

10 CFR 71.95 REPORT EVALUATION FORM

Docket No.: 71-9196
Package Model No.: UX-30
Report Submitter, Date, and Report ADAMS Accession No.: Stephen Cowne, Louisiana Enrichment Services, LLC, February 9, 2018, ADAMS Accession No. ML18045A145; and supplemented by Stephen Cowne, Louisiana Enrichment Services, LLC, February 14, 2018, ADAMS Accession No. ML18053A141

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:

In December 2017, URENCO USA (UUSA) made shipments of 5 (five) 30B transport cylinders (Type B) containing enriched UF₆ with port caps made from a material that was non-compliant per American National Standards Institute (ANSI) N14.1-2012, "Packaging of Uranium Hexafluoride for Transport." In one shipment of 6 cylinders made to GNF-A, it was discovered on December 12, 2017, that 3 cylinders were found to have incorrect port caps and in a second shipment made to Framatome, it was discovered on February 13, 2018, that 2 of the cylinders used the incorrect port caps.

The purpose of the port cap is to prevent any loss or dispersal of possible contamination from the valve's internal space and also to protect the valve from intrusion of dirt and/or water from the outside. The cap is not part of the pressure retaining containment of the valve for the UF₆ cylinders.

In 2016, UUSA had a purchase order fulfilled, correctly, for 156 Brass Hex 1 inch caps. The material for the component was brass ASTM B16 or equivalent, which was the incorrect material.

Conformance to this standard requires that the cap be made from one of three materials:

- ASTM B150, Aluminium-bronze (UNS C61300) OR
- ASTM B164, Nickel-1-Copper (N04400) OR
- Aluminium bronze (UNS C63600).

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4. Corrective actions taken by the licensee:

The deviations were self-identified by UUSA on February 9, 2018 and February 14, 2018, at which point conformance was reestablished. UUSA documented a report of the nonconformance and notified the affected fuel fabrication facilities. Corrective actions taken by UUSA include:

- Blocking additional use of the incorrect caps. This action has been completed.
- Identifying a correct source for port caps to ensure conformance with ANSI N14.1. This action has been completed.

5. Staff comments:

As there were no incidents during the referenced shipments, the safety significance of this nonconformance is considered low. The package integrity was not substantially compromised, and there was no exposure of individuals to radiation.

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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