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DEFENSE NUCLEAR FACILITIES SAFETY BOARD

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April 25, 2000

The Honorable Carolyn L. Huntoon
Assistant Secretary for
Environmental Management
Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-0113

Dear Dr. Huntoon:

The Defense Nuclear Facilities Safety Board (Board) has performed continuing oversight of decommissioning efforts at the Rocky Flats Environmental Technology Site (RFETS). Reviews by the Board's staff have revealed that the work control processes at RFETS have continued to improve through use of the site's Integrated Work Control Program (IWCP), which implements many of the principles and core functions of Integrated Safety Management. However, the staff observed some aspects of the program in which further improvement may be appropriate. The Board is encouraged by the fact that the RFETS personnel have addressed deficiencies in IWCP implementation and initiated efforts to improve the process, and that work toward improved use of the IWCP is under way. The staff's observations concerning this matter are presented for your consideration in the enclosed report.

RFETS will continue to be on the leading edge in applying the principles of Integrated Safety Management to short-duration, one-of-a-kind decommissioning activities. The success of these endeavors at RFETS is important to safe and timely closure of the site. The experience gained and lessons learned at RFETS may also benefit other decommissioning efforts in the defense nuclear complex. The Board therefore looks forward to the continued development and successful implementation of innovative approaches for decommissioning activities at RFETS, and sharing of those approaches with others in the defense nuclear complex.

Sincerely,

John T. Conway
Chairman

c: Mr. Paul Golan
Mr. Theodore A. Wyka, Jr.
Mr. Mark B. Whitaker, Jr.

Enclosure

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Staff Issue Report

March 30, 2000

MEMORANDUM FOR: J. K. Fortenberry, Technical Director

COPIES: Board Members

FROM: J. W. Troan

SUBJECT: Integrated Work Control Program at Rocky Flats Environmental Technology Site

This report documents a review of the Integrated Work Control Program (IWCP) at the Rocky Flats Environmental Technology Site (RFETS). This review was conducted by R. E. Kasdorf, D. J. Grover, D. F. Owen, and J. W. Troan of the staff of the Defense Nuclear Facilities Safety Board (Board) during February 29–March 2, 2000.

Background. The Board's staff has performed continuing oversight of decommissioning activities at RFETS, and has focused on implementation of the IWCP during decommissioning work in various buildings. The IWCP is being used to implement the Integrated Safety Management System at RFETS. The program provides a single process for planning and implementing work that applies to all site employees and subcontractors.

While the IWCP has improved the work planning process, the staff previously noted that further improvement might be appropriate in the areas of implementation of hazard identification, analysis, and integration. The identified weaknesses appeared to be due to a general lack of knowledge of both the requirements and the means of implementing the site IWCP manual. Deficiencies in the content and implementation of the IWCP had also been recognized by the Department of Energy Rocky Flats Field Office (DOE-RFFO) and the integrating contractor (Kaiser-Hill).

Changes in Integrated Work Control Program. Consistent with the staff's observations, DOE-RFFO observed that the Job Hazard Analysis (JHA) process was not being implemented as an integrated process for determining the hazards involved in the work and providing an integrated set of controls for those hazards. DOE-RFFO observed that JHAs were missing from some work packages, incomplete, poorly coordinated with a checklist used to identify hazards, and sometimes not adequate to support the identification and integration of controls in work procedures.

In a February 2000 response to these findings, Kaiser-Hill stated that it concurred with the need to improve the integration of hazard controls within the JHA process. To this end, Kaiser-Hill recently revised the IWCP manual to provide an improved set of requirements for development of an integrated set of hazard controls and their incorporation into the work control document, and briefed IWCP points of contact regarding these requirements. Key changes

include new requirements that the JHA be the main vehicle for identifying safety controls, including controls from other hazard analysis efforts, such as radiological, criticality, and occupational safety evaluations. Additionally, managers and key work planning personnel will now be required to verify that the safety controls in the JHA have been properly implemented in the work procedures and instructions before work is conducted.

Staff Observations. The staff is encouraged that DOE-RFFO has been actively pursuing oversight of the implementation of the IWCP. These efforts should help improve the implementation of the Integrated Safety Management System at the activity level. Furthermore, DOE-RFFO noted in its reviews of the IWCP that one work package was by far the best that had been encountered at RFETS. This work package had a well-developed JHA, and the controls were easily understood and complete. DOE-RFFO attributed the improvements in this work package to the Building 771 Deputy Project Manager's personal involvement with and mentoring of personnel to improve the process, and to the diligence of the job supervisor. Discussions during the staff's review indicated that DOE-RFFO recognizes the need for using mentors and more focused practical exercises to teach implementation of the IWCP process. The staff believes this approach needs to focus on key individuals involved in the work planning process.

There is a need to further improve implementation of the hazard identification and analysis process that is defined by the IWCP. Specifically, during hazard identification, the procedural work steps need to describe the work task in sufficient detail to support analysis and decisions regarding ways to eliminate or mitigate the identified hazards. Furthermore, the process for hazard identification and analysis and determination of controls needs to be conducted by adequately trained individuals who know to raise the right questions. Coordination and integration are also required to ensure that individual safety disciplines work together to arrive at a mutually agreed-upon approach and set of controls that will provide for a safe and efficient work environment.

The revised IWCP manual, if implemented properly, will provide a sound basis for planning and conducting work safely at RFETS. However, implementation of the IWCP process is highly dependent on effective training and mentoring of work planning personnel. Focused and innovative approaches to conveying proper use of the revised IWCP process are paramount to successful implementation. Close attention of DOE-RFFO and Kaiser-Hill management will be required to ensure that integrated sets of safety controls are developed and used as intended by the revised manual.