



## Department of Energy

Washington, DC 20585

January 15, 2015

The Honorable Ms. Jessie Hill Roberson  
Vice Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, NW, Suite 700  
Washington, DC 20004

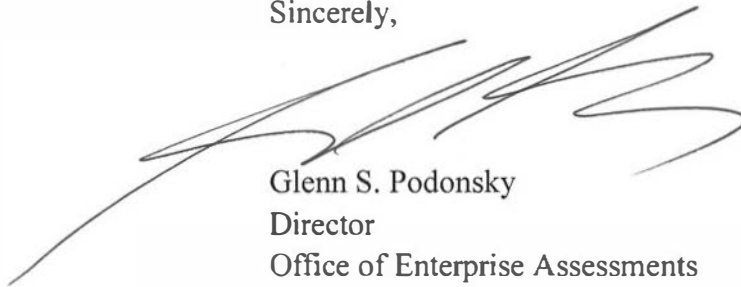
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DNF SAFETY BOARD

Dear Ms. Vice Chairman:

This letter transmits the Office of Enterprise Assessments' Criteria Review and Approach Document, *Nuclear Safety Delegations for Documented Safety Analysis Approval*, EA CRAD 31-09 Rev. 0, as required by Action 6.4.1 in the Department of Energy's Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 2010-1, *Safety Analysis Requirements for Defining Adequate Protection for the Public and the Workers*.

If you have any questions or would like a briefing, please contact me at (202) 586-0271, or Mr. Thomas Staker, Director, Office of Environment, Safety and Health Assessments, at (301) 903-5392.

Sincerely,







Glenn S. Podonsky  
Director  
Office of Enterprise Assessments

Enclosure

E-Mail cc w/enclosure: Joseph Olencz, AU-1.1  
James O'Brien, AU-30



		Number: EA CRAD 31-09 Revision: 0 Effective Date: January 8, 2015
<b>Nuclear Safety Delegations for Documented Safety Analysis Approval          Criteria Review and Approach Document</b>		
Authorization and Approval	 Director, Office of Nuclear Safety and Environmental Assessments  Date: January 8, 2015	 Lead, James O. Low Nuclear Engineer  Date: January 8, 2015

**1.0 PURPOSE**

Within the Office of Enterprise Assessments (EA), the Office of Environment, Safety and Health Assessments (EA-30) mission is to assess the effectiveness of those safety and emergency management systems and practices used by line and contractor organizations in implementing Integrated Safety Management; and to provide clear, concise, and independent evaluations of performance in protecting our workers, the public, and the environment from the hazards associated with Department of Energy (DOE) activities and sites.

In addition to the general independent oversight requirements and responsibilities specified in DOE Order 227.1, *Independent Oversight Program*, this criteria review and approach document (CRAD), in part, fulfills the responsibility assigned to EA in DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy*, to conduct independent appraisals of high consequence activities.

A key to success is the rigor and comprehensiveness of our process; and, as with any process, we continually strive to improve and provide additional value and insight to field operations. Integral to this is our commitment to enhance our program. We continue to make CRADs available for use by DOE line and contractor assessment personnel in developing effective DOE oversight, contractor self-assessment, and corrective action processes; the current revision is available at:

<http://energy.gov/node/611001/listings/criteria-review-and-approach-documents>.

## **2.0 APPLICABILITY**

The following CRAD is approved for use by the Office of Nuclear Safety and Environmental Assessments, EA-31.

## **3.0 FEEDBACK**

Comments and suggestions for improvements on this CRAD can be directed to the Director, Office of Environment, Safety and Health Assessments, at (301) 903-5392.

## **4.0 CRITERIA REVIEW AND APPROACH**

The focus of this CRAD is on reviewing the nuclear safety delegations associated with the documented safety analysis (DSA) approval process to determine whether DOE programs and sites are: (1) appropriately delegating and documenting nuclear safety basis approval authority (SBAA), including defining the delegated SBAA's specified authorities, responsibilities and limitations; (2) documenting the approval process and criteria for those instances where the consequences of a design basis accident are not prevented or mitigated below the Evaluation Guideline; and (3) ensuring that the delegated SBAA are appropriately trained and qualified. DOE Order 450.2, *Integrated Safety Management*, and DOE-STD-1104-2014, *Review and Approval of Nuclear Facility Safety Basis and Safety Design Basis Documents*, serves as the basis for this CRAD.

### ***OBJECTIVE***

**SD.1:** The Cognizant Program Secretarial Office (PSO) or the National Nuclear Security Administration (NNSA) Administrator has appropriately delegated and documented the nuclear SBAA and the DOE Field Element has appropriately delegated and documented SBAA. (DOE O 450.2)

### ***CRITERIA***

1. Delegating line management officials create and maintain documentation of such delegations that include descriptions of the circumstances under which the delegated authorities take effect, any limitations to the authorities delegated, and the time period for which the delegation is valid. (DOE O 450.2)
  - Has the delegating line management official established a documented process or procedure to ensure that delegations are made carefully and accurately, consistent with the process criteria and attributes defined in DOE O 450.2, Appendix A?
  - Have delegations been limited to no further than the most senior-level program officer or deputy at a Field Element office unless concurrence is obtained from the applicable Central Technical Authority (CTA)?
  - Have delegations, including review of the delegation criteria, been documented?
  - Are delegations made to individuals and not positions?
  - Are at least two senior line managers involved in the delegation process?
  - Does the delegation process include subordinate HQ personnel?
  - Where compensatory measures are required, have they received CTA concurrence prior to delegation of authority?

- Are periodic reviews of delegations completed at least every 2 years and documented with the same criteria and rigor as the initial delegation?
2. Delegations must only be made to individuals who possess the necessary qualifications, experience, and expertise. (DOE O 450.2)
    - Are delegations made only where the candidate's organization possesses, or has access to, sufficient staff (with the necessary qualifications, experience, and expertise), resources and funding to support the candidate for the authorities being delegated?
    - In those cases in which delegation is made prior to the candidate fully satisfying the established criteria above, have compensatory measures been fully implemented?
  3. The SBAA responsibilities are adequately defined, including specified boundaries and limitations. (DOE O 450.2 and DOE-STD-1104-2014)
    - Have the boundaries and limitations of the delegation been clearly specified?
    - Have minimum expectations in terms of individual and organizational capabilities and capacities been documented for the various delegations?
  4. Where no viable control strategy exists in an existing facility to prevent or mitigate the offsite dose consequence of one or more accident scenarios from exceeding the Evaluation Guideline, the cognizant PSO shall serve as the approval authority and this approval cannot be delegated. (DOE-STD-1104-2014)
    - In circumstances where no viable control strategy exists in an existing facility to prevent or mitigate the offsite dose consequence of one or more accident scenarios from exceeding the Evaluation Guideline, has the delegation procedures limit DSA approval to the cognizant PSO?
    - In circumstances where no viable control strategy exists in an existing facility to prevent or mitigate the offsite dose consequence of one or more accident scenarios from exceeding the Evaluation Guideline, does the process require concurrence from the CTA and consultation with the Office of Environment, Safety, Health and Security?
  5. The Field Element has received nuclear safety approval authority from their HQ line organization that documents who performs the SBAA function and which authorities can be delegated, including the exceptions and limitation of the approval authority's responsibilities. (DOE O 450.2)
    - Are nuclear safety delegations captured in the Program and Field Element Functions, Responsibilities and Authorities (FRA) document?
    - Is there an issued Field Element procedure that addresses delegation of approval?
    - Does the Field Element procedure address SBAA responsibilities and limitations? If so, what are the specified boundaries and limitations of the SBAA and do they match the boundaries and limitations defined in the Secretarial Office delegation?
    - Does the Field Element procedure provide instructions for situations in which the boundaries or limitations of the delegation are exceeded, with the delegating authority (i.e., HQ) re-assuming the approval authority?
  6. A SBAA has been appointed by the applicable PSO or NNSA Deputy Administrator/Associate Administrator no later than CD-0 for projects including the design and construction of Hazard Category 1, 2, and 3 nuclear facilities or for projects involving major modifications. (DOE O 413.3b)

***OBJECTIVE***

**SD.2:** The SBAA has the necessary training, qualification, experience and expertise. (DOE O 450.2)

## **CRITERIA**

1. Minimum SBAA expectations in terms of individual requirements for the most senior-level program officer at a Field Element office and his or her deputy must include (1) Senior Technical Safety Manager (STSM) qualifications consistent with DOE Order 426.1, *Federal Technical Capability*, and (2) successful completion of the 1-week *Nuclear Executive Leadership Training* course. (DOE O 450.2)
  - How do the organizations ensure that the SBAAAs are qualified (with training, experience and expertise) to perform their functions?
  - Does a procedure govern the evaluation of the training, qualification and expertise of the designated SBAAAs?
  - Are the SBAAAs' training, qualification, and expertise evaluated in accordance with the procedure?
  - Are the SBAAAs qualified as an STSM?
  - Have the SBAAAs successfully passed the Nuclear Executive Leadership Training course?
  - What experience does the SBAA have in the preparation and/or review of safety basis documents?
  - If personnel have been assigned compensatory duties for the SBAA, have the training, qualification, and expertise have these personnel been appropriately evaluated as part of the delegation process?
2. Training and qualification records must be maintained for all Technical Qualification Program (TQP) participants. (DOE O 426.1)
  - Has the Federal Technical Capabilities Panel Program Agents signed the STSM Qualification Cards to certify that the qualification process met the requirements of the organization's TQP?
3. The senior-level program officers at Headquarters that are expected to fulfill approval authority responsibilities are expected to have the same qualification as listed above. (DOE O 450.2)

## **OBJECTIVE**

**SD.3:** Assessments of the delegation processes are conducted to verify the processes are functioning properly. (DOE O 450.2)

## **CRITERIA**

1. The CTA support staff must annually review the delegation process to evaluate whether it is adequate and functioning properly and to identify any concerns to the CTA, who will notify the Under Secretary and the Secretarial Office (SO) and recommend action as appropriate. (DOE O 450.2)
  - Has the Field Element established a documented process or procedure to ensure that self-assessments are conducted consistent with the criteria defined in DOE O 450.2?
  - Has the CTA support staff conducted an annual review of the delegation process under their jurisdiction?
  - Has the CTA staff independently reviewed the results of the self-assessments conducted by the associated offices? And, identified any concerns?
  - If the required capability or capacity to carry out assigned safety responsibilities or delegated safety authorities is found lacking, does the procedure call for compensatory measures, corrective actions, or rescissions - approved by the Under Secretary or SO - be instituted as necessary?

- Are self-assessments performed by qualified, experienced personnel?
  - Have the self-assessments addressed the criteria in DOE O 450.2?
2. An Under Secretary or SO with safety responsibilities related to nuclear facilities must periodically review (at intervals no greater than 2 years) assigned safety responsibilities and delegated safety authorities and verify that the necessary capability and capacity to perform the responsibilities and authorities still exist. (DOE O 450.2)
- Has the Secretarial Office established a documented process or procedure to ensure that self-assessments are conducted consistent with the criteria defined in DOE O 450.2?
  - Has a documented, comprehensive self-assessment of the delegation program been conducted at least every 2 years?
  - If the required capability or capacity to carry out assigned safety responsibilities or delegated safety authorities is found lacking, does the procedure call for compensatory measures, corrective actions, or rescissions - approved by the Under Secretary or SO - be instituted as necessary?
  - Are self-assessments performed by qualified, experienced personnel?
  - Have the self-assessments addressed the criteria in DOE O 450.2?

## ***APPROACH***

### Record Review:

- Secretarial Office and Field Element procedures that address DSA approval authority and/or SBAA roles, responsibilities and limitations
- Field Element Functions, Responsibilities and Authorities document
- Field Element organization charts
- Field element procedures for review and approval of safety basis documents
- Selected safety basis documentation, including DSAs, SERs, JCOs, and list of nuclear facilities including revision status of DSAs.
- Correspondence from HQ delegating DSA approval authority
- Selected in-progress safety analysis report reviews, safety evaluation reports, JCOs, etc.
- Field element procedures governing the TQP
- Assessments of the TQP
- Training records, qualification cards, and written examinations, for example, for the SBAA
- Self-assessments of the delegation process conducted by the responsible offices or the CTA staff

### Interviews:

- SBAA
- Safety Basis Review Team leaders
- Site Office Senior Technical Advisor
- Federal Technical Capability Panel (FTCP) Agent
- Technical Training Manager

### Observations:

- None