

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 19, 2002

**TO:** J. K. Fortenberry, Technical Director  
**FROM:** D. F. Owen, RFETS Site Representative  
**SUBJECT:** RFETS Activity Report for the Week Ending April 19, 2002

**Recommendation 2000-2.** As reported on March 15<sup>th</sup>, DOE-RFFO had completed detailed (Phase II) assessments of the confinement ventilation and fire protection systems in Building 371 and briefed the results to RFETS management. This week, DOE-RFFO forwarded the Phase II assessment reports to Kaiser-Hill asking for a formal Kaiser-Hill response to the issues/findings including identification of corrective actions. (1-C)

**Work Planning.** As reported on March 28<sup>th</sup>, upon cutting a lathe machining coolant drain line coming from a glovebox in Building 707, a pressurized spray reaching about 5 feet and lasting about 20 seconds occurred resulting in personnel skin and room contaminations. The engineering input into the work planning for removal of this drain line had assumed that the line had been drained and did not specify draining or a tap/drain verification check.

In a DOE-RFFO review of the work planning performed for this work, Kaiser-Hill noted the following contributing factors:

- a joint engineering/line management walk-down to check the engineering input (e.g., specified system isolations, tap and drain points, etc.) for these systems being removed was not required prior to starting work;
- a check by the crew to physically verify that such piping systems are drained and/or vented just prior to removal was not required; and
- the amount and variety of equipment included under the scope of the work package governing the drain line removal made the package difficult for the crew to follow.

Revisions to work planning and procedures for future work on such systems are being developed by Buildings 707/776 Project management to address these contributing factors. The site rep. will continue to follow corrective actions from this event. (1-C)

**Building 559 Ventilation System Upset.** A work crew opened an electrical breaker to support replacement of solenoids that control the flow from glovebox ventilation system supply fans. In opening this breaker, however, power was unintentionally cut to glovebox ventilation system differential pressure instrumentation. The system controller, sensing that loss of power, then automatically changed the system configuration to a minimum ventilation exhaust mode. Fact finding by Kaiser-Hill determined that the engineering input to the planning for this solenoid replacement work was incorrect. The engineering input did not recognize the shared power supplied through the breaker and incorrectly indicated that the breaker could be opened without affecting the ventilation system. In response to a site rep. inquiry, Kaiser-Hill personnel stated that the engineer involved in the work planning was not the designated system engineer for this ventilation system (per a list developed in response to Recommendation 2000-2). The site rep. is continuing follow-up with DOE-RFFO on the engineering aspects of this occurrence. (1-C)