

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 5, 1997

TO: G. W. Cunningham, Technical Director
FROM: R. F. Warther, M. T. Sautman
SUBJ: RFETS Activity Report for Week Ending September 5, 1997

B371 BIO. Farid Bamdad and Roy Kasdorf were on site to review the B371 BIO this week. K-H and SSOC have significantly improved the BIO as compared with the version that existed earlier in the calendar year. A couple of scenarios remain where the mitigated dose to the public could exceed 5 Rem as specified in the IPP. RFFO and K-H intend to sign the Authorization Agreement on September 10, which includes a commitment for an annual review of the BIO. As reflected in RFFO's review report, RFFO will task K-H to conduct some additional analyses and consider additional controls for these higher consequence scenarios during the next revision to the BIO.

One of the RFFO and K-H concerns with conducting further upgrades to B371 in the near future is expending resources on B371 risks in lieu of addressing risks associated with other buildings. Recent analyses indicate that the risk to the collocated worker from a seismic event in B707 could be substantial. The Site Reps will gather additional information on these issues and report to the Board in the next several weeks.

Readiness Assessments. RFFO has decided to withhold approval to proceed with draining of high concentration solutions next week. RFFO's refusal to approve liquid draining startup is based on three fundamental issues. First, verification and validation (V&V) of procedures is a continuing problem. The contractor had indicated that procedural errors had been corrected and submitted a closeout package to RFFO. RFFO personnel reviewed the procedures in addition to the closure package and found that the procedures had not been adequately modified. Procedure verification and validation (V&V) is a recurring deficiency with many activities at this site. Second, one of the tank draining procedures included a step to shut the hydrogen purge vent. This procedural deficiency was noted by the Facility Reps, not contractor personnel. Third, issues with transporting miscellaneous bottles to B371 in accordance with a hazards analysis and control set have not been resolved.

These deficiencies also will affect salt startup. As a result of furnace problems previously reported, startup by September 30 was in jeopardy. K-H had hoped that the schedule could be tightened. For example, RFFO could conduct their readiness review in parallel with K-H's readiness review. However, based on the extent of recurring deficiencies, RFFO has indicated that they will do their readiness review in series with the K-H review.

SNM Consolidation. SSOC completed removing all the Category 1 and 2 special nuclear material from the B771 vaults this week.

Construction Work. As described last week, all RFEC (Jones, Stone & Webster) construction work was terminated in B707 by Radiological Engineering. On Monday, RFEC voluntarily shut down the rest of the construction work at RFETS. Based on worker input, RFEC senior management identified the following causes for recent problems: unrealistic schedules, lack of worker involvement in developing and reviewing work packages, too much overtime, inadequate supervision, weak pre-evolutionary briefings, and lack of a clear chain of command within RFEC and with K-H and SSOC. The Site Reps were disappointed that RFEC management initially did not feel that any immediate corrective actions were needed to restart the non-B707 work. However, at K-H's strong recommendation, RFEC developed restart criteria and is developing a longer term corrective action plan. The Site Reps attended portions of the restart efforts for Modules A, F, and J for both the day and second shifts. The in-depth pre-evolutionary briefs and pre-job walkdowns identified portions of the tasks that needed to be better defined, potential safety issues, and new controls to implement. These benefits could be lost if RFEC returns to their large consolidated pre-evs briefs which do not allow adequate discussion of the day's jobs. In addition, there was still little interaction for some topics in the pre-ev briefs and there was poor coordination in making sure all the required parties were present.

cc: Board Members