

Approved: 8-28-07

**SUBJECT: CENTRAL TECHNICAL AUTHORITY RESPONSIBILITIES REGARDING
NUCLEAR SAFETY REQUIREMENTS**

1. **OBJECTIVES.** To establish Central Technical Authority (CTA) and Chief of Nuclear Safety/Chief of Defense Nuclear Safety (CNS/CDNS) responsibilities and requirements directed by the Secretary of Energy in the development and issuance of Department of Energy (DOE) regulations and directives (includes standards) that affect nuclear safety.
 - a. To identify CTA authorities and actions for specific regulations and directives.
 - b. To establish related responsibilities and requirements for other Departmental elements.
 - c. To establish responsibilities and requirements for addressing nuclear safety regulations and directives in contracts.

2. **CANCELLATION.** None.

3. **APPLICABILITY.**

- a. **DOE Elements.** Except for the exclusions in paragraph 3c, this Order applies to all Departmental elements involved in developing, managing, and implementing regulations and directives that affect nuclear safety. (Go to <http://www.directives.doe.gov/pdfs/reftools/org-list.pdf> for the current listing of Departmental elements. This list automatically includes all Departmental elements created after the Order is issued.) Requirements in this Order affecting contracts apply to the following contract types for DOE nuclear facilities: management and operating; management and integration; design; and construction. While this Order does not place explicit responsibilities upon contracting officers, concurrence by CTAs must be obtained by program and cognizant Secretarial Officers and field element managers for contract actions, including the release of requests for proposals and the execution of contract renewals.

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

- b. **DOE Contractors.** None.

c. Exclusions.

- (1) This Order does not apply to the DOE/NNSA Naval Reactors Program in accordance with Executive Order 12344, statutorily prescribed by Public Law 98-525 [42 United States Code (U.S.C.) 7158, note].
- (2) This Order does not apply to the Bonneville Power Administration (BPA), in accordance with Secretarial delegation Order Number 00-033.00A to the BPA Administrator and Chief Executive Officer, dated 9-27-02.

4. REQUIREMENTS.

- a. CTA concurrence is required on directives included pursuant to Title 48 Code of Federal Regulations (CFR) 970.5204-2 paragraphs (b) and (c) in all new prime management and operating, management and integration, design, and construction contracts for DOE nuclear facilities.

Note: In the following, "CTA" includes all CTAs having responsibilities for nuclear facilities that are covered by a particular contract or that would be affected by granting an exemption or exception.

- (1) CTA concurrence is required prior to approval of exemptions to 10 CFR 830 and prior to approval of exemptions or exceptions to the directives listed in Attachment 1.
- (2) CTA concurrence is required prior to approval of a methodology other than that given in Table 2-1, Appendix A of Subpart B to 10 CFR 830 for preparation of a documented safety analysis for a Hazard Category 1, 2 or 3 nuclear facility.
- (3) CTA concurrence is required on the directives included pursuant to 48 CFR 970.5204-2 paragraph (b) and paragraph (c) in requests for proposals (RFPs) for new prime contracts for DOE nuclear facilities prior to the release of the RFP. CTA concurrence is required prior to contract award if changes are made to the included directives after initial RFP is released.
- (4) CTA concurrence is required on directives included pursuant to 48 CFR 970.5204-2 paragraph (b) and paragraph (c) prior to approving revisions to existing prime contracts when both of the following conditions exist:
 - (a) the revisions involve construction, major modification, or initiation of program work, and
 - (b) any of the Contractor Requirements Document (CRD) provisions of directives listed in Attachment 1 that are applicable to the

construction, major modification or new program work were not previously included in the contract.

- (5) Implementation of Work Smart Standards, Standards and Requirements Identification Documents, or approved Safety Management System processes used to tailor the requirements included in new or revised contracts pursuant to 48 CFR 970.5204-2 paragraph (c) must be consistent with the following requirements:

- (a) Directives listed in Attachment 1, and subsequent revisions, must be evaluated for applicability within 12 months of issuance or within the time period identified in the directive, whichever is shorter.
- (b) Methodologies listed in Table 2-1, Appendix A of Subpart B to 10 CFR 830 must be implemented as written when used for the development of Documented Safety Analyses for Hazard Category 1, 2, or 3 nuclear facilities, unless DOE approves the use of an alternative methodology.

Note: Applying the provisions for the graded approach provided in 10 CFR 830 (i.e. adjusting the level of detail, analysis, and documentation to reflect the complexity and hazard associated with a particular facility) is considered implementing the directives as written because 10 CFR 830 allows for that approach. Use of a different or “tailored” methodology, however, to eliminate required portions of the methodology or content beyond the grading permitted by 10 CFR 830 requires DOE approval and CTA concurrence as an alternative methodology.

- (c) As directives listed in Attachment 1 are revised, or new directives are added to Attachment 1, an integrated listing (organized by Regulation or Directive number as appropriate) must be developed and maintained to indicate which provisions of the new or revised CRDs have been implemented, omitted, and implemented with exceptions or in a modified form in prime contracts. Treatment of directives already in prime contracts as of the date of this order is not included in this requirement, but the treatment of future revisions to those directives is subject to this requirement.
- (d) As directives listed in Attachment 1 are revised, or new directives are added to Attachment 1, justifications must be documented and maintained for the life of the prime contract that explain the contractual treatment of new or revised CRD provisions not included in the contract as written in the CRD. Treatment of directives already in contracts as of the date of this order is not

included in this requirement, but the treatment of future revisions to those directives is subject to this requirement.

- b. CTA concurrence is required prior to approval of a revision to or cancellation of 10 CFR 830 or the directives and regulations listed in Attachment 2.

Note: This requirement applies to the references listed in Attachment 2 and all subsequent versions.

Note: As used here, the term “revision” includes any means used to change the content of the directive or regulation.

- c. CTAs must be notified prior to Department-wide review and comment of new directives. Where the CTA concludes that a new regulation or directive does not affect nuclear safety, coordination with the CTA will not be required.
- d. Published documents that affect nuclear safety must be identified in Attachments 1 and 2 of this Order.

- (1) Attachment 1 lists only those directives warranting CTA oversight that directly impact the establishment, verification, and maintenance of the safety bases for DOE nuclear facilities as defined in 10 CFR 830, and that have relevant CRD provisions. CTA review of prime contract requirements focuses on the implementation of the CRD provisions of these documents.
- (2) Attachment 2 includes those directives listed in Attachment 1, as well as other documents that impact the training and qualification of nuclear safety personnel, or that have sufficient impact on nuclear safety to warrant CTA concurrence to any changes.
- (3) Changes to this Order that affect only the list of documents in Attachments 1 and 2 must be initiated by and coordinated between the CTAs.

- e. The office of primary interest or the preparing activity for a document must be notified that a new draft document will require CTA concurrence.

5. RESPONSIBILITIES.

- a. Central Technical Authorities.

Note: In the following subsections, when more than one CTA is responsible for nuclear facilities to which a directive is applicable, or that are covered by a particular contract or that would be affected by granting an exemption or exception, all responsible CTAs must concur on the associated action.

- (1) Concur with exemptions to 10 CFR 830 and exemptions or exceptions to the directives listed in Attachment 1—for directives, within the time limits

established for the concurrences to exemptions in DOE M 251.1-1B for both exemptions and exceptions; for exemptions to 10 CFR 830 no later than 30 days before the time limit for approval elapses.

- (2) Concur with revision or cancellation of directives and regulations listed in Attachment 2.
- (3) Concur with new regulations and directives that that the CTA identifies as affecting nuclear safety.
- (4) For structures, activities and operations for which they are responsible:
 - (a) Concur with the directives included in RFPs and in new prime contracts for nuclear facilities.
 - (b) Concur with the directives included in prime contract revisions that allow for construction, major modification or new program work when both of the following conditions apply:
 - 1 any of the CRD provisions of directives listed in Attachment 1 are applicable to the construction, major modification or new program work, and
 - 2 the applicable CRD provisions are not already included in the prime contract.
- (5) Identify documents that affect nuclear safety by approving changes to Attachments 1 and 2 for existing documents, and by notifying the Office of Primary Interest or the Preparing Activity for new documents as early in the coordination process as possible, preferably during pre-coordination, that CTA concurrence will be required.
- (6) Concur with the use of any methodology other than that given in Table 2-1, Appendix A of Subpart B to 10 CFR 830 to prepare a documented safety analysis for a Hazard Category 1, 2 or 3 nuclear facility within 150 calendar days of receipt of the request for concurrence.

b. Chief of Nuclear Safety/Chief of Defense Nuclear Safety.

- (1) Develops and maintains a baseline list of known exemptions to 10 CFR 830 and exemptions or exceptions taken in prime contracts for nuclear facilities to directives identified in Attachment 1.
- (2) Evaluates requests for exemptions to 10 CFR 830 and for exceptions or exemptions to directives identified in Attachment 1 and for each request, provides the CTA a written summary of the evaluation along with a recommendation regarding concurrence.

- (3) Evaluates requests for revision or cancellation of regulations and directives listed in Attachment 2; and, for each request, provides the CTA a written summary of the evaluation along with a recommendation regarding concurrence.
 - (4) Evaluates new and revised regulations and other documents for inclusion in Attachments 1 and 2 and provides the CTA a written summary of the evaluation and justification for each document recommended for inclusion as early in the coordination process as possible, preferably during pre-coordination.
 - (5) Evaluates RFPs and new or revised nuclear facility contracts for adequacy of the directives included and provides the CTA written summaries of the evaluations along with recommendations regarding concurrence.
 - (6) Maintains a list of approved deviations from the double contingency principle (DOE O 420.1B).
 - (7) Evaluates the use of any methodology other than that given in Table 2-1, Appendix A of Subpart B to 10 CFR 830 to prepare a documented safety analysis for a Hazard Category 1, 2 or 3 nuclear facility and for each request, provides the CTA a written summary of the evaluation along with a recommendation regarding concurrence.
- c. Program Secretarial Officers (PSOs) and Cognizant Secretarial Officers (CSOs) with Responsibility for Nuclear Facilities or Nuclear Safety.
- (1) Recommend additions and deletions to regulations and directives in Attachments 1 and 2 with the potential to affect nuclear safety.
 - (2) Concur with revisions and cancellations of regulations and directives listed in Attachment 2.
 - (3) Concur with new regulations and directives that the CTA identifies as affecting nuclear safety.
 - (4) Notify CTA through the appropriate CSO and the CNS/CDNS subsequent to approval of deviations from the double contingency principle in operations involving criticality hazards (DOE O 420.1B.)
 - (5) Withhold approval of exemptions to 10 CFR 830 until CTA concurrence has been received or the time limits established for CTA concurrence in paragraph 5a(1), above have elapsed. (Note: timing considerations for approval of exemptions to directives are provided in DOE M 251.1-1B)
 - (6) Withhold approval of the use of a methodology other than that given in Table 2-1, Appendix A of Subpart B to 10 CFR 830 to prepare a

documented safety analysis for a Hazard Category 1, 2 or 3 nuclear facility until CTA concurrence has been received or the time limits established for CTA concurrence in paragraph 5a(6), above, has elapsed.

- (7) For prime contracts other than those managed by NNSA: Obtain CTA concurrence on the list of directives to be included in RFPs prior to the release of the RFP, and prior to award of new contracts for nuclear facilities, by requesting the Office of Contract Management to forward the RFP to CTA as part of the Business Clearance process. This includes NNSA CTA concurrence for DOE prime contracts that include the operation of NNSA nuclear activities or operations.
- (8) For prime contracts other than those managed by NNSA: Obtain CTA concurrence on the list of directives included in prime contract revisions for construction, major modification or new program work when both of the following conditions apply:
 - (a) any of the CRD provisions of directives listed in Attachment 1 are applicable to the construction, major modification or new program work, and
 - (b) the applicable CRD provisions were not included in the prime contract prior to the revision.

This responsibility includes obtaining NNSA CTA concurrence for DOE prime contracts that include the operation of NNSA nuclear activities or operations when the contract revision affects work performed in those facilities.

d. Field Element Managers.

- (1) Recommend additions and deletions to regulations and directives in Attachments 1 and 2 with the potential to affect nuclear safety.
- (2) Determine when specific CRD provisions are applicable to prime contracts and when the treatment of an applicable CRD provision in new revisions to prime contracts would constitute an exception (see definition) to a directive listed in Attachment 1.
- (3) Request CTA concurrence for exemption to 10 CFR 830 and for exemption or exception to directives listed in Attachment 1 at the same time as the approval request is submitted to the approval authority
- (4) Withhold approval of new exceptions to the directives listed in Attachment 1 until either CTA concurrence has been received or the time limits established for the concurrences to exemptions in DOE M 251.1-1B

have elapsed. (Note: Timing considerations for the approval of exemptions to directives are provided in DOE M 251.1-1B)

- (5) Develop and maintain a baseline list of known exemptions to 10 CFR 830 and exceptions taken in CRDs to directives (by directive number) identified in Attachment 1.
- (6) As directives listed in Attachment 1 are revised, or new directives are added to Attachment 1, ensure that an integrated listing (organized by regulation or directive number as appropriate) is developed and maintained to indicate which provisions of the new or revised CRDs have been implemented, omitted, and implemented with exceptions or in a modified form. Treatment of directives already in contracts as of the date of this order is not included in this requirement, but the treatment of future revisions to those directives is subject to this requirement.
- (7) As directives listed in Attachment 1 are revised, or new directives are added to Attachment 1, ensure that justifications are documented and maintained for the life of the contract that explain the contractual treatment of new or revised CRD provisions that were not included in the contract as written in the CRD. Treatment of directives already in contracts as of the date of this order is not included in this requirement, but the treatment of future revisions to those directives is subject to this requirement.
- (8) For prime contracts managed by NNSA:
 - (a) Obtain CTA concurrence on the list of directives included in the prime contract for nuclear facilities prior to release of the RFP and prior to authorizing the contracting officer to award the new contract.
 - (b) Obtain CTA concurrence on the list of directives included in revised prime contracts for nuclear facilities that involve construction, major modification, or initiation of program work in nuclear facilities when both of the two following conditions apply:
 - 1 any of the CRD provisions of directives listed in Attachment 1 are applicable to the construction, major modification or new program work, and
 - 2 the applicable CRD provisions were not previously included in the prime contract.

- (9) Ensure that an integrated list of approved deviations from the double contingency principle in operations involving criticality hazards (DOE O 420.1B) is developed and maintained current.
 - (10) At the same time as the approval request is submitted to the approval authority, request CTA concurrence for the use of a methodology other than that given in Table 2-1, Appendix A of Subpart B to 10 CFR 830 to prepare a documented safety analysis for a Hazard Category 1, 2 or 3 nuclear facility; if approval authority is delegated, withhold approval until CTA concurrence has been received or the time limit established for CTA concurrence in (a) (6) of this section has elapsed.
 - (11) Ensure that Work Smart Standards, Standards and Requirements Identification Documents, or approved Safety Management System processes used to tailor the requirements included in new or revised contracts, as well as local processes used to review and grant exemptions, are consistent with the requirements in this Order.
- e. Offices of Primary Interest (OPIs) or Preparing Activities.
- (1) For a revision to an existing document, consult the list of directives and regulations in Attachment 2 to determine whether CTA concurrence on the revision is required.
 - (2) Notify the CTA of draft changes to directives and regulations listed in Attachment 2.
 - (3) Provide CTAs with copies of the Justification Memorandum when submitted for new directives, and for revisions to directives listed in Attachment 2
 - (4) Verify that the resolution of rejected comments on directives and regulations listed in Attachment 2, including Guides and Standards, is acceptable to the commenting organization. If a mutually acceptable resolution can not be reached, provide a summary of the issue and the resolution approach when requesting CTA concurrence.
 - (5) Following comment resolution, provide a redlined version of the revised document, along with consolidated comment resolution matrices to the CNS/CDNS for changes to directives and regulations listed in Attachment 2, including Guides, along with a request for CTA concurrence.
 - (6) Withhold release or publication “for use” of revised directives and regulations listed in Attachment 2 or new documents that the CTA indicates affect nuclear safety until CTA concurrence has been obtained.

- (7) Notify the CNS/CDNS of any new documents that should be considered for possible inclusion in Attachment 1 and 2.
- f. Office of Management (For Prime Contracts Not Managed by NNSA). Provide RFPs and new prime contracts for nuclear facilities to the CNS/CDNS for evaluation of the adequacy of the directives included in the documents when PSO or CSO with responsibility for nuclear facilities or nuclear safety requests.
6. **DEFINITIONS.** All terms used in this Order comply with standard definitions used in 10 CFR 830 and the DOE Directives System where standard definitions exist. The definition source is noted in parentheses.
- a. **Applicable**—A determination that the conditions for which a requirement was designed exist at a given location or in a given situation. For example, conduct of operations requirements for control rooms are applicable at a site where control room functions exist. (As used in this document)
- b. **Approval Authority**—The duly designated authority to make an approval decision. When used to describe a person, the person having approval authority, i.e., the approving official. Approval authority may be designated in a variety of ways such as through the DOE and NNSA FRAMs, in a DOE Notice, Order or Manual, or by delegation letter. (As used in DOE M 251.1 1B)
- c. **Central Technical Authority (CTA)**—The CTAs are designated by the Secretary of Energy, April 26, 2005 memorandum.
- d. **Contract**—Many of the CTA responsibilities in this document relate to requirements in contracts for nuclear facility design, construction, operation, maintenance, modification, decontamination, decommissioning, etc. For the purpose of this Order, the term “contract” refers to those prime contracts for DOE nuclear facilities (including Management and Operating, Management and Integration, design, and construction) contracts that include DEAR clause 970.5204-2, Laws, regulations, and DOE Directives. (As used in DEAR clause 970.5204-2)
- e. **Exception**—The situation that exists when Work Smart Standards, Standards and Requirements Identification Documents, approved Safety Management System or similar processes are used to modify an applicable Contractor Requirements Document (CRD) provision for inclusion in a contract, and a knowledgeable person would reasonably conclude that the apparent meaning of the CRD provision has not been met by its contractual treatment. Exceptions are taken to provide relief from what would be a requirement were a CRD provision included in the contract as it is written in the directive where it appears. (As used in this document)

- f. **Exemption**—Exemptions may apply to Federal personnel and/or contractors. For Federal Personnel, an exemption is formal and final relief from the need to comply with applicable requirements of DOE regulations and directives. For contractors, an exemption is a formal and final release from a provision in a DOE Order, Notice, or Manual that has been included in their contract; or from one or more requirements in a Regulation. Processes for obtaining approval for exemptions to 10 CFR 830 are found in 10 CFR 820; related guidance is provided in DOE STD 1083. Processes for obtaining approval to exemptions to DOE Orders, Notices and Manuals are either included in the Directive or are found in DOE M 251.1-1B (DOE M 251.1 1B and 10 CFR 820)
- g. **Nuclear Facility**—This term is defined in 10 CFR 830.3. Note: the usage in 10 CFR 830 addresses both reactor and non-reactor nuclear facilities. Radiological facilities as well as Hazard Category I, II, and III facilities (as defined in DOE STD 1027) all fit the definition of a nuclear facility
- h. **Office of Primary Interest (OPI)**—The DOE Directives System establishes OPIs who are responsible for development and maintenance of directives. (As used in DOE M 251.1-1B)
- i. **Preparing Activity**—The organization sponsoring and preparing the proposed DOE Technical Standard—A directive that is developed under the DOE Technical Standards Program, described in DOE O 252.1).

7. REFERENCES.

- a. 10 CFR 830, *Nuclear Safety Management.*
- b. 10 CFR 820, *Procedural Rules for DOE Nuclear Activities.*
- c. DEAR 970.5204-2, *Laws, Regulations, and DOE Directives.*
- d. DOE O 251.1B, *Departmental Directives Program.*
- e. DOE M 251.1-1B, *Departmental Directives Program Manual.*
- f. DOE STD 1083-95, *Requesting and Granting Exemptions to Nuclear Safety Rules.*
- g. DOE O 252.1, *Technical Standards Program.*
- h. DOE M 450.3-1, *DOE Closure Process for Necessary and Sufficient Sets of Standards.*

8. NECESSITY FINDING STATEMENT. In compliance with Sec. 3174 of P.L. 104-201 (42 USC 7274k note), DOE hereby finds that this Order is necessary for the protection of human health and the environment or safety, fulfillment of current legal requirements, and conduct of critical administrative functions

9. CONTACT. Questions concerning this directive should be directed to the Central Technical Authority at 202-586-9471.

BY ORDER OF THE SECRETARY OF ENERGY:



CLAY SELL
Deputy Secretary

**DIRECTIVES (LATEST VERSION) REQUIRING CENTRAL TECHNICAL
AUTHORITY CONCURRENCE PRIOR TO GRANTING EXEMPTIONS OR
EXCEPTIONS**

<u>Directive</u>	<u>Title/Comment</u>
DOE O 413.3A	Program and Project Management for the Acquisition of Capital Assets
DOE O 414.1C	<i>Quality Assurance</i>
DOE O 420.1B	<i>Facility Safety</i>
DOE O 425.1C	<i>Startup and Restart of Nuclear Facilities</i>
DOE O 433.1A	<i>Maintenance Management Program for DOE Nuclear Facilities</i>
DOE M 435.1-1 Chg 1	<i>Radioactive Waste Management Manual</i>
DOE O 435.1 Chg 1	<i>Radioactive Waste Management</i>
DOE M 440.1-1A	<i>DOE Explosives Safety Manual</i>
DOE O 452.1C	<i>Nuclear Explosive and Weapon Surety Program</i>
DOE O 452.2C	<i>Nuclear Explosive Safety</i>
DOE O 460.1B	<i>Packaging and Transportation Safety</i>
DOE M 461.1-1 Chg 1	<i>Packaging and Transfer of Materials of National Security Interest Manual</i>
DOE O 461.1A	<i>Packaging and Transfer or Transportation of Materials of National Security Interest</i>
DOE O 5480.20A Chg 1	<i>Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities</i>
DOE O 5480.30 Chg 1	<i>Nuclear Reactor Safety Design Criteria</i>
DOE O 5480.19 Chg 2	<i>Conduct of Operations Requirements for DOE Facilities</i>

**DOE REGULATIONS AND DIRECTIVES (LATEST VERSIONS) REQUIRING CTA
CONCURRENCE PRIOR TO ANY REVISION OR CANCELLATION**

<u>Number</u>	<u>Title</u>
DOE SEN-35-91	<i>Nuclear Safety Policy</i>
DOE O 151.1C	<i>Comprehensive Emergency Management System</i>
DOE G 200.1-1 series	<i>Software Engineering Methodology TOC</i>
DOE G 225.1A-1	<i>Implementation Guide for Use with DOE O 225.1 Accident Investigations</i>
DOE P 226.1	<i>Department of Energy Oversight Policy</i>
DOE M 231.1-1A Chg 1	<i>Environment, Safety and Health Reporting Manual</i>
DOE G 231.1-1	<i>Occurrence Reporting and Performance Analysis Guide</i>
DOE M 231.1-2	<i>Occurrence Reporting and Processing of Operations Information</i>
DOE G 231.1-2	<i>Occurrence Reporting Causal Analysis Guide</i>
DOE M 251.1-1B	<i>Departmental Directives Program Manual</i>
DOE P 251.1A	<i>Departmental Directives Program Policy</i>
DOE P 410.1A	<i>Promulgating Nuclear Safety Requirements</i>
DOE P 411.1	<i>Safety Management Functions, Responsibilities and Authorities Policy</i>
DOE P 413.1	<i>Program and Project Management Policy for the Planning, Programming, Budgeting and Acquisition of Capital Assets</i>
DOE P 413.2	<i>Value Engineering</i>
DOE O 413.3A	<i>Program and Project Management for the Planning, Programming, Budgeting and Acquisition of Capital Assets</i>
DOE M 413.3-1	<i>Project Management for the Acquisition of Capital Assets</i>
DOE O 414.1C	<i>Quality Assurance</i>
DOE G 414.1-1A	<i>Management Assessment and Independent Assessment Guide</i>
DOE G 414.1-2A	<i>Quality Assurance Management System Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE O 414.1C, Quality Assurance</i>

<u>Number</u>	<u>Title</u>
DOE G 414.1-3	<i>Suspect/Counterfeit Items Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE O 414.1B, Quality Assurance</i>
DOE G 414.1-4	<i>Safety Software Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE O 414.1C, Quality Assurance</i>
DOE G 414.1-5	<i>Corrective Action Program Guide</i>
DOE O 420.1B	<i>Facility Safety</i>
DOE G 420.1-1	<i>Nonreactor Nuclear Safety Design Criteria and Explosive Safety Criteria Guide for Use with DOE O 420.1 Facility Safety</i>
DOE G 420.1-2	<i>Guide for the Mitigation of Natural Phenomena Hazards for DOE Nuclear Facility and Non-Nuclear Facilities</i>
DOE G 421.1-1 series	<i>DOE Good Practices Guide Criticality Safety Good Practices Program Guide for DOE Nonreactor Nuclear Facilities</i>
DOE G 421.1-2	<i>Implementation Guide for Use in Developing Documented Safety Analyses to Meet Subpart B of 10 CFR 830</i>
DOE G 423.1-1	<i>Implementation Guide for Use in Developing Technical Safety Requirements</i>
DOE G 424.1-1A	<i>Implementation Guide for Use in Addressing Unreviewed Safety Questions Requirements</i>
DOE O 425.1C	<i>Startup and Restart of Nuclear Facilities</i>
DOE P 426.1	<i>Federal Technical Capability Policy for Defense Nuclear Facilities</i>
DOE M 426.1-1A	<i>Federal Technical Capability Manual</i>
DOE P 430.1	<i>Land and Facility Use Planning</i>
DOE G 430.1-2	<i>Implementation Guide for Surveillance and Maintenance During Facility Transition and Disposition</i>
DOE G 430.1-3	<i>Deactivation Implementation Guide</i>
DOE G 430.1-4	<i>Decommissioning Implementation Guide</i>
DOE G 430.1-5	<i>Transition Implementation Guide</i>

<u>Number</u>	<u>Title</u>
DOE O 433.1A	<i>Maintenance Management Program for DOE Nuclear Facilities</i>
DOE G 433.1-1	<i>Nuclear Facility Maintenance Management Program Guide for Use with DOE O 433.1</i>
DOE O 435.1 Chg 1	<i>Radioactive Waste Management</i>
DOE M 435.1-1 Chg 1	<i>Radioactive Waste Management Manual</i>
DOE G 435.1-1 series	<i>Implementation Guide for Use with DOE M 435.1-1 Chapters 1 through 4</i>
DOE M 440.1-1A	<i>DOE Explosives Safety Manual</i>
DOE G 440.1 series	<i>Guides for Use with DOE O 440.1 Volumes 1-5</i>
DOE P 441.1	<i>DOE Radiological Health and Safety Policy</i>
DOE G 441.1-1B	<i>Radiation Protection Programs Guide</i>
DOE P 442.1	<i>Differing Professional Opinions on Technical Issues Related to Environment, Safety, and Health</i>
DOE O 442.1A	<i>Department Of Energy Employee Concerns Program</i>
DOE M 442.1-1	<i>Differing Professional Opinions Manual for Technical Issues Involving Environment, Safety, and Health</i>
DOE G 442.1-1	<i>Department of Energy Employee Concerns Program Guide</i>
DOE G 450.1-1A	<i>Implementation Guide for Use with DOE O 450.1</i>
DOE G 450.1-2	<i>Implementation Guide for Integrating Environmental Management Systems into Integrated Safety Management Systems</i>
DOE G 450.1-5	<i>Implementation Guide for Integrating Pollution Prevention into Environmental Management Systems</i>
DOE P 450.2A	<i>Identifying, Implementing and Complying with Environment, Safety and Health Requirements</i>
DOE P 450.3	<i>Authorizing Use of the Necessary and Sufficient Process for Standards-Based Environment, Safety and Health Management</i>
DOE M 450.3-1	<i>DOE Closure Process for Necessary and Sufficient Sets of Standards</i>

<u>Number</u>	<u>Title</u>
DOE G 450.3-1	<i>Documentation for Work Smart Standards Applications</i>
DOE G 450.3-2	<i>Attributes of Effective Implementation</i>
DOE G 450.3-3	<i>Tailoring for Integrated Safety Management Applications</i>
DOE P 450.4	<i>Safety Management System Policy</i>
DOE M 450.4-1	<i>Integrated Safety Management System Manual</i>
DOE G 450.4-1B series	<i>Integrated Safety Management System Guide, Volumes 1 and 2</i>
DOE P 450.7	<i>Environment, Safety and Health (ES&H) Goals</i>
DOE O 451.1B Chg 1	<i>National Environmental Policy Act Compliance Program</i>
DOE O 452.1C	<i>Nuclear Explosive and Weapon Surety Program</i>
DOE O 452.2C	<i>Nuclear Explosive Safety</i>
DOE M 452.2-1	<i>Nuclear Explosive Safety Manual</i>
DOE P 454.1	<i>Use of Institutional Controls</i>
DOE P 455.1	<i>Use of Risk-Based End States</i>
DOE O 460.1B	<i>Packaging and Transportation Safety</i>
DOE G 460.1-1 series	<i>Packaging and Transportation Safety</i>
DOE G 460.2-1	<i>Implementation Guide for Use with DOE O 460.2 Departmental Materials Transportation and Packaging Management</i>
DOE M 460.2-1	<i>Radioactive Material Transportation Practices Manual</i>
DOE O 461.1A	<i>Packaging and Transfer or Transportation of Materials of National Security Interest</i>
DOE M 461.1-1 Chg 1	<i>Packaging and Transfer of Materials of National Security Interest Manual</i>
DOE O 470.2B	<i>Independent Oversight and Performance Assurance Program</i>
DOE M 470.4-2 Chg 1	<i>Physical Protection</i>
DOE M 470.4-6 Chg 1	<i>Nuclear Material Control and Accountability</i>

<u>Number</u>	<u>Title</u>
DOE O 5400.5 Chg 2	<i>Radiation Protection of the Public and the Environment</i>
DOE O 5480.19 Chg 2	<i>Conduct of Operations Requirements for DOE Facilities</i>
DOE O 5480.20A Chg 1	<i>Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities</i>
DOE O 5480.30 Chg 1	<i>Nuclear Reactor Safety Design Criteria</i>
DOE O 5530.3 Chg 1	<i>Radiological Assistance Program</i>
DOE O 5660.1B	<i>Management of Nuclear Materials</i>
10 CFR 820	<i>Procedural Rules for DOE Nuclear Activities</i>
10 CFR 830	<i>Nuclear Safety Management</i>
10 CFR 835	<i>Occupational Radiation Protection</i>
48 CFR 970.5203-2	<i>DOE Acquisition Regulation, Performance Improvement and Collaboration</i>
48 CFR 970.5204-2	<i>DOE Acquisition Regulation, Laws, Regulations and DOE Directives Clause</i>
48 CFR 970.5215-3	<i>DOE Acquisition Regulation, Conditional Payment of Fee, Profit and other Incentives—Facility Management Contracts Clause</i>
48 CFR 970.5223-1	<i>DOE Acquisition Regulation, Integration of Environment, Safety and Health Into Work Planning and Execution Clause</i>
DOE-STD-1020-2002	<i>Natural Phenomena Hazards Design and Evaluation Criteria for Department of Energy Facilities</i>
DOE-STD-1021-93	<i>Natural Phenomena Hazards Performance Categorization Guidelines for Structures, Systems, and Components</i>
DOE-STD-1022-94 Reaffirmed	<i>Natural Phenomena Hazards Characterization Guide</i>
DOE-STD-1023-95 Reaffirmed	<i>Natural Phenomena Hazards Assessment Criteria</i>
DOE-STD-1027-92 Ch. 1	<i>Hazard Categorization and Accident Analysis Techniques for Compliance with DOE O 5480.23</i>
DOE-STD-1030-96	<i>Guide to Good Practices for Lockouts and Tagouts</i>
DOE-STD-1063-2006	<i>Facility Representatives</i>

<u>Number</u>	<u>Title</u>
DOE-STD-1066-99	<i>Fire Protection Design Criteria</i>
DOE-STD-1073-2003	<i>Configuration Management Program</i>
DOE-STD-1083-95	<i>Requesting and Granting Exemptions to Nuclear Safety Rules</i>
DOE-STD-1088-95	<i>Fire Protection for Relocatable Structures—Reaffirmation Memorandum</i>
DOE-STD-1090-2004	<i>Hoisting and Rigging (Formerly Hoisting and Rigging Manual)</i>
DOE-HBK-1099-96	<i>Establishing Nuclear Facility Drill Programs</i>
DOE-STD-1104-96	<i>Review and Approval of Nuclear Facility Safety Basis Documents (Documented Safety Analysis and Technical Safety Requirements)</i>
DOE-STD-1120-2005	<i>Integration of Environment, Safety, and Health into Facility Disposition Activities, Volumes 1 and 2</i>
DOE-STD-1134-99	<i>Tritium Handling and Safe Storage</i>
DOE-STD-1134-99	<i>Review Guide for Criticality Safety Evaluations</i>
DOE-STD-1135-99	<i>Guidance for Nuclear Criticality Safety Engineer Training and Qualification</i>
DOE-STD-1137-2000	<i>Fire Protection Engineering Functional Area Qualification Standard</i>
DOE-HBK-1148-2002	<i>Work Smart Standards (WSS) Users Handbook</i>
DOE-STD-1150-2002	<i>Quality Assurance Functional Area Qualification Standard</i>
DOE-STD-1158-2002	<i>Self-Assessment Standard for DOE Contractor Criticality Safety Programs</i>
DOE-STD-1159-2003	<i>Waste Management Functional Area Qualification Standard</i>
DOE-STD-1166-2003	<i>Deactivation and Decommission Functional Area Qualification Standard</i>
DOE-STD-1172-2003	<i>Safety Software Quality Assurance Functional Area Qualification Standard</i>
DOE-STD-1173-2003	<i>Criticality Safety Functional Area Qualification Standard</i>
DOE-STD-1175-2006	<i>Senior Technical Safety Manager Functional Area Qualification Standard</i>

<u>Number</u>	<u>Title</u>
DOE-STD-1183-2004	<i>Nuclear Safety Specialist Functional Area Qualification Standard</i>
DOE-STD-1186-2004	<i>Specific Administrative Controls</i>
DOE-STD-3006-2000	<i>Planning and Conduct of Operational Readiness Reviews (ORR)</i>
DOE-STD-3007-2007	<i>Guidelines for Preparing Criticality Safety Evaluations at Department of Energy Non-Reactor Nuclear Facilities</i>
DOE-STD-3009-94 Chg 3	<i>Preparation Guide for U.S. DOE Nonreactor Nuclear Facility Safety Analysis Reports</i>
DOE-HDBK-3010-94 and Chg 1	<i>Airborne Release Fractions/Rates and Respirable Fractions for Nonreactor Nuclear Facilities Volume 1 - Analysis of Experimental Data, December 1994 Volume 2 - Appendices, December 1994</i>
DOE-STD-3011-2002	<i>Guidance for Preparation of Basis for Interim Operation (BIO) Documents</i>
DOE-HDBK-3012-2003	<i>Guide To Good Practices For Operational Readiness Reviews (ORR), Team Leader's Guide</i>
DOE-STD-3013-2004	<i>Stabilization, Packaging, And Storage Of Plutonium-Bearing Materials</i>
DOE-STD-3014-96	<i>Accident Analysis for Aircraft Crash into Hazardous Facilities</i>
DOE-STD-3015-2004	<i>Nuclear Explosive Safety Study Process</i>
DOE-STD-3016-2006	<i>Hazard Analysis Reports for Nuclear Explosive Operations</i>
DOE-STD-3020-2005	<i>Specification for HEPA Filters Used by DOE Contractors</i>
DOE-STD-3024-98	<i>Content of System Design Descriptions</i>
DOE STD-3025-2007	<i>Quality Assurance Inspection and Testing of HEPA Filters</i>