UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

MAY 02 1985

Report No.: 50-416/85-13

Licensee: Mississippi Power and Light Company
Jackson, MS 39205

Docket No.: 50-416 License No.: NPF-29

Facility: Grand Gulf

Inspection Conducted: April 17 and 18, 1985

Inspector: _____ 4/30/85
T. R. Collins Date Signed

Approved by: _____ 4/30/85
C. M. Hosey, Acting Section Chief Date Signed
Emergency Preparedness and Radiological
Protection Branch
Division of Radiation Safety and Safeguards

SUMMARY

Scope: This special unannounced inspection involved eight inspector-hours on site during regular hours inspecting the corrective actions taken by the licensee after an event of cross contamination of the plant service air system.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Licensee Employees Contacted

J. E. Cross, General Manager
*R. F. Rogers, Assistant to General Manager
M. C. Williams, Chemical/Radiation Control Superintendent
M. Wright, Manager of Plant Operations
T. Hilderbrandt, Health Physics Supervisor
M. Michalski, Radwaste Supervisor
S. Cotton, ALARA Specialist

Other licensee employees contacted included two technicians, three operators, two security force members, and two office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 17, 1985, with those persons indicated in paragraph 1 above. The inspector discussed with licensee representatives their corrective actions to control the use of plant service air until the system has been decontaminated. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Cross Contamination of Plant Service Air System (92700)

On April 11, 1985, the licensee was attempting to unclog the decant screens on the Reactor Water Cleanup (RWCU) phase separator tank B in the Radwaste Building. The screens were apparently clogged with ecodex resins. The licensee was using the condensate transfer system (P11) to unclog the screens. Service air system valve F578B had ecodex resins under the seat which allowed radioactive contaminated water to take the path of least resistance back into the service air system (P52). The condensate water system pressure is approximately 110 to 120 pounds per square inch and the service air system ranges from 90 to 110 pounds per square inch in the radwaste building.

The licensee was able to determine that approximately 100 gallons of water had entered the service air system in the radwaste and off-gas building. Samples taken of the liquid which entered the service air system revealed the highest concentration of 4.0×10^{-4} µCi/ml. The licensee was able to drain the majority of the water out of the service air system, however, direct radiation surveys taken on the service air piping revealed that crud traps still remain. The inspector reviewed and discussed with licensee representatives their corrective actions to control the use of service air until decontamination has been completed. The inspector determined by

observation that the licensee has placed hold tags on all isolation valves of the service air system and revised their Radiation Work Permit Procedure 08-S-01-24, to discontinue the use of plant service air for both breathing air and air-powered tools. The inspector discussed with the licensee their policy of placing the hold tags on the service air system under the control of the the Radwaste Supervisor rather than a Health Physics Supervisor. The licensee informed the inspector that a Health Physics Supervisor would be placed on the hold tags in addition to the Radwaste Supervisor. The inspector also discussed with licensee representatives their Respiratory Protection Program Procedure 01-S-08-04 which controlled the use of plant service air for breathing air. Licensee representatives stated that they would revise their Respiratory Protection Program Procedure to control the use of the service air supply for breathing until the system is decontaminated. The inspector informed licensee representatives that this item would be left as an inspector follow-up item (IFI) and would be inspected during subsequent inspections (50-416/85-13-01).

The inspector also reviewed a Design Change Request (DCR) 82/028 to add check valves and/or isolation valves on the service air system to preclude future events of this nature. The inspector was informed by licensee management that this DCR would be completed as soon as possible. The inspector informed licensee representatives that this item would also be an inspector follow-up item and would be inspected during subsequent inspections (50-416/85-13-02).

The inspector concluded from his review and observations that there were no effluent releases, personnel contamination incidents or internal exposures associated with this particular incident.

No violations or deviations were identified.