

ES&H RESPONSIBILITIES

DATED: 11/17/2008

SUBJECT: SAFETY BASIS DOCUMENTS REVIEW SYSTEM

1. PURPOSE. This document addresses responsibility and accountability and provides administrative guidance to the Oak Ridge Office (ORO).
2. APPLICABILITY. The provisions of this document apply to ORO Principal Staff responsible for the review and approval of safety basis documents.
3. RESPONSIBILITIES.
 - a. Manager, ORO.
 - (1) Ensures that ORO has approved Documented Safety Analyses (DSAs), Technical Safety Requirements (TSRs), and Safety Evaluation Reports (SERs) for its Hazard Category 1, 2, and 3 nuclear facilities consistent with 10 CFR 830 and established DOE requirements.
 - (2) Ensures that ORO organizations responsible for Hazard Category 1, 2, and 3 nuclear facilities have management processes (i.e., administrative, technical, procedural, etc.) with the appropriate rigor for the review and approval of safety basis documents. (This process will address the recommendation for approval and transmittal of the safety basis document if approval authority has not been delegated.)
 - (3) Approves SERs and the associated DSAs, TSRs, Unreviewed Safety Question (USQ) change packages, and other safety basis documents where approval authority has been delegated to the ORO Manager.
 - (4) Where approval authority has not been delegated to ORO, transmits the request for approval to the Headquarters (HQ) approval authority.
 - (5) Approves requests for any changes to due dates related to the review and approval of a safety basis document that extend beyond the established timeframe (where the ORO Manager has been delegated approval authority).
 - (6) Assesses ORO Line Organizations' implementation of their safety basis responsibilities to ensure compliant and effective programs.
 - b. Assistant Managers for ORO Line Organizations.
 - (1) Ensure that contractors develop safety basis documents in accordance with 10 CFR 830 and established DOE requirements.
 - (2) Establish a management process consistent with regulatory and Departmental expectations for the review and approval of safety basis documents and that also addresses the following requirements:
 - Timeframes for reviewing and approving safety basis documents consistent with the approval authority's expectations;

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- Transmittal of safety basis documents to the approval authority if the review and approval has not been delegated;
 - Documentation of the review and basis for approval in a SER;
 - Peer review of SERs by technically qualified individuals (not required for team reviews);
 - Approval of the SERs and their corresponding safety basis documents, including transmittal of recommendations for approval to the approval authority if approval has not been delegated;
 - Transmittal of comments/issues and approvals to the contractor, through the Contracting Officer's Representative;
 - Prompt identification, proper reporting, and timely correction of safety basis document implementation issues;
 - Maintenance of a list of Hazard Category 1, 2, and 3 nuclear facilities and their corresponding safety basis documents; and
 - Evaluation of contractor's annual summary report for USQ determinations performed since its last submittal.
- (3) Maintain a sufficient number of qualified staff to review safety basis documents and prepare SERs.
- (4) Provide guidance to contractors concerning safety basis issues, when necessary.
- (5) Review submitted safety basis documents for technical accuracy and compliance with 10 CFR 830 and established DOE requirements within the established timeframes and document the results of the reviews.
- (6) Resolve issues, comments, and differing technical opinions that cannot be satisfactorily resolved by the reviewers.
- (7) Approve SERs and their corresponding safety basis documents where the approval authority has been delegated to an Assistant Manager.
- c. Assistant Manager for Environment, Safety, and Health.
- (1) Serves as the Division of Primary Interest for proposed DOE Rules, Directives, Policies, Standards, Manuals, and Guidance pertaining to safety basis requirements.
- (2) Establishes a process for the review and approval or recommendation for approval of safety basis documents.
- (3) Maintains a sufficient number of qualified staff to review safety basis documents, conduct assessments, and prepare SERs.
- (4) Supports ORO Line Organizations, when requested, in reviewing DSAs, TSRs, and other safety basis documents, preparing and peer reviewing SERs, assessing contractor safety basis processes and activities, performing other safety basis activities, and providing other services and advice.

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- (5) In collaboration with ORO Line Management and the Human Capital Assessment Group, provides expert technical advice in the development of core safety basis technical qualification requirements documents and training.

4. REFERENCES.

- a. DOE G 421.1-2, IMPLEMENTATION GUIDE FOR USE IN DEVELOPING DOCUMENTED SAFETY ANALYSES TO MEET SUBPART B OF 10 CFR 830, dated October 24, 2001.
- b. DOE G 423.1-1, IMPLEMENTATION GUIDE FOR USE IN DEVELOPING TECHNICAL SAFETY REQUIREMENTS, dated October 24, 2001.
- c. DOE G 424.1-1A, IMPLEMENTATION GUIDE FOR USE IN ADDRESSING UNREVIEWED SAFETY QUESTION REQUIREMENTS, dated July 24, 2006.
- d. DOE O 425.1C, STARTUP AND RESTART OF NUCLEAR FACILITIES, dated March 13, 2003.
- e. DOE-STD-1027-92, Change Notice 1, HAZARD CATEGORIZATION AND ACCIDENT ANALYSIS TECHNIQUES FOR COMPLIANCE WITH DOE ORDER 5480.23, *NUCLEAR SAFETY ANALYSIS REPORTS*, dated September 1997.
- f. DOE-STD-1104-96, Change Notice 3, REVIEW AND APPROVAL OF NUCLEAR FACILITY SAFETY BASIS DOCUMENTS (DOCUMENTED SAFETY ANALYSES AND TECHNICAL SAFETY REQUIREMENTS), dated December 2005.

5. DEFINITIONS.

- a. **DOCUMENTED SAFETY ANALYSIS (DSA).** A documented analysis of the extent to which a nuclear facility can be operated safely with respect to the workers, the public, and the environment, including a description of the conditions, safe boundaries, and hazard controls that provide the basis for ensuring safety.
- b. **GRADED APPROACH.** The process for ensuring that the level of analysis, documentation, and actions used to comply with a requirement are commensurate with (1) the relative importance to safety and safeguards and security, (2) the magnitude of any hazard(s) involved, (3) the life cycle stage of the facility, (4) the programmatic mission of the facility, (5) the particular characteristics of the facility, (6) the relative importance of the radiological and nonradiological hazards, and (7) any other relevant factor.
- c. **HAZARD CLASSIFICATION.** Evaluation of the consequences of unmitigated releases to classify nuclear facilities or operations into the following hazard categories:
 - Hazard Category 1: The hazard analysis shows the potential for significant off-site consequences.
 - Hazard Category 2: The hazard analysis shows the potential for significant on-site consequences.

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- Hazard Category 3: The hazard analysis shows the potential for only significant localized consequences.

NOTE: DOE-STD-1027-92, Change Notice 1, provides guidance and radiological threshold values for determining a facility's Hazard Category.

- d. **REVIEWER (SAFETY EVALUATION REPORT [SER] PREPARER)**. The qualified individual selected by the assigning ORO Line Organization to review a safety basis document and, if applicable, direct the review team.
- e. **SAFETY EVALUATION REPORT (SER)**. The report that DOE prepares to document (1) the sufficiency of the safety basis document(s) for a Hazard Category 1, 2, or 3 nuclear facility, (2) the extent to which a contractor has satisfied the requirements of 10 CFR 830, Subpart B, and (3) the basis for DOE's approval of the facility's safety basis document(s), including any conditions for approval.
- f. **TECHNICAL SAFETY REQUIREMENTS (TSRs)**. The limits, controls, and related actions that establish the specific parameters and requisite actions for the safe operation of a nuclear facility and include (as appropriate for the work and the hazards identified in the DSA for the facility) the safety limits, operating limits, surveillance requirements, administrative and management controls, use and application provisions, and design features, as well as a bases appendix.
- g. **UNREVIEWED SAFETY QUESTION (USQ)**. A situation where (1) the probability of the occurrence or the consequences of an accident or the malfunction of equipment important to safety previously evaluated in the DSA could be increased, (2) the possibility of an accident or malfunction of a different type than any previously evaluated in the DSA could be created, (3) a margin of safety could be reduced, or (4) the DSA may not be bounding or may be otherwise inadequate.