

R2/E 70

MARCH 19, 2004

Westinghouse

A 91-01 issue was reported on March 5, 2004 regarding excessive accumulation of uranium contaminated ash in the incinerator. Approximately 100 kilograms of uranium was found dispersed throughout the walls of the 3 areas of the incinerator: lower chamber, upper chamber, and crossover pipe. The incinerator's criticality safety evaluation stated that the hold-up of the uranium ash would be below 0.1 g U/g. However, samples pulled from the incinerator were exceeding that level by as much as 200%. The design of the incinerator is supposed to prevent material carryover and hold-up. The criticality safety analysis assumed insignificant hold-up and stated the a criticality was not credible. In its current condition, the incinerator had no criticality safety controls since moderator and geometry were never controlled, and the mass control had completely deteriorated.

Following this report, the licensee issued an addendum to the 91-01 stating that the concentration of the product ash collected from the lower chamber exceeded the 21.6% wt. U bounding assumption stated in the criticality safety analysis. This represented a separate issue that also needed investigation.

The licensee is investigating the issues and has shutdown the incinerator. Westinghouse has stated that the incinerator will not operate again in its current condition and will brief the NRC prior to restarting operation. Westinghouse's current plan is to reconfigure the incinerator into a safe geometry vessel. An NRC inspection to review the issue is being planned for the week of April 12, which will give the licensee time to complete their root cause investigation.

Westinghouse recently shipped 92 empty UF6 to Urenco in the United Kingdom. After receipt of the shipment, Urenco informed Westinghouse that several of the cylinder's valve cover areas exceeded the international contamination limit value of 2200 dpm/100cm². However, in a subsequent communication to Westinghouse, Urenco indicated that the resurveys were less than the international limit. Westinghouse is waiting on further information from Urenco on this issue.

Westinghouse's security upgrade should be complete by the end of April. Also, Westinghouse is making preparations to begin manufacturing BWR fuel.

The manufacturing process is running smoothly with no other upsets and weekend production (usually at a reduced rate) continues.

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