

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 19, 1999

TO: G. W. Cunningham, Technical Director

FROM: M. T. Sautman

SUBJECT: RFETS Activity Report for Week Ending March 19, 1999

B771 Glovebox Size Reduction. The Site Rep examined the size reduction facility mockup that is being used to test methods for size reducing B771 gloveboxes. The design has undergone several improvements since it was examined a few weeks ago. Rather than having workers wear respirators and work through sliding doors, glove ports will be used. The facility is also being modified to include folding doors, a multi-axial lifting table, and ports to transfer waste to drums and crates. A multi-disciplinary team of engineers and workers are examining air flow patterns, developing technical specifications, and making it easier for workers to use. In order to minimize tool handling problems, RMRS has hired a highly regarded tool expert to design the counterbalanced tool system and will have an ergonomic expert review the facility's design. Cold gloveboxes will be size reduced by workers before the actual facility is built.

RMRS is pursuing a possible alternative to size reducing some gloveboxes. The glovebox interior would be cleaned and then sprayed with a fixative. Then the entire glovebox would be placed in a sea/land container for disposal as low level waste. If the details can be worked out, this option would greatly reduce the worker hazards involved in decommissioning highly contaminated gloveboxes.

Integrated Work Control Program (IWCP). K-H and subcontractor representatives recently completed an assessment of the IWCP at RFETS. The assessment team concluded that SSOC, RMRS, and Rocky Flats Closure Site Services have adequately implemented the revised IWCP Manual, but noted some areas of improvement for K-H and the subcontractors. According to the draft report, these include:

- Inconsistent implementation/application of the Activity Screening Form and the Job Hazards Analysis,
- Use of Post Job Review (PJR) to provide feedback is infrequent while field generated post Job Lessons Learned are not documented on PJR form,
- Technical Procedures/Operations Orders/Standard Work Packages not consistently using IWCP, and
- The interface between the IWCP Manual and the Engineering Design Process Requirements for some types of work packages needs improvement.

These findings are consistent with Site Rep and staff observations. The assessment had favorable comments regarding how Integrated Safety Management is incorporated by IWCP, personnel knowledge of IWCP, and worker involvement in developing work documents.

Residue Characterization. The Site Rep received four new residue characterization reports as well

as several revised reports that address previously communicated staff concerns. In general, the results indicate that most salt categories can be reclassified as low risk residues. An exception to this is a salt residue container generated from a special run that contained a large button of possibly reactive metal. A sample from this container ignited during differential thermal analysis (DTA) when heated to 300°C. This is the first case of an ignition during DTA. The exotherm was 3-4 times higher than the largest exotherm previously seen for this type of salt and the departure of the sample temperature from the DTA reference standard was about eight times greater than that for other exotherms (~140°C). The staff believes it would be prudent to pyro-oxidize this container of salt and any other ones in this category that are similar to this sample.

Oral Boards. During the last 2 weeks, the Site Rep has met with RFFO, K-H, SSOC, and RMRS individually to discuss oral boards and training for shift managers, shift technical advisors, and configuration control authorities. Each organization recognizes current weakness, is committed to improving the program, and is pursuing a variety of initiatives. It appears that K-H, SSOC, and RMRS are trying to integrate their efforts so there is a consistent standard among the facilities. Based on observations at recent boards, a noticeably higher level of performance (especially for incident command) is required to pass the board. This step change is being driven mostly by the RMRS and SSOC senior manager board members rather than facility board members. Although reportedly the board preparation process has been made more rigorous, the evidence of this at oral boards has been very mixed.

cc: Board members