SUPPLEMENTAL DIRECTIVE

NNSA SD 450.2

Approved: 6/20/13

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

NATIONAL NUCLEAR SECURITY ADMINISTRATION
Office of Safety and Health

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INITIATED BY:
Office of Safety and Health

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FRA DOCUMENT FOR SAFETY MANAGEMENT

1. PURPOSE. Define, identify, and clarify the National Nuclear Security Administration (NNSA) safety management functions, responsibilities, authorities, and associated delegations within NNSA Headquarters (HQ), Field Office, line, program, and functional management organizations to ensure that work is performed safely. This Supplemental Directive (SD) implements and assigns responsibilities established within NNSA by the Department of Energy (DOE) Directives System, Code of Federal Regulations (CFR), Federal Statutes, Executive Orders, and other authorities. Contractor responsibilities are contained in DOE directive Contract Requirements Documents (CRDs).

   This SD is issued to comply with the Secretary's direction concerning safety management responsibilities and assigns safety responsibilities and authorities described in the most recent version of DOE O 450.2, *Integrated Safety Management.* This SD is written to document NNSA roles and responsibilities in implementing safety management systems and supplements DOE's Office of Health, Safety and Security (HSS) FRA delegation tables. NNSA delegations are shown in iPortal (IDW) Access Page: https://iportal.doe.gov.

2. CANCELLATION. NA-1 SD 411.1-1C, *NNSA Safety Management Functions, Responsibilities, and Authorities Manual* (FRAM), dated 02-15-08.

3. APPLICABILITY. This SD identifies safety management functions, responsibilities, and authorities that have been assigned by the Secretary of Energy and the NNSA Administrator. For projects subject to external regulations, those regulations take precedence. For example, 10 CFR 50, Appendix B, *Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants*, applies to Nuclear Regulatory Commission (NRC)-licensed facilities, while 10 CFR 830 Subpart A, *Quality Assurance Requirements*, applies to nuclear and radiological facilities that are not licensed by NRC.

   a. NNSA Applicability. The provisions of this SD apply to all NNSA Federal organizations.

   b. Equivalency. In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 USC 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.

4. BACKGROUND. This SD contains a description of NNSA Senior Management, Headquarters and Field Office Manager functions, responsibilities, and authorities related to Safety Management. The appendices contain references, acronyms, and a description of safety regulations of NNSA. The description of safety and security regulation of NNSA includes lists of nuclear safety, security, and worker safety and health regulatory functions. A regulatory framework is also provided as a reference explaining the execution of regulatory responsibilities.

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 of the resources needed to meet a specific requirement or objective. In most cases, this is an NNSA Field Office Manager (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 sites and activities is ensured through site stewardship of nuclear safety and environment, safety, and health (ES&H). The Administrator has delegated most of the line management accountability for ES&H to the field and program offices but retains responsibility and provides NNSA internal independent oversight. However, in the case of nuclear safety, the Administrator has retained the line management responsibility for establishing policy and requirements at the HQ level and has delegated the responsibility for implementing standards to the field and programmatic level.

Each organization within NNSA that is specifically addressed in this SD is responsible for establishing and documenting how the specific functions and authorities assigned in this SD are properly implemented. Safety and Security Regulation of the DOE/NNSA is discussed in Appendix 4. Each Field Office must prepare and maintain assigned FRA documents to further define and assign its safety management functions as necessary.

5. CHANGE CONTROL. When organizations reorganize or responsibilities change that effect this SD, the Office of Safety and Health (NA-SH) must be notified by the effected organization. The effected organization must work with the Office of Policy and Analysis (NA-MB-22) and NA-SH to prepare the required page change documents to update this SD, in accordance with the most recent version of NNSA SD 251.1. NA-SH will conduct periodic reviews based on DOE and NNSA policy.

6. REQUIREMENTS. This SD lists NNSA requirements regarding organizational accountability for Safety Management derived from DOE/NNSA directives or supplemental directives (Appendix 2) and other assignments and delegations made by the Administrator. Specific references to such directives found in this SD are to be read as being to the most current (cited), or successor, version applicable to NNSA activities.

NNSA managers assigned Safety Management functions, responsibilities, or authorities in this SD must develop implementing processes or procedures for their assigned Safety Management functions. It is recommended that organizations with multi-program secretarial missions establish Memoranda of Agreement (MOA) with delegation listings discussed earlier.

7. RESPONSIBILITIES.

a. NNSA Line Management (Mission). DOE line management (Mission) refers to the unbroken chain of responsibility that extends from the Secretary of Energy to

the Deputy Secretary, to the secretarial officers (NNSA Administrator) to the program and field element managers who are responsible for mission and program execution (DOE O 226.1B). NNSA HQ line interface with the field is through NA-00 to the FOMs. This interface takes place for program implementation matters, including nuclear safety and ES&H, through the appropriate Deputy or Associate Administrator. Mission Support leadership sets program policy in coordination with program management. Federal oversight of the contractor will be accomplished as close to the work as practical and as required by the most recent version of DOE O 226.1B, *Implementation of Department of Energy Oversight Policy*, 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 line management (a landlord function) and should be communicated by NNSA to non-NNSA tenants. All work done at a site must be performed within the envelope approved by the FOM as delegated/further delegated. Formal "Stop Work" authority normally resides with the FOM and contracting officer (CO), but all NNSA personnel are expected to stop unsafe or unsecure activities. For projects executed through non-M&O contracts, the Federal Project Director must obtain a delegation letter from the FOM.

NNSA HQ develops policy with input from the field and provides guidance to the field for NNSA programs. NNSA HQ ensures that strategies, plans, and operations for implementing its programs are coordinated, integrated, and consistent with the NNSA Strategic Plan, policies, and priorities.

NNSA HQ and Field Offices 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.

b. Administrator/Principal Deputy Administrator. The Office of the Administrator has authority over, and is responsible for, all programs and activities within the NNSA (except for the functions of the Deputy Administrator for Naval Reactors under Executive Order 12344).

The Office of the NNSA Administrator is responsible for safety management and its implementation in NNSA and monitors delegated authorities through this SD.

(1) Oversight. Provides overall direction within NNSA and establishes and maintains delegations of Administrator authorities to other NNSA officers.

(2) Enforcement. Determines, approves and issues NNSA Price-Anderson Amendments Act (PAAA) enforcement actions.

(3) Management of Safety Requirements.

(a) Approves NNSA Policy, Supplemental Directives, and other guidance documents, including the NNSA FRA Document.

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

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

(4) Project Management.

(a) When functioning as an Acquisition Executive, approves critical decisions and baseline changes and ensures safety is integrated into design consistent with the most recent version of DOE O 413.3B requirements for nuclear construction projects.

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

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

c. Central Technical Authority (CTA). NNSA's CTA is an executive who is responsible for core nuclear safety and some non-nuclear functions. Pertinent sections of the Deputy Secretary memo dated March 13, 2012, *Roles and Responsibilities for CTA, CNS/CDNS and COO* have been incorporated into this section.

The NNSA CTA is responsible for the consistent and effective application of nuclear safety requirements and guidance across the NNSA complex, including maintaining currency of this SD. The CTA is responsible for ensuring that NNSA HQ maintains operational awareness of nuclear safety issues and the implementation of nuclear safety requirements and guidance throughout the NNSA complex. The CTA oversees non-nuclear safety, e.g. explosives safety, worker safety, etc.

Management of Nuclear Safety Requirements.

(1) Consults with the DOE/NNSA approval authority on Safety Evaluation Reports in situations in which a mitigated design basis accident (DBA) exceeds the Evaluation Guideline per the September 17, 2012, Deputy Secretary memorandum for the CTAs on Adequate Protection.

(2) Additional details regarding CTA responsibilities are delineated in the most recent versions of DOE O 410.1, *Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements*, NA-1 SD M 410.1A *NNSA CTA Responsibilities Regarding Nuclear Safety Requirements* and other Departmental directives as applicable, and as stated in DEPSEC memo March 13, 2012, Roles and Responsibilities for the Central Technical Authority (CTA), Chief Nuclear Safety/Chief Defense Nuclear Safety and Chief Operating Officer:

(a) 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 Under Secretary is responsible (referred to subsequently as simply ‘contracts’);

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

(c) Concurs with all exemptions or equivalencies to nuclear safety requirements in contracts that were added to the contract pursuant to DEAR 970.5204-2;

(d) Recommends to DOE’s Office of Health, Safety and Security 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 the Under Secretary’s employees and contractors;

(e) Maintains operational awareness of the implementation of nuclear safety requirements and guidance, consistent with the principles of Integrated Safety Management, at sites for which the Under Secretary is responsible (including, for example, reviewing Documented Safety Analyses, Authorization Agreements, and readiness reviews as necessary to evaluate the adequacy of safety controls and implementation);

(f) Periodically reviews and assesses whether sites for which the Under Secretary is responsible are maintaining adequate numbers

of technically competent personnel necessary to fulfill nuclear safety requirements;

(g) Provides inputs to, reviews and concurs, with DOE-wide nuclear safety related research and development activities; and

(h) Directs the identification and prioritization of nuclear-safety related research and development activities as necessary at sites for which the Under Secretary is responsible.

(3) 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.

d. Associate Administrator for Infrastructure and Operations (NA-00). NA-00 has the responsibility for the execution of nuclear safety and ES&H within NNSA as realigned by NA-1 Memorandum, Realignment of Nuclear Safety Responsibilities and Authorities within the NNSA, November 8, 2012. The CSO is appointed separately from the FRA, but is normally either the Associate Administrator or Deputy for NA-00. The CSO reports directly to the Administrator for these functions. FOMs report to NA-00.

(1) Strategic Objectives. NNSA Strategic Objectives follow the NNSA Strategic Plan for "Driving an Integrated and Effective Enterprise" and the most recent version of NAP-21, *Transformational Governance and Oversight*. The implementation of ISO 9001 "for the establishment of a quality management system and implementation of common business practices to improve efficiency, consistency, and accountability across the NSE" is also a key NNSA Strategic Objective.

(2) Oversight. NA-00 provides line oversight, assesses implementation of nuclear safety programs, and reports oversight results encompassing the requirements of the most recent version of DOE O 226.1B.

(3) Management of Nuclear Safety Requirements. The following are CSO responsibilities:

(a) Concurs on Field Office requests for exemptions to DOE directives that do not provide direction on exemption approvals in accordance with NA-1 delegation of authority to Field Office Managers.

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

(c) Reviews and concurs on proposed DOE directives that may apply to the Nuclear Security Enterprise (NSE). Also, the Associate Principal Deputy Administrator (APDA)/NA-00 acts as the representative to the Directives Review Board (DRB) for the Under Secretary for Nuclear Security.

(4) Safety Delegations.

(a) Reviews and approves delegated authorities that are consistent with the most recent version of DOE O 450.2 and in accordance with procedures approved by the Administrator.

(b) Maintains a current list of delegated authorities on iPortal [iPortal (IDW) Access Page: https://iportal.doe.gov].

(5) Project Management.

(a) When designated as a member of an ESAAB or ESAAB-e, advises the SAE that critical decisions and baseline change proposals have met the integration of safety into design requirements of the most recent version of DOE O 413.3B for nuclear construction projects.

(b) Appoints a safety basis approval authority no later than Critical Decision-0 (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 the most recent versions of DOE O 413.3B and NNSA BOP 10.002.

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

(6) Facility Operations/Authorization. NA-00 approves Documented Safety Analyses (DSAs), Technical Safety Requirements (TSRs), Un-reviewed Safety Question (USQ) procedures, and Safety Evaluation Reports (SERs) for Hazard Category 1, 2, and 3 nuclear facilities, unless delegated. NA-00 also:

(a) 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.

(b) 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.

(c) Serves as Startup Authorization Authority for certain initial start-ups and restarts of nuclear facilities and High Hazard non-nuclear

facilities, as allowed by the most recent version of DOE O 425.1D Chg 1 and approved Start-up Notification Reports (SNRs) and as delegated.

(d) Is responsible and accountable for the safety of work done for others at NNSA sites unless a specific written agreement is approved by the affected PSOs or their equivalent at other agencies.

(7) Integrated Safety Management. NA-00 monitors effectiveness of ISM Systems at NNSA sites and Headquarters with support from NA-SH.

(8) Nuclear Safety Research. NA-00 evaluates proposed nuclear safety research and development projects and integrates funded projects with ongoing program activities within NNSA. NA-00 also identifies and prioritizes safety research and development needs across NNSA and incorporates the prioritized list of projects into the annual budget and planning cycle.

NA-00 seeks resolution of competing safety-related research initiatives from the Administrator.

(9) Quality Assurance (QA). This function for NA-00 includes the management and oversight of QA requirements, including 10 CFR 830, Subpart A; 10 CFR 71, Subpart H; DOE O 414.1D Chg 1; NQA-1; and ISO 9001.

(a) Assures QA requirements are planned and implemented by Integrated Project Teams for all line-item nuclear facility projects.

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

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

(d) After review/concurrence by the applicable Field Office Manager, approves NNSA QA programs for Type B and fissile radioactive material packages in accordance with 10 CFR 71 Subpart H, unless delegated.

(e) Supports Steering Group efforts for implementation of NNSA ISO 9001.

(10) Packaging and Transportation. NA-00 serves as the NNSA Certifying Official (NNSA CO) authority to review and grant or deny requests for

NNSA exemptions to other NNSA elements from the requirements of the most recent version of DOE O 460.1C.

NA-00 also serves as the NNSA CO for Packaging and Transportation Safety (DOE O 460.1C) and Packaging and Transportation for Offsite Shipments of Materials of National Security Interest (DOE O 461.1B) for the following, unless delegated:

(a) Certify NNSA Type B and fissile radioactive material packages;

(b) Recertify NNSA Type B and fissile radioactive material packages, as needed;

(c) Curtail and suspend the use of NNSA Type B and fissile radioactive material packages, if warranted;

(d) Issue Offsite Transportation Certificates (OTCs), Certificates of Compliance (CoCs), and Offsite Transportation Authorizations (OTAs) and Offsite Transportation Direction (OTD); and

(e) Audit and approve QA programs of NNSA contractors that participate in the design, fabrication, procurement, use, or maintenance of Type B and fissile radioactive material packages for compliance with 10 CFR 71 Subpart H.

(11) Criticality Safety. Manages the Department's Nuclear Criticality Safety Program (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 the DOE.

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

(b) Provides liaison, communicates, and coordinates the DOE Federal Criticality Safety Coordinating Team.

(c) Provides expert nuclear criticality safety technical support to NNSA Field Office Managers as requested to solve problems in criticality safety and support continuous improvement.

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

(e) Coordinates Field Office input and provides expert nuclear criticality safety support to the NNSA Chief of Defense Nuclear Safety, as requested.

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

(g) Represents the NCSP within DOE and to external stakeholders (e.g. Defense Nuclear Facilities Safety Board, Nuclear Regulatory Commission, Congressional committees, etc.) on matters related to criticality safety.

(12) Field Office Managers (FOM). In accordance with HQ program direction, Field Offices led by a FOM are responsible for on-site Federal oversight and administration of the M&O and other direct contracts, except for design and construction contracts issued by NA-APM. NNSA FOMs serve as line management, site-level mission integrator, and the authorizing official for activities at the site on behalf of the Administrator. They are responsible for the safe operation of facilities under their purview. See Appendix 4–Safety and Security Regulation of the Department of Energy National Nuclear Security Administration.

The authority to grant exemption or equivalency determinations in accordance with the most recent version of DOE O 251.1C has been delegated by the NNSA Administrator to the FOMs, subject to exercise of this authority by the FOMs in accordance with direction provided in NNSA memorandum, *Approve Designation of Exemptions and Equivalencies Approval Authority*, January 8, 2010. This authority is only effective if the Directive does not itself specify approval authority for exemptions or equivalencies.

FOMs 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. FOMs execute the responsibilities and authorities for Heads of Field Element (or equivalent terminology) of DOE directives and NNSA Supplemental Directives, listed in Appendix 2, and those delegated by NA-00. FOMs coordinate with NA-00 for the management of EM funded work at their respective sites.

(a) Oversight. Prepare a Field Office FRA Document and implement processes and procedures that delineate how the applicable responsibilities and authorities in the SD are performed at the Field Office by or through the FOM. Revise the Field Office FRA document as delegation, authorities, and responsibilities change with revisions to this SD.

(b) Assessment and Approvals.

1 Coordinate Field Office and HQ assessments into an integrated master assessment schedule.

2 Approve contractor radiation protection plans per 10 CFR 835, *Occupational Radiation Protection*.

3 Approve maintenance implementation plans and/or nuclear maintenance management programs (NMMPs).

4 Approve contractor emergency management assessments and readiness assurance activities as defined in the most recent version of DOE Order 151.1C.

5 Approve contractor nuclear facility training implementation matrices per the most recent version of DOE O 426.2, *Personnel Selection, Training, Qualification and Certification Requirements for DOE Nuclear Facilities*.

6 Concur on contractor's procedures to implement the most recent version of DOE O 425.1D Chg 1, *Verification of Readiness to Start Up or Restart Nuclear Facilities*.

7 Approve DSAs/TSRs/SERs, when delegated. . If a new situation is identified in which a mitigated DBA exceeds the Evaluation Guideline (a situation not previously evaluated by the Department), the Deputy Secretary memo dated September 17, 2012, on Adequate Protection, or successor policy/directive applies.

8 Determine the applicability of the most recent version 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, matrices.

9 Approve contractor Worker Safety and Health Plans per 10 CFR 851, *Worker Safety and Health Program.*

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

11 Approve the initial M&O Contractor Assurance System Description and review and assess the effectiveness of the Contractor Assurance System.

(c) Project Management.

1 If delegated Acquisition Executive Authority, approve critical decisions and baseline change proposals and ensures safety is integrated into design in accordance with

the most recent version of DOE O 413.3B requirements for nuclear construction projects.

2 If designated as a member of an ESAAB or ESAAB-e, advises the SAE that critical decisions and baseline change proposals have met the integration of safety into design requirements of the most recent version of DOE O 413.3B for nuclear construction projects.

(d) Integrated Safety Management. Approve the M&O contractor ISM System Description and submit the Field Office ISM System Description to NA-00 for information. Ensure that contractor requirements for ISM are implemented via the DEAR requirements where prescribed.

(e) Performance Improvement. Monitor contractor reporting of potential nuclear safety violations and non-compliances with nuclear safety rules to DOE/HSS Office of Enforcement for review under the provisions of 10 CFR 820. Provide information, support investigations, and participate in enforcement conferences with DOE/HSS Office of Enforcement.

(13) NNSA Employee Concerns Programs. The NA-00 Program Executive Officer (PEO) is responsible for the oversight of Employee Concerns Programs (ECP) throughout the NNSA. 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, and without fear of reprisal for having reported such concerns. The ECP is required by the most recent version of DOE Order 442.1A, *DOE Employee Concerns Program*. The ECP resolves employee concerns in a manner that protects the health and safety of both employees and the public and ensures effective and efficient operation of DOE-related activities under their jurisdiction; ensures that employees are advised that they have the right and responsibility to report concerns relating to the environment, safety, health, or management of DOE-related activities, without fear of reprisal; and acts to minimize, correct, or prevent recurrence of the situations that precipitate valid concerns.

e. 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 new 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 assuring effective integration of programs across the NSE. NA-

10 has responsibility for the execution of nuclear explosives safety (NES) related to defense program matters within NNSA.

(1) Oversight. Participates in the annual development and updating of integrated assessment plans for NNSA sites with NA-00.

(2) Project Management. When functioning as an Acquisition Executive approves critical decisions and baseline change proposals and ensures safety is integrated into design consistent with the most recent version of DOE O 413.3B requirements for nuclear construction projects.

When designated as a member of an ESAAB or ESAAB-e, advises the SAE that critical decisions and baseline change proposals have met the integration of safety into design requirements of the most recent version of DOE O 413.3B for nuclear construction projects.

(3) Nuclear Explosives Operations.

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

(b) Conducts NES evaluations, in accordance with the most recent version of DOE O 452.2D, *Nuclear Explosive Safety*.

(4) Secure Transportation.

(a) Ensures the safety management to safely transport nuclear weapons, weapons components, special nuclear materials, and other national security interests to meet DOE, Department of Defense, and other customer requirements, in accordance with the most recent versions of DOE O 461.1B, *Packaging and Transportation for Offsite Shipment of Materials of National Security Interest, (NSI)* and DOE O 461.2, *Onsite Packaging and Transfer of Materials of NSI*.

(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.

(5) Quality Assurance.

(a) For programmatic nuclear facility construction projects in conceptual and design phases, provides policy guidance and direction to implement QA requirements for line item construction of facilities assigned to NA-10 in accordance with the most recent version of DOE O 414.1D Chg 1, *QA* and ASME NQA-1.

(b) Develops policy and requirements and implements Quality Control Programs to assure weapons product quality in accordance with the most recent version of Weapon Quality Policy (NAP-24) and NA-10 Weapon Quality Assurance Procedure Manual.

f. Deputy Administrator for Defense Nuclear Nonproliferation (NA-20). NA-20 coordinates with NA-00 for all nuclear safety and ES&H matters related to site nonproliferation program efforts. NA-20 exercises those responsibilities primarily through FOMs as well as M&O Contractor Assurance Systems.

Oversight.

(1) Coordinates nuclear safety and ES&H requirements with NA-00 and FOMs for M&O nonproliferation programs and projects performance, including Contractor Assurance Systems 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 landlord or NA-00 responsibility.

(3) Savannah River Site (SRS) Construction Projects. NA-20 and NA-APM share responsibility for the design and construction of the Mixed Oxide Fuel Fabrication Facility and the Waste Solidification Building. The Savannah River Field Office (SRFO) is responsible for the eventual operation of these facilities in support of the plutonium disposition mission.

(4) The SRFO Manager fulfills the role of the FOM for matters related to nuclear safety and ES&H requirements and possesses the responsibilities and authorities of the FOM as they pertain to these NA-26 projects.

g. Associate Administrator for Emergency Operations (NA-40). NA-40 is a program and line manager responsible 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. It is also the Nation's premier responder to any nuclear or radiological incident within the United States or abroad and

provides operational planning and training to counter both domestic and international nuclear terrorism.

(1) Headquarters Emergency Operations.

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

(b) Implements emergency management responsibilities, including coordination by NA-40 with NA-00.

(c) Executes the HQ Program Secretarial Office (PSO) Emergency Management Program functions as delineated in the most recent version of DOE O 151.1C, *Comprehensive Emergency Management System* through day-to-day interaction 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 Headquarters Emergency Management Team and coordinates information flow among 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) Provides PSO direct line management oversight through FOMs on behalf of NA-00 for implementing emergency management activities identified in the most recent version of DOE Order 151.1C. Implementation of these activities involves NA-40 providing organizational matrix support to NA-00 to adequately function as the emergency management subject matter expert.

(b) Develops NA-40's emergency management input for the Site Integrated Assessment Plans (SIAPs) and coordinates with the FOM through NA-00.

(c) Monitors and evaluates contractor's performance for NA-40's emergency management and response programs in coordination with NA-00.

(d) Monitors Emergency Readiness Assurance Plan (ERAP) commitments and coordinates emergency management readiness assurance activities with NA-00.

(e) In coordination with NA-00 and the FOMs, supports and coordinates annual exercises.

(f) Monitors Continuity Readiness Assurance Report (CRAR) commitments and coordinates emergency management readiness assurance activities with NA-00.

h. Associate Administrator for Safety and Health (NA-SH). NA-SH provides expert technical mission support to the Administrator, Principal Deputy Administrator, CTA, and other senior NNSA officials for safety, and health matters related to nuclear and non-nuclear activities. NA-SH fosters execution of nuclear and non-nuclear safety and health; requirements and oversight responsibilities; and manages the NNSA Differing Professional Opinion program.

Key functions provided include managing nuclear safety policy, requirements, guidance, and expectations; evaluating and making recommendations regarding relief from requirements; performing independent review of nuclear safety matters and implementation of requirements; evaluating delegations of nuclear safety authority; assuring effective incorporation of nuclear safety into design and construction, and into operating contracts for nuclear facilities; recommending approval of nuclear facility design and construction milestones; overseeing nuclear explosive safety policy; serving as NNSA HQ agent for the DOE FTC Panel leading NNSA TQP implementation regarding NNSA defense nuclear facilities; and providing training for nuclear safety professionals.

NA-SH provides ES&H specialized support to NA-00 in areas that include radiological protection, industrial safety, occupational health, industrial hygiene, bio-safety, environmental management, accident investigations, and non-weapons QA. Key functions provided for the Administrator include: managing non-nuclear safety and health policy, requirements, guidance, and expectations; manager of the Accident Investigation program; Technical Standards Manager; manager of the Human Subjects Protection program; manager of the Federal Employee Occupational Safety and Health program; development of corporate performance metrics; and evaluation of ES&H performance. NA-SH serves as NNSA liaison with GAO and IG regarding investigations and complaints on ES&H matters.

NA-SH provides nuclear and non-nuclear technical support to Field Offices and HQ, both NNSA and in some cases, DOE. Technical subject matter qualification

areas include senior technical safety managers, facility representatives, safety system oversight personnel, nuclear safety specialists, and approximately 30 other functional areas (http://www.hss.energy.gov/deprep/ftcp/).

(1) Management of ES&H Requirements.

(a) Provides staff functions for CTA and Chief Defense Nuclear Safety functions as stated in the most recent version of DOE O 410.1, *CTA Responsibilities Regarding Nuclear Safety Requirements.*

(b) Conducts biennial and other types of onsite reviews of NNSA sites and activities, as required by DOE directives or as needed based on specific issues, to ensure that nuclear safety requirements and guidance are implemented appropriately and effectively.

(c) Coordinates and acts as the NNSA interface with the DOE Technical Standards Program.

(d) Coordinates all aspects of the rulemaking process related to ES&H management and acts as the point of contact between DOE/HSS and NNSA.

(e) Coordinates NNSA status/issues regarding the implementation of 10 CFR 851, *Worker Safety and Health Program*, across the NNSA complex.

(f) Coordinates NNSA status/issues regarding the implementation of 10 CFR 850, *Chronic Beryllium Disease Prevention Program*, across the NNSA complex.

(g) Sets Federal employee occupational safety and health policy for NNSA HQ, providing expertise necessary to support NA-APM and line managers with implementing required Safety Programs supporting (not an all inclusive list): recording injuries and illnesses, analysis for indoor air quality, safety (or subject matter expert) inspections, ergonomic evaluations, and hazard communication. Maintains awareness of NNSA-wide status/issues regarding NNSA Federal Employment Occupational Safety and Health (FEOSH) implementation.

(h) Serves as NNSA program manager for Occurrence Reporting and Processing of Operations Information (ORPS); Computerized Accident/Illness Reporting System (CAIRS); and Non-Compliance Tracking System (NTS).

(i) Serves as the DOE Primary Hazard Classifier for Department of Transportation Permanent Hazard Classifications and the approval of Interim Hazard Classification for the shipment of explosives substances and articles.

(2) Integrated Safety Management/Safety Culture.

(a) Coordinates the appointment of the NNSA ISM Champion (should be at least at the level of Assistant Deputy Administrator or equivalent), and develops, maintains, and updates the NNSA HQ ISM System Description.

(b) 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.

(c) Maintain and update this SD, providing implementation assistance for the CTA.

(3) Enforcement. Supports line management in coordinating PAAA issues involving ES&H.

(4) Staffing and Competency. On behalf of NA-1 and the CTA, formulates a Safety Basis Professional Program to train adequate numbers of safety basis professionals in the skills needed to develop, review, and maintain safety basis documents.

i. 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 effectively and efficiently meet mission and safety requirements through the analysis of alternatives and the early identification and mitigation of risks/challenges.

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

(c) Oversees the FPD's execution of nuclear safety responsibilities as specified by the most recent version of DOE O 413.3B and DOE STD 1189 to ensure appropriate approvals/concurrences are identified.

(d) Provides independent oversight and analysis of construction project management and reports directly to the NNSA Acquisition Executives and the Administrator.

(e) Performs independent project reviews (IPRs), peer reviews, and technical independent project reviews (TIPRs) that include evaluation of safety in design for NNSA construction projects.

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

(2) Quality Assurance.

(a) Is responsible for QA for programmatic and infrastructure nuclear facility construction projects in construction phases.

(b) Provides policy guidance and direction to implement QA requirements for line item construction in accordance with ASME NQA-1.

(3) 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.

j. Associate Administrator for Management and Budget (NA-MB).

(1) 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).

(2) Technical Qualification Program (TQP). The NNSA TQP Manager administers the NNSA TQP in conjunction with NNSA HQ and Field Offices, the DOE FTCP, and other DOE stakeholders. In support of the implementation of the most recent version of DOE O 426.1, Chg. 1, *Federal Technical Capability*, within NNSA, and in order to effectively support offices with responsibility for oversight of nuclear safety, the NNSA TQP manager:

(a) Assists sites with the TQP position evaluation process.

(b) Provides consistency reviews on vacancy announcements and position descriptions for positions with significant safety responsibilities at defense nuclear facilities.

(c) Manages the comprehensive examination database and generator, protecting its integrity and maintaining content currency.

(d) Maintains all necessary TQP documents, including a database of all positions in the NNSA TQP and an official list of approved qualifying officials.

(e) Develops and implements continuing training program tools.

(f) Provides real-time status reports to supervisors and TQP participants.

(g) Assists site TQP self-assessments.

(h) Provides corporate training support to TQP participants to meet programmatic requirements.

(i) Coordinates TQP feedback and improvement efforts.

8. CONTACT. Questions concerning this revision should be addressed to the Associate Administrator for Safety and Health (NA-SH), at 202-586-3885.

BY ORDER OF THE ADMINISTRATOR:

Neile L. Miller
Acting Administrator

Appendixes
1. Change Log
2. References (Not all inclusive)
3. Acronyms
4. Safety and Security Regulation of the Department of Energy / National Nuclear Security Administration

Tables
1. Listing of NNSA Nuclear Safety Regulatory Functions
2. Listing of NNSA Worker Safety Regulatory Functions
3. Listing of NNSA Security Regulatory Functions

Attachments
1. Listing of Nuclear Safety Rules and Directives (Not all inclusive)
2. Listing of Worker Safety Rules and Directives (Not all inclusive)
3. Listing of Security Rules and Directives

APPENDIX 1: CHANGE LOG

Revision (Document No.)	Summary	Approval Date
0 (NNSA FRAM Rev. 0)	Initial Issue	October 15, 2003
1 (NNSA FRAM Rev.1)	A. Incorporates organizational changes, specifically Central Technical Authority B. Adds functional areas of Quality and Software Quality Assurance, Nuclear Explosive Safety, Transportation and Packaging Safety	February 28, 2005
2 (NA-1 SD 411.1-1C)	A. General update to incorporate revised Orders and format changes to avoid repetition. B. Clearly delineates authorities and responsibilities between NA-1, the Principal Deputy Administrator, and NA-10. C. Revised format, which formerly attempted to show linkage with Integrated Safety Management (ISM). Organized responsibilities under functional headings. D. Reduced potential repetition by eliminating lower-level activities associated with implementing assigned responsibilities. E. Removed non safety-related functional areas.	February 15, 2008
3 (NNSA SD 450.2)	A. Incorporated safety management aspects of NAP-21 (2-28-11) (TRANSFORMATIONAL GOVERNANCE AND OVERSIGHT) and NNSA HQ/Site Reorganizations including formation of NA-00, dissolution of the NNSA Service Center, etc. B. Updated applicability for revised Department of Energy (DOE) directives.	June 20, 2013

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APPENDIX 2: REFERENCES (Not all inclusive)

Federal Statutes, Acts, Executive Orders, and other authorities

Reference Number	Title
5 U.S.C. 500 et seq.	*Administrative Procedure Act (APA)*
42 U.S.C 2011 et seq.	*Atomic Energy Act of 1954 (AEA)*
Public Law (P.L.) 93-438 P. L. 95-91	*Energy Reorganization Act of 1974* *Department of Energy Organization Act*
P. L. 94-163	*Energy Policy and Conservation Act*
42 U.S.C. 4321 et seq. (P.L. 91-190)	*National Environmental Policy Act (NEPA)*
50 USC 2731	*Worker protection at nuclear weapons facilities*
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*
P. L. 104-113	*National Technology Transfer and Advancement Act of 1995*
P. L. 97-425 as amended by P. L. 100-202 and P.L. 100-203	*Nuclear Waste Policy Act of 1982 (NWPA)*
42 U.S.C. 2011 et seq. (P.L. 100-408)	*Price-Anderson Amendments Act of 1988 (PAAA)*
P. L. 104-303	*Water Resources Development Act of 1996*
P. L. 109-58	*Energy Policy Act of 2005*
P. L. 110-140	*Energy Independence and Security Act of 2007*
Executive Order (E.O.) 12196	*Occupational Safety and Health Programs for Federal Employees*
E.O. 12564	*Drug-Free Federal Workplace*
E.O. 12699	*Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction*
E.O. 12941	*Seismic Safety of Existing Federally Owned or Leased Building(s)*
E.O. 13101	*Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition*
E.O. 13148	*Greening the Government Through Leadership in Environmental Management*
E.O. 13327	*Federal Real Property Asset Management*
E.O. 13423	*Strengthening Federal Environmental, Energy and Transportation Management*
E.O. 13514	*Federal Leadership in Environmental, Energy and Economic Performance*
Presidential Directive/NSC 25	*Scientific or Technological Experiments with Possible Large-Scale Adverse Environmental Effects and Launch of Nuclear Systems into Space*
National Security Decision Directive 282	*Continuing Authority to Deliver Nuclear Materials and To Acquire Utilization Facilities*

Reference Number	Title
Office of Management and Budget (OMB) Circular A-11	*Preparation, Submission and Execution of the Budget*
OMB Circular A-119	*Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities*
The National Security Presidential Directive-51/Homeland Security Presidential Directive-20 (NSPD-51/HSPD-20)	*National Continuity Policy*
ASME NQA-1	*Quality Assurance Requirements for Nuclear Facility Applications (QA)*

Code of Federal Regulations

Reference Number	Title
10 CFR Part 71	*Packaging and Transportation of Radioactive Material*
10 CFR Part 707	*Workplace Substance Abuse Programs at DOE Sites*
10 CFR Part 708	*DOE Contractor Employee Protection Program*
10 CFR Part 712	*Human Reliability Program*
10 CFR Part 820	*Procedural Rules for DOE Nuclear Activities*
10 CFR Part 830	*Nuclear Safety Management*
10 CFR Part 835	*Occupational Radiation Protection*
10 CFR Part 850	*Chronic Beryllium Disease Prevention Program*
10 CFR Part 851	*Worker Safety and Health Program*
10 CFR Part 1021	*National Environmental Policy Act Implementing Procedures*
29 CFR Part 1910	*Occupational Safety and Health Standards*
29 CFR Part 1960	*Basic Program Elements for Federal Employee Occupational Safety and Health Programs*
40 CFR Part 61	*National Emission Standards for Hazardous Air Pollutants*
40 CFR Part 191	*Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes*
48 CFR 970.0309	*Whistleblower Protection of Contractor Employees*
48 CFR 970.5204-2	*Laws, Regulations, and DOE Directives*
48 CFR 970.5215-3	*Conditional Payment of Fee, Profit, and other Incentives-Facility Management Contracts*
48 CFR 970.5223-1	*Integration of Environment, Safety and Health into Work Planning and Execution*
48 CFR 970.5223-3	*Agreement Regarding Workplace Substance Abuse Programs at DOE Sites*
48 CFR 970.5223-4	*Workplace Substance Abuse Programs at DOE Sites*
49 CFR	*Transportation*

DOE Policies

Policy Number	Title
DOE P 111.1	*Departmental Organization Management System*
DOE P 141.1	*Department of Energy Management of Cultural Resources*
DOE P 226.1B	*Department of Energy Oversight Policy*
DOE P 420.1	*Department of Energy Nuclear Safety Policy*

DOE Orders, Manuals, Notices

Directive Number	Title	Office of Primary Interest (OPI)
DOE O 100.1E	*Secretarial Succession, Threat Level Notification, and Successor Tracking*	NA
DOE O 130.1	*Budget Formulation*	CF
DOE O 135.1A	*Budget Execution - Funds Distribution and Control*	CF
DOE M 140.1-1B	*Interface With The Defense Nuclear Facilities Safety Board*	HS
DOE O 151.1C	*Comprehensive Emergency Management System*	NA
DOE O 225.1B	*Accident Investigations*	HS
DOE O 226.1B	*Implementation of Department of Energy Oversight Policy*	HS
DOE O 231.1B Chg 1	*Environment, Safety, and Health Reporting*	HS
DOE O 232.2	*Occurrence Reporting and Processing of Operations Information*	HS
DOE O 251.1C	*Departmental Directives Program*	MA
DOE O 252.1A Chg 1	*Technical Standards Program*	HS
DOE O 350.1 Chg 4	*Contractor Human Resource Management Programs*	MA
DOE O 360.1C	*Federal Employee Training*	HC
DOE O 410.1	*Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements*	US
DOE O 413.3B	*Program and Project Management for the Acquisition of Capital Assets*	MA
DOE O 414.1D Chg 1	*Quality Assurance*	HS
DOE O 420.1C	*Facility Safety*	HS
DOE O 420.2C	*Safety of Accelerator Facilities*	SC
DOE O 422.1	*Conduct of Operations*	HS
DOE O 425.1D Chg 1	*Verification of Readiness to Start Up or Restart Nuclear Facilities*	HS
DOE O 426.1 Chg 1	*Federal Technical Capability*	HS
DOE O 426.2	*Personnel Selection Training, Qualification and Certification Requirements for DOE Nuclear Facilities*	HS
DOE O 430.1B Chg 2	*Real Property and Asset Management*	MA/CFO

Directive Number	Title	Office of Primary Interest (OPI)
DOE O 433.1B Chg 1	*Maintenance Management Program for DOE Nuclear Facilities*	HS
DOE M 435.1-1 Chg 2	*Radioactive Waste Management Manual*	EM
DOE O 435.1 Chg 1	*Radioactive Waste Management*	EM
DOE O 436.1	*Departmental Sustainability*	HS
DOE O 440.1B Chg. 1	*Worker Protection Program for DOE (incl. NNSA) Federal Employees*	HS
DOE O 440.2C Chg 1	*Aviation Management and Safety*	MA
DOE M 441.1-1	*Nuclear Material Packaging Manual*	HS
DOE O 442.1A	*Department of Energy Employee Concerns Program*	HS
DOE O 450.2	*Integrated Safety Management*	HS
DOE O 451.1B Chg 3	*National Environmental Policy Act Compliance Program*	HS
DOE O 452.1D	*Nuclear Explosive and Weapons Surety Program*	NA
DOE O 452.2D	*Nuclear Explosives Safety*	NA
DOE O 458.1 Chg 3	*Radiation Protection of the Public and the Environment*	HS
DOE O 460.1C	*Packaging and Transportation Safety*	EM
DOE M 460.2-1A	*Radioactive Material Transportation Practices Manual*	EM
DOE O 460.2A	*Departmental Materials Transportation and Packaging Management*	HS
DOE O 461.1B	*Packaging and Transportation for Offsite Shipment of Materials of National Security Interest*	NA
DOE O 461.2	*Onsite Packaging and Transfer of Materials of National Security Interest*	NA
DOE O 541.1B	*Appointment of Contracting Officers and Contracting Officer Representatives*	MA
DOE O 5480.30 Chg 1	*Nuclear Reactor Safety Design Criteria*	HS

DOE and NNSA Administrator Memoranda, Policies, etc.

Document Number	Title
	Memorandum to the Director, Office of Procurement and Assistance Management, *Department of Energy National Nuclear Security Administration Designation of Authority and (Re)Delegation of Authority Order No. 00-003.01*, effective October 28, 2002
	Memorandum from Secretary Abraham, *Clarification of Roles and Responsibilities*, May 12, 2003
	Memorandum for the Deputy Administrator for Defense Programs: *Delegation of Authority Regarding Environment, Safety and Health at NNSA Facilities*, June 25, 2003

Document Number	**Title**
	Memorandum from Secretary Bodman to the NNSA Principal Deputy Administrator and the Assistant Secretary for Environment, Safety and Health, *Revised Safety Functions, Responsibilities and Authorities*, April 26, 2005
	Memorandum from Deputy Secretary Clay Sell to the Administrator for Nuclear Security, *Delegations of Safety Authorities*, December 27, 2005
	Memorandum from the NNSA Administrator to the Deputy Secretary, *Delegation of Safety Authorities*, February 13, 2006
	National Nuclear Security Administration Delegation Order No. 01-001.00 to the Principal Deputy Administrator of the National Nuclear Security Administration
	NNSA Delegation Procedure, promulgated by memorandum from NA-1 to the Site Office Managers, August 22, 2006
	Memorandum from NNSA Administrator, *Approve Designation of Exemptions and Equivalencies Approval Authority*, January 8, 2010
	Memorandum from NNSA Administrator to Deputy Associate Administrator for Infrastructure and Operations, *Realignment of Nuclear Safety Responsibilities and Authorities within NNSA*, November 8, 2012
	NNSA Strategic Plan, May 2011
BOP-50.001A	*NNSA ESAAB Equivalent Process*
NA-1SD 226.1-1A	*Headquarters Biennial Review of Nuclear Safety Performance*
NNSA/EM SD G 442.2	*Differing Professional Opinions (DPO) Process*
NA-1 SD 450.4-1	*Integrated Safety Management Description*
NAP-21	*Transformational Governance and Oversight*

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APPENDIX 3: ACRONYMS

AEA	Atomic Energy Act of 1954
APA	Administrative Procedure Act
CAIRS	Computerized Accident/Illness Reporting System
CD-0	Critical Decision-0
CDNS	Chief of Defense Nuclear Safety
CFR	Code of Federal Regulations
CO	Contracting Officer
CRD	Contract Requirements Document
CSO	Cognizant Secretarial Officer
CTA	Central Technical Authority
DBA	Design Basis Accident
DEAR	Department of Energy Acquisition Regulation
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
DPO	Differing Professional Opinion
DRB	Directives Review Board
DSA	Documented Safety Analysis
ECP	Employee Concerns Program
EM	Office of Environmental Management
EO	Executive Order
ERAP	Emergency Readiness Assurance Plan
ES&H	Environment, Safety, and Health
ESAAB	Energy Systems Acquisition Advisory Board
FEOSH	Federal Employee Occupational Safety and Health
FRA	Functions, Responsibilities, and Authorities
FRAM	Functions, Responsibilities, and Authorities Manual
FTCP	Federal Technical Capability Program
HSS	Office of Health, Safety and Security
HQ	Headquarters
IPR	Independent Program Review
IPT	Integrated Project Team
ISM	Integrated Safety Management
ISO	International Standards Organization
ISMS	Integrated Safety Management System
M&O	Management and Operating
NA-00	Office of Infrastructure and Operations
NA-l	NNSA Administrator and Under Secretary for Nuclear Security
NA-10	Office of Defense Programs

NA-20	Office of Defense Nuclear Nonproliferation
NA-SH	Associate Administrator for Safety and Health
NA-40	Associate Administrator for Emergency Operations
NA-APM	Associate Administrator for Acquisition and Project Management
NA-MB	Associate Administrator for Management and Budget
NEPA	National Environmental Policy Act
NMMP	Nuclear Maintenance Management Program
NRC	Nuclear Regulatory Commission
NNSA	National Nuclear Security Administration
NNSA CO	NNSA Certifying Official
NSE	Nuclear Security Enterprise
NTS	Noncompliance Tracking System
NWPA	Nuclear Waste Policy Act
OMB	Office of Management and Budget
OPI	Office of Primary Interest
ORPS	Occurrence Reporting and Processing System
OTA	Offsite Transportation Authorization
OTC	Offsite Transportation Certificate
OTD	Offsite Transportation Direction
PAAA	Price-Anderson Amendments Act
PD	Presidential Directive
PEO	Program Executive Office (NA-00)
PL	Public Law
PSO	Program Secretarial Officer
QA	Quality Assurance
QAP	Quality Assurance Program
SAE	Secretarial Acquisition Executive
SAP	Special Access Program
SIAP	Site Integrated Assessment Plan
FOM	Field Office Manager
SRS	Savannah River Site
SRFO	Savannah River Field office
TIPR	Technical Independent Project Reviews
TQP	Technical Qualification Program
TSR	Technical Safety Requirements
TSS	Transportation Safeguards System
USC	United States Code

APPENDIX 4: Safety and Security Regulation of the Department of Energy / National Nuclear Security Administration

Overview. This document describes the Federal framework for regulating safety and security of activities and operations conducted under the authority of the Administrator, National Nuclear Security Administration (NNSA), excluding those activities and operations associated with the Naval Nuclear Propulsion program or that are regulated by the Nuclear Regulatory Commission. For this discussion, safety includes nuclear safety and worker safety, while security includes physical and cyber security. This document identifies the NNSA safety and security regulators; the regulated entities; the applicable regulatory framework of regulations and directives; and the regulatory functions and assignees/designees who exercise those functions, including independent oversight and enforcement responsibilities. This discussion draws a distinction between those safety and security activities that are owner functions and those that are regulatory functions.

Background and Key Assumptions. In its broadest sense, "regulate" simply means to control or govern. Its legitimacy is based on some form of legal authority such as a law or contract.

Regulators are the individuals charged with the responsibility and who have the legal authority to regulate. Regulators could be independent of the regulated activity or they could be the owner of that activity (self-regulation). Regulatory responsibilities can exist at multiple levels inside and outside of an organization.

Requirements are the tools regulators use to establish criteria that must be met by regulated entities. Regulators may rely on requirements created by others, may generate requirements themselves, or may use a combination of approaches. Requirements may be in the form of rules[1], regulations[2], directives[3], or administrative orders. Such requirements may carry the force of Federal law (such as rules or regulations), may be contained in legally enforceable contracts, or be issued through an administrative process[4].

Discussions of regulation involving NNSA usually are much narrower than described above, and are focused on creation, oversight and enforcement of requirements for NNSA activities that, if conducted by U.S. commercial industry, would fall under regulation of a governmental or similar external organization such as the Nuclear Regulatory Commission, the Occupational Safety and Health Administration or the National Industrial Security Program.[5] This paper describes regulation of safety and security solely in that narrower context.

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[1] Rules are published in the Federal Register and ultimately codified as a regulation in the Code of Federal Regulations.

[2] Id.

[3] DOE Orders are published and processed per the DOE Directives System.

[4] The Price-Anderson Amendments Act of 1988 (PAAA) grants authority to the Secretary to issue Compliance Orders to prevent, rectify or penalize violations of nuclear safety requirements.

[5] U.S. industry develops and produces the majority of our nation's defense technology – much of which is classified – and thus plays a significant role in creating and protecting the information that is vital to our nation's security. The National Industrial Security Program (NISP) was established by Executive Order 12829 to ensure that cleared U.S. defense industry safeguards the classified information in their possession while performing work on contracts, programs, bids, or research and development efforts.

In that context, not all actions taken to control or govern the safety and security of operations are regulatory functions. For example, in the nuclear industry, operators and owners exercise controls to ensure safe and compliant nuclear operations because doing so protects their business interests. For the purposes of identifying the self-regulatory functions that NNSA executes, owner or operator functions (including some management and independent assessments) that are taken primarily to protect the interests and advance the mission of the owner and operator, and that are not performed as a result of regulatory drivers, have been designated as owner/operator functions, and not regulatory in nature.

The Regulator. There are two Department of Energy (DOE) officials with statutory responsibilities for safety and security within NNSA: the Secretary of Energy, and the NNSA Administrator[6]. They ultimately are the regulators of NNSA. These officials have the authority to

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[6] DOE's authority to self-regulate the radiological and non-radiological occupational safety and health of DOE contractors working in DOE owned or leased facilities is derived from, among other statutory authority, Section 161 of the Atomic Energy Act of 1954, as amended. Section 4(b)(1) of the Occupational Safety and Health Act (OSH Act), 29 U.S.C. § 653, exempts working conditions of certain nonfederal employees from provisions of the OSH Act to the extent federal agencies such as DOE "exercises statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health."

The National Nuclear Security Administration Act, (NNSA Act) as amended, Section 3211 assigns the Administrator the responsibility to "ensure that all operations and activities of the Administration are consistent with the principles of protecting the environment and safeguarding the safety and health of the public and of the workforce of the Administration." Section 3202 of the NNSA Act states: "In carrying out the functions of the Administrator, the Administrator shall be subject to the authority, direction, and control of the Secretary. Such authority, direction, and control may be delegated only to the Deputy Secretary of Energy, without redelegation." Section 3203 of the NNSA Act states: "The Secretary shall be responsible for establishing policy for the National Nuclear Security Administration," and "the Secretary may direct officials of the Department who are not within the National Nuclear Security Administration to review the programs and activities of the Administration and to make recommendations to the Secretary regarding administration of those programs and activities, including consistency with other similar programs and activities of the Department." Section 3212 states: "The Administrator may establish Administration-specific policies, unless disapproved by the Secretary of Energy."

Section 3261 of the NNSA Act states in its entirety:
(a) COMPLIANCE REQUIRED.—The Administrator shall ensure that the Administration complies with all applicable environmental, safety, and health statutes and substantive requirements.

(b) PROCEDURES REQUIRED.—The Administrator shall develop procedures for meeting such requirements.

(c) RULE OF CONSTRUCTION.—Nothing in this title shall diminish the authority of the Secretary of Energy to ascertain and ensure that such compliance occurs. From Section 3232,

(d) ESTABLISHMENT.—There is within the Administration an Office of Defense Nuclear Security, headed by a Chief appointed by the Secretary of Energy. The Administrator shall recommend to the Secretary suitable candidates for such position.

(b) CHIEF OF DEFENSE NUCLEAR SECURITY.—

(1) The head of the Office of Defense Nuclear Security is the Chief of Defense Nuclear Security, who shall report to the Administrator and shall implement the security policies directed by the Secretary and Administrator.

(2) The Chief shall have direct access to the Secretary and all other officials of the Department and the contractors of the Department concerning security matters.

(3) The Chief shall be responsible for the development and implementation of security programs for the Administration, including the protection, control and accounting of materials, and for the physical and cyber security for all facilities of the Administration.

delegate regulatory functions, although certain functions have limits (either by statute or by conditions of delegation) on further delegation. The Chief of Defense Nuclear Security also has statutory responsibilities. See the footnotes for citations regarding regulatory authority.

Regulated Entities. The regulated entities are the managers and operators of NNSA facilities throughout the lifecycle of those facilities, including design and construction, operations, decontamination and decommissioning. This includes authority over all prime contracts performing DOE work at a DOE-owned or leased site. In most situations, the regulated entities are the Management and Operating contractors. For situations where NNSA is the operator, the NNSA organization directly operating the facility and making management decisions is the regulated entity.

Applicable Regulatory Requirements (Regulations). Attachment 1 provides a listing of those current regulations (including Code of Federal Regulation (CFR)) and requirements invoked through Departmental directives that, together with supporting standards and guides, provide the nuclear safety requirements framework that NNSA regulators use to ensure adequate nuclear safety. Attachments 2 and 3 provide similar listings for worker safety and security.

Regulatory Functions and Assignee/Designee Exercising Those Functions. Tables 1, 2, and 3 summarize the regulatory functions within the scope of this paper and identify those NNSA elements responsible for executing each listed function. All NNSA Federal functions related to nuclear safety, worker safety, and security not listed in the tables are considered owner or operator functions.

Table 1 provides the associated nuclear safety functions and assignee/designees. Because of its length, Table 1 is divided into three sections of related regulatory functions. Tables 2 and 3 provide regulatory functions and assignees/designees for worker safety and for security. Each table includes, as applicable, comments on the implementation and basis for the regulatory functions.

Regulatory Independence. When an organization such as the DOE is self-regulated, the degree to which owner and regulatory functions can be exercised independently is more limited than when the regulator is an external entity, and appropriate regulatory independence must be carefully preserved.

Generally, individuals exercising the regulatory functions listed in the tables should not judge the adequacy of activities or products they directly or substantively established. When individuals such as a Field office Managers must exercise a regulatory function over an activity in which they or their employees participated, it is crucial to regulatory credibility to use an open and transparent decision-making process that relies on recommendations from competent reviewers who were not directly or substantively involved in establishing the regulated activities.

Maintaining suitable regulatory independence is essential to the effective implementation of

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Although the focus of this paper is safety and security, it should be noted that some other areas (such as environmental compliance) are not entirely self-regulated and in some cases are externally regulated.

NNSA governance enhancements—that is, those NNSA efforts focused on improving our system of management and controls exercised in the stewardship of the organization. Enhancements to NNSA governance are implemented through a collaborative but limited partnership between organizations to accomplish a common mission. Appropriate limitations on that partnership must be carefully preserved to maintain the independence of regulatory and owner/operator functions needed to effectively execute NNSA's self-regulatory role.

Role of the Office of Health, Safety and Security (HSS). HSS provides several supporting functions in the areas of rule-making, directives, inspection, and enforcement. The results of these functions are used by the regulating entities in executing their regulatory responsibilities.

Rule-making and Directives. HSS has primary responsibility for rule-making, and for developing and maintaining directives in the areas of nuclear safety, worker safety and health, and security (the NNSA Act also gives the Administrator authority to develop NNSA policies; this authority has been used for some safety and security requirements). HSS is currently engaged in a major revamping of the DOE Directives aimed at making them more streamlined and less duplicative of other directives, laws and consensus standards. Proposed changes in 10 CFR 850, *Chronic Beryllium Disease Prevention Program* are being considered; 10 CFR 1046, *Physical Protection of Security Interests* and 10 CFR 712, *Human Reliability Program* are under revision. NNSA participates in rule-making and directives revision through review and concurrence, and in some cases by direct participation on the development and revision teams.

Inspection. The HSS Office of Independent Oversight conducts appraisals to evaluate the effectiveness of DOE and contractor line management in implementing and overseeing safety and security programs to determine the adequacy of DOE policies and requirements and their implementation. These appraisals are focused on high consequence activities such as high hazard nuclear operations and the protection of high value security assets. For other activities, the HSS Office of Independent Oversight focuses on organizations with poor safety or security performance records and/or serious or recurring incidents or violations of requirements. External assessments by the Office of Inspector General, the Government Accountability Office or the Defense Nuclear Facilities Safety Board may trigger for cause inspections by either HSS or NNSA staff which could lead to regulatory actions or fee reductions.

Enforcement. The Office of Health, Safety and Security Office of Enforcement (OE) administers the enforcement process for the nuclear safety, worker health and safety, and security rules (10 CFR Part 820, 10 CFR Part 830, 10 CFR Part 835, 10 CFR Part 850, 10 CFR Part 851, 10 CFR Part 708, and 10 CFR Part 824). Based on the NNSA Act, the NNSA Administrator is assigned the authority upon which regulatory direction and enforcement is provided to NNSA contractors. The enforcement process relies heavily on self-disclosure, either through the Noncompliance Tracking System (NTS), the Occurrence Reporting and Processing System (ORPS), or the Safeguards and Security Information Management System (SSIMS) Security Incident Module. Field offices ensure that a valid self-disclosure process does exist by direct verification of reporting effectiveness. The NTS allows the contractor to report potential noncompliances, and mitigation for self-reporting may be granted in ensuing enforcement activities. The incidents meeting pre-established reporting criteria are reported in either ORPS or SSIMS. Upon analysis, some incidents will be identified as the result of noncompliance with nuclear safety rules, worker safety and health rules, or classified information security requirements. These events are typically considered self-disclosing and do not qualify for mitigation in accordance with the factors

discussed within the policy statement of each enforcement program regulation (i.e., 10 CFR 820, 10 CFR 824, and 10 CFR 851).

The Office of Enforcement investigates instances of noncompliance and in consultation with responsible line management either recommends or undertakes an enforcement proceeding. The NNSA Act assigns responsibility for direction to NNSA contractors to the Administrator. The enforcement sections of the nuclear safety, worker health and safety, and security rules recognize this authority and authorize the Administrator to issue various enforcement instruments which are directive, such as Notices of Violation. Enforcement mechanisms which are cautionary or advisory (e.g. enforcement letters) are issued by the Director of the Office of Enforcement. Currently, there is some difference of opinion regarding the directive nature of Consent Orders (10CFR820) and Settlement Agreements (10CFR824); current practice is for both the Administrator and the Director to sign Consent Orders and Settlement Agreements. The worker safety and health enforcement program rule (10 CFR 851) also provides that noncompliance incidents are subject to either fines or fee reductions but not both. The Office of Enforcement conducts regulatory assistance reviews on an invitational basis. NNSA participates in consultation with the Director of the Office of Enforcement to provide recommendations to the Administrator.

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Table 1. Listing of NNSA Nuclear Safety Regulatory Functions

Regulatory Function	Assignee/Designee References and Comments
§1. Requirements Creation and Maintenance	
Create, revise, and maintain nuclear safety requirements that are applicable to the Department, including NNSA.	This regulatory responsibility is executed by the Secretary of Energy and Deputy Secretary (NNSA Act, see footnote 6, and DOE Safety Management Functions, Responsibilities and Authorities (FRA) Document). For directives, DOE and NNSA personnel and contractors participate in the development, but regulatory approval is by the Secretary or Deputy Secretary upon recommendation of the DOE Directives Review Board. DOE rules are developed and approved in accordance with the appropriate rulemaking requirements.
Develop NNSA-specific procedures to comply with all applicable nuclear safety statutes and substantive requirements.	This regulatory responsibility is executed by the Administrator (NNSA Act, see footnote 6) or Principal Deputy Administrator for procedures that apply NNSA-wide. NNSA personnel and contractors participate in the development, but regulatory approval is by the Administrator or Principal Deputy Administrator.
Establish NNSA-specific nuclear safety requirements, unless disapproved by the Secretary of Energy.	NNSA personnel and contractors participate in the development, but this regulatory responsibility is executed by the Administrator (NNSA Act, see footnote 6) or Principal Deputy Administrator.
Provide expectations and guidance for implementing nuclear safety requirements for use by NNSA employees and contractors.	A directed revision to the DOE FRA Document assigned this regulatory responsibility to the NNSA Central Technical Authority (CTA). The CTA is the single NNSA source for authoritative nuclear safety expectations for use NNSA-wide. Note that 10 CFR 820 Subpart D assigns the DOE General Counsel exclusive authority to issue interpretations to DOE Nuclear Safety Requirements as defined relative to the Price Anderson Amendment Act (PAAA). 10 CFR 820 defines an interpretation as “a statement by the General Counsel concerning the meaning or effect of the Act, a Nuclear Statute, or a DOE Nuclear Safety Requirement which

	relates to a specific factual situation but may also be a ruling of general applicability where the General Counsel determines such action to be appropriate."
Incorporate expectations and guidance for implementing nuclear safety requirements in M&O and affected non-M&O contracts.	Contracting officers for M&O contracts and affected non-M&O contracts execute this regulatory function by ensuring that required DOE orders and DEAR provisions are incorporated into said contracts and NNSA solicitations.
§2. Independent Oversight	
Independent Oversight of Management and Operator Compliance with Nuclear Safety Requirements.	Within NNSA, the program authority line for production (such as specific weapons or special products) is somewhat separate from the line of responsibility for safe nuclear facility management and operations. There is some overlap at the Field Office Manager and secretarial officer levels. Field office managers bear the primary regulatory responsibility for conducting independent nuclear safety oversight at their respective sites and are accountable to the Administrator and the Deputy Associate Administrator for Infrastructure and Operations. Field office independent oversight is independent in the sense that the oversight is conducted by personnel who do not have direct responsibilities for meeting production or mission goals. The regulatory oversight function is executed for the Field Office Manager by facility representatives, safety system oversight personnel, and subject matter experts, using routine presence in their nuclear facilities as well as systematic, scheduled assessments to ensure that nuclear safety requirements are met. Reviews by independent subject matter experts include those conducted by experts outside the Field Office (internal and external to NNSA) whose results are provided for disposition to the Field Office Manager. These include reviews conducted by the independent oversight elements of the DOE Health, Safety and Security (HSS) organization and NNSA Headquarters organizations. Field office

	managers maintain an integrated assessment schedule to enable a systematic approach to oversight of their nuclear facility contractors. Non-compliances that have PAAA implications are addressed by an HSS element that provides enforcement services to the Department. HSS provides a supporting role to the regulator by evaluating issues and making recommendations on enforcement proceedings. The results of HSS enforcement evaluations are provided to the NNSA Administrator, who exercises Price Anderson regulatory enforcement authority for NNSA. NNSA has seven sites that operate nuclear facilities. To ensure consistent nuclear safety performance between the Field Offices, NNSA Headquarters conducts Biennial Reviews of each of these Field Offices. Although contractor performance may be sampled to assess Field Office performance, these Biennial Reviews are internal self-assessments of the Regulator and serve a quality control function. They are not regulatory assessments of the regulated entity. The Administrator is responsible to the Secretary for the nuclear safety of NNSA operations. The Secretary uses HSS reviews as a source of independent information on the nuclear safety performance of the Administrator. Thus, HSS reviews serve two slightly different but overlapping roles. HSS provides, through its nuclear safety office, a service to NNSA regulatory personnel by providing subject matter experts to assist/augment NNSA regulatory oversight for use by NNSA. HSS also serves as a direct source of independent oversight information to the Secretary to provide assurance that NNSA is effectively executing its delegated and assigned regulatory responsibilities. In addition to independent oversight within the Department, Congress has established the Defense Nuclear Facilities Safety Board

	(DNFSB) with statutory responsibilities that enhance and contribute to the independent oversight of NNSA. The DNFSB statute includes action-forcing provisions by which the DNFSB can raise issues, make recommendations, and require responses from the NNSA in a public forum regarding nuclear safety issues. The DNFSB has site representatives at most NNSA sites and also conducts site visits and reviews with a sizable cadre of highly qualified technical staff members with broad technical expertise. Although the DNFSB is not a regulator, DNFSB reviews have identified weaknesses and opportunities for improvement in NNSA programs and activities and help drive continuous improvement in the safety of NNSA nuclear operations and activities.
§3. Design, Construction, Operation, Decontamination, and Decommissioning	
Approve Design Criteria for Nuclear Facilities	10 CFR 830 requires preliminary documented safety analyses (PDSA) to include the nuclear safety design criteria to be used for construction of nuclear facilities, and requires DOE approval of the PDSA. 10 CFR 830 separately requires DOE approval of the design criteria to be used for the PDSA if the criteria are not those in DOE O 420.1C, *Facility Safety*. The NNSA FRA Document assigns this regulatory responsibility to the Field Office managers in coordination with the NNSA CTA.
Approve Safety Basis Documents and Hazard Categorization	The Safety Basis Approval Authority is a delegated function. 10 CFR 830 requires DOE approval of safety basis documents, hazard categorization for Hazard Category (HC) 1, 2, or 3 nuclear facilities, and the contractor's Unreviewed Safety Question process. The DOE FRA Document assigns this regulatory function to the Cognizant Secretarial Officer (CSO). In NNSA, this is the Deputy Associate Administrator for Infrastructure and Operations, who may delegate this regulatory function to qualified Field Office Managers per the approved NNSA delegation procedure.

	Note that the Nuclear Explosive Safety process also evaluates certain high consequence safety aspects of nuclear explosive operations (separately from the safety basis analysis) and includes operations authorization provisions. These activities are executed by the program owner and are owner functions, not regulatory functions.
Provide Independent Review of Safety Basis documents (including Unreviewed Safety Question procedures)	The Safety Basis Review Team (SBRT) reviews safety basis documents and the team leader makes recommendations to the regulatory approval authority regarding the acceptability of safety basis documents. This is a regulatory review. The nuclear safety experts on Federal Integrated Project Teams (IPTs), in most cases, interact too closely with the contractor during the development of safety basis documents to serve as the Safety Basis Review Team leader for their own projects.
Approve methodologies not listed in Appendix A of 10 CFR 830 for developing a Documented Safety Analysis	The DOE FRA Document assigns this regulatory responsibility to the Cognizant Secretarial Officer as an authority that may be delegated. The responsibility is not usually delegated within NNSA, and DOE O 410.1 requires CTA concurrence on approval of alternate methodologies. In NNSA, the approval responsibility is assigned to the Deputy Associate Administrator for Infrastructure and Operations.
Approve Startup or Restart of Nuclear Facilities, Associated Startup Notification Reports, and Plans of Action.	The Secretary of Energy is the ultimate regulatory startup or restart authority for the Department's nuclear facilities but has delegated that authority as described in DOE Order 425.1D Chg 1 and its supporting standard. Further delegation is accomplished in accordance with the NNSA delegation procedure. The regulatory approval authority and independent review requirements for startup or restart are established using a graded approach. Facilities categorized as less than HC 3 have no specific regulatory oversight requirements. Specific requirements exist for facilities categorized as HC 1, HC 2, or HC 3, as discussed in DOE O 425.1D Chg 1.

	For startups or restarts that require a Federal authorization authority and a Federal readiness review, the authorization authority function is considered a regulatory function, and the independent Federal readiness review is an independent regulatory oversight function that supports the operations authorization.
Approve Quality Assurance Plans including Weapons Quality Assurance Plans.	10 CFR 830 establishes a regulatory requirement for contractors operating nuclear facilities to develop a Quality Assurance Plan (QAP) and to submit it to DOE for approval. This is a CSO function that the NNSA FRA Document indicates secretarial officers delegate to the Field Office Managers. Review and approval of the contractor QAP and weapons QAP is a regulatory function. Approval of QAPs required by 10 CFR 71 for Type AF and Type B radioactive material packages is a regulatory function.
Approve Exemptions (or Equivalencies) to Nuclear Safety Requirements	10 CFR 820 includes a specific and broad definition of DOE nuclear safety requirements that includes nuclear safety rules, regulations, and orders and also any programs, plans, or other provisions intended to implement these rules, regulations, and orders. 10 CFR 820 establishes the regulatory approval authority for exemptions to DOE nuclear safety requirements as the secretarial officer and stipulates that the authority cannot be further delegated. This authority for NNSA resides with the CSO who is the Deputy Associate Administrator for Infrastructure and Operations. This exemption approval authority is applied to provide relief from requirements that are established in the CFR (such as 10 CFR 830) and that do not provide an alternative means of obtaining relief as part of the requirement. Approval of exemptions to 10 CFR 830 is a nuclear safety regulatory function. The Departmental directives system includes a number of directives that, in whole or in part, implement 10 CFR 830, or that establish related nuclear safety requirements. The

	directives system includes two primary mechanisms for obtaining relief from its requirements without requiring an exemption to a DOE nuclear safety requirement as defined in 10 CFR 820. These two mechanisms are a directive exemption and a directive equivalency. Unless a specific directive identifies an approval authority for such relief, the default approval authority for NNSA specified in DOE O 251.1C is the Administrator or designee. The Administrator, in a memorandum approved January 8, 2010, designated the Field Office Managers to act on his behalf to approve exemptions and equivalencies to directives that do not specify an approval authority, subject to certain conditions. Approval of exemptions to the directives in Attachment 1 to this document is a regulatory function. Approval of exemptions to directives identified in Attachment 1 of DOE O 410.1, *Central Technical Authority Responsibilities Regarding Nuclear Safety Requirements*, require CTA concurrence. This concurrence by the CTA is a quality control (owner) function, not a regulatory function. The CTA is supported by independent evaluations of nuclear safety exemptions by the Chief of Defense Nuclear Safety (CDNS). DOE O 420.1C, *Facility Safety*, establishes the Field Office Manager as an authority having jurisdiction (AHJ) to approve equivalencies to fire safety codes. These equivalencies are different from the equivalencies defined in the Departmental directives program, but their approval is also a regulatory function.
Direct nuclear facility contractors to curtail or suspend operations of nuclear reactors, nuclear facilities, or related activities when continuing operations might result in an undue risk to the environment and/or to the safety and health of Departmental or contractor employees or to the public.	In situations where suspension of work is required by DOE management for safety reasons, and formal direction to an NNSA nuclear facility contractor is necessary, that direction must generally come from the Field Office Manager (through the contracting officer or contracting officer representative, where applicable). Providing stop work

	direction to the contractor of an NNSA nuclear facility is a regulatory function based upon DEAR 970.5223-1 *Integration of Environment, Safety, and Health into Work Planning and Execution*, the ISMS clause. This is the type of shutdown that normally invokes DOE O 425.1D Chg 1, *Verification of Readiness to Start Up or Restart of Nuclear Facilities*, requiring certain readiness reviews following shutdown by a DOE management official for safety reasons. DOE O 440.1B requires all DOE elements to "Implement procedures to allow workers to stop work when they discover employee exposures to imminent danger conditions or other serious hazards." This general function executed by workers is an owner and operator function, not a regulatory function.
Establish the procedures for investigating the nature and extent of violations of the DOE nuclear safety requirements, for determining whether a violation has occurred, for imposing an appropriate remedy, and for adjudicating the assessment of a civil penalty.	10 CFR 820 *Procedural Rules For DOE Nuclear Activities* provides a framework for administering PAAA enforcement. The HSS Office of Enforcement conducts the investigations and develops enforcement documents. In the HSS process, Field Offices provide significant support to HSS through performing verification and providing evidence based on ongoing operational awareness and additional reviews. The NNSA Office of Safety and Health coordinates the process with HSS for NNSA cases. Directive remedies, such as Notices of Violation, as listed in the rule, must be issued by the NNSA Administrator or, in the case of Compliance Orders, by the Secretary of Energy. Issuing directive remedies is a regulatory function.

Table 2. Listing of NNSA Worker Safety Regulatory Functions

Regulatory Function	**Assignee/Designee References and Comments**
Establish requirements for a worker safety and health program that reduces or prevents occupational injuries, illnesses, and accidental losses by providing DOE contractors and their workers with safe and healthful workplaces at DOE sites.	This is the basic function of 10 CFR 851, the *Worker Safety and Health Program*. Various directives and standards, including a large portion of OSHA regulations, are incorporated by reference. HSS is primarily responsible for maintaining the rule, but line programs, including NNSA, review and concur with changes. There is some overlap with the DEAR clauses for Management and Operations contracts: 970.23 and 907.5223-1, which provide specific requirements for the environment, health, and safety programs, including Integrated Safety Management. Fee reductions for ES&H performance reasons are authorized in the DEAR.
Incorporate worker safety and health program requirements in M&O and affected non-M&O contracts.	Contracting officers for M&O and affected non-M&O contracts ensure that required DOE orders and DEAR provisions are incorporated into said contracts and NNSA solicitations.
Establish procedures for investigating whether a violation of a requirement of this part has occurred, for determining the nature and extent of any such violation, and for imposing an appropriate remedy.	This function is also promulgated through 10 CFR 851. HSS actually performs the investigative functions and develops the enforcement case. Within the NNSA, the Office of Associate Administrator for Safety and Health coordinates in developing and imposing a remedy. Certain directive activities, e.g., notices of violation, must be issued by the Administrator, and these are listed in 10 CFR 851.45. Cautionary actions may be issued by the HSS Director of Enforcement. Compliance orders may only be issued by the Secretary of Energy. Issuing directive actions and compliance orders are regulatory functions.
Establish chronic beryllium disease prevention program (CBDPP) that supplements and is deemed an integral part of the Worker Safety and Health program under 10 CFR 851.	This function is promulgated under 10 CFR 850. HSS Office of Health maintains the rule, but line programs including NNSA review and concur with changes. The rule provides prescriptive requirements and exposure limits for management of beryllium processes and legacy contamination in DOE facilities. The rule is generally more conservative than similar

	OSHA requirements. Any enforcement actions are handled under the 10 CFR 851 framework.
Approve worker safety and health plans and chronic beryllium disease prevention programs as required by 10 CFR 851 and 850	This function is a regulatory function performed by the Field Office Manager.
Establish radiation protection standards, limits, and program requirements for protecting individuals from ionizing radiation resulting from the conduct of DOE activities.	This function is promulgated under 10 CFR 835. HSS Office of Health maintains the rule, but line programs including NNSA review and concur in any changes. The rule provides prescriptive requirements and exposure limits for occupational radiation protection in DOE activities. Although the radiation protection requirements of 10 CFR 835 are considered a worker safety regulatory function, any enforcement activities are handled under the 10 CFR 820 nuclear safety enforcement framework.
Establish standards and requirements for operations of the DOE and DOE contractors with respect to protection of members of the public and the environment against undue risk from radiation.	This requirement is promulgated in DOE O 458.1. Requirements for radiation controls, monitoring, and reporting are included in the order. The Field Office Managers have regulatory oversight of the program. HSS is the office of primary interest for the order.
Incorporate standards and requirements with respect to the protection of members of the public and the environment against undue risk from radiation in M&O and affected non-M&O contracts.	Contracting officers for M&O and affected non-M&O contracts ensure that required DOE orders and DEAR provisions are incorporated into said contracts and NNSA solicitations.
Ensure that all DOE radioactive waste is managed in a manner that is protective of worker and public health and safety, and the environment.	DOE O 435.1 and its associated manual provide detailed requirements for management of radioactive waste. This order applies to the management of: (1) All high-level waste, transuranic waste, and low-level waste, including the radioactive component of mixed waste, for which DOE is responsible; (2) DOE accelerator-produced radioactive waste; and (3) If managed at DOE low-level waste facilities, byproduct materials as defined by section 11e.(2) of the *Atomic Energy Act of 1954*, as amended, or naturally occurring radioactive materials. The order does not apply to spent fuel, to the Naval Reactors Program or when an NRC or Agreement State license is in place in lieu of

	self-regulation. Field office managers have regulatory oversight of the contractor implementation. Various regulatory planning, reporting, and exemption approval processes are assigned to the program offices, including NNSA. HSS is the office of primary interest for this order.
Establishes policies, criteria, and procedures for developing and implementing programs that help to maintain a workplace free from the use of illegal drugs.	This function is promulgated under 10 CFR 707 which applies to DOE contractors and subcontractors performing work at sites owned or controlled by DOE and operated under the authority of the *Atomic Energy Act of 1954*, as amended, and to individuals with unescorted access to the control areas of certain DOE reactors. The procedures include detection of the use of illegal drugs by current or prospective contractor employees in testing designated positions. The local Field Office is responsible for regulatory oversight of the contractor conduct of the program.
Incorporate policies, criteria, and procedures for developing and implementing programs that help to maintain a workplace free from the use of illegal drugs in M&O and affected non-M&O contracts.	Contracting officers for M&O and affected non-M&O contracts ensure that required DOE orders and DEAR provisions are incorporated into said contracts and NNSA solicitations.
Establish requirements and assign responsibilities for the DOE, including the NNSA, activities involving unbound engineered nanoparticles (UNP) activities. Ensure that work involving unbound engineered nanoparticles occurs in a safe and secure manner that protects workers, the public, and the environment.	This function is promulgated under DOE O 456.1, which provides detailed requirements for controls, documentation, and training related to research activities on nanoparticles. Regulatory oversight of contractor implementation of requirements is assigned to the Field Office.
Ensure timely collection, reporting, analysis, and dissemination of information on environment, safety, and health issues as required by law or regulations or as needed to ensure that the DOE and NNSA are kept fully informed on a timely basis about events that could adversely affect the health and safety of the public or the workers, the environment, the intended purpose of DOE facilities, or the credibility of the Department.	DOE O 231.1B and DOE O 232.2 provide reporting requirements for health and safety. The following reports and information are required: • Occupational injury and illness reports (CAIRS) • Fatality and catastrophe reports • Work hours reports (CAIRS) • Occupational radiation exposure data to individuals (and visitors) (REMS) • Annual individual occupational radiation exposure data to the Radiation Exposure Monitoring System (REMS)

	• Annual Site Environmental Reports - Information requested by external organizations for epidemiological studies • Annual fire protection summaries • Safety basis information (SBIS) • Occurrence reports (ORPS) • Radioactive sealed sources Each program office, including NNSA, is responsible to ensure reporting occurs; some reporting requirements are at the program office level and some are field level requirements. HSS is the office of primary interest and is responsible for the reporting structure.
As the NNSA Certifying Official, approves offsite shipment of Type AF and Type B quantities of materials of national security interest and other radioactive and hazardous materials.	The Department of Energy has broad authority under the Atomic Energy Act to regulate activities involving radioactive materials. 49 CFR 173.7(b) grants DOE exceptions to regulatory requirements for shipments of hazardous materials for the purpose of national security and (d) allows DOE to transport radioactive materials packages provided they are evaluated, approved, and certified against packaging standards equivalent to those in 10 CFR 71. DOE Orders (460.1 and 461.1) provide detailed requirements for management of Packaging and Transportation Safety.

Table 3. Listing of NNSA Security Regulatory Functions

Regulatory Function	Assignee/Designee References and Comments
Ensure that an effective safeguards and security (S&S) program is established and executed.	This regulatory responsibility is executed by the Secretary of Energy within DOE under the authorities granted by relevant executive orders; the U.S. Department of Energy Organization Act, as amended, and the *Atomic Energy Act of 1954*, as amended;, and in accordance with the National Nuclear Security Administration Act. The responsibility to direct and administer the S&S program may be designated to senior Departmental officials.
Management and implementation of S&S programs administered by the NNSA.	This regulatory responsibility is executed by the Under Secretary for Nuclear Security/Administrator of the NNSA.
Develop and implement security programs, operations, and facilities under the purview of NNSA, including physical security, personnel security, materials control and accountability, classified and sensitive information protection, and technical security.	This regulatory responsibility is executed by the Under Secretary for Nuclear Security/Administrator of the NNSA through NA-70. This authority may be delegated to subordinate NNSA line managers, and delegation must be documented in the appropriate safeguards and security management plan.
Authorize NNSA Federal and contractor employees to carry firearms and make arrests without warrants as provided by 161k of the *Atomic Energy Act*.	This regulatory responsibility is executed by the Under Secretary for Nuclear Security/Administrator of the NNSA through NA-70.
Oversee the security implementation of NNSA SAPs and provide an annual report to Congress.	This regulatory responsibility is executed by the Under Secretary for Nuclear Security/Administrator of the NNSA through NA-70.
Issue direction for, and oversee implementation of, security conditions for operations under the cognizance of the NNSA.	This regulatory responsibility is executed by the Under Secretary for Nuclear Security/Administrator of the NNSA through NA-70.
Establish a system of control measures to ensure that access to classified matter is limited to authorized persons.	This regulatory responsibility is executed by the Under Secretary for Nuclear Security/Administrator of the NNSA through NA-70.
Establish procedures for reporting incidents of security concern, and provide resources for conducting inquiries and damage assessments and for implementing corrective actions.	This regulatory responsibility is executed by the Under Secretary for Nuclear Security/Administrator of the NNSA through NA-70.

10 CFR 824 implements subsections a., c., and d. of section 234B of the *Atomic Energy Act of 1954* (the Act), 42 U.S.C. 2282b. Subsection a. provides that any person who has entered into a contract or agreement with the Department of Energy, or a subcontract or sub agreement thereto, and who violates (or whose employee violates) any applicable rule, regulation or order under the Act relating to the security or safeguarding of Restricted Data or other classified information, shall be subject to a civil penalty not to exceed $110,000 for each violation. Subsections c. and d. specify certain additional authorities and limitations respecting the assessment of such penalties.	Within NNSA: (a) Notwithstanding any other provision of this part, the NNSA Administrator--rather than the Director--signs, issues, serves, or takes the following regulatory actions that direct NNSA contractors or subcontractors. (1) Subpoenas; (2) Orders to compel attendance; (3) Disclosures of information or documents obtained during an investigation or inspection; (4) Preliminary notices of violation; and (5) Final notices of violations. (b) The Administrator shall act after consideration of the Director's recommendation. If the Administrator disagrees with the Director's recommendation, and the disagreement cannot be resolved by the two officials, the Director may refer the matter to the Deputy Secretary for resolution.

Attachment 1: Listing of Nuclear Safety Rules and Directives (Not all inclusive)

Directive	Title/Comment
1. 10 CFR 71	Packaging and Transportation of Radioactive Material
2. 10 CFR 708	DOE Contractor Employee Protection Program
3. 10 CFR 712	Human Reliability Program
4. 10 CFR 820	Procedural Rules for DOE Nuclear Activities
5. 10 CFR 830	Nuclear Safety Management
6. 10 CFR 835	Occupational Radiation Protection
7. 48 CFR 970	DOE Management and Operating Contracts
8. 49 CFR 100-188	Department of Transportation
9. DOE O 151.1C	Comprehensive Emergency Management System
10. DOE O 153.1	Departmental Radiological Emergency Response Assets
11. DOE O 225.1B	Accident Investigations
12. DOE O 227.1	Independent Oversight Program
13. DOE O 231.1B Chg. 1	Environment, Safety and Health Reporting
14. DOE O 232.2	Occurrence Reporting and Processing of Operations Information
15. DOE O 252.1A Chg 1	Technical Standards Program
16. DOE O 410.2	Management of Nuclear Materials
17. DOE O 413.3B	Program and Project Management for the Acquisition of Capital Assets
18. DOE O 414.1D Chg 1	Quality Assurance
19. DOE O 420.1C	Facility Safety
20. DOE O 422.1	Conduct of Operations
21. DOE O 425.1D Chg 1	Verification of Readiness to Start Up or Restart Nuclear Facilities
22. DOE O 426.1 Chg. 1	Federal Technical Capability
23. DOE O 426.2	Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities
24. DOE O 433.1B Chg 1	Maintenance Management Program for DOE Nuclear Facilities
25. DOE O 435.1 Chg 1	Radioactive Waste Management
26. DOE M 435.1-1 Chg 2	Radioactive Waste Management Manual
27. DOE O 440.1B Chg 1	Worker Protection Program for DOE (including NNSA) Federal Employees
28. DOE M 441.1-1	Nuclear Material Packaging Manual
29. DOE O 442.2	Differing Professional Opinions for Technical Issues Involving Environment, Safety, and Health
30. DOE O 450.2	Integrated Safety Management
31. DOE O 452.1D	Nuclear Explosive and Weapon Surety Program
32. DOE O 452.2D	Nuclear Explosive Safety
33. DOE M 452.2-1A	Nuclear Explosive Safety Manual
34. DOE M 452.2-2	Nuclear Explosive Safety Evaluation Processes
35. DOE O 458.1 Chg 3	Radiation Protection of the Public and the Environment
36. DOE O 460.1C	Packaging and Transportation Safety
37. DOE M 460.2-1A	Radioactive Material Transportation Practices Manual
38. DOE O 461.1B	Packaging and Transportation for Offsite Shipment of Materials of National Security Interest
39. DOE O 461.2	Onsite Packaging and Transfer of Materials of National Security

	Interest
40. DOE O 5480.30 Chg 1	Nuclear Reactor Safety Design Criteria
41. NAP-21	Transformational Governance and Oversight
42. NAP-24	Weapon Quality Policy
43. NA-10 WQAPM	National Nuclear Security Administration Office of Defense Programs (NA-10) Weapon Quality Assurance Procedures Manual

Attachment 2: Listing of Worker Safety Rules and Directives (Not all inclusive)

	Directive	Title/Comment
1.	10 CFR 707	Workplace Substance Abuse Programs at DOE Sites
2.	10 CFR 835	Occupational Radiation Protection
3.	10 CFR 850	Chronic Beryllium Disease Prevention Program
4.	10 CFR 851	Worker Safety and Health Program
5.	48 CFR 970.23	Environment, Energy and Water Efficiency, Renewable Energy Technologies Occupational Safety, and Drug Free Work Place
6.	48 CFR 970.2303	Hazardous Materials Identification and Material Safety
7.	48 CFR 970.5223-1	Integration of Environment, Safety and Health into Work Planning and Execution
8.	DOE O 225.1B	Accident Investigations
9.	DOE O 226.1B	Implementation of Department of Energy Oversight Policy
10.	DOE O 231.1B Chg 1	Environment, Safety and Health Reporting
11.	DOE O 232.2	Occurrence Reporting and Processing of Operations Information
12.	DOE O 435.1 Chg 1	Radioactive Waste Management
13.	DOE M 435.1-1 Chg 2	Radioactive Waste Management Manual
14.	DOE O 436.1	Departmental Sustainability
15.	DOE O 440.1B Chg 1	Worker Protection Program for DOE (including NNSA) Federal Employees
16.	DOE O 450.2	Integrated Safety Management
17.	DOE O 456.1 Chg 1	The Safe Handling of Unbound Engineered Nanoparticles Planning and Execution
18.	DOE O 458.1 Chg 3	Radiation Protection of the Public and the Environment

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Attachment 3: Listing of Security Rules and Directives (Not all inclusive)

This listing may not contain all applicable National level policy documents or Departmental Orders.

Directive	Title/Comment
1. 5 CFR 732	National Security Positions
2. 5 CFR 736	Personnel Investigations
3. 10 CFR 30 through 40	Rules of general applicability to domestic licensing of byproduct material
4. 10 CFR 72	Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-level Radioactive Waste, and Reactor-related great than Class C Waste
5. 10 CFR 74	Material Control and Accounting of Special Nuclear Material
6. 10 CFR 707	Workplace Substance Abuse Programs at DOE Sites
7. 10 CFR 710, Subpart A	General Criteria and Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material
8. 10 CFR 712	Human Reliability Program
9. 10 CFR 725	Permits for Access to Restricted Data
10. 10 CFR 824	Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations
11. 10 CFR 860	Trespassing on Department of Energy Property
12. 10 CFR 862	Restrictions on Aircraft Landing and Air Delivery at DOE Nuclear Sites
13. 10 CFR 1016	Safeguarding of Restricted Data
14. 10 CFR 1017	Identification and Protection of Unclassified Controlled Nuclear Information
15. 10 CFR 1044	Security Requirements for Protected Disclosures under section 3164 of the National Defense Authorization Act for fiscal year 2000
16. 10 CFR 1045	Nuclear Classification and Declassification
17. 10 CFR 1046	Physical Protection of Security Interests
18. 10 CFR 1046, Subpart B	Protective Force Personnel
19. 10 CFR 1047	Limited Arrest Authority and Use of Force by Protective Force Officers
20. 32 CFR 2001	Classified National Security Information
21. DOE O 142.3A	Unclassified Foreign Visits and Assignments Program
22. DOE O 205.1B Chg 2	DOE Cyber Security Program
23. DOE O 206.2	Identity, Credential, and Access Management (ICAM)
24. DOE O 227.1	Independent Oversight Program
25. DOE P 310.1 Chg 1	Maximum Entry and Mandatory Separation Ages for Certain Security Employees
26. DOE O 452.4B	Security and Use Control of Nuclear Explosives and Nuclear Weapons
27. DOE O 452.6A	Nuclear Weapon Surety Interface with the Department of Defense
28. DOE O 452.7	Protection of Use Control Vulnerabilities and Designs
29. DOE O 457.1	Nuclear Counterterrorism
30. DOE M 457.1-1	Control of Improvised Nuclear Device Information

31. DOE O 461.2	Onsite Packaging and Transfer of Materials of National Security Interest
32. DOE P 470.1A	Safeguards and Security Program
33. DOE O 470.3B	Graded Security Protection (GSP) Policy
34. DOE O 470.4B Chg 1	Safeguards and Security Program
35. DOE O 472.2	Personnel Security