

10 CFR 71.95 REPORT EVALUATION FORM

Docket No.: 71-9196
Package Model No.: UX-30
Report Submitted By: James D. Lewis, United States Enrichment Corporation
Report Date: October 20, 2011

Review the incoming report to determine if additional Commission or staff action is warranted. The review should consider whether the report identifies a generic defect or problem with the package design and the safety significance of the issue. Note that a high safety significance represents a potential for significant radiation exposure, medium safety significance represents a potential for some moderate radiation exposure, and low safety significance represents little or no potential for radiation exposure.

1. The report identifies:

- Significant reduction in the effectiveness of a package during use;
- Defect with a safety significance;
- Shipment in which conditions of the approval were not observed.

2. What is the safety significance? High Medium Low

3. Summary of the report:

On August 22, 2011, United States Enrichment Corporation (USEC) was notified by a fuel fabricator that USEC cylinder serial number GEW216 was received with the valve installed with less than the minimum of seven threads engaged in the cylinder. The requirement for minimum valve thread engagement is specified in the ANSI N14.1 "Uranium Hexafluoride Packaging for Transport" standard. Compliance with ANSI N14.1 is a specific condition of the Certificate of Compliance (CoC) No. 9196 for the Model No. UX-30 transportation package.

Following discovery of the issue, USEC investigated the operational history for cylinder serial number GEW216. The valve had been installed in November 2007. The visual inspections made of the valve failed to identify that the valve did not have the minimum number of threads engaged (for a 14 thread valve, a minimum of seven threads must be engaged). The cylinder was involved in two shipments of solid enriched uranium hexafluoride after valve installation and before the problem was identified.

4. Corrective actions taken by the licensee:

- Cylinder valve was replaced and its subsequent leak check completed on September 28, 2011.
- USEC provided the fabricator a summary of corrective actions implemented by the recertification services supplier on October 12, 2011. The fabricator and USEC have the same recertification services supplier.

5. Staff comments:

Condition 6 of the Model No. UX-30 CoC, USA/9196/B(U)F-96, requires cylinders to be fabricated, inspected, tested and maintained in accordance with ANSI N14.1-2001, "Uranium Hexafluoride Packaging for Transport." Valve thread engagement is specified in the ANSI N14.1 standard, and is an important check to ensure adequate valve installation. Failure to have the minimum thread

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engagement indicated the possibility that uranium hexafluoride could have leaked, however, there was no evidence of leakage around the valve threads while the cylinder was in use.

6. Staff conclusion:

- The report does NOT identify generic design or license/certificate issues that warrant additional Commission or staff action. This report is considered closed.
- There is a need to take additional action. Provide a summary of the bases and recommended actions:

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SFST 71.95 Report File

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