

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 16, 1999

TO: G. W. Cunningham, Technical Director

FROM: M. T. Sautman

SUBJECT: RFETS Activity Report for Week Ending April 16, 1999

Special Nuclear Material Shipping. RFETS has completed shipping all pits destined for Pantex. The remaining pits are to be shipped to LANL or LLNL by the end of June. RFETS, DOE-HQ, and SRS are still trying to resolve the following shipping issues:

- The schedule for EM's recertification of the 9975 shipping container for SS&C shipments continues to slip. The need for even more testing, analysis, and sampling is being discussed.
- Delays with the issuance of the Surplus Plutonium Disposition Record of Decision has already impacted classified metal shipments to SRS.
- DP reportedly wants EM to use commercial carriers rather than SST's for shipment of fluoride residues.
- SRS is evaluating whether it can dissolve the tin can used for shielding scrub alloy residues.

B771 Equipment Deactivation. Changes in DOT shipping regulations will allow some plutonium-contaminated gloveboxes and tanks to be shipped as Surface Contaminated Only (SCO) waste and be disposed at the Nevada Test Site. This would allow material that would previously have been size reduced to fit into 55-gallon drums or standard waste boxes to be instead placed intact inside a cargo container. In addition, the equipment no longer has to be disassembled into separate matrixes (i.e., segregating glass, metal, and plastic). Although the material still cannot exceed the TRU 100 nCi/g criteria, much of the "default TRU waste" can now be disposed as low-level waste. An important requirement is performing surveys to measure the β - γ and α removable and fixed contamination levels. By making the removable contamination inaccessible (e.g., fixatives, blanking off openings) the allowable levels significantly increase. For example, SCO-I material is allowed 2200 dpm/100cm² weapons-grade plutonium activity if it is removable and accessible, but 2.2E+7 dpm/100cm² if it is inaccessible. The potential worker safety benefits from this process are large. B771 will be conducting a management review later this month that covers the disposal of SCO equipment.

Equipment with higher levels of contamination will still need to be size reduced. RMRS has hired a firm to design counterweighed tools for use in a ventilated metal enclosure equipped with sliding doors. It is hoped that this design will allow size reduction to be performed in respirators rather than supplied air. The site rep observed workers using the tools to disassemble a cold glovebox. The counterweighed tools worked pretty well for making horizontal or vertical cuts with a port-a-band or chop saw. However, the equipment frequently bound up when curved cuts were made, especially with a nibbler. The chop saw also produced nearly as many sparks as a plasma arc torch. The vendor will try to address the workers' comments before shipping the equipment to B771 shortly. RFETS is also shipping a couple of cold gloveboxes to EM-50's technology facility at Sandia to see how well their programs and robots can disassemble the equipment.

cc: Board members