

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 22, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: C. H. Keilers, Jr.
SUBJECT: Los Alamos Report for Week Ending November 22, 2002

Pajarito Laboratory (TA-18): TA-18 has secured higher-energy radiography and radioactive source operations pending determination of why two people had unanticipated, elevated gamma dosimetry results in October. The results were less than one-fifth of the federal annual limit (5 Rem) but appear high for this type of operation if it is properly controlled. LANL is also reviewing relevant hazard control plans to ensure hazards are properly identified and appropriate controls are in place.

Also, progress has stalled in reducing the TA-18 inventory of excess SHEBA uranium solutions (site rep weekly 8/9/02). In August, TA-18 started to ship these solutions, one bottle at a time, to the Chemistry and Metallurgical Research Building (CMR) to be converted into salt, packaged, and returned to TA-18. CMR has had operational problems with the conversion, including continuous air monitor alarms. CMR is addressing the problems and planning a management self-assessment before resuming this activity. LANL anticipates relocating this operation within CMR in January to make room for new cleanout equipment for the large metal vessels under Recommendations 94-1 /00-1. While progress on cleaning out the large vessels has been long in coming, this is likely to further delay conversion of the TA-18 excess solutions. Close coordination appears warranted.

Weapons Engineering Tritium Facility (WETF): The LANL operational readiness review (ORR) for Building 450 startup and TSR implementation began this week. The site rep understands that the ORR team is doing a thorough job, but that the ORR is being extended. This has raised good questions on the facility's state of readiness and whether the ORR is shifting to a management-assist. The DOE Site Office is pursuing these questions. Also this week, the DOE Site Office approved with comment a WETF fire hazard analysis crosswalk, a fire suppression system failure modes and effects analysis, and an electrical code inspection/replacement program. These evaluations were required as conditions of approval in the DOE Safety Evaluation Report in April. These should increase focus on fire protection upgrades that could enhance facility safety.

Decommissioning Activities: LANL is updating neutron activation calculations and hazard analyses and controls for Omega West Reactor (OWR) decontamination and decommissioning (D&D), following last Friday's determination that radionuclide inventory may exceed the Hazard Category 3 (HC-3) level. The activation products (e.g., tritium, cobalt-60) are likely bound to some degree within the material matrix of the vessel and its components, including a beryllium reflector. DOE/LANL downgraded OWR to a radiological facility in 1995, possibly based on low expected dispersability. Currently, the reactor area is contained within a tent with HEPA filtration and will receive a weekly combustible material survey. The reactor itself is capped with a metal plate. LANL has secured D&D operations in the reactor area but resumed such operations in the adjacent office and laboratory, which are separated from the reactor area by a berm. The DOE Site Office has pointed out that this demonstrates the need for vigilance before downgrading nuclear facilities. LANL has several facilities (e.g., TA-21 tritium facilities) which are being considered for downgrading and D&D.

Chemistry and Metallurgical Research Building Replacement Project (CMRR): Geotechnical/seismic investigation fieldwork began last Friday (site rep weekly 10/11/02).