

[SOE LETTERHEAD]

April 3, 1992

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

Dear Mr. Conway:

The Defense Nuclear Facilities Safety Board (the Board) sent to the Department of Energy (DOE) six sets of recommendations in 1991 and seven sets of recommendations in 1990. All of the Board recommendations have been accepted by DOE. Over the period of this past year, DOE completed implementation of five recommendations. These were Recommendation 90-1, Operator Training at Savannah River Facilities Prior to Restart of K-Reactor; Recommendation 90-4, Operational Readiness Reviews at Rocky Flats; Recommendation 91-3, Readiness Review at the Waste Isolation Pilot Plant (WIPP); Recommendation 91-4, Operational Readiness Review Prior to Resumption of Plutonium Operations at the Rocky Flats Plant; and Recommendation 91-5, Operation of K-Reactor Above 30 Percent of Historical Maximum Power.

The purpose of this letter is to formally notify the Board that DOE considers its implementation plans, actions, and accomplishments on Recommendations 90-1, 90-4, 91-3, 91-4, and 91-5 are adequate for ensuring public health and safety. In addition, Recommendation 90-3, Hazardous Waste Tanks at Hanford, has been combined with Recommendation 90-7, Waste Tanks at Hanford, which is still outstanding. Accordingly, DOE will not take any further action on Recommendation 90-3, per se. Recommendation 91-5 will have reporting requirements if and when DOE decides to exceed 30 percent power at the Savannah River K-Reactor. With the exception of Recommendation 91-5, there will be no further reports to the Board regarding their status (unless specifically requested by the Board). Therefore, DOE considers these recommendations as being closed. The enclosure provides additional detail.

Sincerely,

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

Enclosure

I. Recommendation 90-1, Operator Training at Savannah River Facilities Prior to Restart of K-Reactor

On February 22, 1990, in its letter to the Department of Energy (DOE), the Defense Nuclear Facilities Safety Board (the Board) expressed its belief that the DOE standards for training of reactor plant operators and supervisors at Savannah River had not been adequately determined and specified. The Board recommended implementation of six actions.

DOE believes it has implemented each of the recommended actions adequately. Specifically:

- a. DOE determined and specified the qualifications required of reactor plant operators and supervisors. Prior to restart of the K-Reactor, DOE verified the training of personnel met qualification criteria.
- b. A review of the differences between DOE and the Nuclear Regulatory Commission requirements for analogous positions was conducted. Where differences occurred, DOE adopted supplemental measures.
- c. Comprehensive written and oral examinations were given to reactor operators and supervisors. The results were analyzed. Training deficiencies were noted and factored into the restart training program.
- d. Reviews of personnel knowledge level identified training deficiencies. The training program was modified to reflect these deficiencies. Operators and supervisors received the revised training, and their knowledge level was verified by a DOE operational readiness review (ORR) prior to restart.
- e. DOE implemented a configuration management program for system drawings. Safety related system drawings were verified and were used for training operators and supervisors in procedures and for discipline of operations.
- f. DOE has implemented a program for qualifying operators and supervisors in revised normal and emergency operating procedures.

DOE will continue to monitor the effectiveness of the implemented programs mentioned above. Program adjustments will be made if necessary. DOE feels their responses and actions addressing operator training at Savannah River Site (SRS) are satisfactory. Additionally in its Annual Report to Congress, the Board concluded that sufficient progress had been made regarding qualifications of K-Reactor personnel, and that further

Board action was not necessary at this time. Therefore, DOE action on this Board recommendation is considered complete.

II. Recommendation 90-3, Hazardous Waste Tanks at Hanford

Recommendation 90-3 concerned the hazardous waste tanks located at the Hanford Facility. Later, the Board issued Recommendation 90-7 which encompassed the issues raised in Recommendation 90-3. DOE will monitor the issue under Recommendation 90-7 and will consider 90-3 closed (since it was incorporated into 90-7).

III. Recommendation 90-4, Operational Readiness Reviews (ORR) at Rocky Flats

Recommendation 90-4 concerning ORR at the Rocky Flats Plant. This recommendation resulted in a general review of ORR objectives and procedures. An ORR was conducted by DOE at Rocky Flats and the results submitted to the Board for review.

IV. Recommendation 91-3, Readiness Review at the Waste isolation Pilot Plant (WIPP)

On April 25, 1991, in its letter to DOE, the Board expressed its concern that a comprehensive readiness review be conducted at the Waste Isolation Pilot Plant (WIPP) prior to the initiation of the facility test phase. The Board recommended four specific actions.

DOE believes it has implemented each of the recommended actions adequately. Specifically:

- a. An independent and comprehensive DOE readiness review was performed by the Office of Environmental Restoration and Waste Management (EM)
- b. The EM ORR team was staffed by a combination of DOE employees, DOE contractors, and outside experts. Although responsible EM management was represented in key positions on the EM ORR team, the majority of the team was independent of any connections to the WIPP Project.
- c. The DOE ORR team conferred with other DOE readiness review teams to establish the best procedures and methods for accomplishing a successful, comprehensive ORR at the WIPP facility.
- d. The EM ORR included assessments of the following:
 - waste handling and utility systems
 - operator knowledge and qualifications
 - conduct of operations
 - DOE and contractor roles and relationships
 - records, tests, and calibration of safety systems and monitoring systems

- verification of safety system as-built drawings

The WIPP ORR resulted in a list of pre start-up and post start-up findings. All prestart findings were corrected and the poststart findings have implementation plans which will lead to correction. DOE will continue to monitor the effectiveness of any implemented programs. On November 24, 1991, the Secretary of Energy was informed that the DNFSB had determined that no further Board action was required at that time. DOE feels their responses and actions in conducting the WIPP ORR are satisfactory. Therefore, DOE action on the Board recommendation is considered complete.

V. Recommendation 91-4, Operational Readiness Review Prior to Resumption of Plutonium Operations at the Rocky Flats Plant

On September 30, 1991, in its letter to DOE, the Board recommended an ORR for Building 559 which would set the standard for reviewing other buildings in the future. The Board recommended four specific actions.

DOE believes it has implemented each of the recommended actions adequately. Specifically:

- a. DOE ensured that deficiencies identified during the original ORR of Building 559 were corrected or were near closure with credible timetables of action. Prior to initiating the Building 559 ORR, the contractor issued a Readiness to Proceed Memorandum which was reviewed and concurred in by Rocky Flats Office staff.
- b. The DOE ORR team included in its review assessments of the following:
 - adequacy and correctness of process and utility systems
 - level of knowledge achieved during operator requalification
 - records of tests and calibration of safety systems and other monitoring instruments
 - the effect of plant changes on procedures, training, and requalification
 - the effect of plant modifications on the building's final Safety Analysis Report
- c. A final ORR report was issued describing remaining issues which require closure and an overall conclusion of readiness of Building 559 to resume operations.
- d. DOE performed an assessment of the 43 orders identified by the Board for Building 559. The status of compliance with each requirement was evaluated and compensatory measures were identified, where needed, and confirmed as being in place and implemented.

DOE feels that their implementation of the Building 559 ORR is satisfactory, and in February 1992, the Board concluded that the Secretary's response to specified

recommendations made by the Board were adequate to protect public health and safety with respect to the operation of Building 559. DOE action on the Board recommendation is, therefore, considered complete.

VI. Recommendation 91-5, Operation of K-Reactor above 30 Percent of Historical Maximum Power

On December 19, 1991, in its letter to DOE, the Board expressed its concern that if the SRS K-Reactor were to be operated above 30 percent of historical maximum power, then additional engineering studies should be performed to ensure adequate public health and safety.

In DOE's response to the Board, DOE expressed its intent to notify the Board well before any decision is made to increase reactor power level to above 30 percent. If the need arises to operate the reactor above 30 percent, DOE will conduct additional studies to analyze the effect of the power increase on public health and safety. At this time, DOE has no intention to increase reactor power level to greater than 30 percent, so no recommendation implementation plan is required. DOE believes its responses to the Board on Recommendation 91-5 are adequate and complete.