SUPPLEMENTAL DIRECTIVE

NNSA SD 450.2B

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FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES (FRA) FOR SAFETY MANAGEMENT

NATIONAL NUCLEAR SECURITY ADMINISTRATION
Office of Safety, Infrastructure and Operations

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FUNCTIONS, RESPONSIBILITIES, AND AUTHORITIES (FRA) FOR SAFETY MANAGEMENT

1. PURPOSE. This Supplemental Directive (SD) documents National Nuclear Security Administration (NNSA) roles and responsibilities in implementing safety management systems. To ensure that work is performed safely, this SD defines, identifies, and clarifies the NNSA safety management functions, responsibilities, authorities, and associated delegations within program and functional management organizations and field offices.

2. AUTHORITY. This SD is issued to comply with the Secretary's direction concerning safety management responsibilities and assigns safety responsibilities and authorities described in Department of Energy (DOE) Order (O) 450.2, *Integrated Safety Management*. This SD also implements and assigns responsibilities established within NNSA by DOE directives, Code of Federal Regulations (CFR), Federal Statutes, Executive Orders, and other authorities.

3. CANCELLATION. SD 450.2A, Functions, Responsibilities, and Authorities (FRA) Document for Safety Management, dated 07-04-2018.

4. APPLICABILITY.

   a. Federal. Applies to all NNSA federal elements.

   b. Contractor. Does not apply to contractors.

   c. Equivalency. In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 United States Code (U.S.C.) sections 2406 and 2511, and to ensure consistency throughout 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.

5. SUMMARY OF CHANGES. This SD updates SD 450.2A Admin Change 1, *Functions, Responsibilities, and Authorities (FRA) Document for Safety Management*.

   Other changes include the following:

   a. Added responsibilities for the Office of Counterterrorism and Counterproliferation (NA-80), which performs safety functions related to cybersecurity and emergency response.

   b. Clarified requirements regarding safety of work performed at remote locations not on a DOE site or in a DOE-owned facility.

   c. Clarified linkage between NNSA Contractor Performance Evaluation Process (CPEP) and Safety FRA.

d. Clarified requirements for Integrated Safety Management (ISM) effectiveness reviews and declarations. Including development and use of safety performance measures, objectives, and commitments.

e. Added responsibility for Personal Protective Equipment (PPE) based on lessons learned from COVID-19 response.

f. Made editorial changes throughout the document.

6. BACKGROUND. This SD describes NNSA senior management, Headquarters (HQ), and Field Office Manager (FOM) functions, responsibilities, and authorities related to safety management. NNSA requirements regarding organizational accountability for safety management derived from DOE directives or NNSA SDs and other assignments and delegations made by the Administrator are also listed in this SD. Specific references to such directives found in this SD, refer to the latest approved revision of the directive or its successor directive as applicable to NNSA activities. The appendixes contain references, acronyms, and NNSA's Integrated Safety Management System Description (ISMSD).

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 (Administrator or designee), to the program and functional managers and FOMs who are responsible for mission and program execution (see DOE O 226.1, *Implementation of Department of Energy Oversight Policy*, and NNSA SD 226.1, *NNSA Site Governance*). The FOMs report directly to the Administrator. The Administrator is supported by the Central Technical Authority (CTA) and the Cognizant Secretarial Officer for Safety (CSO), who maintain operational awareness on safety matters, provide technical support to the FOMs, and assist the FOMs in maintaining a consistent application of nuclear and non-nuclear safety requirements. The CSO also executes, on behalf of the Administrator, the line management function for safety matters. The CTA, on behalf of the Administrator, ensures situational awareness of nuclear safety matters across the Enterprise. Program interface with the field offices takes place through the appropriate Deputy Administrator or Associate Administrator. Federal oversight of the contractor is accomplished as close to the work, as practical, as required by DOE O 226.1 and NNSA SD 226.1, and with the responsibilities indicated in this SD.

Safety management responsibility for work done by DOE and other non-NNSA tenant activities remains with NNSA's line management (a landlord function) and should be communicated by NNSA to non-NNSA tenants. For projects executed through non-Management and Operating (M&O) contracts, the work done at a site must be performed within the safety envelope approved by the FOM as delegated and, in some cases, as further delegated. Formal *stop work* authority normally resides with the FOM and Contracting Officer (CO), but all NNSA personnel have authority (and are expected) to stop or pause unsafe or unsecure activities. Safety is everyone's responsibility.

Line managers bear full responsibility for achieving assigned program objectives in a manner that is safe and legally, ethically, and fiscally responsible. Primary authority rests with the lowest line manager responsible for directing all the resources needed to meet a specific requirement or objective. In most cases, this is a FOM, but, consistent with the tiered risk decision-making authority, it may be an HQ line manager. Responsibility is retained by the delegator, and authority may be delegated to the extent feasible, based upon the delegator's discretion that the receiver has the capability to accomplish the task. Specific directives may limit the extent of re-delegation.

Overall safety of NNSA's sites and activities is ensured through site stewardship of nuclear and non-nuclear safety, and environment, safety, and health (ES&H) functions. The Administrator has delegated most of the line management accountability for ES&H to the field and program offices, but retains responsibility. In the case of nuclear safety, the Administrator retains the line management responsibility for establishing policy and requirements at the HQ level, but delegates the responsibility for implementing standards to the field and programmatic level.

Each organization within NNSA is specifically addressed in this SD and is responsible for establishing and documenting how the specific functions and authorities assigned in this SD are implemented. Each field office must prepare and maintain a signed FRA document to further define and assign its safety management functions as necessary.

7. REQUIREMENTS.

a. NNSA managers assigned safety management functions, responsibilities, or authorities in this SD must develop implementing procedures for their assigned safety management functions. It is recommended that organizations with multi-program secretarial missions establish memoranda of agreement (MOAs) with delegation listings included as needed.

b. When organizations reorganize or responsibilities change that affect this SD, the Office of Safety, Infrastructure and Operations (NA-50) must be notified by the affected organization. The affected organization must work with the Office of Policy and Strategic Planning (NA-1.1) and NA-50 to prepare the required page change documents to update this SD, in accordance with NNSA SD 251.1, *Directives Management*, or successor directive.

8. RESPONSIBILITIES.

a. Administrator. The Administrator has authority over all programs and activities within NNSA and is responsible for safety management and its implementation in NNSA.

(1) Provides overall direction within NNSA and establishes delegations of Administrator authorities to other NNSA officers and monitors delegated authorities through this SD.

(2) Determines, approves, and issues *Price-Anderson Amendments Act* (PAAA) and Worker Safety and Health enforcement actions. Enforcement action determinations are coordinated with the Contractor CPEP.

(3) Management of Safety Requirements.

(a) Approves NNSA Policies (NAPs), SDs, and Advanced Change Directives in accordance with SD 251.1B, *Directives Management*.

(b) Establishes a process for the development, review, revision, and approval of NNSA safety-related directives, and for the development of NNSA input to DOE documents, including Orders, Technical Standards, and Rules.

(c) Reviews appeals of CSO decisions on exemption requests as appropriate, in accordance with the provisions of 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*.

(d) Prioritizes hiring actions to ensure technically qualified federal personnel are available to accomplish mission.

(4) Project Management.

(a) When functioning as the Project Management Executive (PME), approves critical decisions and baseline changes and ensures safety is integrated into design consistent with DOE O 413.3, *Program and Project Management for the Acquisition of Capital Assets*, requirements for nuclear construction projects.

(b) As a member of an Energy Systems Acquisition Advisory Board (ESAAB), advises the Chief Executive (CE) for Project Management that critical decisions and baseline change proposals have met integration of safety into design requirements consistent with DOE O 413.3 for nuclear construction projects.

(5) Facilities Operation Authorization. Executes startup authorization authority (SAA) for NNSA Hazard Category 2 Nuclear Facilities with a total project cost greater than $200 million.

(6) Staffing. Ensures adequate numbers of employees with an appropriate skill mix are available and qualified to perform their assigned safety management functions, including oversight, and periodic self-assessments of line oversight responsibilities.

b. Field Office Managers (FOMs). In accordance with HQ program direction, field offices are responsible for local federal oversight and administration of the M&O and other direct contracts, except for design and construction contracts issued by the Office of Acquisition and Project Management (NA-APM), where NA-APM has the responsibilities for contract management and project management oversight. NNSA FOMs serve as line management, site-level mission integrators, and as the authorizing officials for activities at the site on behalf of the Administrator. They are responsible for the safe operation of facilities under their purview. Specific FOM safety FRA include the following:

(1) Execute the responsibilities and authorities for FOMs in DOE and NNSA directives, and those authorities delegated to them. Oversee the M&O contractor's program execution and implementation of safety and quality programs at their site and ensure that M&O contractors operate facilities safely in support of the NNSA mission.

(2) FRA documents for program offices that direct operations at locations where more than one DOE program office conducts work must contain applicable memoranda of understanding (MOUs) that define the allocation of safety management functions and responsibilities among the program offices.

(3) Prepare a field office FRA document for their site and implement processes and procedures that delineate how the applicable responsibilities and authorities in this SD are performed at the field office. Revise the field office FRA document as delegations, authorities, and responsibilities change with revisions to this SD.

(4) Coordinate planned field office and HQ assessments into an integrated site assessment schedule in accordance with NNSA SD 226.1C, *NNSA Site Governance*.

(5) Approve contractor radiation protection plans per 10 CFR 835, *Occupational Radiation Protection*.

(6) Ensure requirements of DOE O 435.1 Chg. 1, *Radioactive Waste Management,* and DOE M 435.1-1 Chg. 2, *Radioactive Waste Management Manual,* are implemented.

(7) Ensure requirements of DOE O 458.1, *Radiation Protection of the Public and the Environment*, are implemented.

(8) Approve maintenance implementation plans or nuclear maintenance management programs (NMMPs) per DOE O 433.1, *Maintenance Management Program for DOE Nuclear Facilities*.

(9) Approve contractor emergency management assessments and readiness assurance activities as defined in DOE O 151.1, *Comprehensive Emergency Management System*.

(10) Approve contractor nuclear facility training implementation matrices per DOE O 426.2, *Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities*.

(11) Concur on contractor's procedures to implement DOE O 425.1, *Verification of Readiness to Start Up or Restart Nuclear Facilities*.

(12) Approve safety basis and safety design basis documents per 10 CFR 830, Subpart B, and associated directives, when delegated.

(13) Determine the applicability of DOE O 422.1, *Conduct of Operations*, for all facilities other than Hazard Category 1, 2, or 3 nuclear facilities and approve the DOE O 422.1 implementation matrices.

(14) Approve contractor Worker Safety and Health Plans per 10 CFR 851, *Worker Safety and Health Program*.

(15) Approve contractor Chronic Beryllium Disease Prevention Plans per 10 CFR 850, *Chronic Beryllium Disease Prevention Program*.

(16) Approve the initial M&O Contractor Assurance System (CAS) description, and review and assess the effectiveness of the CAS per DOE O 226.1, *Implementation of Department of Energy Oversight Policy*. Ensure that contractor requirements for CAS are implemented as specified by contract.

(17) If delegated as PME, approve critical decisions and baseline change proposals, and ensure safety is integrated into design in accordance with DOE O 413.3 requirements for nuclear construction projects.

(18) If designated as a member of an ESAAB, advise the CE for Project Management that critical decisions and baseline change proposals have met the integration of safety into design requirements of DOE O 413.3 for nuclear construction projects.

(19) Approve the M&O contractor ISMSD and submit the field office ISMSD to the NNSA CSO for information. Ensure that contractor requirements for ISM are implemented via the Department of Energy Acquisition Regulation (DEAR) requirements where prescribed. Ensure establishment of annual field office element safety goals and objectives, and contractor

safety performance objectives, measures, and commitments. Provide the NNSA CSO input on the need for, and frequency of, ISM declarations for field element and contractor facilities and activities based on hazard, risk, and performance history. Submit field office declaration to CSO on a frequency not to exceed three years. (DOE O 450.2, *Integrated Safety Management*.)

(20) Approve the field offices' quality assurance program (QAP) as required by DOE O 414.1, as well as the contractor's QAP, and the safety software graded approach as required by the version of DOE O 414.1 in the contract and 10 CFR 830, Subpart A, *Quality Assurance Requirements*.

(21) Ensure adequate numbers of employees with an appropriate skill mix are available and qualified to perform their assigned safety management functions, including oversight and periodic self-assessments of line oversight responsibilities.

(22) Implement a Federal Employee Occupational Safety and Health (FEOSH) Program to ensure safe and healthful working conditions for federal employees per DOE O 440.1, *Worker Protection Program for DOE (Including the National Nuclear Security Administration) Federal Employees*.

(23) Designate a field element ISM Champion per DOE O 450.2.

(24) Ensure establishment of annual Field Element safety goals and objectives and contractor safety performance objectives, measures, and commitments.

(25) Implement an Employee Concerns Program and designate an Employee Concerns Program Manager per DOE O 422.1, *Department of Energy Employee Concerns Program*.

(26) Approve contractor Fire Protection Program per DOE O 420.1, *Facility Safety*.

(27) Approve contractor Nuclear Criticality Safety Program (NCSP) per DOE O 420.1.

(28) When delegated, approve contractor Safety Design Strategy and other supporting documents for design of nuclear facilities per DOE STD 1189 as invoked by DOE O 420.1, in conjunction with the Federal Project Director.

(29) Approve field element and contractor's Authorities Having Jurisdiction, e.g., Explosive Safety, Electrical Safety, etc.

(30) Oversee contractor Safety Management Program implementation.

(31) Send requests for guidance or expectations regarding 10 CFR 830 or the directives listed in Attachment 1 and 2 of DOE O 410.1 to the CTA, through the Chief of Defense Nuclear Safety (CDNS), as necessary.

(32) Support Biennial Reviews conducted by the CDNS.

c. Associate Administrator for Safety, Infrastructure and Operations (NA-50). NA-50 has the responsibility for the sustainment of infrastructure, and the execution of nuclear safety and ES&H programs within NNSA.

(1) Project Management.

(a) When designated as a member of an ESAAB, advises the CE for Project Management that critical decisions and baseline change proposals have met the integration of safety into design requirements of DOE O 413.3 for nuclear construction projects.

(b) Appoints a safety basis approval authority no later than Critical Decision (CD)-0 for design and construction of Hazard Category 1, 2, and 3 nuclear facilities or for projects including major modifications thereto, to approve safety design basis documents listed in DOE O 413.3 and SD 450.2-1, *Delegation of Nuclear Safety Authorities*.

(c) Provides nuclear safety support for the design and construction of NNSA facilities and activities.

(2) Integrated Safety Management (ISM).

(a) Monitors effectiveness of ISM systems at NNSA sites and HQ.

(b) Appoints the NNSA ISM Champion (should be at least at the level of Deputy Associate Administrator or equivalent). Develops, maintains, and updates the NNSA ISM System Description.

(c) Monitors the status of Field Element establishment and implementation of Safety Goals and Objectives.

(d) Working with the NNSA ISM Champion, periodically reviews the effectiveness of NNSA's ISM implementation at HQ, establishing ISM leadership, direction, and alignment within NNSA.

(3) Nuclear Safety Research.

(a) Evaluates proposed nuclear safety research and development projects, and integrates funded projects with ongoing program activities within NNSA.

(b) Identifies and prioritizes safety research and development needs across NNSA, and incorporates the prioritized list of projects into the annual budget and planning cycle.

(4) Quality Assurance (QA).

This function includes the management and oversight of QA requirements, including 10 CFR 830, Subpart A; 10 CFR 71, Subpart H, *Quality Assurance*; DOE O 414.1; Nuclear Quality Assurance (NQA)-1; and International Organization for Standardization (ISO) 9001.

(a) Ensures QA requirements are planned and implemented by Integrated Project Teams, prior to CD-1 approval, for all line-item nuclear facility projects.

(b) Ensures the implementation of QA requirements for infrastructure nuclear facility construction projects in conceptual and design phases.

(c) Ensures the implementation of QA requirements for programmatic and infrastructure nuclear facilities during operations and the remaining lifecycle.

(d) Reviews and approves 10 CFR 71 Subpart H, *Quality Assurance Programs for Fissile and Type B packaging*.

(5) Packaging and Transportation.

(a) Serves as the NNSA Certifying Official for DOE O 460.1, *Hazardous Materials Packaging and Transportation Safety* and DOE O 461.1, *Packaging and Transportation for Offsite Shipment of Materials of National Security Interest*.

(b) Serves as the DOE Primary Hazard Classifier and approves Interim Hazard Classifications for the shipment of explosive substances and articles and submits requests for Final Hazard Classifications to the Department of Transportation.

(6) Criticality Safety. Manages the Department's NCSP to provide sustainable expert leadership, direction, and the technical infrastructure necessary to develop, maintain, and disseminate the essential technical tools, training, and data required to support safe, efficient, fissionable material operations within DOE.

(a) Coordinates the activities of the DOE Criticality Safety Support Group supporting the NCSP Manager.

(b) Provides expert nuclear criticality safety technical support to FOMs as requested to solve problems in criticality safety and support continuous improvement.

(c) Provides expert nuclear criticality safety support in developing policy, rules, orders, and standards involving criticality safety.

(d) Coordinates field office input and provides expert nuclear criticality safety support to address policy questions.

(e) Prepares the annual report on criticality safety for the Defense Nuclear Facilities Safety Board (DNFSB).

(f) Represents the NCSP within DOE and to external stakeholders (e.g., DNFSB, Nuclear Regulatory Commission [NRC], Congressional committees, etc.) on matters related to criticality safety.

(7) Performance Improvement.

(a) Monitors contractor reporting of potential nuclear safety violations and non-compliances with nuclear safety rules under the provisions of 10 CFR 820.

(b) Monitors contractor reporting of potential worker safety and health violations and non-compliances with worker safety and health rules under the provisions of 10 CFR 851.

(c) Provides information, supports investigations, and participates in enforcement conferences with DOE Office of Independent Enterprise Assessment (DOE/EA), and other audit and investigative entities including NNSA Internal Affairs, the Inspector General, and the Government Accountability Office.

(d) Maintains operational awareness of contractor safety management program performance in conjunction with field offices. Drives continuous improvement by sharing of lessons learned, trending, and implementation of metrics to evaluate overall safety management program health.

(e) Conducts biennial and other types of safety program reviews of NNSA sites and activities, and appoints team leader to review NNSA HQ, as required by DOE directives or as needed based on specific issues. These reviews ensure that nuclear safety

requirements and guidance are implemented appropriately and effectively.

(f) Develops NA-50's input for Site Integrated Assessment Plans (SIAPs) and the CPEP; coordinates with FOMs and HQ Functional and Program Managers on requests for technical assistance, site visits, and NA-50 participation in site exercises or off-site activities.

(8) Nuclear Explosives Safety. Provides independent oversight of federal responsibilities for Nuclear Explosive Safety as implemented by the CDNS (NA-51).

(9) Serves as the Office of Primary Interest for DOE explosives safety directives.

(10) Long-Term Stewardship (LTS) and Environmental Sustainability.

(a) Ensures regulatory compliance and continues to reduce risks to human health and the environment at NNSA LTS sites and adjacent areas.

(b) Provides corporate management of the NNSA LTS Program and monitors LTS site project execution to ensure continued protection of human health and the environment and safe working conditions by reducing exposure to hazardous and radioactive legacy contamination.

(c) Provides expert environmental and sustainability support to FOMs as requested.

(11) Waste Management.

(a) Manages the NNSA Corporate Radioactive Waste Management Program to provide sustainable expert leadership to develop, maintain, and disseminate the essential technical tools, training, and data required to support safe and efficient waste management operations across the Enterprise.

(b) Executes a Waste Management Program that supports timely processing of NNSA radioactive waste and other wastes and materials from nuclear weapon production, dismantlement, and testing activities generated throughout the NNSA Enterprise; and provides sustainable expertise to develop and disseminate site-specific training, and act as a program liaison between DOE and NNSA sites, state and federal agencies.

(12) Federal Technical Capabilities Panel (FTCP). Serves as NNSA HQ agent for the DOE FTCP, unless otherwise delegated, leading NNSA Technical

Qualification Program (TQP) implementation regarding NNSA defense nuclear facilities and providing training for nuclear safety professionals.

(13) Staffing. Ensures adequate numbers of employees with an appropriate skill mix are available and qualified to perform their assigned safety management functions, including oversight and periodic self-assessments of line oversight responsibilities.

(14) Technical Support. Provides nuclear and ES&H specialized support across NNSA in areas that include radiological protection, industrial safety, occupational health, industrial hygiene, beryllium safety, bio-safety, environmental management, accident investigations, non-weapons QA, recording injuries and illnesses, analysis for indoor air quality, safety (or subject matter expert) inspections, ergonomic evaluations, and hazard communication. Supports field office responsibilities for oversight of safety management programs.

(15) Occupational Medicine. Reviews and approves nomination requests from field offices and contractors for a Designated Physician (DP), Site Occupational Medical Director (SOMD), and the Physical Protection Medical Director (PPMD) in accordance with 10 CFR 1046, *Medical, Physical Readiness, Training, and Access Authorization Standards for Protective Force Personnel*, and 10 CFR 712*, Human Reliability Program.* Supports field office oversight of occupational medicine programs for federal staff and contractor employees. Coordinates with DOE Chief Medical Officer for technical expertise in occupational medicine.

(16) Technical Standards Program. Manages safety and health policy, requirements, guidance, and expectations. Serves as NNSA Technical Standards Manager. Coordinates all aspects of the rulemaking process related to ES&H management and acts as the point of contact between DOE Office of Environment, Health, Safety and Security (AU), DOE/EA, and NNSA.

(17) Safety Regulations. Coordinates NNSA's status and issues regarding the implementation of 10 CFR 830, 10 CFR 835, 10 CFR 851, and 10 CFR 850 across the complex.

(18) Corporate Safety Programs. Represents and manages NNSA's interests regarding Accident Investigations, Differing Professional Opinions (DPO), *Price-Anderson Amendments Act,* and worker safety and health enforcement actions, Occurrence Reporting and Processing of Operations Information (ORPS), Computerized Accident/Illness Reporting System (CAIRS), Non-Compliance Tracking System (NTS), and the FEOSH program. Serves as the NNSA liaison with Government Accountability

Office and Inspector General regarding investigations and complaints on safety matters.

d. Central Technical Authority (CTA). The CTA, designated by the NNSA Administrator, is responsible for core nuclear safety and some non-nuclear functions. The CTA reports directly to the Administrator. The existence of the CTA responsibilities does not diminish or otherwise affect the responsibility of other line managers for safety in the execution of their mission. Key functions include the following:

Note: For the purposes of CTA roles and responsibilities, *nuclear safety requirement* has a specific meaning, which is described in DOE O 410.1, *Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements*.

(1) Concurs with DOE NNSA's approval authority (Cognizant Secretarial Officer) in circumstances where no viable control strategy exists in an existing facility, to prevent or mitigate the offsite dose consequence of one or more accident scenarios from exceeding the Evaluation Guideline.

(2) Concurs with the determination of the applicability of DOE directives involving nuclear safety included pursuant to DEAR 970.5204-2(b), in contracts for the management and operation of nuclear facilities, for which the Administrator is responsible (referred to subsequently as simply *contracts*).

(3) Concurs with nuclear safety requirements included in contracts pursuant to DEAR 970.5204-2(c).

(4) Concurs with all exemptions or equivalencies to nuclear safety requirements that were added to the contract pursuant to DEAR 970.5204-2. The full list of DOE and NNSA directives that require CTA concurrence prior to approval is provided in attachment 1 of NA-51 Standard Operating Procedure, NA51-251.1-01, *Evaluating Exemption and Equivalency Requests*.

(5) Recommends to DOE issues and proposed resolutions concerning DOE safety requirements, concurs in the adoption or revision of nuclear safety requirements (including supplemental requirements), and provides expectations and guidance for implementing nuclear safety requirements, as necessary, for use by NNSA's employees and contractors.

(6) Maintains operational awareness of the implementation of nuclear safety requirements and guidance, consistent with the principles of ISM, at NNSA sites (e.g., reviewing Documented Safety Analyses, Authorization Agreements, and Readiness Review recommendations, as necessary, to evaluate the adequacy of safety controls and implementation).

(7) Periodically reviews and assesses whether NNSA sites and HQ are maintaining adequate numbers of technically competent personnel to fulfill nuclear and non-nuclear safety requirements.

(8) Provides inputs to reviews and concurs with DOE-wide nuclear safety related research and development activities.

(9) Directs the identification and prioritization of nuclear safety related research and development activities, as necessary, at NNSA sites.

(10) Concurs with nuclear safety delegations for those individuals below the most senior line officer or deputy at a field office, or below the Deputy/Associate Administrator or deputy at HQ.

(11) Concurs with nuclear safety delegations when compensatory measures are required.

e. Cognizant Secretarial Officer for Safety (CSO). The CSO reports directly to the Administrator.

(1) Maintains operational awareness of the implementation of worker safety and health requirements and guidance, consistent with the principles of ISM, at NNSA sites (e.g., reviewing safety declarations and annual performance measures; objectives and commitments, as necessary, to evaluate the adequacy of worker safety controls and implementation).

(2) Delegates safety authorities, consistent with DOE O 450.2. Approves Safety Evaluation Reports (SERs) in circumstances where no viable control strategy exists in an existing facility to prevent or mitigate the offsite dose consequence of one or more accident scenarios from exceeding the Evaluation Guideline. Obtains CTA concurrence on these SERs).

(3) Maintains a current list of delegated nuclear safety authorities.

(4) Provides line oversight of delegated safety authorities, conducts nuclear safety program reviews, and reports oversight results encompassing the requirements of DOE O 226.1.

(5) Approves exemptions, with CTA concurrence, to 10 CFR 830, *Nuclear Safety Management*, in compliance with 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*, requirements. Where necessary, establishes conditions of approval and other terms for implementing approved exemptions.

(6) Approves exemptions to 10 CFR 835, *Occupational Radiation Protection*, in compliance with 10 CFR 820, *Procedural Rules for DOE Nuclear Activities*, requirements.

(7) Ensures requirements of DOE O 458.1, *Radiation Protection of the Public and the Environment*, are implemented.

(8) Reviews and determines the adequacy of an M&O contractor's application requesting a variance from a 10 CFR 851, *Worker Safety and Health Program,* requirement and, if adequate, provides to the Associate Under Secretary for Environment, Health, Safety and Security.

(9) Reviews and concurs on proposed DOE directives that impact safety and may apply to the NNSA.

(10) Facility Operations/Authorization. The NNSA CSO approves Documented Safety Analyses (DSAs), Technical Safety Requirements (TSRs), Unreviewed Safety Question (USQ) procedures, and Safety Evaluation Reports (SERs) for Hazard Category 1, 2, and 3 nuclear facilities, unless otherwise delegated.

(11) Reviews and approves DSA methodologies, with CTA concurrence, used by contractors that differ from those described in 10 CFR 830 for Hazard Category 1, 2, and 3 nuclear facilities.

(12) Reviews and approves nuclear safety design criteria, with CTA concurrence, for preparing preliminary DSAs when contractors use design criteria that differ from those in DOE directives.

(13) Serves as Startup Approval Authority for new Hazard Category 2 nuclear facilities with a total project cost less than $200M and restarts of nuclear facilities as allowed by DOE O 425.1 and approved Start-up Notification Reports (SNRs), or as designated. Serves as Startup Approval Authority (SAA) for initial startup of a newly constructed Hazard Category 3 nuclear facility (not an activity or operation) with a new DSA and associated TSRs. This authority can be delegated to another individual per NNSA Designation Order 00-29.00A.

(14) Responsible and accountable for the safety of work funded by other organizations (e.g., Office of Environmental Management or Department of Defense) at NNSA sites unless a specific written agreement is approved by the affected Program Secretarial Officers (PSOs) or their equivalent at other agencies.

f. Deputy Administrator for Defense Programs (NA-10). The NA-10 mission is to maintain a safe, secure, and effective U.S. nuclear stockpile without the need for underground nuclear testing. NA-10 has the primary responsibility of partnering with the Department of Defense to provide a safe, secure, and effective arsenal for the Nation's nuclear deterrent. To carry out this mission, NA-10 has responsibility for ensuring effective integration of programs across the nuclear security enterprise. NA-10 has responsibility for the execution of nuclear explosives safety (NES) related to defense program matters within NNSA.

(1) Participates in the annual development and updating of integrated assessment plans for NNSA sites with NA-50 and the field offices.

(2) When functioning as a Project Management Executive, approves critical decisions and baseline change proposals, and ensures safety is integrated into designs consistent with DOE O 413.3 requirements for nuclear construction projects.

(3) When designated as a member of an ESAAB or ESAAB Equivalent (ESAAB-E), advises the CE for Project Management that critical decisions and baseline change proposals have met the integration of safety into design requirements of DOE O 413.3 for nuclear construction projects.

(4) Headquarters Emergency Operations.

Under Primary Mission Essential Function (PMEF) #1, *Ensure Nuclear Materials Safety,* NA-10 is responsible for "maintaining the safety, security, and reliability of the nuclear stockpile and special nuclear materials (SNM) throughout the DOE Enterprise (e.g., at fixed sites and in-transit)."

(5) Nuclear Explosives Operations.

(a) Ensures that NES, nuclear explosive and weapon surety programs are effective at NNSA's nuclear explosives facilities, in accordance with DOE O 452.1, *Nuclear Explosive and Weapon Surety Program*.

(b) Conducts NES evaluations, in accordance with SD 452.2A, *Nuclear Explosive Safety Evaluation Processes*.

(6) Secure Transportation.

(a) Ensures safety management to safely and securely transport nuclear weapons, weapon components, special nuclear materials, and other national security interests meet DOE, Department of Defense, and other customer requirements, in accordance with DOE Orders 452.2, 460.1, and 461.1.

(b) Provides overall management and policy direction for Transportation Safeguards System (TSS) operations.

(c) Designates other special materials or items to receive the physical security protection afforded by the TSS.

(d) Chairs the Secure Transportation Asset Advisory Board.

(7) Quality Assurance.

Develops and maintains NAP 401.1, *Weapon Quality Policy* and implements an NSE Weapon Quality Management System (WQMS) to ensure weapons product quality.

(8) Staffing.

Ensures adequate numbers of employees with an appropriate skill mix are available and qualified to perform their assigned safety management functions, including oversight and periodic self-assessments of line oversight responsibilities.

g. Deputy Administrator for Defense Nuclear Nonproliferation (NA-20). NA-20 coordinates with NA-50 and affected field offices for all nuclear safety and ES&H matters related to nonproliferation program efforts at NNSA sites. For programs and projects at non-NNSA facilities, NA-20 coordinates nuclear safety and ES&H requirements with the Field Office Manager (FOM) landlord and other DOE Program organizations (e.g., Office of Science, Office of Environmental Management, etc.), as appropriate. NA-20 exercises those responsibilities primarily through FOMs as well as M&O Contractor Assurance Systems. For work conducted remotely (i.e., not on a DOE site) either within the United States, its territories, or internationally, NA-20 will consult with NA-50 on safety approaches and practices to be applied prior to commencing the work activity (i.e., planning).

(1) Coordinates nuclear safety and ES&H requirements with NA-50 and FOMs for M&O nonproliferation programs and projects performance, including CAS coverage. Coordinates with the CTA through the CDNS.

(2) For nonproliferation work performed under NA-20's direction in facilities under the operational authority of the FOMs, NA-20 is the line manager for the programmatic execution of the work. The line management responsibility for compliance with nuclear safety and ES&H requirements for the work is a FOM landlord or shared NA-20/NA-50 responsibility.

(3) For nonproliferation work performed under NA-20's direction and conducted remotely from a DOE site or facility, NA-20 is the line manager for programmatic and safe execution of the work. The line management responsibility for compliance with nuclear safety and ES&H requirements is a shared responsibility with NA-50.

(4) Staffing. Ensures adequate numbers of employees with an appropriate skill mix are available and qualified to perform their assigned safety management functions, including oversight and periodic self-assessments of line oversight responsibilities.

h. Associate Administrator and Deputy Under Secretary for Emergency Operations (NA-40). NA-40 provides program and line management responsibility for all aspects of emergency management and response. NA-40 ensures that capabilities are in place to respond to any NNSA and DOE facility emergency. For work conducted remotely (i.e., not on a DOE site) either within the United States, its territories, or internationally, NA-40 consults with NA-50 on safety approaches and practices to be applied prior to commencing the work activity (i.e., planning).

(1) Headquarters Emergency Operations.

(a) Manages and controls HQ emergency management systems and teams, related operational functions and activities, and HQ emergency response operational functions and activities.

(b) Implements emergency management responsibilities, including coordination by NA-40 with FOMs, NA-80, and NA-50.

(c) Assists the HQ Program Secretarial Officer in interpreting the requirements as delineated in DOE O 151.1, *Comprehensive Emergency Management System*, through routine communication with the NNSA field offices.

(d) Coordinates and implements NNSA HQ aspects of emergency management planning, preparedness, training, and response. Ensures appropriately trained HQ representatives and subject matter experts support the Unified Coordination Group (UCG) and coordinates information flow with NNSA, the Office of Public Affairs, and the Office of Emergency Operations.

(e) Develops and implements, for DOE, a comprehensive and effective continuity capability to ensure the preservation of the U.S. Government and the continuing performance of DOE NNSA essential functions.

(f) Coordinates and implements NNSA HQ aspects of continuity planning, preparedness, training, devolution, and response.

(2) Assessment and Performance Improvements.

(a) Develops NA-40's emergency management input for SIAPs and the CPEP; coordinates with FOMs and NA-50 on requests for technical assistance, site visits, and HQ participation in site annual exercises.

(b) Monitors and evaluates contractor's performance for NA-40's emergency management and response programs in coordination with FOMs and NA-50.

(c) Monitors Emergency Readiness Assurance Plan (ERAP) commitments and coordinates emergency management readiness assurance activities with FOMs and NA-50.

(d) In coordination with NA-50 and FOMs, supports site requests for technical assistance, NA-40 site visits, HQ UCG participation in site exercises, assistance with training and responses to emergency management program assessments by the DOE Office of Enterprise Assessments, and the Defense Nuclear Facilities Safety Board.

(e) Monitors Continuity Readiness Assurance Report (CRAR) commitments and coordinates emergency management readiness assurance activities with FOMs and NA-50.

(3) Staffing. Ensures adequate numbers of employees with an appropriate skill mix are available and qualified to perform their assigned safety management functions, including oversight and periodic self-assessments of line oversight responsibilities.

i. Associate Administrator and Deputy Under Secretary for Counterterrorism and Counterproliferation (NA-80). NA-80 provides program and line management responsibility for all aspects of the nuclear counterterrorism and nuclear incident response mission. NA-80 leads and coordinates with NA-40's HQ emergency management systems to ensure that capabilities are in place to respond to radiological or nuclear incidents or accidents. NA-80 is the nation's premier responder to any nuclear or radiological incident within the United States or abroad, and provides operational planning and training to reduce global nuclear threats for work conducted remotely (i.e., not on a DOE site) either within the United States, its territories, or internationally; NA-80 will consult with NA-50 on safety approach and practices to be applied prior to commencing the work activity (i.e., planning).

(1) Headquarters Emergency Operations.

(a) Under PMEF #2, *Respond to Nuclear Incidents,* NA-80 is responsible for "providing operational support and decision-making in protecting against and responding to a nuclear incident, both domestically and internationally."

(b) Manages and the Nuclear Emergency Support Team (NEST) to conduct operations in response to nuclear or radiological incidents, accidents, and other emergencies.

(c) Assists the HQ Program Secretarial Officer in interpreting the requirements as delineated in DOE O 153.1 B, *Departmental Nuclear Emergency Support Team Capabilities*, through routine communication with the NNSA field offices.

(2) Assessment and Performance Improvements.

(a) Develops NA-80's program input for SIAPs, the CPEP, and M&O Contractor Assurance Systems; coordinates with FOMs and NA-50 on requests for technical assistance, site visits, and HQ participation in site annual exercises.

(b) Monitors and evaluates contractor's performance for NA-80's programs in coordination with FOMs and NA-50.

(c) Manages the Incident Response Readiness Index (IRRI), which measures the overall organizational readiness to respond to and mitigate radiological or nuclear incidents and conduct nuclear forensics operations worldwide. Continuity Readiness Assurance Report (CRAR) commitments and coordinates emergency management readiness assurance activities with FOMs and NA-50.

(3) Staffing. Ensures adequate numbers of employees with an appropriate skill mix are available and qualified to perform their assigned safety management functions, including oversight and periodic self-assessments of line oversight responsibilities.

j. Associate Administrator for Acquisition and Project Management (NA-APM). NA-APM is responsible for corporate integration, development, oversight, and execution of NNSA's acquisition and project management policies and programs. The Office of Acquisition and Project Management serves as the Head of Contracting Activity.

(1) Project Management.

(a) Ensures NNSA's projects meet mission, quality and safety requirements and include the early identification and mitigation of risks and challenges.

(b) Provides line management direction and support to Federal Project Directors (FPDs) assigned to active projects.

(c) Oversees the FPD's execution of nuclear safety responsibilities as specified by DOE O 413.3 to ensure appropriate approvals and concurrences are identified. Provides independent oversight and analysis of construction project management and reports directly to the Administrator.

(d) Ensures independent project reviews (IPRs), peer reviews, and technical independent project reviews (TIPRs) are performed as scheduled that include evaluation of safety in design for NNSA nuclear construction projects.

(e) Supports evaluation of project safety plans, procedures, and issues as part of the ESAAB and IPR processes.

(2) Quality Assurance.

(a) Responsible for QA for programmatic and infrastructure nuclear facility construction projects upon approval of CD-1 and in construction phases.

(b) Provides policy guidance and direction to implement QA requirements for line item construction in accordance with DOE O 414.1 and American Society of Mechanical Engineers (ASME) NQA-1.

(3) Personal Protective Equipment (PPE). Monitors use of PPE across NNSA including headquarters, field offices, and contractor locations and facilities. Assures adequate supplies of PPE are available to support PMEF-1/2 and associated MEFs and ESAs. NA-50 provides technical expertise regarding selection and use of PPE.

(4) Staffing and Competency. Ensures NNSA's federal and contractor project organizations have the necessary capability and capacity for the design and construction of safe nuclear facilities.

k. Associate Administrator for Management and Budget (NA-MB). NA-MB has the authority for resource allocation processes, including personnel and funding, when related to safety management with concurrence from the appropriate Deputy or Associate Administrator(s).

(1) Coordinates the Employee Concerns Program (ECP) for NNSA Headquarters. The DOE ECP provides an independent avenue for DOE/NNSA federal, contractor, and subcontractor employees to report concerns related to such issues as the environment, safety, health, security, fraud, waste, abuse, or mismanagement of DOE/NNSA contractor-managed activities, without fear of reprisal for having reported such concerns.

(2) Supports the TQP. NA-MB administers the NNSA TQP in conjunction with NNSA HQ and field offices, the DOE FTCP, and other DOE stakeholders.

(3) NNSA TQP Manager. In support of the implementation of DOE O 426.1, *Federal Technical Capability Program,* within NNSA, and in order to effectively support offices with responsibility for oversight of nuclear safety as detailed in NNSA SD 360.1, *Federal Employee Training*.

9. ACRONYMS/ABBREVIATIONS. See Appendix A.

10. REFERENCES. See Appendix C.

11. CONTACT. Questions concerning this revision should be addressed to the Associate Administrator for Safety, Infrastructure and Operations (NA-50), at (202) 586-2371.

BY ORDER OF THE ADMINISTRATOR:

Charles P. Verdon
Acting Administrator

Appendixes:
A. Acronyms/Abbreviations
B. NNSA Integrated Safety Management System Description
C. References

APPENDIX A: ACRONYMS/ABBREVIATIONS

a.	ASME	American Society of Mechanical Engineers
b.	BOP	Business Operating Procedure
c.	CAS	Contractor Assurance System
d.	CD	Critical Decision
e.	CDNS	Chief of Defense Nuclear Safety
f.	CFR	Code of Federal Regulations
g.	COVID-19	2019 Novel Coronavirus
h.	CO	Contracting Officer
i.	CPEP	Contractor Performance Evaluation Process
j.	CRAR	Continuity Readiness Assurance Report
k.	CTA	Central Technical Authority
l.	CSO	Cognizant Secretarial Officer for Safety
m.	DEAR	U.S. Department of Energy Acquisition Regulation
n.	DP	Designated Physician
o.	DPO	Differing Professional Opinions
p.	DNFSB	Defense Nuclear Facilities Safety Board
q.	DOE	U.S. Department of Energy
r.	DSA	Documented Safety Analysis
s.	DPO	Differing Professional Opinion
t.	EA	Enterprise Assessment
u.	ECP	Employee Concerns Program
v.	ES&H	Environment, Safety and Health
w.	ESAAB	Energy Systems Acquisition Advisory Board
x.	ESAAB-E	Energy Systems Acquisition Advisory Board Equivalent
y.	FCTP	Federal Technical Capabilities Panel
z.	FEOSH	Federal Employee Occupational Safety and Health
aa.	FOM	Field Officer Manager
bb.	FPDS	Federal Project Directors
cc.	FRA	Functions, Responsibilities, and Authorities
dd.	FTCP	Federal Technical Capabilities Panel

ee.	HQ	Headquarters
ff.	IPR	Independent Project Review
gg.	ISM	Integrated Safety Management
hh.	LTS	Long-Term Stewardship
ii.	MOA	Memoranda of Agreement
jj.	MOU	Memoranda of Understanding
kk.	M&O	Management and Operating (Contract model)
ll.	NA-50	The Office of Safety, Infrastructure and Operations
mm.	NA-51	The Deputy Associate Administrator for Safety
nn.	NCSP	Nuclear Criticality Safety Program
oo.	NES	Nuclear Explosive Safety
pp.	NEST	Nuclear Emergency Support Team
qq.	NNSA	National Nuclear Security Administration
rr.	NA-APM	Office of Acquisition and Project Management
ss.	NAP	NNSA Policy
tt.	NNMP	Nuclear Maintenance Management Programs
uu.	NRC	Nuclear Regulatory Commission
vv.	PAAA	Price-Anderson Amendments Act
ww.	PME	Project Management Executive
xx.	PPE	Personal Protective Equipment
yy.	QA	Quality Assurance
zz.	QAP	Quality Assurance Program
aaa.	QMS	Quality Management System
bbb.	SIAP	Site Integrated Assessment Plan
ccc.	SAA	Startup Authorization Authority
ddd.	SD	Supplemental Directive
eee.	SOMD	Site Occupational Medical Director
fff.	TIPR	Technical Independent Project Review
ggg.	TQP	Technical Qualification Program
hhh.	TSS	Transportation Safeguards System
iii.	UCG	Unified Coordination Group

jjj. U.S.C. United States Code

APPENDIX B: NNSA INTEGRATED SAFETY MANAGEMENT SYSTEM DESCRIPTION (ISMSD)

1. INTRODUCTION.

The National Nuclear Security Administration (NNSA) Leadership's expectations for safety and performance are established in policies, directives, and implementing guidance documents. The requirements for a documented Integrated Safety Management (ISM) System Description are established in DOE Order 450.2, *Integrated Safety Management*.

Appendix 4, of NAP-414.1, *Quality Management System (QMS),* provides a high level description of the NNSA Management System. Consistent with the approach used in the QMS, this document provides a high level description of NNSA Management Systems without reproducing the information provided in the policies, directives, or implementing guidance documents. Applicable requirements will be referenced as necessary.

2. PURPOSE.

The NNSA ISMSD identifies the NNSA Headquarters (HQ) role in establishing expectations and accomplishing work in a safe and environmentally sound manner while executing the NNSA mission and strategic objectives.

This NNSA ISMSD accomplishes the following:

- Emphasizes the strong support and personal commitment of NNSA senior managers to implement the Policy and Principles of ISM
- Describes how NNSA HQ defines its work activities related to achieving the ISM objective of safe mission accomplishment
- Describes the specific NNSA Management Systems that ensure ISM core functions and guiding principles are effectively implemented
- Recognizes the Contractor Performance Evaluation Process (CPEP) as the method to set safety performance objectives, measures, and commitments that NNSA HQ currently uses to gauge the effectiveness of its ISM System

3. SCOPE

The scope of this ISMSD includes the unbroken chain of responsibility (NNSA Line Management) that extends from the NNSA Administrator to the Program and Functional Managers and Field Office Managers who are responsible for mission and program execution.

4. ORGANIZATION.

NNSA maintains and enhances the safety, security, and effectiveness of the U.S. nuclear weapons stockpile without nuclear testing; works to reduce the global danger from

weapons of mass destruction; provides the U.S. Navy with safe and effective nuclear propulsion; and responds to nuclear and radiological emergencies in the U.S. and abroad.

NNSA manages the mission from Headquarters organizations in Washington, DC; Germantown, MD; and Albuquerque, NM; and field offices across the country. The following chart illustrates the NNSA organizational structure (figure 1).

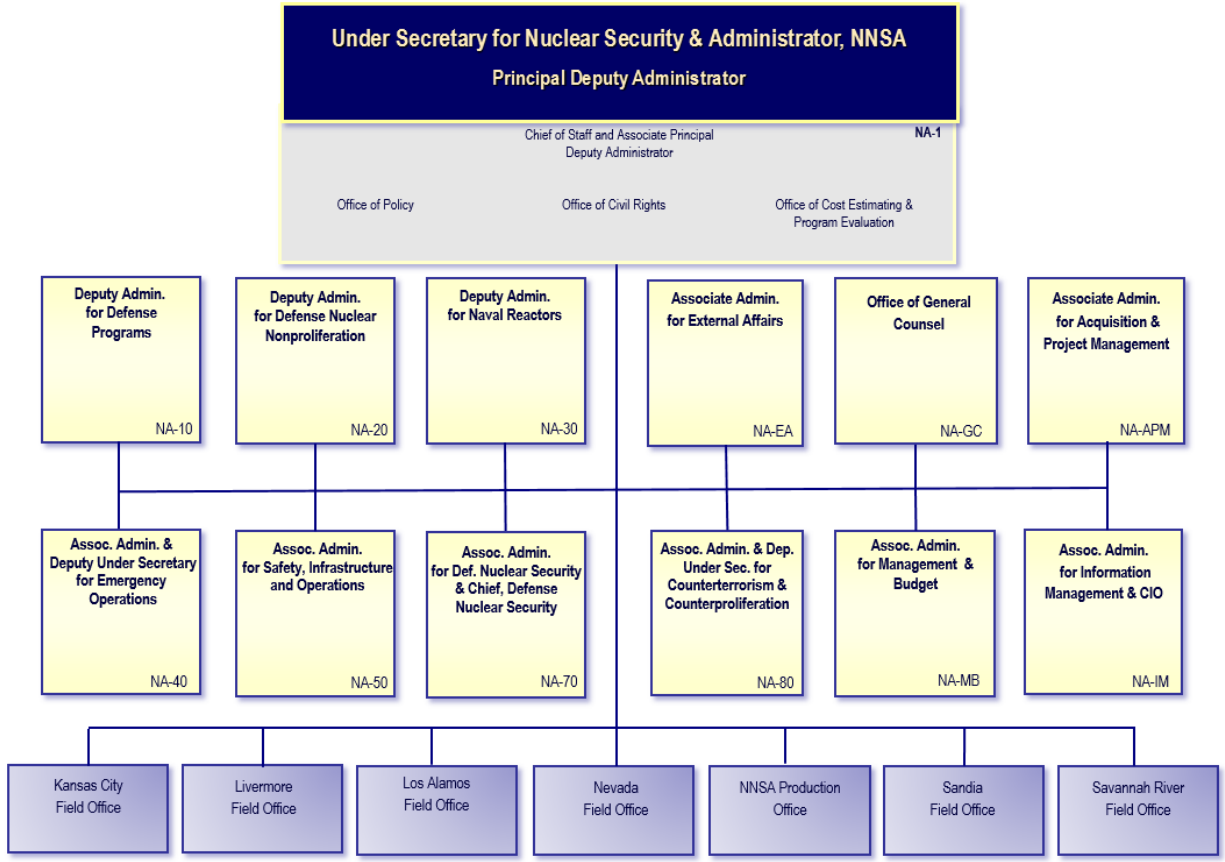


Figure 1

5. NNSA FEDERAL FUNCTIONS.

NNSA management's role in assuring safety is defined in the mission and function statements of the Line Management Organizations (as defined in DOE O 450.2, *Integrated Safety Management*) and is carried out by the federal staff so that it is incorporated into all work activities. Examples of federal work activities to ensure safety are defined and measured in mission activities that include the following:

- Prioritizing and acquiring resources and executing contracts
- Assigning safety management roles, responsibilities, and requirements
- Developing annual budgets and reviewing field work priorities
- Developing performance baseline incentives for contractor performance

- Implementing management systems for federal operations
- Establishing mission priorities and reviewing the mission plans of field elements
- Establishing a positive safety environment through effective ISM implementation
- Establishing quality management program requirements
- Establishing performance metrics and evaluating the field and contractor safety performance objectives and commitments
- Establishing and implementing feedback and improvement programs and processes to facilitate a culture that promotes ongoing examination and learning
- Reviewing project baseline plans and evaluating cost and schedule performance
- Reviewing field and contractor ISM readiness declarations
- Performing operational readiness reviews
- Performing assessments, self-assessments, and management observations
- Performing ISM effectiveness reviews
- Ensuring safe and healthful working conditions for federal employees
- Promoting a healthy safety culture
- Performing issues management and overseeing corrective action closure
- Recruiting highly qualified, technical federal personnel

6. NNSA MANAGEMENT SYSTEMS.

The NNSA management systems are the primary instruments for implementing the ISM guiding principles. The management systems define the practices, techniques, and tools used by NNSA to meet any given project requirements. The systems are adjusted over time to accommodate new or revised requirements, lessons learned, and feedback for improvement. As such, the systems discussed in this section are being continuously enhanced, which, in turn, maximizes ISM implementation.

The following is a list of currently identified NNSA management systems grouped into functional areas, which are found on the NNSA Portal page for current NNSA Policies. The management systems are grouped into functional areas to facilitate their assignment to the guiding principles, as illustrated in Table 1 (to demonstrate implementing mechanisms for each guiding principle). If a functional area is assigned as executing a guiding principle, then all the associated management systems are also assigned to that guiding principle, but some management systems are specifically identified as executing

a guiding principle, e.g., the NNSA FRA for Guiding Principle 2 (Clear Roles and Responsibilities). The functional areas applicable to the guiding principles are identified in Table 1 of Section 7. The five core safety management functions provide the necessary framework for any NNSA work activity that could affect the workers, the public, and the environment. The core functions are applied as a continuous cycle with the degree of rigor appropriate to address the type of work activity and hazards involved. In Table 1, the core functions are illustrated as being applicable to all guiding principles.

- Acquisition
- Budget and Finance
- Business and Support Services
- Defense Nuclear Nonproliferation
- Defense Nuclear Security
    - Nuclear Security Federal Oversight Process
    - Enterprise Mission Essential Task List – Based Protective Force Training Program
- Defense Programs
    - Weapons and Strategic Materials Program
    - Annual Assessment of the National Nuclear Stockpile
    - Site Integrated Assessment Plan
- Emergency Operations
    - Lines of Succession
- Human Resources and Training
    - Annual Workforce Planning
    - Succession Planning
    - Federal Employee Training
    - Leadership Development
    - Employee Concerns Program
    - NNSA Recruitment, Relocation, and Retention Incentives Program
    - Federal Technical Capabilities Program
    - Technical Qualification Program
- Information Management
    - Project Oversight for Information Technology
    - Baseline Cybersecurity Program

- Records Management Program

- Leadership, Management, and Planning
  - Senior Leadership Councils
  - Quality Management System
  - NNSA Site Governance
  - NNSA Contractor Performance Evaluation Process (CPEP)
  - Stewardship and Long-term Strategic Planning for the Laboratories
- Project Management
  - Program Requirements Document for Construction Projects
  - Project Reviews
- Safety and Health Management
  - NNSA Functions, Responsibilities, and Authorities (FRA)
  - Federal Employee Occupational Safety and Health Program (FEOSH)
  - Biennial Reviews of Nuclear Safety Performance
  - Central Technical Authority (CTA) Responsibilities regarding Nuclear Safety Requirements
  - Real Property Asset Management
  - Differing Professional Opinions (DPO) Process
  - Integrated Safety Management Effectiveness Reviews, Declarations, and Updates
  - NNSA Contractor Performance Evaluation Process (CPEP)
  - Quality Assurance Program
  - Delegations of Nuclear Safety Authority
  - Nuclear Explosive Safety Evaluation Process

7. NNSA ISM IMPLEMENTATION.

TABLE 1. NNSA ISM EXECUTION

ISMS		Safety Culture (DOE G 450.4-1C, Att. 10)	Management Systems to Execute Guiding Priniples
Guiding Principles	Core Functions		
1. Line Management Responsibility for Safety	The Guiding Principles are applied to the following five core functions for performing work: **1**. Define Scope of Work **2**. Analyze Hazards **3**. Develop and Implement Hazard Controls **4**. Perform work within controls **5**. Provide feedback and continuous improvement	• Demonstrated safety leadership •Risk-informed, conservative decision making • Management engagement and time in field •Open communication and fostering an environment free from retribution • Personal commitment to everyone's safety • Credibility, trust, and reporting errors and problems	• Leadership, Management, and Planning • Safety and Health Management ○NNSA FRA • Defense Programs • Project Management
2. Clear Roles and Responsibilities	The Guiding Principles are applied to all five core functions for performing work.	• Demonstrated safety leadership •Risk-informed, conservative decision making • Clear expectations and accountability • Personal commitment to everyone's safety • Credibility, trust, and reporting errors and problems	• Leadership, Management, and Planning • Safety and Health Management ○NNSA FRA • Defense Programs • Project Management
3. Competence Commensurate with Responsibilities	The Guiding Principles are applied to all five core functions for performing work.	• Demonstrated safety leadership •Risk-informed, conservative decision making • Staff recruitment, selection, retention, and development • Clear expectations and accountability • Personal commitment to everyone's safety • Mindful of hazards and controls • Credibility, trust, and reporting errors and problems •Questioning attitude	• Safety and Health Management • Human Resources and Training
4. Balanced Priorities	The Guiding Principles are applied to all five core functions for performing work.	•Risk-informed, conservative decision making • Mindful of hazards and controls • Performance monitoring through multiple means • Use of operational experience	• Leadership, Management, and Planning • Defense Programs • Defense Nuclear Nonproliferation • Defense Nuclear Security • Acquisition • Budget and Finance • Business and Support Services • Safety and Health Management • Emergency Operations • Project Management • Human Resources and Training • Information Management
5. Identification of Safety Standards and Requirements	The Guiding Principles are applied to all five core functions for performing work.	• Clear expectations and accountability • Mindful of hazards and controls • Performance monitoring through multiple means	• Leadership, Management, and Planning • Defense Programs • Defense Nuclear Security • Acquisition • Business and Support Services • Safety and Health Management • Project Management
6. Hazard Controls Tailored to Work Being Performed	The Guiding Principles are applied to all five core functions for performing work.	• Clear expectations and accountability • Mindful of hazards and controls • Performance monitoring through multiple means	• Leadership, Management, and Planning • Defense Programs • Safety and Health Management • Project Management
7. Operations Authorizations	The Guiding Principles are applied to all five core functions for performing work.	• Clear expectations and accountability • Mindful of hazards and controls • Performance monitoring through multiple means	• Leadership, Management, and Planning • Defense Programs • Safety and Health Management • Project Management

8. NNSA SAFETY GOALS AND PERFORMANCE OBJECTIVES.

NNSA HQ personnel evaluate safety performance results against identified performance measures, objectives, and commitments to determine the success of our safety culture. NNSA uses indicators to measure the effectiveness of its management systems and the overall safety performance of its organization. Performance measures are used to track progress and monitor achievement of the performance objectives and commitments. Some performance measures indicate how well the NNSA ISM system is being maintained. They include the following:

- CDNS Biennial Reviews of field offices and NNSA HQ that include ISM and other areas important to ensuring nuclear safety delegations are planned and executed
- NA-50 oversight activities conducted in accordance with an oversight plan
- Percentage of NNSA personnel in the TQP fully qualified in their assigned functional area (NNSA Goal: at least 80%)
- Number of NNSA personnel in the TQP overdue in their qualifications (NNSA Goal: 0)
- NNSA FRA and ISMSD are reviewed annually and updated as needed to capture changes in organizational structure or directives
- Delegations of authority are reviewed and revised as necessary to maintain clear roles and responsibilities
- ISM declarations are reviewed periodically to include an ISM effectiveness review
- Safety performance measures, objectives, and commitments are reviewed annually and weighed in the evaluation of M&O contractor performance

In the area of mission accomplishment, NNSA develops commitments and measures progress as part of the NNSA programming, planning, budgeting, and evaluation processes. Currently, in the area of safety, NNSA line management develops annual site-specific measures as part of the Contractor Performance Evaluation Process (CPEP). For ISM, line management, in consultation with the Cognizant Secretarial Officer (CSO) for Safety, develops expectations for field office review of safety performance objectives, measures, and commitments.

NNSA safety performance objectives, measures, and commitments for NNSA M&O contractors are developed annually through CPEP and are considered during the evaluation of contractor performance. (See Attachment 1 - Safety Performance Objectives, Measures, and Commitments Process Flowchart.)

9. NNSA ISM CHAMPIONS COUNCIL.

The NNSA representative on the DOE line management ISM Champions Council is the Deputy Associate Administrator for Safety.

10. NNSA ISM EFFECTIVENESS REVIEWS AND DECLARATION.

NNSA HQ ISM effectiveness reviews must be performed to develop NNSA HQ ISM declarations at a frequency not to exceed 3 years.

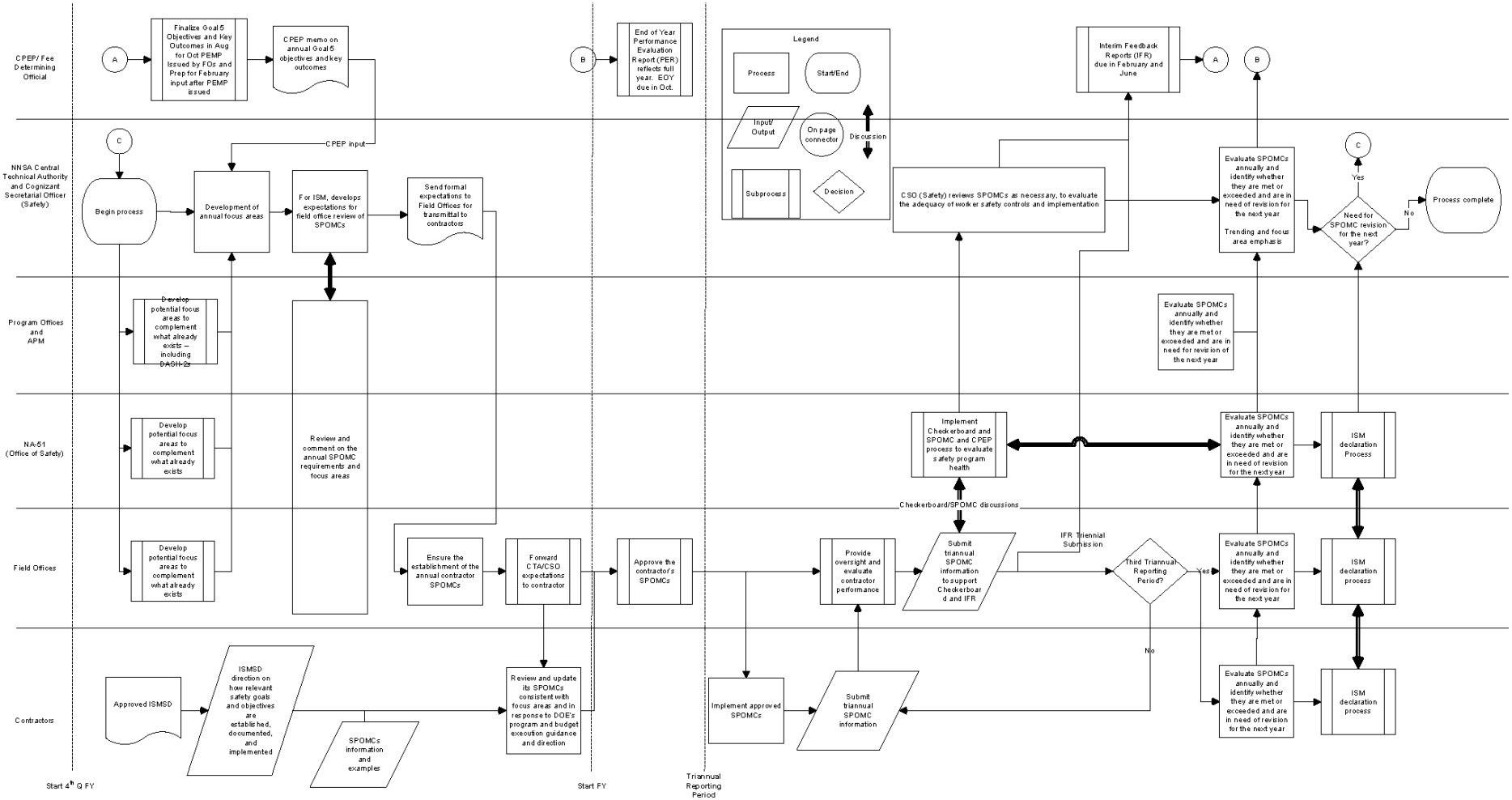
NNSA field offices must determine the need for, and frequency of, ISM effectiveness reviews to develop ISM declarations for field offices and for their contractors, with ISM declarations from the contractors being completed at an interval not to exceed 3 years. The field office declaration shall be submitted to the CSO at an interval not to exceed 3 years. This periodicity is afforded through the robustness of the operational awareness processes including development and use of annual performance measures, objectives, and commitments to weigh and improve safety performance.

Consideration by each field office should include the guidelines listed in DOE G 450.4-1C, *Integrated Safety Management System Guide*, or its successor, for determining the need for, and frequency of, contractors' ISM declarations. This consideration includes factors such as hazard, risk, and contractor performance history through its annual performance measures, objectives, and commitments.

11. ISMSD CHANGE CONTROL.

The Deputy Associate Administrator for Safety (NA-51) is responsible for maintaining the NNSA ISMSD. The NNSA ISMSD shall be maintained in accordance with SD 251.1A, *Directives Management.* The NNSA ISMSD is reviewed annually and updated, as necessary, to reflect changes in HQ functions dictated by DOE/NNSA directives or changes in organizational structure.

Attachment 1



APPENDIX C: REFERENCES

a. 5 U.S.C. 500 et seq., *Administrative Procedure Act (APA)*

b. 42 U.S.C. 2011 et seq., *Atomic Energy Act of 1954 (AEA)*

c. 42 U.S.C. 2011 et seq. (P.L. 100-408), *Price-Anderson Amendments Act of 1988 (PAAA)*

d. 42 U.S.C. 4321 et seq. (P.L. 91-190), *National Environmental Policy Act (NEPA)*

e. 50 U.S.C. 2731, *Worker protection at nuclear weapons facilities*

f. Public Law (P.L.) 93-438, *Energy Reorganization Act of 1974*

g. P. L. 95-91*, Department of Energy Organization Act*

h. P. L. 94-163, *Energy Policy and Conservation Act*

i. P. L. 106-65, as amended by P.L. 106-377, *National Nuclear Security Administration Act (NNSA) Act in the National Defense Authorization Act for FY 2000*

j. P. L. 104-113, *National Technology Transfer and Advancement Act of 1995*

k. P. L. 97-425 as amended by P. L. 100-202 and P.L. 100-203, *Nuclear Waste Policy Act of 1982 (NWPA)*

l. P. L. 104-303, *Water Resources Development Act of 1996*

m. *Energy Policy Act of 2020*

n. P. L. 110-140, *Energy Independence and Security Act of 2007*

o. 10 CFR Part 71, *Packaging and Transportation of Radioactive Material*

p. 10 CFR Part 707, *Workplace Substance Abuse Programs at DOE Sites*

q. 10 CFR Part 708, *DOE Contractor Employee Protection Program*

r. 10 CFR Part 712, *Human Reliability Program*

s. 10 CFR Part 820, *Procedural Rules for DOE Nuclear Activities*

t. 10 CFR Part 830, *Nuclear Safety Management*

u. 10 CFR Part 835, *Occupational Radiation Protection*

v. 10 CFR Part 850, *Chronic Beryllium Disease Prevention Program*

w. 10 CFR Part 851, *Worker Safety and Health Program*

x. 10 CFR Part 1021, *National Environmental Policy Act Implementing Procedures*

y. 10 CFR Part 1046, *Medical, Physical Readiness, Training, and Access Authorization Standards for Protective Force Personnel*

z. 29 CFR Part 1910, *Occupational Safety and Health Standards*

aa. 29 CFR Part 1960, *Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters*

bb. 40 CFR Part 61, *National Emission Standards for Hazardous Air Pollutants*

cc. 40 CFR Part 191, *Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes*

dd. 48 CFR 970.0309, *Whistleblower Protection of Contractor Employees*

ee. 48 CFR 970.5204-2, *Laws, Regulations, and DOE Directives*

ff. 48 CFR 970.5215-3, *Conditional Payment of Fee, Profit, and other Incentives-Facility Management Contracts*

gg. 48 CFR 970.5223-1, *Integration of Environment, Safety and Health into Work Planning and Execution*

hh. 48 CFR 970.5223-3, *Agreement Regarding Workplace Substance Abuse Programs at DOE Sites*

ii. 48 CFR 970.5223-4, *Workplace Substance Abuse Programs at DOE Sites*

jj. 49 CFR, *Transportation*

kk. Executive Order (E.O.) 12196, *Occupational Safety and Health Programs for Federal Employees*

ll. E.O. 12564, *Drug-Free Federal Workplace*

mm. E.O. 12699, *Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction*

nn. E.O. 12941, *Seismic Safety of Existing Federally Owned or Leased Building(s)*

oo. E.O. 13327, *Federal Real Property Asset Management*

pp. E.O. 12196, *Occupational Safety and Health Programs for Federal Employees*

qq. E. O. 14008, Tackling the Climate Crisis at Home and Abroad

rr. E.O. 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis

ss. Presidential Directive/NSC 25, *Scientific or Technological Experiments with Possible Large-Scale Adverse Environmental Effects and Launch of Nuclear Systems into Space*

tt. National Security Decision Directive 282, *Continuing Authority to Deliver Nuclear Materials and To Acquire Utilization Facilities*

uu. Office of Management and Budget (OMB) Circular A-11, *Preparation, Submission and Execution of the Budget*

vv. OMB Circular A-119, *Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities*

ww. The National Security Presidential Directive-51/Homeland Security Presidential Directive-20 (NSPD-51/HSPD-20), *National Continuity Policy*

xx. American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA)-1, *Quality Assurance Requirements for Nuclear Facility Applications, dated* 2017

yy. DOE P 141.1, *Department of Energy Management of Cultural Resources*, dated 05-02-2001

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aaa. DOE P 420.1, *Department of Energy Nuclear Safety Policy*, dated 02-08-2011

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