

June 29, 2011

Mr. Steven A. Toelle
Director, Regulatory Affairs
United States Enrichment Corporation
2 Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817

SUBJECT: REVISIONS TO DECOMMISSIONING FUNDING PROGRAM DESCRIPTION AND DEPLETED URANIUM MANAGEMENT PLAN AND FINANCIAL ASSURANCE FOR CALENDAR YEAR 2011, PADUCAH GASEOUS DIFFUSION PLANT AND PORTSMOUTH GASEOUS DIFFUSION PLANT (TAC NOS. L32763 AND L32764)

Dear Mr. Toelle:

The U.S. Nuclear Regulatory Commission's (NRC's) staff has reviewed the December 23, 2010 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML103630204), submittal provided by the United States Enrichment Corporation (USEC) as supplemented by letter dated June 16, 2011, regarding its proposed revisions to the Decommissioning Funding Program Description and Depleted Uranium (DU) Management Plan and financial assurance for Paducah Gaseous Diffusion Plant (PGDP) and Portsmouth Gaseous Diffusion Plant (PORTS) for Calendar Year 2011. USEC's June 16, 2011, letter is its response to the NRC staff's request for additional information.

Specifically, the December 23, 2010, submittal included USEC's proposed revisions to its decommissioning funding documents, as required by Part 76 of Title 10 of the *Code of Federal Regulations* (10 CFR). You provided a revised cost estimate of \$215,800,000 for the decommissioning of USEC's PGDP and its PORTS sites, and for DU disposal. This represents an increase of \$26,600,000 with respect to the previous submittal dated April 4, 2010 (ADAMS Accession No. ML101180070). Financial assurance for the increased cost estimate was provided by a surety rider.

The bases for the staff's findings and conclusions are documented in the enclosed compliance evaluation report, which further details the staff's review of your June 16, 2011, submittal. The staff finds that USEC's June 16, 2011, letter increased the labor cost estimate by \$783,756. This amount is not included as part of the surety rider that USEC submitted. Therefore, USEC is requested to increase its financial assurance by an additional \$783,756 by August 1, 2011.

In accordance with 10 CFR Section 2.390 of the NRC's Rules of Practice, a copy of this letter will be available electronically from the Publicly Available Records System component of NRC's ADAMS. ADAMS is accessible from the NRC's Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If there are any questions regarding this action, please contact Tilda Liu, project manager for PGDP and PORTS, at (301) 492-3217 or via e-mail to Tilda.Liu@nrc.gov.

Sincerely,

/RA/

Dennis C. Morey, Acting Chief
Conversion, Deconversion
and Enrichment Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Enclosure:
As stated

Docket Nos. 70-7001 and 70-7002
Certificate Nos. GDP-1 and GDP-2

cc:
Mr. Randall M. DeVault
U.S. Department of Energy
P.O. Box 2001
Oak Ridge, TN 37831

Mr. Vernon Shanks, Manager
Nuclear Regulatory Affairs
Paducah Gaseous Diffusion Plant
P.O. Box 1410
Paducah, KY 42001

Mr. Douglas Fogel, Manager
Nuclear Regulatory Affairs
Portsmouth Gaseous Diffusion Plant
P.O. 328, MS 1218
Piketon, OH 45661

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DATE	06/27/2011	06/27/2011	06/29/2011

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DOCKET NUMBERS: 70-7001 and 70-7002

CERTIFICATE HOLDER: United States Enrichment Corporation
Paducah Gaseous Diffusion Plant, Paducah, Kentucky
Portsmouth Gaseous Diffusion Plant, Piketon, Ohio

SUBJECT: COMPLIANCE EVALUATION REPORT REGARDING
REVISIONS TO DECOMMISSIONING FUNDING PROGRAM
DESCRIPTION AND DEPLETED URANIUM MANAGEMENT PLAN
AND FINANCIAL ASSURANCE FOR CALENDAR YEAR 2011
(TAC NOS. L32763 AND L32764)

OVERVIEW

Nuclear facilities holding a Certificate of Compliance under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 76 are required to establish adequate Financial Assurance (FA) for decommissioning, decontamination and disposition of wastes pursuant to 10 CFR 76.35(n). 10 CFR 76 certificate holders are required to “establish financial surety arrangements to ensure that sufficient funds will be available for the ultimate disposal of waste and depleted uranium, and decontamination and decommissioning activities which are the financial responsibility of the Corporation.” The funding program utilized to provide financial assurance “...must contain a basis for cost estimates used to establish funding levels and must contain means of adjusting cost estimates and associated funding levels.”

The United States Enrichment Corporation (USEC) is the holder of two Certificates of Compliance, GDP-1 and GDP-2, which authorize the operation of its Paducah Gaseous Diffusion Plant (PGDP) and Portsmouth Gaseous Diffusion Plant (PORTS), located in Paducah, Kentucky, and Piketon, Ohio, respectively. Both GDP-1 and GDP-2 contain a condition requiring USEC to update its decommissioning cost estimate and revise its FA on an annual basis. By letter dated December 23, 2010 (Agencywide Documents Access and Management System [ADAMS] Accession Number ML103630204), USEC provided this required annual update for PGDP and PORTS. By separate letter dated December 23, 2010, USEC provided the proprietary aspects of its annual update.

By letter dated May 27, 2011 (ADAMS Accession Number ML111390254), the staff provided its Request for Additional Information (RAI) with respect to USEC’s submittals. USEC replied to NRC’s RAI by letter dated June 16, 2011.

On the basis of USEC’s December 23, 2010, submittal, and the June 16, 2011 responses to NRC’s RAI, the staff finds USEC’s cost estimate of \$215.8 million should be increased by at least \$783,756 to account for the revised labor cost in response to NRC’s RAI. USEC is requested to increase its FA by at least \$783,756 by August 1, 2011.

Enclosure

REVIEW OF COST ESTIMATE FOR SITE AND FACILITY DECOMMISSIONING AND DEPLETED URANIUM MANAGEMENT

The cost estimate for the disposal of wastes and depleted uranium (DU), as described in the December 23, 2010, non-proprietary submittal is \$215.8 million, an increase of \$26.6 million with respect to the previous submittal dated April 4, 2010 (ADAMS Accession Number ML101180070). The staff reviewed the proprietary and non-proprietary aspects of the submittals dated December 23, 2010, and found that additional information was needed to make a finding that the cost estimate is based on reasonable and documented assumptions. Specifically, the staff requested information in the following areas:

- 1) Clarification with regard to the scope and basis of the disposal rates,
- 2) A basis for the volumes of certain waste streams,
- 3) A basis for the labor costs,
- 4) Confirmation that credit for salvage value is not included,
- 5) Clarification with regard to the Depleted Uranium Hexafluoride (DUF₆) disposal rate, and
- 6) Clarification whether USEC expects any DUF₆ to be returned to USEC per the U.S. Department of Energy (DOE) agreement DE-SC0003997.

The staff requested clarification regarding the scope and basis of the disposal rates for Low Level Radioactive Waste (LLRW), LLRW in storage, mixed waste, and mixed waste in storage (RAI 1). The staff noted that certain waste disposal rates are lower than in USEC's previous cost estimate. In its RAI response, USEC provided a basis for its waste disposal rates, which included a spreadsheet that detailed waste disposal rates for various waste streams, and included a table demonstrating the breakdown of the rates (e.g., disposal rate, transportation, taxes).

The staff requested a basis for the reduced volumes of LLRW in storage at PORTS (RAI 2), the reduced amount of DUF₆ at PGDP (RAI 7), and the increased amount of DUF₆ at PORTS (RAI 8). With respect to LLRW in storage at PORTS, USEC stated that it was able to repackage some of the waste and ship it to a disposal facility, thereby reducing total LLRW in storage. With respect to the reduced amount of DUF₆ at PGDP, USEC explained that the estimated quantity of DUF₆ at PGDP is based on the actual quantity of DUF₆ at PGDP at the end of calendar year 2010, plus the estimated amount of DUF₆ generated through the end of calendar year 2012. A change in the projected amount of DUF₆ production resulted in the decreased amount of DUF₆ that the staff noted. Specifically, in calendar year 2010, USEC generated fewer tails than it expected in its previous submittal. USEC also stated that it reduced its projected tails generation for calendar years 2011 and 2012. With respect to the increased amount of DUF₆ at PORTS, USEC stated that during a review of its DUF₆ inventories, some material (e.g., check weights used for scale calibration) was moved into the DUF₆ tails category. USEC also stated that this increased amount did not affect the estimated DUF₆ disposal rate. This explains why the DUF₆ at PORTS increased.

In the RAI in connection with USEC's April 6, 2010, submittal, the staff requested, in part, for an updated labor cost estimate, as these costs appeared to be over 10 years old. USEC committed to updating the labor cost estimate in its subsequent cost estimate submittal due by December 31, 2010. In its December 23, 2010 submittal, USEC updated its labor cost estimate from \$500,000 to \$553,890. The proprietary December 23, 2010, submittal contained additional information regarding the labor estimate.

However, the staff requested a basis for the labor costs provided in Section 3.3 of USEC's submittal (RAI 3), and clarification whether these labor rates are based on the costs of a third party. USEC stated that 2011 GDP labor rates are relied on in the estimate. To account for third-party labor costs, USEC's RAI response revised the labor estimate to include an overhead rate of 110 percent and an additional 15 percent for contractor profit on labor and overhead. This resulted in an increase in the labor cost estimate from \$553,890 to \$1,338,646 (an increase of \$783,756). This requires USEC to increase its FA above what it provided in its December 23, 2010, submittal. USEC is requested to increase its financial assurance by at least \$783,756 by August 1, 2011.

The staff requested clarification that credit for salvage value is not included in the estimate (RAI 4). Section 3.0 of the Depleted Uranium Management Plan states that "[t]here are a number of existing and potential uses for depleted uranium, including use in radiation shielding material...it is possible that increased energy costs may make recovery of additional [Uranium-235] ²³⁵U from the depleted uranium economically feasible in the future...." In its RAI response, USEC stated that no credit for any salvage value is taken in the estimate.

The staff requested clarification with regard to the Depleted Uranium Hexafluoride (DUF₆) disposal rate. Specifically, the staff requested clarification with respect to the: (1) update periodicity of "Plant Construction" and "Plant D&D cost" stated in Tables 1 and 2 of "Analysis of Depleted Uranium Disposal Costs for the Gaseous Diffusion Plants" (RAI 5); and (2) the 20 percent and 10 percent "contingency" subtracted from "Investment Costs" and "Annual operating costs," respectively, in Tables 1 and 2 of "Analysis of Depleted Uranium Disposal Costs for the Gaseous Diffusion Plants" (RAI 6). USEC stated that it escalates costs annually, and USEC explained that in NRC's letter, dated May 4, 2006 (ADAMS Accession Number ML061110236), the NRC allowed USEC to take credit for the contingencies in the DOE cost estimate.

As part of USEC's April 6, 2010 submittal, it provided a copy of Agreement DE-SC0003997 that USEC entered into with DOE. Under this agreement, DOE took title to an amount of USEC's DUF₆. Per Section 9.03 of this Agreement, title to DUF₆ previously transferred to DOE may be returned to USEC under certain conditions. Therefore, the staff requested clarification whether USEC expects any DUF₆ to be returned to USEC per DOE agreement DE-SC0003997. In its RAI response, USEC explained that there will be no return of DUF₆ pursuant to Section 9.03 of DOE agreement DE-SC0003997.

REVIEW OF FINANCIAL INSTRUMENTS AND SUPPORTING INFORMATION

The December 23, 2010, submittal contained a surety rider for USEC's surety bond provided by SAFECO Insurance Company of America. This rider increases the penal sum of the bond from \$12,770,000 to \$39,370,000. The submittal also contained revised Schedules A, B and C to USEC's Standby Trust Agreement. The staff reviewed the revised schedules and find them acceptable. The language of the surety rider is acceptable. However, USEC is required to provide an additional \$783,756 by August 1, 2011, to account for the revised labor cost estimate. The below table describes USEC's financial assurance mechanisms in full force and effect at this time.

Financial Institution	Amount Provided
Westchester Fire Insurance Company	\$30,800,000
Westchester Fire Insurance Company	\$63,300,000
SAFECO Insurance Company of America	\$39,370,000
Argonaut Insurance Company	\$15,000,000
National Union Fire Insurance Company	\$67,330,000
Total	\$215,800,000

FINDING

Relying upon its December 23, 2010, submittal and RAI responses dated June 16, 2011, the staff finds that USEC's decommissioning funding plan, cost estimate and DU management plan are based on reasonable and documented assumptions and is therefore acceptable. In response to NRC's RAI, the labor cost estimate increased by \$783,756. USEC is requested to increase its FA by at least \$783,756 by August 1, 2011.

ENVIRONMENTAL REVIEW

Approval of the requested changes is subject to the categorical exclusion provided in 10 CFR 51.22(c)(19) and will not have a significant impact on the human environment. Therefore, in accordance with 10 CFR 51.22(b), neither an environmental assessment nor an environmental impact statement is required for the proposed action.

CONCLUSION

The staff concludes that there is reasonable assurance that the proposed revisions to the Decommissioning Funding Program Description and Depleted Uranium Management Plan and FA for calendar year 2011 would continue to provide adequate protection of public health, safety, safeguards, security, and the protection of the environment. Therefore, the staff finds that the proposed revisions are acceptable and meet the regulatory requirements to provide FA, as set forth in 10 CFR 76.35(n). To account for the increased cost estimate as a result of responses to RAIs, USEC is hereby requested to increase its FA by at least \$783,756 by August 1, 2011. The certificate holder remains liable for any costs not covered by the surety agreement.

PRINCIPAL CONTRIBUTOR

Roman Przygodzki