- i. FRA documents for program offices that direct operations at locations where more than one DOE program office have work conducted must contain applicable memoranda of understanding (MOU) that define the allocation of safety management functions and responsibilities among the program offices.
- j. Following the process described in Appendix A, each Department's line management organization must develop, issue, and maintain a documented process for delegation of authorities to perform safety management functions consistent with the hazards and complexity of the work. DOE's safety management responsibilities for ensuring adequate protection and safe operations must be met by DOE line management and cannot be delegated to contractors.

5. RESPONSIBILITIES.a. Secretary/Deputy Secretary.

- (1) Establish and communicate ES&H expectations.
- (2) Ensure effective operation of the ISM Champions Council and designate the DOE ISM Co-Champions to lead the Council.
- (3) Approve changes to the Charter of the ISM Champions Council.

b. Secretarial Officers.

- (1) Develop and maintain an ISM System Description Document and an organizational FRA for their Headquarters office. The System Description and FRA can be provided in separate documents or in the same document.
- (2) Review and (except for NNSA) approve Field Elements' ISM System Descriptions. Monitor the status of Field Element and Field Element contractors' ISM systems; monitor Field Elements' establishment and implementation of safety goals and objectives.
- (3) Determine the need for, and frequency of, ISM Declarations for Field Element and contractor facilities and activities based on hazards, risk, and performance history with input from Field Elements.
- (4) Define the delegations of authorities and specify the responsibilities that are assigned to specific offices within their organizations in an FRA document.
- (5) Establish minimum expectations in terms of individual and organizational capabilities for assigned safety responsibilities or delegated safety authorities.
- (6) Establish secretarial office level MOUs, as appropriate, that define the agreed-upon procedures governing operations at locations where multiple program offices conduct work.

c. Heads of DOE Field Elements.

- (1) Develop and maintain an ISM System Description Document and an organizational FRA for their Field Element separately or as part of the same document. For NNSA sites, approve and submit the ISM System Description to the Secretarial Officer.
- (2) Monitor the status of ISM systems for their contractors' facilities and activities and provide feedback to their contractors to support continuous improvement.

- (3) Ensure the establishment of the annual Field Element safety goals and objectives and contractor safety performance objectives, measures, and commitments.
 - (4) Support the Secretarial Office in determining the need for, and frequency of, Field Element and Field Element contractors' ISM Declarations.
 - (5) Determine whether and when to conduct ISM verifications of contractor ISM systems.
 - (6) Implement the Field Element management systems to ensure DOE safety requirements and expectations are achieved.
 - (7) Establish Field Element level MOUs, as appropriate, that define implementing methodologies for the procedures agreed-upon by the Secretarial Officers for governing operations at a location where multiple program offices conduct work. Incorporate the MOUs into organizational FRA documents, as appropriate.
- d. Associate Undersecretary for Environment, Health, Safety and Security (EHSS).
- (1) Serves as the senior manager of the Office of Primary Interest for DOE safety directives in support of line management.
 - (2) Develops and maintains a guidance document for implementation of ISM systems by DOE line management and DOE contractors.
 - (3) Defines the delegation of authorities and specifies the responsibilities that are assigned to specific HSS offices in an FRA document.
- e. ISM Champions Council.
- (1) Assists DOE line management in developing, implementing, and maintaining effective ISM systems.
 - (2) Serves as the primary forum for assisting DOE line managers in the development of Department-wide strategies for improving safety culture.
 - (3) Reports on the activities of the ISM Champions Council to the Deputy Secretary, including initiatives to improve safety culture, with concurrence by the Associate Undersecretary for EHSS.
 - (4) Informs the Secretary and the Deputy Secretary on the status of overall ISM implementation within the Department, as necessary.

f. Safety Culture Improvement Panel.

- (1) Strengthens the implementation of safety culture and safety conscious work environment throughout DOE.
- (2) Shares and, as necessary, develops improvement and sustainment tools for positive safety culture.
- (3) Provides high-level, line management attention to evaluating safety culture issues and strengths.
- (4) Provides a forum for evaluating DOE safety culture status, progress, and challenges, and communicates the results to the workforce.
- (5) Works to continuously improve DOE safety culture with representatives from across the complex.
- (6) Stays current in advances in organizational safety culture and how best practices can be applied to DOE.
- (7) Identifies opportunities to incorporate safety culture and the concepts/practices of a safety conscious work environment into leadership and employee training, in coordination with DOE's National Training Center, the Federal Technical Capability Panel, and DOE's Chief Learning Officer.

6. CONTACT. Questions concerning this Order should be addressed to the Office of Health and Safety at (301) 903-7385.

BY ORDER OF THE SECRETARY OF ENERGY:



ELIZABETH SHERWOOD-RANDALL
Deputy Secretary

Appendix A
Delegations of Authority to Perform Safety Management Functions

1. GENERAL REQUIREMENTS. When not prohibited by law or by the Secretary, DOE officials may delegate authority to perform their assigned safety management functions.
 - a. Delegations of authority for safety functions, other than those related to nuclear facilities as described below, may be made to either a position or a person.
 - b. Delegating officials remain fully accountable for the outcome of any actions taken that are associated with the delegated function(s) during the time that the delegation of authority is in effect.
 - c. Delegating officials create and maintain documentation of such delegations that include descriptions of the circumstances under which the delegated authorities take effect, any limitations to the authorities delegated, and the time period for which the delegation is valid.
 - d. A copy of the delegation of authority must be provided to the delegate.
 - e. Unless otherwise stated, delegations of authority must remain in effect until they are modified, rescinded, or they expire.
 - f. Delegating officials may modify or rescind in writing the delegation at any time.
 - g. A copy of the rescission or modification must be provided to the delegate who previously had the delegated authority so that the delegate is aware of the rescission and can document the revised delegation in the appropriate FRA document.
 - h. Delegation of program office authority to individuals in Field Element offices must not preclude the program offices from issuing requirements, expectations, and guidance affecting that authority or from participating in associated interactions with the operating or management contractor.
 - i. Delegations of authority must be reviewed periodically (at least every 2 years).
 - j. If the authority to perform a function listed in a DOE office's FRA document is delegated to another office, the office receiving the delegation must be allowed to review and comment on that aspect of the associated FRA document and have its comments satisfactorily resolved. Both organizations must update their FRA documents to reflect the delegation
2. NUCLEAR FACILITY SAFETY DELEGATION REQUIREMENTS. Delegation of nuclear safety authorities and self-assessment of this delegation process must comply with the process criteria and attributes specified below.

a. Process Criteria.

- (1) Delegations must only be made to individuals who possess the necessary qualifications, experience, and expertise.
 - (a) Approval of documented safety analyses, technical safety requirements, and unreviewed safety question procedures required pursuant to 10 C.F.R. part 830, subpart B, *Safety Basis Requirements*, must not be further delegated below the most senior-level program officer or deputy at a Field Element office unless concurrence is obtained from the applicable Central Technical Authority (CTA).
 - (b) Minimum expectations in terms of individual requirements for the most senior-level program officer at a Field Element office and his or her deputy must include (1) Senior Technical Safety Manager qualifications consistent with DOE Order 426.1 Chg 1, *Federal Technical Capability*, and (2) successful completion of the 1-week *Nuclear Executive Leadership Training* course.
 - (c) The senior-level program officers at Headquarters that are expected to fulfill the responsibilities listed in (a) above are expected to have the same qualification as listed in (b) above.
- (2) Delegations must only be made where the candidate's organization possesses, or has access to, sufficient staff (for example, a Service Center) with the necessary qualifications, experience, and expertise to support the candidate for the authorities being delegated.
- (3) Delegation must only be made where the candidate's organization has the proper framework of processes and procedures, as well as adequate resources and funding, to implement the delegated authorities.
- (4) In those rare cases in which delegation must be made prior to the candidate fully satisfying the established criteria above, compensatory measures must be established.
- (5) There are field elements supporting more than one program office at a single site; therefore, to be consistent with line management responsibility for safety, the Assistant Managers for Environmental Management or equivalent position at Field Elements may be delegated safety authorities. These delegations must be made with the approval of the lead program field element manager.

b. Process Attributes for Nuclear Safety Delegations.

- (1) Delegating officials must establish a documented process or procedure to ensure that delegations are made carefully and accurately, consistent with the process criteria and attributes defined in this Appendix.

- (2) Delegating officials must establish their minimum expectations in terms of individual and organizational capabilities and capacities for the various delegations.
 - (3) Delegating officials must document their review of these criteria for every delegation made.
 - (4) Delegations must only be made to individuals, not to positions. The delegations must clearly identify to the extent to which further delegations are allowed, consistent with this criterion.
 - (5) Delegation processes should consider the judgment of at least two senior managers.
 - (6) Delegation processes must also address delegations of authority to subordinate Headquarters personnel.
 - (7) Compensatory measures related to this process must receive concurrence from the applicable CTA prior to delegation of authority.
 - (8) Periodic reviews must be documented with the same criteria and rigor as the original delegations. Using the results of the delegation review, the reviewing officials must recommend to the applicable delegating officials whether to confirm, revise, or rescind the delegations or to institute compensatory measures or corrective actions as needed.
 - (9) The CTA support staff must annually review the delegation process to evaluate whether it is adequate and functioning properly and to identify any concerns to the CTA, who will notify the Under Secretary and the Secretarial Office (SO) and recommend action as appropriate.
- c. Review of Delegations. An Under Secretary or SO with safety responsibilities related to nuclear facilities must periodically review (at intervals no greater than 2 years) assigned safety responsibilities and delegated safety authorities and verify that the necessary capability and capacity to perform the responsibilities and authorities still exist. Safety responsibilities are documented in the FRA documents developed and approved by the Under Secretaries and SOs. Unless otherwise prohibited, the authority to take the necessary actions to fulfill the safety functions documented in any Under Secretary's and SOs FRA documents may be delegated to either subordinate Field or Headquarters personnel.
- (1) Self-Assessments.
 - (a) SOs must establish a documented process or procedure to ensure that self-assessments are conducted consistent with the criteria defined in this Appendix.

- (b) A documented comprehensive self-assessment must be performed periodically (at intervals no greater than 2 years) based on the criteria presented in this Appendix.
 - (c) If the necessary capability or capacity to carry out assigned safety responsibilities or delegated safety authorities is found lacking, compensatory measures, corrective actions, or rescissions must be approved by the Under Secretary or SO and instituted as necessary.
 - (d) Self-assessments must be performed by qualified, experienced personnel.
 - (e) The CTA support staff must independently review the self-assessments for associated offices and identify any concerns to the CTA, who will notify the Under Secretary and SO and recommend actions as appropriate.
- (2) Assessment Criteria. The following criteria must be used in assessing individual and organizational capabilities or capacities to execute assigned safety responsibilities or delegated safety authorities:
- (a) Individuals possess the necessary qualifications, experience, and expertise to carry out their responsibilities.
 - (b) Organizations have the proper framework of processes and procedures to implement the assigned responsibilities.
 - (c) Organizations have adequate resources, including sufficient staff and funding to carry out the assigned responsibilities.
 - (d) All assigned safety responsibilities or delegated safety authorities have been identified.
 - (e) Each assigned safety responsibility or delegated safety authority has been reviewed and documented.