

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 18, 1999

TO: G. W. Cunningham, Technical Director
K. Fortenberry, Deputy Technical Director

FROM: M. T. Sautman

SUBJECT: RFETS Activity Report for Week Ending June 18, 1999

David Grover was at RFETS reviewing the Plutonium Packaging System and stabilization furnaces.

WIPP Shipment. The first shipment of transuranic waste to WIPP left RFETS Tuesday night. The shipment consisted of twenty-six drums of graphite molds. Starting next week, RFETS plans to ship one truckload of pyro-oxidized salt a week.

Building 771 Deactivation. The Site Rep and Mr. Grover observed the system operational test and smoke testing of the "birdcage." Initially, the measured face velocities did not satisfy the system operational test's criterion (50-80 feet/minute vs. 100-150 fpm) with the original two air movers and building ventilation. When a third air mover was added and excess flexible ducts were removed, the face velocities significantly increased. However, due to limited openings for makeup air, this caused the soft sided containment to be noticeably sucked inwards. This sucking was strong enough to partially pull off some of the grommets on the soft sided containment and cause the tent's metal frame to bend slightly. In order to reduce the strain on the tent, the third air mover was turned off and several flaps were cut into the side of the tent. The test's criterion was still able to be met with just two air movers because of the shorter ducts. Face velocities ranged between 80 and 220 fpm. A smoke generator was used to evaluate the adequacy of the flow patterns qualitatively. At the site rep's suggestion, the generator was raised several feet to a height more typical of cutting operations. Most of the window configurations were satisfactory for an empty birdcage with the generator in the middle. At this time, face velocity measurements and smoke tests indicate that having all 4 large windows open and possibly some combinations of 3 open windows will not be acceptable. Future tests will examine the impacts of bodies and gloveboxes on the flow patterns. Hopefully, future tests will also address the site rep's concern that typical releases will not occur in the center of the birdcage, but closer to the windows. The tracer gas test is scheduled for Monday. The tracer gas concentrations may be biased high outside the birdcage because the gas will pass through the air movers' HEPA filters and be discharged in the room near room exhaust. RMRS also intends to conduct size reduction of cold gloveboxes with workers in supplied air suits next week. This glovebox will be "contaminated" with a fluorescent powder. The spread of this "contamination" will be very important in determining whether the face velocity requirements are really adequate. (III-B.1.a)

9975 Storage Safety. B371 identified a potential discovery issue with the storage of 9975 shipping containers. Approximately 50 containers are being stored in B371 because they cannot be shipped to SRS. These sealed containers do not meet the Technical Safety Requirement for requiring the use of vented drums.

Construction/Third Tier Subcontractors. Over the last 9 months, several work control incidents involving third tier subcontractors have been described in the weekly reports. Due to dissatisfaction with the conduct of operations and quality assurance performance by third tier subcontractors, K-H is phasing out the use of third tier subcontractors for construction and decommissioning activities over the next 4 months. RFEC, which continues to have quality assurance problems, will have their Plutonium Packaging System contract terminated at the end of July. K-H has been developing a pool of craft workers who would be used for these activities. Now, K-H intends that these workers as well as core managers (e.g., construction supervisors, project control, QA/QC) would be K-H employees. K-H has negotiated a labor agreement that allows K-H to choose which craft workers will be in the pool. This selection will be very important in determining the ultimate success of the plan. K-H is thinking of putting out a bid to for planners, schedulers, and inspectors who support this work. Building operations personnel would still oversee construction activities in their facility.

cc: Board members