DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 17, 2003

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
J. J. McConnell, Deputy Technical Director
FROM: R. T. Davis/ T. D. Burns
SUBJECT: SRS Report for Week Ending October 17, 2003

Tritium Operations: This week during load testing of the Building 233-H diesel generator, an electrical transient occurred that caused air activity alarms in the facility. Facility operators responded to the alarms as required and verified that the alarms were caused by the electrical transient vice actual facility conditions. Maintenance personnel were performing a periodic load test on the diesel generator. Prior to the test, the mechanic noticed that one of the two voltage regulators was not online. After consulting with appropriate operations personnel, the mechanic placed the voltage regulator online consistent with the configuration of other diesel generators on-site. During the load test, high voltage readings were noted (approximately 560V vs 480V nominal). The mechanic then began troubleshooting the problem by placing the voltage regulators online and offline one at a time. During this troubleshooting activity, the facility automatic transfer switch transferred power from the diesel back to normal site power. This transfer caused the facility electrical transient.

Subsequent investigation identified that a similar problem occurred several years earlier. Discussions with the vendor at that time indicated that only one of the voltage regulators should be online. A placard was added that required contacting facility management prior to modifications; however, the placard did not indicate the specific issue. The shift supervisor contacted prior to placing the second voltage regulator online was not aware of the previous problem. During the critique, issues were identified with performing the troubleshooting while the diesel generator was supporting facility loads and with not terminating the test when high voltages were identified. Interim corrective actions have been implemented to provide better labeling and operator training. WSRC is also pursuing modifications that would allow both regulators to be online consistent with the configuration for other diesel generators.

FB-Line Packaging and Stabilization: This week, the DOE Readiness Assessment team completed their review of the Phase II Packaging and Stabilization operations (i.e., plutonium oxide stabilization). The team concluded that FB-Line has adequate procedural controls in place to safely operate Phase II equipment and support systems. Three pre-start and three post-start findings were identified by the team. Corrective actions for the three pre-start findings have been completed and the Authorization Agreement was signed by DOE-SR on Thursday. Facility operations are expected to start next Friday.

Public Interaction: On Thursday, Dr. Burns briefed the Citizens Advisory Board on DNFSB perspectives regarding radioactive waste disposition activities at the Savannah River Site. Dr. Burns outlined several areas important to the Board including improvement of activity level work planning and execution, minimization of influent streams to the tank farms, acceleration of ultra-sonic inspections of double shell tanks, and resolution of technical and regulatory issues associated with salt disposition. Observations regarding operational performance of DWPF and implementation of the new Documented Safety Analysis were also provided.