DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 25, 1997

TO: G. W. Cunningham, Technical Director
FROM: R.F. Warther, M.T. Sautman
SUBJECT: RFETS Activity Report for Week Ending April 25, 1997

Recommendation 94-3. As reported in the Board Staff's trip report last week, K-H has assigned a single individual to manage Recommendation 94-3, including efforts to complete the BIO and implement B371 priority upgrades. He also is tasked with providing a detailed answer to the question of explaining why K-H believes B371 is safe for continued operations. Based on discus sions among Dr. Eggenberger, the Site Reps and Board Staff the K-H manager intends to prepare a matrix similar to that below. Data is example data only.

Document Requirement	1988 TSR	1997 draft BIO OSR	Implement Status
Ventilation change in P	0.3" zone I/zone II change in P 0.5" zone I/atmos change in P	0.1" zone III/atmos	Fully implemented
Conduct of Maintenance	Not required	Per Site Conduct of Maintenance Manual	Partially implemented

This matrix will be completed over the next several weeks. In addition to this deliverable, K-H intends to provide RFFO with a detailed schedule for the BIO, BIO implementation plan, and priority upgrades this week.

Recommendation 94-1. The Site Reps inspected the packaging sections of the Plutonium Stabilization and Packaging Systems, which is being set up at an off-site facility. It looks extremely impressive. Delivery of the stabilization sections is running about 10 weeks behind schedule.

Performance Measures. RFFO continues its efforts to evolve performance measures. The RFFO Manager has been working with the AM for Policy and Planning to develop specific long term performance measures that clearly focus K-H's efforts. For example, RFFO is considering a set of measures that would require removal of all SNM from one of the buildings in the protected area, removal of the drums, and at least a partial deconstruction of the building. This measure would effectively subsume several other potential performance measures, including mortgage reduction within the PA, removal of drums from the Protected Area (a RFCA milestone) and operation of B440 (the likely repository for TRU and LLW drums). Draft FY98 performance measures will not be available for several months yet.

Electrical. Due to heavy precipitation Wednesday night, water leaked through a metal sheath and caused a short between two bus bars in B707. These bars connect the transformer to the switchgear located on the second floor. The short caused a power loss to the facility. All nuclear operations have been terminated. The emergency generator is providing power to the facility's vital loads until the bus line is repaired. The repairs and testing are expected to be completed Tuesday. In addition to the emergency generator, there is a 1400 kW generator on standby and the building has an uninterruptible power supply.

Vaults. General observations of the vault walkdowns are listed below. The attached table (which contains UCNI material) provides additional information.

- In general, the vaults appeared to be in good condition. It appears that water has and may still be leaking.

B776 is probably one of the weakest structurally, but SNM is being removed from the vault.

- DOE Orders and NFPA standards require that vault doors be rated for a 1½ hour fire and the floor, walls, and ceilings rated for two hours. Doors for three vaults in B371 are not rated for 1½ hours. The pedigree of some of the other older doors is questionable.
- Combustibles are restricted around the unrated fire doors and prohibited from being inside the vault. However, combustible material was found next an unrated fire door and inside three vaults. Fire protection is supposed to perform annual inspections for combustible materials annually. This is usually performed in December and January. During tours, building personnel walked right by the signs and combustible material without a second glance.
- Fire protection features inside the vaults vary across site depending on when the vault was built, the money available, and what equipment was already installed before the room was converted into a vault. Fire detection and suppression inside the vaults may consist of either a) nothing, b) sprinklers, or c) smoke detectors.
- Only one of the vaults (excluding the X-Y retriever and stacker/retriever) is a high radiation area. None of them were overly contaminated and the reason that one vault requires a respirator is due to poor ventilation and alarm audibility rather than high airborne levels.
- Two vaults have experienced minor flooding in the last year: one due to a chiller condenser gasket rupture and the other due to a pipe freezing. although none of the vaults have drains, most of them have gaps under the door to allow water to run out. Some of those with sprinklers outside have a sloping floor that would prevent water intrusion until the water depth exceeded 1 or 2 inches.
- Several vaults had one or more criticality infractions.

From discussions with facility representatives, some of them had not been in any of the vaults in their facility. although the vaults are entered on a fairly frequent basis, some vaults had not been entered for years by any facility representative.

cc: Board Members