

IMPLEMENTATION PLAN  
FOR  
DEFENSE NUCLEAR FACILITIES SAFETY BOARD  
RECOMMENDATION 91-4

## 1.0 BACKGROUND

This implementation plan has been prepared in response to the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 91-4, dated September 30, 1991. Recommendation 91-4 supplements DNFSB Recommendation 90-4 to conduct an Operational Readiness Review (ORR) for plutonium operations at the Rocky Flats Plant (RFP). The ORR team is formed by and reports to the Assistant Secretary for Defense Programs.

Building 559, an analytical chemistry laboratory, is the first plutonium operations building scheduled to resume operations. A Department of Energy (DOE) ORR team was onsite during April 1 through 5, and June 24 through July 19, 1991. However, the completion status of many activities was such that the DOE ORR team was unable to complete its review in some areas and unable to begin such a review in others.

## 2.0 PURPOSE

The purpose of this implementation plan is to describe DOE's plans for implementing DNFSB Recommendation 91-4 to improve upon the effectiveness of the ORR process in verifying the readiness of the RFP to resume plutonium operations. In Recommendation 91-4, the DNFSB also made a specific recommendation regarding the implementation of DOE Safety Orders at the RFP. This plan describes how the four specific recommendations contained in DNFSB Recommendation 91-4 are to be implemented by DOE at the RFP.

## 3.0 SCOPE

The actions described in this plan shall apply to the resumption of plutonium operations in Building 559 at the RFP.

## 4.0 OVERALL APPROACH

Defense Nuclear Facilities Safety Board Recommendation 91-4 is a set of recommendations containing four specific recommendations designed to assure that the readiness of the RFP to resume plutonium operations is confirmed by a properly implemented ORR in each building to be resumed. The Department's approach for implementing each specific recommendation is described below.

4.1 Recommendation 91-4, Item 1 - "A DOE ORR team, including a Senior Advisory Group, using as many as may still be available of the original members, complete the ORR for Building 559, but only when (a) DOE has adequate reason to believe that the deficiencies it has identified during its original ORR have been corrected or are appropriately near closure with credible timetables toward closure, and (b) EG&G has issued a Readiness to Proceed Memorandum requesting DOE approval for resumption of plutonium operations in the building, subject to scheduled elimination of the deficiencies." The Department agrees with this recommendation.

4.1.1. The Department will assure that the deficiencies (i.e., the findings) identified during the original ORR of Building 559 have been corrected or are appropriately near closure with credible timetables towards closure in the following manner:

- o Action plans shall be developed which describe the actions necessary to resolve the deficiency. The adequacy of the action plans will be assessed through a review by the DOE Rocky Flats Office (RFO).
- o Closure of an appropriate sample of the action plans shall be independently verified by DOE line management, prior to commencement of the ORR.
- o For any items which are not complete, the contractor shall state, in writing, and the RFO shall verify that the items are appropriately near closure with credible timetables for achieving closure.

4.1.2. Prior to initiation of the DOE ORR of Building 559, the contractor shall be required to issue a Readiness to Proceed Memorandum, requesting DOE approval for resumption of plutonium operations in the building, subject to scheduled elimination of deficiencies identified in the Readiness to Proceed Memorandum or by the ORR. To assure completeness of the Readiness to Proceed Memorandum, the following actions will occur:

- o The Readiness to Proceed Memorandum shall identify all open items and provide schedules for closure.
- o After receiving the Readiness to Proceed Memorandum and before initiation of the ORR, the RFO will also state, in writing, readiness to proceed based on surveillance of an appropriate sample of activities, performed by the RFO staff.

4.2 Recommendation 91-4, Item 2 - "The DOE ORR team continue its review consistent with the requirements of Recommendation 90-4, and its implementation plan. Namely, that the review be structured to include, but not be limited to, the following items:

- o Independent assessment of the adequacy and correctness of process and utility systems operating procedures. Consistent with the contractor's operating philosophy, these procedures should be in sufficient detail to permit the use of the "procedural compliance" concept.
- o Assessment of the level of knowledge achieved during operator requalification as evidenced by review of examination questions and examination results, and by selective oral examinations of operators by members of the review group.
- o Examination of records of tests and calibration of safety systems and other instruments monitoring Limiting Conditions of Operation or that satisfy Operating Safety Requirements.
- o Verification that all plant changes, including modifications of vital safety systems plutonium processing workstations, have been reviewed for potential impact on procedures, training, and requalification, and that

training and requalification have been done using the revised procedures.

- o Examination of each building's Final Safety Analysis Report to ensure that the description of the plant, procedures, and the accident analysis are consistent with the plant as affected by safety related modifications made during the outage period."

The Department agrees with this recommendation and will implement it in accordance with the plan for implementation of Recommendation 90-4.

4.3 Recommendation 91-4, Item 3 - "The DOE ORR team include in its final report a description of remaining issues which require closure, if any, and an overall conclusion of readiness of Building 559 to resume operations." The Department agrees with and will implement this recommendation as follows:

- o A memorandum will be issued to the DOE ORR team leader directing that the final report include a description of any remaining issues which require closure, if any, and an overall conclusion of readiness of Building 559 to resume operations.

4.4 Recommendation 91-4, Item 4 - "EG&G and DOE complete their assessment of compliance with DOE Safety Orders at Building 559, and their implementation of any compensatory measures that may be needed to achieve the objectives of compliance, as necessary, and appropriate for resumption of plutonium operations in Building 559."

The Department agrees with this recommendation and has, in fact, been pursuing this course of action. Prior to resumption, the following will be accomplished for Building 559 for all 43 DOE Orders (see attached list) which the Board has identified as of particular interest to the Board.

For all 43 Orders applicable to Building 559:

- a. Each Order will be analyzed to identify the requirements within the Order. Any Order, the provisions of which do not currently apply to the Rocky Flats Plant, will be specifically identified.
- b. Assessments will be performed by the DOE Headquarters Program Office, RFO, and EG&G, as appropriate, to determine the status of compliance with each of the requirements identified in 4.4.a., above, that apply to Building 559.
- c. Compensatory measures for Building 559 will be identified, where needed, and confirmed as being in place and implemented. Implementation of the compensatory measures for Building 559 will be audited by DOE prior to resumption.

## 5.0 Deliverables and Schedule

Copies of the action plans described in Section 4.1.1 will be provided to DNFSB.

A copy of the EG&G Readiness to Proceed Memorandum described in Section 4.1.2 will be provided to DNFSB after approval by DOE and before initiation of the ORR.

A copy of the RFO memorandum documenting readiness to proceed will be provided to the DNFSB prior to initiation of the ORR.

Documents which demonstrate the accomplishment of the activities described in Section 4.4 will be provided to DNFSB as they are completed and prior to resumption.

DOE Safety Orders of Interest to DNFSB

<u>Order #</u>	<u>Subject</u>
1.	1300.2 Department of Energy Standards Program
2.	1360.2A Unclassified Computer Security Program
3.	1360.4A Scientific and Technical Computer Software
4.	1540.2 Hazardous Material Packaging for Transport - Administrative Procedures
5.	1540.3 Base Technology for Radioactive Material Transportation Packaging Systems
6.	1540.4 Physical Protection of Unclassified, Irradiated Reactor Fuel in Transit
7.	4330.4A Maintenance Management Program
8.	4700.1 Project Management System
9.	5000.3A Occurrence Reporting and Processing of Operations Information
10.	5400.1 General Environmental Protection Program
11.	5400.2A Environmental Compliance Issue Coordination
12.	5400.3 Hazardous and Radioactive Mixed Waste Program
13.	5400.4 Comprehensive Environmental Response, Compensation, and Liability Act Requirements
14.	5400.5 Radiation Protection of the Public and the Environment
15.	5440.1D National Environmental Policy Act Compliance Program
16.	5480.1B Environment, Safety and Health Program
17.	5480.3 Safety Requirements for the Packaging and Transportation of Hazardous Materials, Hazardous Substances and Hazardous Wastes
18.	5480.4 Environmental Protection, Safety and Health Protection Standards
19.	5480.5 Safety of Nuclear Facilities
20.	5480.6 Safety of DOE-Owned Reactors
21.	5480.7 Fire Protection
22.	5480.8 Contractor Occupational Medical Program
23.	5480.9 Construction Safety and Health Program
24.	5480.10 Contractor Industrial Hygiene Program
25.	5480.11 Radiation Protection for Occupational Workers
26.	5480.15 Department of Energy Laboratory Accreditation Program for Personnel Dosimetry
27.	5480.17 Site Safety Representatives
28.	5480.18 Training Accreditation
29.	5480.19 Conduct of Operations Requirements for DOE Facilities
30.	5480.20 Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities
31.	5481.1B Safety Analysis and Review
32.	5482.1B Environment, Safety and Health Appraisal Program
33.	5483.1A Occupational Safety and Health Program for DOE Contractor Employees at Government-Owned Contractor-Operated Facilities
34.	5484.1 Environmental Protection, Safety and Health Protection Information Reporting Requirements
35.	5500.1B Emergency Management System
36.	5500.2B Emergency Categories, Classes, and Notification and Reporting Requirements
37.	5500.3A Planning and Preparedness for Operational Emergencies
38.	5500.4 Public Affairs Policy and Planning Requirements for Emergencies

- 39. 5500.7A Vital Records Protection Program
- 40. 5500.10 Emergency Readiness Assurance Program
- 41. 5700.6B Quality Assurance
- 42. 5820.2A Radioactive Waste Management
- 43. 6430.1A General Design Criteria