



Department of Energy
Oak Ridge Operations
Office of Environmental Management
Procedure



REVIEW AND APPROVAL OF EM AUTHORIZATION AGREEMENTS

EM - 3.1
Revision 0

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LIST OF ACRONYMS

AA	Authorization Agreement
AMEM	Assistant Manager for Environmental Management
AMESH	Assistant Manager for Environment, Safety, Health and Emergency Management
ASA	Auditable Safety Analysis
BIO	Basis for Interim Operations
COR	Contracting Officer's Representative
DOE	Department of Energy
DSA	Documented Safety Analysis
EM	Environmental Management
HC	Hazard Category
ISMS	Integrated Safety Management System
JCO	Justification for Continued Operation
NSD	Nuclear Safety Division
ORO	Oak Ridge Operations
PISA	Potentially Inadequate Safety Analysis
SAR	Safety Analysis Reports
SB	Safety Basis
SER	Safety Evaluation Report
SME	Subject Matter Expert
TSR	Technical Safety Requirements
USQ	Unreviewed Safety Question

1.0 PURPOSE

The purpose of this procedure is to document the process that the Department of Energy (DOE) Oak Ridge Operations Office (ORO) Environmental Management (EM) program utilizes to review and approve Authorization Agreement (AA) documents for new and existing Hazard Category 1 and 2 nuclear facilities.

2.0 SCOPE

This procedure applies to EM personnel and support staff who participate in the review, approval and tracking of Documented Safety Analyses (DSAs) and EM Authorization Agreements.

3.0 REFERENCES AND DEFINITIONS

3.1 References

- 3.1.1 DNFSB/TECH-19, *Authorization Agreements for Defense Nuclear Facilities and Activities*
- 3.1.2 Title 10, Code of Federal Regulations, Part 830, *Nuclear Safety Management*
- 3.1.3 DOE M 411.1-1B, *Safety Management Functions, Responsibilities and Authorities Manual*
- 3.1.4 DOE-STD-1027-92 (CH-1), *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports*
- 3.1.5 DOE-ORO M 411.1-1D, *Manual of Safety Management Functions, Responsibilities, and Authorities, Level II, for Oak Ridge Operations.*

3.2 Definitions

- 3.2.1 Authorization Agreement (AA): A documented agreement between DOE and the contractor for high hazard facilities (Category 1 and 2), incorporating the results of DOE's review of the contractor's proposed authorization basis for a defined scope of work. The authorization agreement contains key terms and conditions (controls and commitments) under which the contractor is authorized to perform the work.
- 3.2.2 Authorization Basis: Those aspects of facility design basis and operational requirements relied upon by DOE to authorize operation. These aspects are considered to be important to the safety of the facility operations. The authorization basis is described in such documents as the facility Documented Safety Analysis and other safety analyses, hazard classification documents, the Technical Safety Requirements, DOE-issued Safety Evaluation Reports, and facility-specific commitments made to comply with DOE/ORO directives.
- 3.2.3 Documented Safety Analysis (DSA): A documented analysis of the extent to which a nuclear facility can be operated safely with respect to workers, the public, and the environment, including a description of the conditions, safe boundaries, and hazard controls that provide the basis for ensuring safety. [10 CFR 830.3(a)]
- 3.2.4 Safety Basis (SB): The combination of information relating to the control of hazards at a facility (including design, engineering analyses, and administrative control) upon which DOE depends for its conclusion that activities at the facility can be conducted safely. [DOE 5480.23] The documented safety analysis and hazard controls that provide reasonable assurance that a DOE nuclear facility can be operated safely in a manner that adequately protects workers, the public, and the environment. [10 CFR 830.3(a)]

- 3.2.5 **Safety Evaluation Report (SER):** A DOE document that describes the extent and detail of DOE review of a SAR or equivalent analysis report, the bases for approving the SAR (or equivalent), and any conditions of SAR (or equivalent) approval. Approval signifies that DOE has accepted the analysis as appropriately documenting the safety basis of a facility and as serving as the basis for operational controls necessary to maintain an acceptable operating safety envelope.
- 3.2.6 **Technical Safety Requirements (TSR):** TSRs define the performance requirements of SSCs and identify the safety management programs used by personnel to ensure safety. TSRs are aimed at confirming the ability of the SSCs and personnel to perform their intended safety functions under normal, abnormal, and accident conditions. These requirements are identified through hazard analysis of the activities to be performed and identification of the potential sources of safety issues. Safety analyses to identify and analyze a set of bounding accidents that take into account all potential causes of releases of radioactivity also contribute to development of TSRs.
- 3.2.7 **Un-reviewed Safety Question (USO):** A situation (either proposed as a future activity or discovered to already exist) where:
- The probability of the occurrence or the consequences of an accident or the malfunction of equipment important to safety previously evaluated in the documented safety analysis could be increased.
 - The possibility of an accident or malfunction of a different type than any evaluated previously in the documented safety analysis could be created.
 - A margin of safety could be reduced.
 - The documented safety analyses may not be bounding or may be otherwise inadequate.
- (e.g., due to a discrepant as-found condition, an operational event or incident, or discovery of new information including errors in analysis).

4.0 ROLES AND RESPONSIBILITIES

4.1 Assistant Manager for Environmental Management (AMEM)/Contracting Officer's Representative (COR)

- 4.1.1 Identifies in writing the Contracting Officer's Representative (COR) if the AMEM is not the COR. The designated COR will then assist the AMEM with these responsibilities.
- 4.1.2 Ensures a transmittal and review mechanism (tracking system) is established for AAs.
- 4.1.3 Establishes the AA content requirements and direction to the contractor via this procedure and related reference documents.
- 4.1.4 Serves as the official point-of-contact between the contractor and DOE for submittal of AAs, review comments, and contractor responses.
- 4.1.5 Ensures that the EM AA procedure is periodically reviewed and updated as needed.

4.2 EM Technical Support and Assessment Division Director

- 4.2.1 Assist in the development of a transmittal and review mechanism (tracking system).
- 4.2.2 Ensures a transmittal and review mechanism (tracking system) is maintained for AAs, along with an archive of approved and revised AAs, and their associated history.

4.2.3 Assists the AMEM and the EM Project Managers with coordination of the day-to-day implementation of this procedure.

4.3 Division Directors

4.3.1 Assist the AMEM in ensuring the requirements of this procedure are implemented at EM facilities and operations under their purview.

4.3.2 Assigns new or revised AAs from the contractor (via the AMEM/COR) to appropriate SMEs and staff for review.

4.3.3 Ensure AA review comments and recommendations for approval are properly packaged prior to being presented to the contractor via the AMEM/COR.

4.3.4 Concurs/Approves recommendation for approval of AA under their purview.

4.3.5 Provides oversight to assure that the contractor operates the facility/activity in accordance with the approved AA.

4.3.6 Ensures change control for AAs are maintained.

4.4 EM AA Lead Reviewers

4.4.1 Reviews AA for accuracy and compliance with DOE requirements and guidelines.

4.4.2 Arranges and coordinates AA reviews with other subject matter experts, Project Managers and Headquarters as applicable.

4.4.3 Resolves DOE issues and comments generated by DOE reviews.

4.5 Program/Project Managers

4.5.1 Ensures approved AAs are in place for their assigned Category 2 facilities.

4.5.2 Maintains familiarity with approved AA requirements and conducts periodic assessments to ensure that facility operations are consistent with AA requirements.

4.5.3 Ensures that new or revised AA are prepared as required by DOE requirements and guidelines on a schedule supportive of project needs.

4.5.4 Provides information regarding the project need of AAs to reviewers.

4.6 AMESH

4.6.1 Provides SME's for review of AAs as requested by the cognizant division director.

4.7 Facility Representatives

4.7.1 Participate in the review of AAs, providing input to the responsible Program/Project Lead, Division Director, and other AA reviewers.

5.0 PROCEDURE

The following procedure provides direction to DOE EM personnel and the contractor when developing, reviewing, tracking, and managing AAs.

5.1 Authorization Agreement Development

- 5.1.1 Clear and concise direction shall be provided to the contractor on the expectations, and contents for developing AAs.
 - 5.1.1.1 EM AAs are required for category 2 nuclear facilities.
 - 5.1.1.2 AAs may also be required for other hazard category facilities/projects if requested by DOE ORO EM and the hazards and need support the request.
 - 5.1.1.3 The content and structure of AAs shall be developed using the guidance contained in DOE G 450.4.1B, *Chapter 2, Section 5.2 Sample Format and Content for Authorization Agreements*

5.2 Authorization Agreement Review and Approval

- 5.2.1 The cognizant Program/Project Manager shall (with assistance from the EM Technical Support and Assessment Division Director as requested) identify appropriate subject matter experts and project staff for review of the AA.
 - 5.2.1.1 These individuals shall be assigned to review the AA through the appropriate management chain of command.
- 5.2.2 Upon receipt of a new or revised AA, the AMEM/COR shall:
 - 5.2.2.1 Ensure that the AAs are logged into the EM Action Tracking System, with a due date of 60 days from the date of receipt.
 - 5.2.2.2 Ensure that the AAs are transmitted to the responsible cognizant Program/Project Manager for review.
- 5.2.3 The cognizant Division Director shall issue the AA to the appropriate Program/Project Manager and subject matter experts/reviewers for review and comment.
 - 5.2.3.1 One individual may be designated by the cognizant Division Director with overall responsibility and coordination of the AA review activity.
- 5.2.4 The reviewers shall assemble the comments in a clear and concise manner and communicate these comments to the cognizant Director who will in turn concur with comments prior to sending them to the AMEM/COR.
- 5.2.5 Reviewers must perform the following when reviewing and commenting on AAs.
 - 5.2.5.1 Review the document to ensure its technical adequacy and compliance with DOE requirements and guidelines.
 - 5.2.5.2 The checklist and guidance found in DOE G 450.4-1B, Chapter II, Section 5.3 should be used during the review to ensure consistency and completeness of the AA.
 - 5.2.5.3 The Program/Project Manager shall coordinate input from all designated reviewers into a single document review record.
 - 5.2.5.4 Promptly communicate comments/issues generated during the review process to the contractor through the AMEM/COR. Elevate any areas where agreement cannot be reached through the chain of command for resolution.
 - 5.2.5.5 Ensure that any approved exemptions to Subpart A or Subpart B to 10 CFR 830 are incorporated into the AA.
- 5.2.6 If a reviewer determines that DOE will be unable to approve the submitted document without substantial clarification and/or numerous conditions for approval, he/she will return the document to the AMEM/COR (through the cognizant Program/Project Manager and Division Director) to formally transmit the document back to the contractor with the basis of DOE's disapproval clearly documented.

- 5.2.7 Following completion of the review and successful resolution of any comments, the cognizant Division Director shall prepare a transmittal memorandum requesting approval of the AA.
- 5.2.7.1 This transmittal memorandum shall be routed through the AMEM for the ORO Manager's Transmittal to the Assistant Secretary for Environmental Management. All review/concurrence documentation shall be maintained with the AA.
- 5.2.8 Following approval of the AA by the approval authority, the AMEM/COR shall transmit a formal approval letter to the contractor.
- 5.2.9 A copy of the approved AA and associated review/concurrence documentation shall also be forwarded to the EM Technical Support and Assessment Division Director for retention as a quality record.
- 5.2.10 If the AA is rejected by the approval authority the AMEM/COR shall transmit that information to the contractor in a formal letter with a description of the basis for rejection.
- 5.2.11 The cognizant Division Director shall ensure that pertinent records from the AA approval process are archived in accordance with Section 6.0.
- 5.2.12 Attachment "A" provides an overview of the AA review and approval process. In all cases, approval shall be conducted in accordance with the delegation of approval authority in effect at that time.

5.3 Training, Qualification, and Experience Requirements

5.5.1 Approvers and reviewers providing input into the AA shall have the following qualifications:

5.5.1.1 Qualified in the ORO Safety Basis TQP.

5.5.1.2 Trained in the ORO ISMS Process.

6.0 RECORDS

6.1 Program Records

6.1.1 Records shall be maintained in accordance with the established ORO EM Records Management System.

6.1.2 The following documents comprise the formal record of the AA review process and shall be controlled and maintained in accordance with DOE-ORO Quality Assurance requirements.

6.1.3 Documentation associated with DOE review and approval of AAs, include:

1. Review comments
2. Resolution Documentation
3. Transmittal correspondence between the contractor and DOE; and
4. Any other pertinent documents

7.0 ATTACHMENTS

Attachment "A" Overview of Authorization Agreement Review and Approval Process

ATTACHMENT "A"

OVERVIEW OF AUTHORIZATION AGREEMENT REVIEW & APPROVAL PROCESS

1. Contractor submits the AA to AMEM/COR.
2. AMEM/COR logs the document into tracking system and transmits the document to the responsible Division Director.
3. Responsible Division Director assigns AA to qualified reviewer.
4. Lead AA Reviewer (and review team, as needed) reviews the document, and coordinates resolution of any review comments. If the document can be recommended for approval, the Lead AA Reviewer determines approval authority and assembles the approval package for the cognizant Division Director; otherwise return document to the AMEM/COR.
5. AMEM/COR concurs with approval package and forwards it to the ORO Manager.
6. ORO Manager approves the package, consistent with current delegation of approval authority (i.e., if Manager is not delegated approval authority, he/she forwards the package to EM-1 for approval).
7. EM-1 approves the AA (if necessary).
8. The AMEM/COR formally communicates the approval status to the contractor.
9. The responsible Division Director ensures that the appropriate records are maintained.
10. Responsible Division Director verifies the contractor's implementation of the AA.