

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 1, 2002

TO: J. Kent Fortenberry, Technical Director
FROM: Matt Forsbacka, Oak Ridge Site Representative
SUBJ: Activity Report for Week Ending March 1, 2002

Outside expert R. Lewis was on site this week to observe the Y-12 Building 9206, Operational Readiness Review (ORR).

A. Oak Ridge National Laboratory Building 3019: A Potentially Inadequate Safety Analysis (PISA) was found to exist for accidental releases of uranyl fluoride from sodium fluoride traps resulting from a facility fire in the penthouse. The current analysis modeled the dispersive characteristics of accidental releases as uranium oxide powder. Recent work in support of startup of conversion operations to be conducted in another facility found that uranyl fluoride, when reacted with moisture in air, forms a fine aerosol which settles at a slower rate. The exposure to co-located workers is significantly increased under this scenario. At this time, all traps are secured in their approved storage locations. A Safety Analysis Report update, already in preparation, will include the resolution of this PISA. Other items of interest:

1. Recommendation 2000-2 Phase II assessment of the Cell Off Gas system will commence next week. The site representative plans to observe this evolution.
2. Maintenance on the HEPA filter system (site rep weekly 2/15/02) has been delayed due to unusually cold weather. The task is one third complete. Facility staff are confident they can complete the work by the end of this month.(2-A)

B. Y-12 Building 9206 (ORR): On Monday, the NNSA ORR commenced for the pyrophoric material stabilization process. The ORR is expected to finish next Friday. This ORR also establishes the baseline for facility readiness for other deactivation projects. Future deactivation projects will be compared to the scope and complexity of the pyrophoric material stabilization process and will have Readiness Assessments conducted based on a graded approach. Approximately 100 subprojects, to be conducted over the next six years, will rely on this methodology. Observations include:

1. Demonstrations of the pyrophoric material stabilization process by BWXT personnel went smoothly, and the ORR team appeared to be well prepared and able to technically challenge BWXT personnel on various aspects of the operation.
2. Pyrophoric material stabilization is the most complex subproject of the Building 9206 deactivation projects. While the graded approach appears reasonable, and current indications are that the contractor has thoroughly prepared for starting pyrophoric material stabilization, other subprojects may be more hazardous or more difficult to perform. Of potential concern is how deterioration of performance in site-wide functional areas, sufficient to preclude startup of other deactivation subprojects will be determined, and how corrective actions resulting from the current ORR will be applied to future deactivations.

C. Highly Enriched Uranium Material Facility (HEUMF): Critical Decision-1 for the construction of the HEUMF continues to be delayed. The project remains on hold. (1-C)

cc: Board Members