



**Department of Energy**  
Washington, DC 20585

August 28, 1995

The Honorable John T. Conway  
Chairman  
Defense Nuclear Facilities Safety Board  
625 Indiana Avenue, N.W.  
Suite 700  
Washington, D.C. 20004

Dear Mr. Conway:

Enclosed is the thirteenth bimonthly progress report on implementation of Defense Nuclear Facilities Safety Board Recommendation 92-6. The report covers activities through July 31, 1995, and provides updates on the status of items discussed in your letter of April 29, 1994.

This document is Unclassified and is suitable for placement in the public reading room.

Sincerely,

A handwritten signature in cursive script that reads "Donald F. Knuth".

Donald F. Knuth  
Deputy Assistant Secretary  
for Facility Transition  
and Technical Support  
Defense Programs

Enclosure

cc w/enclosure:  
M. Whitaker, EH-9

ENCLOSURE

STATUS OF ACTIONS  
for the  
DEFENSE NUCLEAR FACILITIES SAFETY BOARD  
RECOMMENDATION 92-6

Report Number 13  
May 15, 1994 - July 31, 1995

## 1.0 INTRODUCTION

This report provides the status of the Department of Energy (DOE) Implementation Plan dealing with Operational Readiness Reviews in response to the Defense Nuclear Facilities Safety Board Recommendation 92-6.

## 2.0 TASK STATUS

### 2.1 TASK 1: DEVELOP A DOE ORDER ON STARTUP AND RESTART OF NUCLEAR FACILITIES

The purpose of this task was to develop a DOE Order on startup and restart of nuclear facilities. This document was developed concurrently with the Operational Readiness Review Standard listed in Task 2.

#### 2.1.1 Activities Performed During This Reporting Period

DOE Order 5480.31, "Startup and Restart of Nuclear Facilities," has been revised in compliance with Secretarial initiatives. The revision governing startup and restart of nuclear facilities is DRAFT DOE Order 440. The schedule for issue of this new order makes it inappropriate to proceed with the page change previously agreed to regarding DOE Order 5480.31 to incorporate comments from the DNFSB. This draft order has been provided to the Board via separate correspondence. During this status report period a meeting was held with EH, DP, and Board Staff regarding this draft order. The staff provided clarifying comments and these were incorporated into the DRAFT DOE Order 440. A copy of the draft order including "redlined" comments and the proposed resolution of these comments are included as Attachments 1 and 2 to this status report.

### 2.2 TASK 2: DEVELOP A STANDARD ON THE PLANNING AND CONDUCT OF OPERATIONAL READINESS REVIEWS - COMPLETE

## 3.0 OTHER INFORMATION

The Board's letter of April 29, 1994, provided comments on, and requested specific schedules for revision of, the current interim guidance for readiness reviews of weapons assembly and disassembly operations, and for completion of the interim guidance for readiness reviews of nuclear explosive test operations at the Nevada Test Site (designated Test Readiness Assessments (TRAs)). Board letters of December 9, 1994, and January 20, 1995, provided additional comments regarding these documents.

Chapter 3.7, "Weapons Assembly/Disassembly Readiness," of the Albuquerque Development and Productions Manual is the guiding process document for readiness determination for weapons assembly/disassembly operations. This document has been revised and issued. The Department is aware that the revised Chapter 3.7 may not meet the Board expectations in the level of prescription for defining the areas of:

eligibility requirements of Department of Energy/Albuquerque Operations Office (AL) Safety Evaluation (SE) Team Leader; criteria for assessing the weapon specific training and qualification program to ensure technician training is consistent throughout the dismantlement program; and specifying that a person with conduct of operations and procedural development expertise be a member of the SE team. These requirements will be incorporated into the AL Supplemental Directives which will replace Chapter 3.7 in providing guidance for readiness reviews of weapons assembly and disassembly operations.

Interim guidance regarding TRAs was accepted by the Board per your letter of July 24, 1995.

This report is provided to satisfy implementation plan requirements for Recommendation 92-6 as well as to provide status of actions in response to the Board letters of April 29 and December 9, 1994, and January 20, 1995.

Following the Board acceptance of attached resolution of Board staff comments regarding DOE Order 440 and completion of AL Supplemental Directives, we consider the actions associated with this recommendation to be complete.

# **ATTACHMENT 1**

DOE DRAFT ORDER 440

STARTUP AND RESTART OF NUCLEAR FACILITIES

1. OBJECTIVE. To establish the requirements for startup of new nuclear facilities and for the restart of existing nuclear facilities which have been shutdown. The requirements specify a readiness review process that shall, in all cases, demonstrate that it is safe to startup (or restart) the applicable facility. The facility shall be started up (or restarted) , only after documented independent reviews of readiness have been conducted and the approvals specified in this Order have been received. The readiness reviews are not intended to be tools of line management to confirm readiness. Rather, the readiness reviews provide an independent review of readiness to start or restart operations.
2. CANCELLATION: This order replaces DOE Order 5480.31, bearing the same title, in its entirety."
3. APPLICABILITY.
  - a. DOE Elements. Except for the exclusions in paragraph 3.c., this Order is applicable to all DOE program elements for hazard category 1, 2 and 3 nuclear facilities only, as defined in the DOE Glossary.
  - b. Contractors. Except for the exclusions in paragraph 3.c., Attachment 2 sets forth requirements that are to be applied to the contractors awarded DOE management and operating contracts involving the operation of DOE nuclear facilities.
  - c. Exclusions.
    - (1) The Naval Nuclear Propulsion program which is separately covered under Executive Order 12344, Public Law 98-525 (42 U.S.C. 7158, note),

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- (2) Those activities subject to the U.S. Nuclear Regulatory Commission or the U.S. Nuclear Regulatory Commission Agreement State licensing, and
- (3) Nuclear explosive operations and processes (including nuclear weapons assembly and disassembly) which are covered separately by DOE 5610 series Orders.

4. RESPONSIBILITIES.

a. DOE Line Management, shall:

- (1) Establish and ensure contractors establish procedures as necessary to manage startup and restart actions in accordance with the requirements of this Order.
- (2) Exercise the delegation authority and document all delegations of authority made under the provisions granted by this order.

b. Assistant Secretary for Environment, Safety and Health, shall:

In addition to the general Departmental responsibilities which are specified in the Functions, Assignments and Responsibilities manual (FAR), exercise independent oversight of the startup and restart process for nuclear facilities, and specifically shall:

- (1) In coordination with the cognizant Secretarial Officer (CSO), perform independent reviews of startup and restart activities as appropriate and provide results of these reviews to DOE Operational Readiness Review team leaders, cognizant Operations Office Managers, and cognizant Secretarial Officers for resolution;
- (2) Assess the Secretarial Officer, Operations Office, and contractor procedures for startup or restart of nuclear facilities and provide periodic reports to the Secretary on their effectiveness;
- (3) Review and comment upon contractor and DOE

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- (a) Initial startups of new hazard category 1, 2, and 3 nuclear facilities;
  - (b) Restart after a nuclear facility unplanned shutdown directed by a DOE management official for safety or other appropriate reasons;
  - (c) Restart after an extended shutdown for hazard category 1 and 2 nuclear facilities. Extended shutdown for a hazard category 1 nuclear facility is 6 months. Extended shutdown for a hazard category 2 nuclear facility is 12 months;
  - (d) Restart of hazard category 1 and 2 nuclear facilities after substantial process, system or facility modifications which require changes in the safety basis previously approved by DOE;
  - (e) Restart after a nuclear facility shutdown because of operations outside the safety basis; or
  - (f) When deemed appropriate by DOE management officials, including restarts of hazard category 3 nuclear facilities.
- (2) Restarts of nuclear facilities not requiring an Operational Readiness Review as defined in this Order shall be evaluated as to the need for performing a Readiness Assessment prior to restart. This includes the startup or restart of processes or systems within operating facilities when the new or restarted process does not effect the hazard classification of the facility. If the new or restarted process results in an increase to the facility hazard category, the requirements for ORRs, as stated in this Order, apply for the facility. When a Readiness Assessment is required, Operations Offices shall develop procedures for contractors to gain Operations Office approval of the startup or restart of nuclear facilities. If a Readiness Assessment is not to be performed, the contractor's standard procedures for startup or restart will be used. Other requirements for Readiness Assessments are provided in paragraph



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5c.

- (3) For nuclear facility startup or restart actions, the authorization authority for startup or restart approval shall be determined by the following:
- (a) For initial startups of new hazard category 1 and 2 nuclear facilities, the Secretary of Energy, or designee, shall approve startup. For initial startups of new hazard category 3 nuclear facilities, the Secretarial Officer, or designee, shall approve startup. If other DOE Orders require a higher level of startup authorization than this Order, the official described in this Order will recommend startup to the higher level official.
  - (b) For shutdowns directed by a DOE management official for safety or other appropriate reasons, authorization to restart shall be granted by an official of a level commensurate with the official ordering the shutdown unless a higher level is designated by the Secretarial Officer.
  - (c) For extended shutdowns of hazard category 1 nuclear facilities, the Secretarial Officer shall approve restart. For extended shutdowns of hazard category 2 nuclear facilities, the Secretarial Officer, or designee, shall approve restart.
  - (d) For shutdowns because of substantial plant or facility modifications of hazard category 1 nuclear facilities which require changes in the safety basis previously approved by DOE, the Secretarial Officer shall approve restart. For such shutdowns of hazard category 2 nuclear facilities, the Secretarial Officer, or designee, shall approve restart.
  - (e) For facility shutdowns due to operations outside the safety basis, the official

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plans-of-action and Operational Readiness Review Implementation Plans for startup or restart of nuclear facilities, including the specification of the EH proposed involvement in the startup or restart activities, in a timely fashion;

- (4) Review and comment upon the Operational Readiness Review final report recommendations regarding startup or restart to the DOE startup or restart approving official;
- (5) Provide any dissenting opinion on the readiness of a facility to startup or restart to DOE line management or the Secretary if a significant safety concern is not being properly corrected; and
- (6) If requested by the Secretary, concur in the final decision to startup or restart a nuclear facility.

5. REQUIREMENTS. Guidance on use of the graded approach, recommended methods, and alternate methods are provided in DOE-STD-3006-95. The DOE-STD-3006-95 approaches and methods have been approved as acceptable for implementing the requirements of this Order. Other approaches and methods may be used provided they are justified, documented, and approved in accordance with the requirements of this Order.

Heads of DOE Elements shall ensure that initiators of procurement requests shall identify in procurement requests if the requirements in the Contractor Requirements Document for this Order are to be applied to the award or subawards resulting from the procurement request.

a. General.

- (1) DOE line management shall determine, and ensure that contractor management determines, if Operational Readiness Reviews are required for startup of new nuclear facilities or restart of a nuclear facility using the requirements given below. DOE shall conduct and ensure that contractors conduct an Operational Readiness Review in accordance with this Order when any of the following conditions occur:

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approving restart shall be commensurate with the approval authority for the safety basis. If the safety basis was approved by a Headquarters official, the Secretarial Officer, or designee, shall approve restart. If the safety basis was approved by a field official, the Operations Office Manager, or designee, shall approve restart.

- (f) For startups or restarts of nuclear facilities for which Operational Readiness Reviews were required as a result of a DOE official deeming it appropriate, the official approving startup or restart shall be of a level commensurate with the official directing the review. If a Headquarters official directed an Operational Readiness Review be performed, the Secretarial Officer, or designee, shall approve the startup or restart. If a field official directed an Operational Readiness Review, the Operations Office Manager, or designee, shall approve the startup or restart.

b. Requirements Applicable to Startups or Restarts of Nuclear Facilities Involving Operational Readiness Reviews. (These requirements are listed sequentially.)

- (1) For Operational Readiness Reviews, DOE line management shall require contractors to prepare the following documents: startup/restart notification reports, plans-of-action, Operational Readiness Reviews Implementation Plans, and final reports. DOE line management shall prepare its plans-of-action, Operational Readiness Review Implementation Plans, and final reports. The resolution of all findings from the Operational Readiness Reviews shall be documented and maintained with the plans-of-action, Implementation Plans, and final reports.
- (2) DOE line management shall develop and ensure the contractor develop the breadth of the Operational Readiness Review and document it in each plan-of-action. Development of the plan-of-action may employ a graded approach. A minimum set of core requirements, as defined in

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Attachment 1, shall be addressed when developing the breadth of the Operational Readiness Review. The plan-of-action may reference a timely, independent review which addressed the requirement in a technically satisfactory manner to justify not performing further evaluation of a core requirement, or portion thereof. During conduct of the Operational Readiness Review, the breadth may be expanded by the Operational Readiness Review team, if appropriate.

- (3) The contractor and DOE Operational Readiness Review plans-of-action shall be approved by the startup or restart authorities defined in paragraphs 5a(3)(a) through 5.a(3)(f). DOE line management shall ensure the contractor's plan-of-action specify the prerequisites for starting the responsible contractor's Operational Readiness Review; the prerequisites shall address each core requirement of Attachment 1 determined to be applicable when developing the scope of the Operational Readiness Review. The DOE plan-of-action shall specify additional prerequisites such as certification of readiness to oversee facility operations by Operations Office and Headquarters management. The plans-of-action shall be provided to EH for review and comment.
- (4) DOE line management shall appoint and ensure that contractor management appoints Operational Readiness Review teams in accordance with the following qualifications and training requirements. The requirements to ensure technical competence and assessment expertise of Operational Readiness Review team members are
- (a) A technical knowledge of the area assigned for evaluation. The knowledge should include experience working in the technical area.
  - (b) A knowledge of performance-based assessment processes and methods.
  - (c) A knowledge of facility specific information.

The Operational Readiness Review teams shall not

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include as senior members (including team leader) individuals who are from offices assigned direct line management responsibility for the work being reviewed: any exceptions require approval of the startup or restart authority. Additionally, no Operational Readiness Review team member should review work for which he or she is directly responsible.

The DOE and contractor Operational Readiness Review team leaders shall determine and document qualifications of Operational Readiness Review team members.

- (5) The Operational Readiness Review team shall determine the criteria and review approaches to be used for the review based on the approved breadth given in the plan-of-action and document the criteria and review approaches in the Operational Readiness Review Implementation Plan.
- (6) The Operational Readiness Review team leader shall approve the Implementation Plan and use it to conduct the Operational Readiness Review. The implementation plan shall be provided to EH for review and comment.
- (7) The prerequisites for starting the DOE Operational Readiness Review are: (1) DOE line management has received correspondence from the responsible contractor certifying that the facility is ready to startup or restart and this has been verified by the contractor Operational Readiness Review; (2) DOE line management has verified that the contractor's preparations for startup or restart have been completed; and (3) DOE line management has certified that it meets the DOE Plan-of-Action which includes, as a minimum, the applicable DOE-specific core requirements given in Attachment 1. At the start of the DOE Operational Readiness Review, all actions required for startup or restart shall be complete with the exception of a manageable list of open prestart findings that have a well defined schedule for closure to allow review of the results of the closure process by the DOE Operational Readiness Review team. In the certification and verification

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process, DOE Operations Office line management shall document their actions taken to verify Operations Office and contractor readiness including review of closure of contractor Operational Readiness Review findings, assessments of completion of defined prerequisites, and other assessments performed to ascertain readiness. Specific events significant to the startup and restart process which occur prior to the formal commencement of the Operational Readiness Review (e.g., site emergency response drills, integrated equipment testing, etc.) shall be reviewed by the DOE Operational Readiness Review team when they are conducted.

- (8) Upon completion of the contractor or DOE Operational Readiness Review, a final report shall be prepared and approved by the Operational Readiness Review team leader. The final report shall document the results of the Operational Readiness Review and make a conclusion as to whether startup or restart of the nuclear facility can proceed safely. There shall be a statement in each Operational Readiness Review final report as to whether all identified nonconformances or schedules for gaining compliance with applicable DOE Orders, Secretary of Energy Notices, and Standards/Requirements Identification Documents within the scope of the ORR have been justified in writing, have been formally approved, and in the opinion of the Operational Readiness Review team, maintain adequate protection of the public health and safety, worker safety, and the environment. This conclusion shall be based on:
- (a) Review of the program to document conformance with applicable DOE requirements, including a process to address new requirements.
  - (b) Extensive use of references to DOE requirements in the Operational Readiness Review documentation.

Additionally, there shall be a "Lessons Learned" section of the final report which may relate to design, construction, operation and

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decommissioning of similar facilities and to future Operational Readiness Review efforts.

- (9) The mechanism for closure of DOE Operational Readiness Review prestart findings shall include:
- (a) Development of action plans, approved by DOE, to correct the findings.
  - (b) Documentation of completion of response actions responding to the findings in a closure package.
  - (c) DOE verification of closure of prestart findings. The organization verifying the closure will be designated by the startup or restart authority.
- (10) DOE line management shall ensure the contractor has satisfied all prestart findings of the DOE Operational Readiness Review prior to startup or restart of the facility.
- (11) The final report shall be submitted to the startup/restart authority to be used as a basis to grant approval of the start or restart of the nuclear facility. A copy of the final report shall be provided to EH for review and comment.
- c. Requirements Applicable to Startup or Restarts of Nuclear Facilities Involving Readiness Assessments.
- (1) The Operations Office or designee establishes the procedures for Readiness Assessments. Operations Offices shall establish procedures for their offices and ensure the contractor establish procedures which define when a Readiness Assessment is required and provide requirements for contractors to gain Operations Office approval of the startup or restart of nuclear facilities. The procedures shall require that a formal plan-of-action be developed that includes, as a minimum, the breadth of the assessment, team leader designation, and prerequisites for the assessment and shall be approved by the startup or restart authority. For shutdowns directed by contractor management, these procedures may

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indicate that, unless for serious safety reasons, the contractor management may be the startup or restart authority.

- (2) The Operations Offices Readiness Assessment procedures. The procedures shall indicate the breadth and depth of an Operational Readiness Review.
  - (3) The approval authority, as designated by the Operations Office Manager or designee, may approve the startups or restarts after any prestart findings are corrected.
- d. All documents pertaining to Operational Readiness Reviews or Readiness Assessments shall be maintained in accordance with DOE 1324.2A, RECORDS DISPOSITION, of 9-13-88.
6. CONTACT. Questions concerning this Order should be referred to the Director, EH-31.

BY ORDER OF THE SECRETARY OF ENERGY

August 17, 1995



**ATTACHMENT 1  
MINIMUM CORE REQUIREMENTS**

Each of the core requirements listed below, as a minimum, shall be addressed when developing the breadth of an Operational Readiness Review. Justification shall be provided in the plan-of-action, prepared in accordance with Paragraph 5b(2) and (3) of this Order, if it is determined that a particular core requirement is not applicable or will not be reviewed. The plan-of-action may reference a timely, independent review which addressed the requirements in a technically sound manner to justify not performing further evaluation of a core requirement during conduct of an Operational Readiness Review.

**Minimum Core Requirements**

1. There are adequate and correct procedures and safety limits for operating the process systems and utility systems;
2. Training and qualification programs for operations and operations support personnel have been established, documented, and implemented (the training and qualification program encompasses the range of duties and activities required to be performed);
3. Level of knowledge of operations and operations support personnel is adequate based on reviews of examinations and examination results, and selected interviews of operating and operations support personnel.
4. Facility safety documentation is in place that describes the "safety envelope" of the facility. The safety documentation should characterize the hazards/risks associated with the facility and should identify mitigating measures (systems, procedures, administrative controls, etc.) that protect workers and the public from those hazards/risks. Safety systems and systems essential to worker and public safety are defined and a system to maintain control over the design and modification of facilities and safety-related utility systems is established;
5. A program is in place to confirm and periodically reconfirm the condition and operability of safety systems, including safety related process systems and safety related utility systems. This includes examinations of records of tests and calibration of safety system and other instruments which monitor limiting conditions of operation or that satisfy Technical Safety Requirements. All systems are currently operable and in a satisfactory condition;

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MINIMUM CORE REQUIREMENTS**

6. A process has been established to identify, evaluate, and resolve deficiencies and recommendations made by oversight groups, official review teams, audit organizations, and the operating contractor;
7. A systematic review of the facility's conformance to applicable DOE Orders has been performed, any nonconformances have been identified, and schedules for gaining compliance have been justified in writing and formally approved;
8. Management programs are established, sufficient numbers of qualified personnel are provided, and adequate facilities and equipment are available to ensure operational support services (e.g., training, maintenance, waste management, environmental protection, industrial safety and hygiene, radiological protection and health physics, emergency preparedness, fire protection, quality assurance, criticality safety, and engineering) are adequate for operations.
9. A routine and emergency operations drill program, including program records, has been established and implemented;
10. An adequate startup or restart test program has been developed that includes adequate plans for graded operations testing to simultaneously confirm operability of equipment, the viability of procedures, and the training of operators;
11. Functions, assignments, responsibilities, and reporting relationships are clearly defined, understood, and effectively implemented with line management responsibility for control of safety;
12. The implementation status for DOE Order 5480.19, "Conduct of Operations Requirements for DOE Facilities," is adequate for operations;
13. There are sufficient numbers of qualified personnel, to support safe operations;
14. A program is established to promote a site-wide culture in which personnel exhibit an awareness of public and worker safety, health, and environmental protection requirements and, through their actions, demonstrate a high priority commitment to comply with these requirements;

**ATTACHMENT 1  
MINIMUM CORE REQUIREMENTS**

15. The facility systems and procedures, as affected by facility modifications, are consistent with the description of the facility, procedures, and accident analysis included in the safety basis.
16. The technical and managerial qualifications of those personnel at the DOE Field organization and at DOE Headquarters who have been assigned responsibilities for providing direction and guidance to the contractor, including the Facility Representatives, are adequate (DOE Operational Readiness Review only);
17. The results of the responsible contractor Operational Readiness Review are adequate to verify the readiness of hardware, personnel, and management programs for operations (DOE Operational Readiness Review only);
18. Modifications to the facility have been reviewed for potential impacts on procedures and training and qualification. Procedures have been revised to reflect these modifications and training has been performed to these revised procedures;
19. The technical and management qualifications of contractor personnel, responsible for facility operations, are adequate; and
20. DOE Operations Office Oversight Programs such as Occurrence Reporting, Facility Representative, Corrective Action, and Quality Assurance Programs are adequate (DOE Operational Readiness Review only).

ATTACHMENT 2  
CONTRACTOR REQUIREMENTS DOCUMENT

1. CONTRACTOR RESPONSIBILITIES.

a. DOE Contractors, shall:

- (1) Establish procedures as necessary to manage startup and restart actions in accordance with the requirements of this Order.

2. CONTRACTOR REQUIREMENTS.

a. General.

- (1) Contractor management shall determine, if Operational Readiness Reviews are required for startup of new nuclear facilities or restart of a nuclear facility using the requirements given in section 5.a.(1) of this Order. Contractors shall conduct an Operational Readiness Review in accordance with this Order when any of the conditions in section 5.a.(1) of this Order occur.
- (2) Restarts of nuclear facilities not requiring an Operational Readiness Review as defined in this Order shall be evaluated as to the need for performing a Readiness Assessment prior to restart. This includes the startup or restart of processes or systems within operating facilities when the new or restarted process does not effect the hazard classification of the facility. If the new or restarted process results in an increase to the facility hazard category, the requirements for ORRs, as stated in this Order, apply for the facility. When a Readiness Assessment is required, contractors shall follow Operations Offices procedures for contractors to gain Operations Office approval of the startup or restart of nuclear facilities. These procedures may specify a graded approach in the development of Readiness Assessment requirements. If a Readiness Assessment is not to be performed, the contractor's standard procedures for startup or restart will be used. Other requirements for Readiness Assessments are provided in paragraph 2c of this Attachment.

**b. Requirements Applicable to Startups or Restarts of Nuclear Facilities Involving Operational Readiness Reviews. (These requirements are listed sequentially.)**

- (1) For planned Operational Readiness Reviews, Contractors shall prepare the following documents: startup/restart notification reports, plans-of-action, Operational Readiness Reviews Implementation Plans, and final reports. The resolution of all findings from the Operational Readiness Reviews shall be documented and maintained with the plan-of-action, Implementation Plan, and final report.**
- (2) The contractor shall notify the cognizant Operations Office of planned Operational Readiness Reviews and Readiness Assessments;**
- (3) The contractor shall develop the breadth of the Operational Readiness Review and document it in the plan-of-action. A minimum set of core requirements, as defined in Attachment 1, shall be addressed when developing the breadth of the Operational Readiness Review. The plan-of-action may reference a timely, independent review which addressed the requirement in a technically satisfactory manner to justify not performing further evaluation of a core requirement, or portion thereof, during conduct of the Operational Readiness Review. The breadth may be expanded at a later time by the Operational Readiness Review team, if appropriate.**
- (4) The contractor's plan-of-action shall specify the prerequisites for starting the responsible contractor's Operational Readiness Review; the prerequisites shall address each core requirement of Attachment 1 determined to be applicable when developing the scope of the Operational Readiness Review.**
- (5) Contractor management shall appoint Operational Readiness Review teams in accordance with the requirements of section 5.b.(4) of this Order.**
- (6) The Operational Readiness Review team shall determine the criteria and review approaches to be used for the review based on the approved breadth given in the plan-of-action and document the criteria and review approaches in the Operational Readiness Review Implementation Plan.**
- (7) The Operational Readiness Review team leader shall approve the Implementation Plan and use it to conduct the Operational Readiness Review. The implementation plan shall be provided to EH for review and comment.**

- (8) The contractor shall perform its Operational Readiness Review after its line management certifies that the facility is ready to operate.
- (9) The responsible contractor shall certify by correspondence to DOE line management that the facility is ready to startup or restart and this has been verified by the contractor Operational Readiness Review.
- (10) At the start of the DOE Operational Readiness Review, all contractor actions required for startup or restart shall be complete with the exception of a manageable list of open prestart findings that have a well defined schedule for closure to allow review of the results of the closure process by the DOE Operational Readiness Review team.
- (11) Upon completion of the contractor Operational Readiness Review, a final report shall be prepared and approved by the Operational Readiness Review team leader. The final report shall be prepared in accordance with the requirements of section 5.b.(8) of this Order.
- (12) The mechanism for closure of DOE Operational Readiness Review prestart findings shall include:

  - (a) Development of action plans, approved by DOE, to correct the findings.
  - (b) Documentation of completion of response actions responding to the findings in a closure package.
- (13) The contractor shall satisfy all prestart findings of the DOE Operational Readiness Review prior to startup or restart of the facility.

c. Requirements Applicable to Startup or Restarts of Nuclear Facilities involving Readiness Assessments.

- (1) The Operations Office or designee establishes the procedures for Readiness Assessments. The contractor shall establish procedures in conformance with Operations Offices procedures which define when a Readiness Assessment is required. Contractor procedures shall satisfy the Operations Office requirements to gain Operations Office approval of the startup or restart of nuclear facilities. The procedures shall require that a formal plan-of-action be developed that includes, as a minimum, the breadth of the assessment, team leader designation, and prerequisites for the assessment and shall be approved by the startup or restart authority. These procedures may indicate that for shutdowns directed by contractor management, unless for serious safety reasons, the contractor management may be the startup or restart authority.

# ATTACHMENT 2



**DNFSB STAFF DRAFT ORDER 440 COMMENT RESOLUTION**

**Comment Number: 1**

**Comment**

Requirements of section 9.b.(2) of DOE Order 5480.31, "Startup and Restart of Nuclear Facilities," to define the prerequisites for contractor ORRs based on each core requirement in Attachment 2 to the Order and prerequisites to be defined for DOE Operational Readiness Reviews (ORRs) should be retained in DOE Order 440.

**Comment Resolution:**

The text has been revised as requested.

**Revised Draft 440 Text:**

5.b.(3) The contractor and DOE Operational Readiness Review plans-of-action shall be approved by the startup or restart authorities defined in paragraphs 5.a.(3)(a) through 5.a.(3)(f). DOE line management shall ensure the contractor's plan-of-action specify the prerequisites for starting the responsible contractor's Operational Readiness Review; the prerequisites shall address each core requirement of Attachment 1 determined to be applicable when developing the scope of the Operational Readiness Review. The DOE plan-of-action shall specify additional prerequisites such as certification of readiness to oversee facility operations by Operations Office and Headquarters management. The plans-of-action shall be provided to EH for review and comment.

**Comment Number: 2**

**Comment**

Requirements of section 9.b.(3) of DOE Order 5480.31 that call for a minimum set of core requirements, as defined in Attachment 2, to be addressed when developing the breath of the ORR should be retained in Order 440. Accordingly, the Attachment 2 minimum core requirements of DOE Order 5480.31 should be retained in DOE Order 440.

August 2, 1995

Comment Resolution:

Section 5.b.(2) of DOE Order 440 has been revised to incorporate reference to the minimum core requirements which will be included in DOE Order 440 as "Attachment 1."

Revised Draft 440 Text:

5.b.(2) DOE line management will develop and ensure the contractor develop the breadth of the Operational Readiness Review and document it in each plan-of-action. Development of the plan-of action may employ a graded approach for which DOE-STD-3006-93 provides guidance. A minimum set of core requirements, as defined in Attachment 1, shall be addressed when developing the breadth of the Operational Readiness Review. The plan-of-action may reference a timely, independent review which addressed the requirement in a technically satisfactory manner to justify not performing further evaluation of a core requirement, or portion thereof, during conduct of the Operational Readiness Review. The breadth may be expanded at a later time by the Operational Readiness Review team, if appropriate.

Comment Number: 3

Comment

The statement in section 9.b.(3) of DOE Order 5480.31 regarding allowance for a timely independent review which addresses a core requirement in a technically satisfactory manner to be used to justify not performing further evaluation of a core requirement, or portion thereof, during an ORR should be retained in DOE Order 440.

Comment Resolution:

The text of DOE Order 440, section 5.b.(2) has been revised as requested.

Revised Draft 440 Text:

See revised Draft Order 440 text provided in comment response number 2.

August 2, 1995

**DNFSB STAFF DRAFT ORDER 440 COMMENT RESOLUTION**  
(Continued)

**Comment Number:**        4

**Comment**

The qualification requirements of section 9.b.(5) of DOE Order 5480.31 for ORR team members should be retained in DOE Order 440.

**Comment Resolution:**

The text of DOE Order 440, section 5.b.(4) has been revised as requested.

**Revised Draft 440 Text:**

5.b.(4)    DOE line management shall appoint and ensure that contractor management appoints Operational Readiness Review teams in accordance with the following requirements. The DOE and contractor Operational Readiness Review team leaders will determine and document qualifications of Operational Readiness Review team members. Qualifications and training requirements to ensure technical competence and assessment expertise of Operational Readiness Review team members are:

- (a)    A technical knowledge of the area assigned for evaluation. The knowledge should include experience working in the technical area.
- (b)    A knowledge of performance-based assessment processes and methods.
- (c)    A knowledge of facility specific information.

Guidance on qualification and training of Operational Readiness Review team members is provided in DOE-STD-3006. The Operational Readiness Review teams shall not include as senior members (including team leader) individuals who are from offices assigned direct line management responsibility for the work being reviewed: any exceptions require approval of the startup or restart authority. Additionally, no Operational Readiness Review team member should review

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(Continued)

work for which he or she is directly responsible.

**Comment Number:** 5

**Comment**

The requirements of section 9.a.(3) and 9.a.(4) defining DOE Order 5480.23 as the reference for defining facility hazard category in determination of when an ORR is performed and who will be the Startup/Restart authority should be retained in DOE Order 440.

**Comment Resolution:**

A last sentence has been added to the "Applicability" section of DOE Order 440 as indicated below.

**Revised Draft 440 Text:**

DOE Elements. Except for exclusions in paragraph 3.c., this Order is applies to all DOE program elements for Hazard Category 1, 2, and 3 nuclear facilities only, as defined in the DOE Glossary.