

**[DOE LETTERHEAD]**

January 15, 1993

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:

This is in response to the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 92-6 regarding Operational Readiness Reviews (ORRs). As reported to you in my acceptance letter of October 19, 1992, we have been developing standards for the planning and conduct of ORRs at the Department of Energy.

As our experience has grown with the conduct of ORRs at various facilities, we have been able to refine the process to a point where we feel confident in our abilities to determine readiness for operations at the defense nuclear facilities. Each ORR has been unique; therefore we must have the ability to plan each review in a tailored manner. We refer to this as a graded approach, and it is one of the fundamental tenets in the enclosed Implementation Plan. The graded approach concept provides guidance upon which to plan individual ORRs based upon specific facility characteristics such as: hazard potential, complexity, and present and future missions. It provides flexibility, which is fundamental to the success of an ORR.

Enclosed is the Implementation Plan for Recommendation 92-6.

Sincerely,

***James D. Watkins***  
***Admiral, U.S. Navy (Retired)***

Enclosure

IMPLEMENTATION PLAN FOR DEFENSE NUCLEAR FACILITIES SAFETY BOARD  
(DNFSB)  
RECOMMENDATION 92-6

OPERATIONAL READINESS REVIEWS

It is the Department of Energy (DOE) policy that all facilities and activities shall be operated with adequate safety and health protection provided for the workers and the public and adequate protection for the environment. Furthermore, all operations shall be conducted in accordance with applicable DOE Orders, requirements, and regulations.

Preparations for new start or restart of nuclear facility operations shall be disciplined, systematic, and documented and shall provide an adequate basis for authorization to proceed. The primary components of the new start/restart determination shall be an Operational Readiness Review (ORR) conducted by the responsible contractor and an evaluation of readiness by a DOE ORR. The contractor shall focus on the readiness of hardware, personnel, and procedures and compliance with requirements. The objective of the DOE ORR is to ascertain, with a qualified team of experts, that approved standards for facility operations including the safety envelope have been effectively implemented, through a performance-based examination of facilities, equipment, personnel, procedures, and administrative control systems.

The breadth and depth of the contractor and DOE ORRs shall be appropriately adjusted to the planned mission and associated risks of the facility. This systematic approach to readiness determination shall be adjusted to correspond to the hazard potential, complexity, and present and future mission of the facility or activity. This concept is referred to as a graded approach and is not a precise process but notional guidance upon which to plan individual ORRs.

Responses to individual recommendations contained in DNFSB Recommendation 92-6

Recommendation 1

DOE expeditiously develop an effective set of rules, procedures, orders, directives, and other requirements to govern safety aspects of the Operational Readiness Review process, subject to the principle that the purpose of such a Review is confirmation of an acceptable state of readiness.

DOE Response

As stated in the acceptance letter for Recommendation 92-6, the DOE is currently developing a DOE Order on startup and restart of nuclear facilities which will be approved and signed by March 1, 1993. This Order will incorporate the already published Secretary of Energy Notice SEN-16B-91 dated November 12, 1991, on Approval for Restart of Facilities Shut Down for Safety Reasons and for Startup of Major New Facilities and the PSO-approved Office of Nuclear Energy Memorandum on DOE Procedure for Restart of Reactors and Non- Reactor Nuclear Facilities dated February 26, 1992.

To support this order a standard on the planning and conduct of ORRs (ORR Guideline Manual) will be developed by senior representatives from the Offices of: Defense Programs (Chairman); Environmental Restoration and Waste Management; Nuclear Energy; Environment, Safety and Health; Nuclear Safety; and Administration and Management. This Manual will incorporate the precepts contained herein and those in the DOE Order and, in addition, will institutionalize the successful approaches and lessons learned from recent ORRs conducted by the Department. The target date for completion of this Manual is June 30, 1993.

These documents will provide detailed procedures, specific guidance, and policies to follow regarding requirements for contractor, DOE Field Office, and DOE Headquarters in the planning and conduct of readiness reviews and assessments.

#### Prerequisites for an Operational Readiness Review

The Order and Guidance Manual will reflect our basic approach to readiness determination and validation which includes certification by the contractor and the DOE Field Office that necessary prerequisites have been met prior to the start of a DOE ORR. These prerequisites include:

- o Technical Specifications, or equivalent, and supporting safety documentation are approved;
- o Configuration management system is in place;
- o An order compliance system is in place;
- o Formal programs have been established for training and qualification, procedure development, conduct of operations, radiological controls, issues management, and quality assurance; and
- o The contractor ORR is complete.

#### Team Training and Qualification for Operational Readiness Reviews

With regard to additional Headquarters activity addressing ORRs, we intend to train ORR team members. Our goal is to maximize DOE personnel participation in ORRs and to tailor the training to qualify technically experienced individuals to be technical experts on an ORR team. Training will be mainly in the form of on-the-job hands on performance-based inspection techniques.

#### Recommendation 2

DOE develop specific criteria for when Operational Readiness Reviews are required and when they are not.

#### DOE Response

The PSO-approved Office of Nuclear Energy Memorandum on DOE Procedure for Restart of Reactors and Non-Reactor Nuclear Facilities dated February 26, 1992, defines six different categories of restarts pertaining to DOE nuclear facilities. The new DOE Order referred to above will be based upon these categories and will in-turn impose the type of readiness determination to be followed by the contractor, DOE Field Office, and DOE Headquarters for that facility. In general major facility startups, as determined by the PSO, and restarts following a Secretary of Energy directed shutdown (Type 1 restart) will require contractor and DOE Headquarters ORRs before startup/restart. Specific criteria will be presented in the guidance documents referenced above for other situations in which Headquarters ORRs will be required. In lesser situations like Type 4 or 5 restarts, the DOE Field Office will conduct a Readiness Assessment (RA) after the contractor has conducted an ORR.

### Recommendation 3

The plan for each ORR incorporates the features discussed above as desirable as well as those that were recommended in the Board's Recommendation 90-4.

### DOE Response

The guidance documents under development by the Department will include the following elements that are responsive to features listed in the Board's recommendation:

- o The DOE ORR Team Leader and a majority of the members shall be independent from the facility under scrutiny such that they will not have any responsibility for accomplishing the work being reviewed.
- o The DOE ORR and the contractor ORR will be conducted in serial fashion. That is, the DOE ORR will not commence until the contractor has notified DOE in writing that the facility is ready to commence operations.
- o As the first step in the review process, the Team Leader and technical experts shall develop the DOE ORR Implementation Plan which will include a description of the process to be followed; a statement of the review objectives; and identification of the oversight groups and DOE organizations to be involved in the review. The Implementation Plan shall also identify the criteria and review approaches. It also shall include the criteria by which findings will be categorized as findings (pre-restart) or observations (post-restart). The DOE ORR Implementation Plan shall be provided to appropriate oversight groups and higher level DOE management, as identified in the Implementation Plan, for review and comment prior to commencement of the DOE ORR.
- o The criteria and review approaches should include consideration of the following within the graded approach concept:
  - Approved Technical Safety Requirements (TSRs) and underlying safety documentation to identify critical safety parameters;

- Changes to the TSRs and supporting safety documentation resulting from hardware modifications or a change in operations;
  - The adequacy of conduct of operations and quality assurance programs and activities;
  - Occupational safety and health requirements and the means selected to assure their proper implementation;
  - Adequacy of resolution of any unreviewed safety question determination;
  - Implementation of commitments made in the approved supporting safety documentation;
  - Agreements, permits, and statutes to identify environmental protection requirements;
  - Review of qualifications of contractor personnel responsible for the facility operations;
  - Assessment of the technical and managerial qualifications of those in the DOE field organization who have been assigned responsibilities for direction and guidance to the contractor, including the Facility Representative, as required.
  - Assessment of the technical and managerial qualifications of those in the DOE Headquarters program office who have been assigned responsibilities for approving unusual occurrence reports, implementation plans for technical field activities, action plans for remedial or corrective measures for identified deficiencies, Compliance Schedule Agreements, and Order Compliance Programs.
  - Assessment of the knowledge and skills of contractor managers, operators, technicians, and support personnel.
  - Assessment of the material readiness and maintenance of operational equipment and safety envelope equipment.
- o The DOE ORR will include DOE Orders, directives, and Secretary of Energy Notices as primary references for determining acceptance criteria and standards for specific review categories. As part of the management review conducted under that criteria in the ORR, the contractor Order Compliance program will be examined and various Compliance Schedule Approvals examined for justification and formal approval. The examination of order compliance by the DOE ORR team shall be sufficient to make an informed judgement regarding adequate protection of the public health and safety, including worker safety.

## Progress Reports

Periodic progress reports will be provided to the DNFSB regarding the milestones listed in Attachment A of the Implementation Plan.

Attachment: Commitments and due dates for DNFSB Recommendation 92-6 Implementation Plan

### ATTACHMENT

#### COMMITMENTS AND DUE DATES FOR DEFENSE NUCLEAR FACILITIES SAFETY BOARD RECOMMENDATION 92-6 IMPLEMENTATION PLAN

##### 92-6 Implementation Plan

| Commitment  | Due Date |
|---|----------|
| 1. DOE Order on startup and restart of nuclear facilities published.<br>(NE coordinate) | 3/1/93   |
| 2. ORR Guideline Manual published   | 5/30/93  |