

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 8, 1999

TO: G.W. Cunningham, Technical Director
FROM: Paul F. Gubanc and David T. Moyle, Oak Ridge Site Representatives
SUBJ: Activity Report for Week Ending October 8, 1999

Mr. Moyle was on annual leave this week. Staff members Massie and Winters were on-site Thursday and Friday to review radioactive and transuranic (TRU) waste management.

A. U-233 Inspection Program - This week, there were several disturbing revelations regarding ORNL Building 3019 preparations for beginning the U-233 inspection program:

1. On October 5, an overpack container (about 3 kg) slipped free from its chuck in the inspection chamber and fell down into the storage well approximately 30 feet. The overpack then impacted a stack of three dummy containers; the middle container was crushed from 8" down to 5.5" and the top container was breached with a 0.5" slice. Per discussion with the operators, the new mechanical grappling fixture used to insert the overpack is difficult to align with the inspection chamber opening and makes accurate centering of suspended containers and overpacks in the chucks unreliable. Also, the operators attempted and failed to retrieve the sliced container with the new vacuum fixture. The old vacuum fixture was successful due to its better "feel" and lesser interference with the operator's line of sight into the well. (Looking into the well might not have been acceptable if the container held high dose rate material.)
2. On October 8, Mr. Gubanc learned that a different dummy container had been dropped in an inspection well several weeks earlier. The container reportedly contacted an internal interference during removal with sufficient force to separate the container from the vacuum lifting fixture. Operators chose to use the old design vacuum lifting fixture for this operation presumably for its convenience of use; the new vacuum lift fixture and its related procedure were not used. These two events suggest significant issues exist with the operational flexibility of the new inspection gear and its acceptance for use by the operating staff.
3. Due to the above two events, in addition to other concerns which have not yet been fully explained to us, DOE directed ORNL on October 8 to hold a 30 day "pause" to be followed by a substantial "peer review" of the entire inspection program (both Phases 1 and 2). This action suggests that DOE does not have confidence in ORNL line management's ability to judge readiness (the contractor ORR was slated for mid-October) and is also concerned about ORNL's path forward for executing the inspection program (e.g., design and use of the repackaging enclosure in Cell 2 for Phase 2).

Next week, Mr. Gubanc intends to speak with senior DOE and ORNL management not only about the significance of these events but also about the timeliness of communications with the Board staff on matters such as these. (3-A)

B. Chemical Safety Management: Over the last year, the Board has sent DOE-OR several letters on chemical safety management. On September 23, the DOE-OR Manager issued a "chemical safety action plan" to the line managers directing that a series of corrective actions be completed by August 2000. While the very generation and promulgation of such a plan is laudable, the details of the plan are fairly broad and non-specific making consistent and meaningful implementation difficult. We will discuss our concerns with DOE-OR next week. (1-C)

cc: Board Members