

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 12, 1999

TO: G. W. Cunningham, Technical Director

FROM: M. T. Sautman

SUBJECT: RFETS Activity Report for Week Ending February 12, 1999

Work and Configuration Control. Three recent events raise questions about how lower tier contractors and vendors are complying with the RFETS infrastructure.

Last Friday, a B371 shift manager discovered that a Denver West Remediation and Construction (DWRC-a subsidiary of RMRS) crew failed to apply a proper lock out/tag out (LO/TO) on the room 3189 roll-up door. The roll-up door was being replaced because it is not properly fire-rated. During the job, the crew disabled the 480-volt motor by disconnecting power at the motor control center without applying a LO/TO. The crew did not realize that the LO/TO was to have been applied beforehand, not after the motor had been disconnected and the doors rolled up. There have been other issues with this job including the crew not having the proper tools or needed drawings to support the work. K-H suspended nearly all work associated with the fire barrier job. DWRC has submitted a draft recovery plan which is being reviewed by K-H. The work shut down will likely delay completion of this Rec. 94-3 BIO upgrade past the end of February and require the B371 Justification for Continued Operations to be extended.

On Tuesday, a DynCorp worker drilled into an energized 110-volt line while installing a phone line in a trailer. This caused two electrical circuit breakers to trip, but did not injure the worker. A subsequent investigation found that the procedure may have been deficient since it did not require the use of a locator before drilling into the wall.

RFETS decided to replace the old system that monitored fire and security alarms because it used very old technology and was not Y2K-compliant. This task was being managed by K-H Site Operations. About a month ago, B371 raised concerns that the cut over from the old system to the new Unity system would impact their authorization basis. In fact, the impacts of the cut over had not been evaluated for any of the authorization bases at RFETS. This was corrected with a JCO. When K-H Engineering looked deeper into the situation, they discovered more problems. The vendor was just working off a Statement of Work which did not include functional design criteria or invoke site design requirements. As a result, there was no approved design package and few drawings existed for the system. In addition, this work was not using the Integrated Work Control Package process and none of the safety screens required by the Nuclear Safety Manual had been performed. Another issue was that a test database had not been removed from the Alarm Manager system. As a result, some of the actual fire alarm signals had the same code as test signals. Until it was discovered and fixed 5 days later, some B559 fire alarms would have been displayed instead as test points rather than

actual alarms. At this time, configuration control is still a mess. Until recently, the vendor has been modifying hard and software without keeping track of the changes. K-H wants to reconstitute the design requirements, update the drawings, and validate the system performance to the design requirements, but does not have the vendor's agreement to do this yet. The current system does not meet NFPA or UL requirements. K-H hopes that the system can be brought into compliance with these standards within a month or so. Late last week, there was also about a 19-hour period when RMRS mistakenly stopped performing the JCO compensatory actions for their buildings. This situation was corrected by issuing a revised JCO last Friday.

These and related issues were discussed with Steve Polston. Polston is having his managers put more emphasis on making sure that lower tier contractors are implementing Integrated Safety Management. In addition, K-H will be working with the union to simplify the LO/TO procedure and improve the LO/TO training class (similar to what is being done with criticality limits). The Fix It Once Board Polston chairs will be identifying additional corrective actions for the LO/TO program. A root cause analysis team is also being formed to investigate the Unity alarm system problems and K-H is asking DWRC to take a harder look at what went wrong in their case.

Training. K-H is revamping their training courses to make them more hands on and useful to workers. The Site Rep attended the revised Nuclear Criticality Safety Requalification Training Course for Supervisors and Design Personnel. The course was a definite improvement. Classroom exercises use situations that are frequently encountered at RFETS and used actual criticality limit postings and criticality safety evaluations. There was also more focus on the lessons learned from recent RFETS occurrences. In addition, the course was more interactive and challenging than what is typically found at RFETS.

Interactions with the Public. The Site Rep received a call from Mary Harlow, who handles RFETS issues for the city of Westminster, regarding Y2K issues at RFETS. The Site Rep answered questions regarding which systems were being examined, how many of them were safety-related, the current implementation status, and plans for the future. The Site Rep also met with representatives of the Rocky Mountain Peace Center (who also belong to the RFETS Citizens Advisory Board) to answer questions and hear about their concerns. Many of their concerns were related to keeping workers with extensive experience at RFETS, actively soliciting and documenting their knowledge of past operations and problems, and making sure there were no repercussions when problems were brought to management's attention. The Site Rep also answered questions relating to worker safety during decommissioning activities and Recommendation 94-1 progress.

cc: Board members