



May 27, 2010
GDP 10-0025

Ms. Tilda Liu
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Advanced Fuel Cycle, Enrichment, and Uranium Conversion Branch
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Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**Paducah Gaseous Diffusion Plant (PGDP)
Portsmouth Gaseous Diffusion Plant (PORTS)
Docket No. 70-7001 and 70-7002
Certificate No. GDP-1 and GDP-2
Request for Additional Information (RAI 6) Regarding Revisions to the Decommissioning
Funding Program Description and Depleted Uranium Management Plan and Financial
Assurance for Calendar Year 2010, Paducah Gaseous Diffusion Plant and Portsmouth
Gaseous Diffusion Plant (TAC Nos. L32747 and L32743)**

Dear Ms. Liu:

This letter responds to the subject request provided by your e-mail dated May 27, 2010.

NRC Question

RAI 6

The basis for reducing the surety would be the approval of the new, lower cost estimate. The depleted uranium (DU) disposal is the component of the April 2010 cost estimate that is providing a basis for its reduction. However, the Department of Energy (DOE) agreement states that although DOE will take title to certain amounts of DU, USEC is responsible for storing it until DOE takes possession of it (Article 8.02). In other words, the DU subject to the agreement would still remain onsite until such time as DOE takes possession of it. Yet, the cost estimate excludes the DU which DOE has taken title to, and it is unclear if this DU is no longer onsite. Furthermore, by having DOE take title to this DU, it is unclear if DOE assumes responsibility for the cleanup of a DU-canister leak, and any subsequent subsurface contamination, while the DU subject to the agreement is stored at USEC. While some of these issues might touch upon the actual

NMSS01

implementation of the DOE Agreement, if the cleanup of such an event is USEC's responsibility, it may or may not become part of operating costs, and it may impact the financial assurance. The certificate holder is requested to provide clarifications to the aforementioned issues.

USEC Response

The DU cylinders containing the material being transferred from USEC to DOE under the current agreement are located in the PGDP cylinder storage yards and will remain there until ultimate disposal at the DOE conversion facility also located on the Paducah site. It should be noted that there are also several thousand DU cylinders in those storage yards containing DOE material transferred from USEC under previous agreements described in the DFP. If a cylinder were to be returned to USEC under the current agreement due to some type of leak, USEC would remediate the leak just as we would remediate any type of spill or release on site. Any leak of a cylinder in USEC's storage yards would be remediated by USEC, including any cylinder containing DOE material. Financial responsibility for the cleanup would be determined after the fact. Such remediation is a current operating issue and not a decommissioning issue. As explained in USEC's DFP, USEC's decommissioning liability is limited to that associated with ultimate disposition of the DU generated by USEC's operations after July 28, 1998, and ultimate treatment and disposal of low-level radioactive waste and mixed hazardous and radioactive waste generated by USEC after July 28, 1998. The Lease Agreement makes all other decontamination and decommissioning at the GDPs the responsibility of DOE.

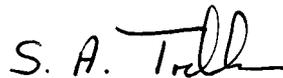
The leak postulated by the RAI question is a very unlikely occurrence and any leak would likely require only minor remediation. Of all the ~44,000 tails cylinders that have accumulated on-site at Paducah (mostly DOE owned) we are aware of only one cylinder that has been breached due to a small crack which was patched and the cylinder emptied. There are instances of small minor valve contamination as well but there has never been a large "leak" or "spill" from a tails cylinder. The material is a solid and typically the vapor pressure is sub-atmospheric. Small leaks also self-seal due to the formation of solid UO₂F₂ at the leak site. Such leaks would be recognized by a yellowish stain on the outside of the cylinder. The USEC cylinders involved in this material transfer are relatively new, making a leak scenario extremely unlikely.

Ms. Tilda Liu
May 27, 2010
GDP 10-0025, Page 3

During the phone call with NRC on May 27, 2010, USEC provided the following clarification to USEC's response to RAI 1 provided in letter GDP 10-0023 dated May 18, 2010. Table A.1 from Appendix A of NUREG/CR-6477 does not contain an engineer category. USEC used the Supervisor category to calculate the engineer labor cost.

If you have any questions regarding this response, please contact me at (301) 564-3250.

Sincerely,

A handwritten signature in black ink that reads "S. A. Toelle". The signature is written in a cursive style with a large, looped "T" at the end.

Steven A. Toelle
Director, Regulatory Affairs