

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: G. W. Cunningham, Technical Director
FROM: R.F. Warther, M.T. Sautman
SUBJECT: RFETS Activity Report for Week Ending June 20, 1997

Recommendation 94-3. K-H transmitted revision 1 of the final B371 BIO to RFFO this week. RFFO is scheduled to complete its final review by July 23. The Board staff is also reviewing this BIO, particularly the fire scenarios. although the BIO contains a bounding fire scenario for building activities and operations, K-H has not yet resolved the flashover issue. RFFO has not yet reviewed the K-H cost and schedule developed to address this uncertainty.

Progress on the B371 upgrades remains somewhat variable. Modifications to the demister system and fire doors are behind schedule because of problems with planner availability and problems with vendors. Schedule issues relating to the building subsurface drains and HVAC duct supports have been resolved.

Recommendation 94-1. There was a mixture of good news and bad news for residues:

- NN-51 granted an exemption from safeguards termination limits for most of the direct oxide reduction salts at RFETS. This exemption was granted despite a recommendation from LANL not to approve it. RFFO has indicated a willingness to pursue additional exemptions.
- Two bulging produce cans containing pyrochemical salts were recently found. In both cases, the outer can was bulging, the inner can was normal, and a heat sealed plastic bag was between them. Radiolysis of the bag may be the cause. This incident is exactly why the technical staff has been pushing for repacking residues that are in sealed cans.
- LANL still has not found an oxidant that will prevent foaming during distillation without causing other corrosion problems. Other delays may not allow LANL to conduct cold tests with a production-scale prototype distillation unit before procuring production units. So far, SRS has been unable to develop a durable glass for vitrifying graphite fines. There are also concerns about vitrifying graphite fines and incinerator ash (containing plastics) because of the potential for detonations involving carbon monoxide or volatile gases.
- To date, none of the 97 salt, graphite fines, and SS&C residue samples have tested positive for pyrophoricity. Over half of the 85 samples tested for water reactivity already meet the criteria for processed residues and would receive no additional benefit from oxidizing.

Recommendation 93-3. The Site Reps are increasingly concerned that Shift Managers (SM) and Shift Technical Advisors (STA) are not qualifying to a rigorous standard. RFFO Training personnel and FRs share this concern and are planning a meeting next week to discuss the issue in more detail. SM and STA qualification Boards are made up of management personnel from the same building as the candidate. No SSOC personnel independent of the building, or K-H or RFFO personnel are allowed to vote on qualification boards. By comparison, two individuals independent of FR management sit and vote on FR qualification Boards. One of these is the Manager or Deputy Manager.