

CONTROL FORM FOR DOE/ORO DIRECTIVE

PART A (To be completed by the ORO DIRECTIVES MANAGEMENT GROUP, AD-440):

1. DIRECTIVE NUMBER, TITLE, AND DATE:

ORO O 420, CHAPTER I, CHANGE 4, FACILITY SAFETY, dated 09/01/2006

2. PURPOSE OF TRANSMITTAL: New Directive Revised Directive Revised Control Form

3. DOES THIS DIRECTIVE CANCEL OR EXTEND ANY OTHER DIRECTIVES? Yes No
If "Yes," list what action (cancel or extend) and list the Directive(s) number(s), title(s), and date(s):

This Directive cancels and replaces ORO O 420, Chapter I, Change 3, FACILITY SAFETY, dated 10/21/2004.

The attached Directive is forwarded for review and action. Complete Part B and forward a completed hard copy of this form to ORO DMG, AD-440, by **09/19/2006**.

PART B (To be completed by the DIVISION OF PRIMARY INTEREST [DPI]):

COMPLETE FOR DOE DIRECTIVES ONLY:

4. SUPPLEMENTAL ORO DIRECTIVE REQUIRED?

Is a new or revised supplemental ORO Directive required? Yes No

If "Yes," target date for submission of supplemental ORO Directive is _____.

COMPLETE FOR BOTH DOE AND ORO DIRECTIVES:

5. CONTRACTOR APPLICABILITY.

Does this Directive affect the work performed by ORO Contractors? Yes No

If "Yes," whom? Bechtel Jacobs Company LLC ORAU

UT-Battelle, LLC ISOTEK (Bldg. 3019, ORNL)

Foster Wheeler (FWENC)

Other Contractors (list by name)

6. SUBJECT MATTER EXPERT: Russell Kelly Safety and Health Division, SE- 33
Name Organization

7. APPROVED BY: *Original Signed By*
Jorge Ferrer, Dir. Safety and Health Division 09/06/2006
Signature Organization Date

PART C (To be completed by the ORO DIRECTIVES MANAGEMENT GROUP, AD-440):

APPROVED FOR DISTRIBUTION IN ACCORDANCE WITH OFFICIAL DIRECTIVE DISTRIBUTION LIST:

Original Signed By
Wayne H. Albaugh 09/07/2006
DMG Team Leader, AD-440 Date

INSTRUCTIONS TO ADDRESSEES: THIS FORM IS TO BE FILED WITH THE DIRECTIVE AND RETAINED. (Revised 02/10/2006)

U.S. Department of Energy

Oak Ridge Office

ORO O 420
Chapter I
Change 4

DATE: 09/01/2006

SUBJECT: FACILITY SAFETY

1. PURPOSE. This Chapter correlates to DOE O 420.1B, FACILITY SAFETY, dated December 22, 2005, by assigning responsibility and accountability and providing administrative guidance to Oak Ridge Office (ORO). This Chapter establishes the policy and process within ORO for facility safety requirements related to: nuclear safety design and natural phenomena hazards (NPH) mitigation. This Chapter is not intended to be a stand-alone document, but is to be used in conjunction with DOE O 420.1B. ORO O 420, Chapter XII, Change 1, NUCLEAR CRITICALITY SAFETY, dated April 1, 2004; ORO O 420, Chapter XVI, FIRE PROTECTION, dated August 28, 2006; and ORO 420, Chapter XV, SAFETY SYSTEM OVERSIGHT, dated July 19, 2005, were developed to implement the criticality safety, fire protection, and safety system oversight requirements of the Department of Energy (DOE) Directive. Nothing in this issuance changes any requirements contained in any DOE Directive.
2. CANCELLATION. This Chapter cancels and replaces ORO O 420, Chapter I, Change 3, FACILITY SAFETY, dated October 21, 2004.
3. APPLICABILITY. The provisions of this Chapter apply to ORO Management and Principal Staff. Although the Contractor Requirements Document (CRD) attached to DOE O 420.1B, is applicable to contractors, no additional requirements are imposed in this Chapter.
4. RESPONSIBILITIES. Many ORO contractors have developed Standards/Requirements Identification Documents or Work Smart Standards Sets that may not include requirements referenced or included in DOE O 420.1B, its attached CRD, or this Chapter. Interpretation and performance of Federal responsibilities outlined below must take into account the approved standards set for each particular contract and must not be deemed to add any requirements to the approved standards set.
 - a. Manager, ORO.
 - (1) Ensures that new and significant modifications of existing Hazard Category 1, 2, and 3 DOE nonreactor nuclear facilities and explosive facilities under his/her jurisdiction and their safety structures, systems, and components (SSCs) are designed and constructed so as to assure adequate protection for the public, workers, and the environment from nuclear and explosive hazards.
 - (2) Ensures that DOE nuclear and non-nuclear facilities under his/her jurisdiction are designed, constructed, maintained, modified, and operated so that the general public, workers, and the environment are protected from the impact of NPHs.

- b. Assistant Manager for Environment, Safety, and Health.
 - (1) Establishes and maintains this Chapter that, along with DOE O 420.1B, and referenced standards and guidelines, form the infrastructure for ORO's Nuclear and Explosive Safety Design and NPH Mitigation Programs.
 - (2) Disseminates requirements, incidents, lessons learned, and applicable information generated by DOE Headquarters (HQ), other agencies, organizations, and facilities among ORO line organizations.
 - (3) Provides support in assessing DOE contractors' Nuclear and Explosive Safety Design and NPH Mitigation Programs and in overseeing their implementation, as requested by ORO line management.
 - (4) Provides support in reviewing facility and SSC designs, constructions, and operations, safety analyses, design bases, and other analyses, assessments, plans, specifications, procedures, etc., for conformance with DOE O 420.1B, applicable building codes, national consensus codes and standards, Executive Orders, contract requirements, safety basis requirements, and other system requirements, as requested by ORO line management.
 - (5) Provides support in determining the appropriate set of requirements for nuclear and explosive safety design, NPH mitigation, Directives, standards, and other requirements to be included in contracts, as requested by ORO line management.
 - c. Assistant Manager for Environmental Management; Assistant Manager for Science; Assistant Manager for Nuclear Fuel Supply; and Assistant Manager for Administration.
 - (1) Ensures that DOE contractors under his/her jurisdiction design and construct new Hazard Category 1, 2, and 3 non-reactor nuclear facilities and explosive facilities and proposed significant modification to them in accordance with the design requirements outlined in DOE O 420.1B, and applicable references in Paragraph 6 of this Chapter.
 - (2) Ensure that DOE contractors under his/her jurisdiction design, construct, maintain, modify, and operate their nuclear and non-nuclear facilities in accordance with the NPH mitigation design requirements specified in DOE O 420.1B, and other applicable documents referenced in Paragraph 6 of this Chapter.
5. REQUIREMENTS AND PROCEDURES. None.
6. REFERENCES.
- a. Executive Order 12699, SEISMIC SAFETY OF FEDERAL AND FEDERALLY ASSISTED OR REGULATED NEW BUILDING CONSTRUCTION, dated January 5, 1990.
 - b. Executive Order 12941, SEISMIC SAFETY FOR EXISTING FEDERALLY OWNED OR LEASED BUILDING, dated December 5, 1994.

- c. Executive Order 13286, AMENDMENT OF EXECUTIVE ORDERS, AND OTHER ACTIONS, IN CONNECTION WITH THE TRANSFER OF CERTAIN FUNCTIONS TO THE SECRETARY OF HOMELAND SECURITY, dated February 28, 2003.
 - d. DOE G 420.1-1, NONREACTOR NUCLEAR SAFETY DESIGN CRITERIA AND EXPLOSIVES SAFETY CRITERIA FOR USE WITH DOE O 420.1, *FACILITY SAFETY*, dated March 28, 2000.
 - e. DOE G 420.1-2, GUIDE FOR THE MITIGATION OF NATURAL PHENOMENA HAZARDS FOR DOE NUCLEAR FACILITIES AND NONNUCLEAR FACILITIES, dated March 28, 2000.
 - f. DOE O 433.1, MAINTENANCE MANAGEMENT PROGRAM FOR DOE NUCLEAR FACILITIES, dated June 1, 2001.
 - g. DOE O 440.1A, WORKER PROTECTION MANAGEMENT FOR DOE FEDERAL AND CONTRACTOR EMPLOYEES, dated March 27, 1998.
 - h. DOE M 440.1-1A, DOE EXPLOSIVES SAFETY MANUAL, dated January 9, 2006.
 - i. DOE 5480.20A, Change 1, PERSONNEL SELECTION, QUALIFICATION, AND TRAINING REQUIREMENTS FOR DOE NUCLEAR FACILITIES, dated July 12, 2001.
 - j. DOE-STD-1020-2002, NATURAL PHENOMENA HAZARDS DESIGN AND EVALUATION CRITERIA FOR DEPARTMENT OF ENERGY FACILITIES, dated January 2002.
 - k. DOE-STD-1022-94, Change Notice No. 1, Reaffirmed with Errata, NATURAL PHENOMENA HAZARDS CHARACTERIZATION CRITERIA, dated April 2002.
 - l. DOE-STD-1023-95, Change Notice No. 1, Reaffirmed with Errata, NATURAL PHENOMENA HAZARDS ASSESSMENT CRITERIA, dated April 2002.
 - m. DOE-STD-1073-2003, CONFIGURATION MANAGEMENT, dated October 2003.
 - n. DOE-STD-3024-98, CONTENT OF SYSTEM DESIGN DESCRIPTIONS, dated October 1998.
 - o. ORO M 220.1, ORO ASSESSMENT PROGRAM, dated June 20, 2006.
 - p. TM5-1300, STRUCTURES TO RESIST THE EFFECTS OF ACCIDENTAL EXPLOSIONS.
 - q. DOE/TIC-11268, A MANUAL FOR THE PREDICTION OF BLAST AND FRAGMENT LOADING OF STRUCTURES.
7. DEFINITIONS. None.
8. CONTRACTOR REQUIREMENTS DOCUMENT. None.
9. ATTACHMENTS. None.