DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 2, 2002

TO: J. Kent Fortenberry, Technical Director
FROM: Matt Forsbacka, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending August 2, 2002

Members of the Board's Staff conducted various activities in Oak Ridge this week:

1. D. Winters and H. Massie reviewed the status of the Melton Valley Transuranic/Alpha Low Level Waste Treatment Project.
2. H. Massie reviewed Recommendation 97-1 issues and was briefed on alternate disposition pathways for the NaF traps stored at Oak Ridge National Laboratory (ORNL).
3. R. Zavadoski, D. Owen, and M. Forsbacka reviewed the progress of the investigation of the Strontium-90 release event at ORNL, performed a walkdown of the Building 3038 ventilation system, and observed removed ventilation system filters in ORNL hot cells.
4. W. Andrews and L. Parkins reviewed safety basis issues related to fire protection of Y-12 Building 9212, B-1 Wing.
5. R. Zavadoski reviewed conceptual design information for the Highly Enriched Uranium Materials Facility.
6. D. Owen augmented the Site Representative (who was on leave on Thursday and Friday).

A. ORNL Radiological Contamination Event: Inspection of the Building 3038 HEPA filters was expedited this week and visual inspections are underway in ORNL hot cells. The first filter inspected showed severe degradation of the inlet-side aluminum flow separators. This is consistent with observations of severely corroded duct work that had been repaired numerous times in recent years. It appears that isolation dampers for the HEPA filter bank were partially opened during filter replacement activities for worker protection purposes. As a result, debris from the degraded filters would have likely deposited on the downstream side of the filters. The ORNL investigation is identifying several potential deficiencies with each of the functions of Integrated Safety Management for the filter replacement activities. (1-C)

B. BWXT Y-12 Enriched Uranium Operations (EUO) Fire Protection: The staff observed a panel tasked to employ a systems approach to developing a recommended fire protection option for B-1 Wing in Building 9212 (see July 19th and referenced weekly reports). As part of the approach, they compared a number of existing contractor developed options as well as new options. One shortfall of the initiative may be that they are simply using all contractor developed information (e.g., dose at site boundary, cost, etc.) as is, without challenge or validation. A recommendation is expected in the next few days, to be followed by a draft report. (2-A)

C. BWXT Y-12 EUO Reduction Vessel: On Wednesday, the Site Representatives observed reduction vessel operations, wherein a charge was heated and exothermically reacted as expected. The operation was properly conducted to the procedure; however, the site representatives noted a lack of follow of a posted notice to place hot reactor vessels to the west (or remote) end of the storage rack. The manager present noted that the hot vessel was placed on the east end of the rack to allow for thermal imaging (planned for a few vessels) and then contacted shift management to obtain permission to continue. Additionally, DOE-YSO personnel have raised questions on the conduct of prior maintenance of furnace temperature control equipment. (2-A)