

ES&H RESPONSIBILITIES

DATED: 11/17/2008

SUBJECT: NUCLEAR CRITICALITY SAFETY

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 all ORO Principal Staff.
3. RESPONSIBILITIES.
 - a. Manager, ORO.
 - (1) Carry out the responsibilities identified in DOE O 420.1B, FACILITY SAFETY.
 - (a) Review and approve any situations that could result in deviations from the double contingency principle in operations involving criticality hazards (if delegated by the Secretarial Officer [SO], may be further delegated as permitted by the SO.)
 - (b) Review and approve (may be delegated):
 - 1 Contractor Criticality Safety Program (CSP) description documents.
 - 2 The qualification program for contractor criticality safety staff (unless the qualification program complies with DOE-STD-1135-99, GUIDANCE FOR NUCLEAR CRITICALITY SAFETY ENGINEERING TRAINING AND QUALIFICATION).
 - 3 Shipping containers for off-site shipment that are used to exclude materials from the requirement for a criticality alarm system or a criticality detection system.
 - 4 The method for preparing contractor criticality safety evaluations (unless they are conducted in accordance with DOE-STD-3007-93, Change Notice 1, GUIDELINES FOR PREPARING CRITICALITY SAFETY EVALUATIONS AT DEPARTMENT OF ENERGY NON-REACTOR NUCLEAR FACILITIES, and evaluated in accordance with DOE-STD-1134-99, REVIEW GUIDE FOR CRITICALITY SAFETY EVALUATIONS).
 - (2) Approves the ORO Nuclear Criticality Safety (NCS) Policy. See Attachment 1 of this document.
 - (3) Ensures an assessment of the ORO NCS DOE Program is performed at least on a triennial basis using qualified experts from outside ORO.
 - b. Assistant Managers for Line Organizations.
 - (1) Carry out the responsibilities identified in DOE O 420.1B.
 - (a) Review and approve any situations that could result in deviations from the double contingency principle in operations involving criticality hazards (if delegated).

ES&H RESPONSIBILITIES

DATED: 11/17/2008

- (b) Ensure that the facilities, activities, and programs under their purview operate in compliance with the requirements of DOE O 420.1B, Attachment 2, Chapter III, “*Nuclear Criticality Safety.*”
 - (c) Notify Contracting Officers (COs) when contracts are affected by DOE O 420.1B, Attachment 2, Chapter III.
 - (d) Coordinate with COs the revision of contracts to comply with requirements of DOE O 420.1B, Attachment 2, Chapter III, and require contractors to appropriately flow down requirements to subcontractors.
 - (e) Ensure that procurement requests include applicable requirements in DOE O 420.1B, Attachment 2, Chapter III, be applied to awards or sub-awards.
 - (f) Conduct comprehensive self-assessments and assessments of Criticality Safety Programs (CSPs) on at least a triennial basis. (See DOE-STD-1158-2002, SELF-ASSESSMENT STANDARD FOR DOE CONTRACTOR CRITICALITY SAFETY PROGRAM, for information on assessments of CSPs.)
- (2) Review and approve (if delegated):
- (a) CSP description documents;
 - (b) The Qualification Program for criticality safety staff;
 - (c) Shipping containers for off-site shipment that are used for storage to exclude materials from the requirement for a criticality alarm system or a criticality detection system; and
 - (d) The method for preparing criticality safety evaluations.
- (3) Ensure that all procurement requests for work within the scope of DOE O 420.1B, Attachment 2, Chapter III, including work requests to be performed through subcontracts, include the appropriate requirements of the associated Contractor Requirements Document.
- (4) Define the roles and responsibilities of staff performing or supporting NCS functions for the organization.
- (5) Establish and implement a NCS Program that meets the basic elements contained in Attachment 2 of this document.
- (6) Ensure that Federal staff overseeing activities involving fissile material have and maintain the appropriate level of NCS training to perform their assigned functions in accordance with DOE-STD-1173-2003, CRITICALITY SAFETY FUNCTIONAL AREA QUALIFICATION STANDARD or DOE-STD-1151-2002, FACILITY REPRESENTATIVE FUNCTIONAL AREA QUALIFICATION STANDARD, as appropriate.

ES&H RESPONSIBILITIES

DATED: 11/17/2008

- c. Assistant Manager for Environment, Safety, and Health.
 - (1) Provides qualified NCS staff to support the line organizations in performance of their NCS responsibilities. Individuals meeting the requirements of DOE-STD-1173-2003 are deemed qualified to provide this support.
 - (2) Coordinates the ORO NCS DOE Program triennial assessment using qualified experts from outside ORO.

4. REFERENCES.

- a. DOE O 420.1B, FACILITY SAFETY, dated December 22, 2005.
- b. DOE-STD-1134-99, REVIEW GUIDE FOR CRITICALITY SAFETY EVALUATIONS, dated September 1999.
- c. DOE-STD-1135-99, GUIDANCE FOR NUCLEAR CRITICALITY SAFETY ENGINEERING TRAINING AND QUALIFICATION, dated September 1999.
- d. DOE-STD-1151-2002, FACILITY REPRESENTATIVE FUNCTIONAL AREA QUALIFICATION STANDARD, dated April 2002.
- e. DOE-STD-1158-2002, SELF-ASSESSMENT STANDARD FOR DOE CONTRACTOR CRITICALITY SAFETY PROGRAMS, dated November 2002.
- f. DOE-STD-1173-2003, CRITICALITY SAFETY FUNCTIONAL AREA QUALIFICATION STANDARD, dated December 2003.
- g. DOE-STD-3007-93, Change Notice 1, GUIDELINES FOR PREPARING CRITICALITY SAFETY EVALUATIONS AT DEPARTMENT OF ENERGY NON-REACTOR NUCLEAR FACILITIES, dated September 1998.