



December 6, 2013  
GDP 13-1047

ATTN: Document Control Desk  
Mr. Mark D. Lombard, Director  
Division of Spent Fuel Storage and Transportation  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

**Paducah Gaseous Diffusion Plant (PGDP)  
Docket No. 70-7001, Certificate No. GDP-1  
10 CFR 71.95 - Type B Transportation Package Report (USA/9196/B(U)F-96)**

Pursuant to 10 CFR 71.95(a)(3) and (c), the United States Enrichment Corporation (USEC) hereby submits this report for discovery of an instance where USEC shipped a Uranium Hexafluoride Type B transportation package that did not comply with condition 9(b) of the Certificate of Compliance for the NRC-approved Type B package. The transportation package identification number was USA/9196/B(U)F-96. The Model UX-30 package in this shipment, owned by a USEC customer, was found to have been shipped by USEC one time on September 17, 2013, without having been inspected by the owner in accordance with Chapter 8, Section 8.2.1.1 of the "Safety Analysis Report for Model UX-30 Package, Public Version, Revision 2," dated March 2011. USEC notified the transportation package owner on October 14, 2013, upon discovery of the non-compliance with the Certificate/SAR requirements.

Enclosure 1 contains the detailed report. Enclosure 2 contains the List of Commitments. Any questions regarding this report should be directed to Vernon J. Shanks, Regulatory Affairs Manager at (270) 441-6039.

Sincerely,

Michael A. Buckner  
General Manager, Paducah Gaseous Diffusion Plant

Enclosures: As Stated

cc: NRC Region II  
NRC Project Manager – PGDP

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NM5524

## **10 CFR 71.95 - Type B Transportation Package Report (USA/9196/B(U)F-96)**

### ABSTRACT

On October 14, 2013, during preparations for shipment of a customer order for fissile UF<sub>6</sub>, USEC discovered a UX-30 transportation package (overpack) to be used had exceeded its weld inspection frequency due date. The owner had provided the overpack and had previously certified the overpacks supplied had been properly inspected in accordance with the "Safety Analysis Report for Model UX-30 Package, Public Version, Revision 2," dated March 2011 (UX-30 SAR). USEC reviewed its shipping records and determined that it had shipped the overpack containing a fissile UF<sub>6</sub> cylinder to its customer one time on September 17, 2013, when the overpack was past its required weld inspection due date.

Subsequently, USEC determined that its database used in part to document the inspection status of all transportation packages had contained the proper expiration date but that due to inattention to detail, one of the shipment preparers had not noticed the inspection had expired. USEC notified the overpack owner of the issue on October 14, 2013. USEC returned the empty expired overpack to its owner for disposition. USEC's shipment of the above UX-30 overpack is reportable pursuant to 10 CFR 71.95(a)(3) and (c), as an instance where USEC shipped a Type B transportation package that did not comply with condition 9(b) of the Certificate of Compliance for the NRC-approved Type B package.

Because the failure to comply involved incorrect application of a Certificate condition by a user and not an element attributed to a package design issue, USEC determined discussions were not necessary with the UX-30 Certificate of Compliance holder.

### DETAILS

On October 14, 2013, while preparing UF<sub>6</sub> shipment paperwork, USEC was reviewing inspection data provided by the transportation package owner to enable confirmation of the owner's completion of required annual inspections of the UX-30 overpacks they had provided USEC for shipment of their UF<sub>6</sub> fissile material order. One overpack provided was found to have exceeded its weld inspection expiration date. USEC reviewed its shipping records and determined that it had shipped the overpack containing a fissile UF<sub>6</sub> cylinder to its customer one time on September 17, 2013, when the overpack was past its required weld inspection due date of June 18, 2013. The empty overpack was returned to its customer for disposition.

## INVESTIGATION RESULTS

USEC performed an extent of condition review and for the past year determined no other customer provided overpack shipped had exceeded its weld inspection expiration date. USEC enters weld inspection data provided by the transportation package owner into the USEC Customer Order Management database known as TRANSPORT. This database in part is used to track all UF<sub>6</sub> transportation packages that are in use by USEC or provided for use by its customers. This system provides warning statements for various conditions associated with the transportation packages. The warning statements appear adjacent to one another. Interviews with the employee indicated he/she failed to notice the weld inspection warning statement and believes it was due to inattention to detail. It was determined that even though a warning is displayed for anomalous equipment conditions, there was no program block provided to prevent saving the record and using the equipment for shipping UF<sub>6</sub>.

## UX-30 TRANSPORTATION PACKAGE INSPECTION REQUIREMENTS

In accordance with Chapter 8, Section 8.2.1.1 of the "Safety Analysis Report for Model UX-30 Package, Public Version, Revision 2," dated March 2011, "Visual inspection of accessible welds shall be carried out within 12 months prior to shipment with the following requirements." These requirements include requirements for inspector qualifications, weld acceptance criteria, and weld repair acceptance criteria.

## ASSESSMENT OF SAFETY CONSEQUENCES

The shipment made by USEC on September 17, 2013 did not experience any equipment failures or releases of radioactive materials. As such there were no known safety compromises due to the overpack exceeding its required weld inspection interval.

## CORRECTIVE ACTIONS

1. USEC notified its customer of the inspection deficiency on October 14, 2013.
2. Customer and Order Management was notified on November 19, 2013, that TRANSPORT was modified to prevent an overpack with an expired weld date from being added to a Shipping Authorization with a loaded cylinder. This warning message can be bypassed only if the cylinder does not contain any nuclear material.

## SIMILAR EVENTS

USEC is aware the customer is evaluating its overpack shipping data to determine its need for submitting any required reports.

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**LIST OF COMMITMENTS**

No new commitments.