

May 12, 2010

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION 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 Mr. Toelle:

The U.S. Nuclear Regulatory Commission's (NRC) staff has reviewed the December 30, 2009 (Agency Documents Access and Management System [ADAMS] Accession No. ML100760597), submittal provided by the United States Enrichment Corporation (USEC) as supplemented by letter dated April 6, 2010 (ADAMS Accession No. ML101180070), regarding its proposed revisions to the Paducah Gaseous Diffusion Plant and the Portsmouth Gaseous Diffusion Plant Decommissioning Funding Program Description and Depleted Uranium Management Plan and financial assurance for Calendar Year 2010. The staff's review of the proposed revisions contained in December 30, 2009, and April 6, 2010, submittals has identified that additional information is needed before a final decision can be taken on the submittal.

Your response to the request for additional information, specified in the enclosure, should be provided to the NRC within ten (10) business days from the date of this letter. This timeframe has been agreed upon between the NRC staff and the USEC representatives during the telephone conference held May 11, 2010.

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

If there are any questions regarding this action, please contact me at (301) 492-3217 or via e-mail at [Tilda.Liu@nrc.gov](mailto:Tilda.Liu@nrc.gov).

Sincerely,

**/RA/**

Tilda Y. Liu, Senior Project Manager  
Advanced Fuel Cycle, Enrichment,  
and Uranium Conversion Branch  
Special Projects and Technical  
Support Directorate  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: Request for Additional Information

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

cc w/enclosure:  
Vernon Shanks, Manager  
Nuclear Regulatory Affairs  
Paducah Gaseous Diffusion Plant  
P.O. Box 1410  
Paducah, KY 42001

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

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<b>DATE</b>	5/12/10	5/12/10	5/12/10	5/12/10

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## REQUEST FOR ADDITIONAL INFORMATION

### Regarding December 30, 2009, and April 6, 2010, Decommissioning Funding Program Description and Depleted Uranium Management Plan and Financial Assurance for Calendar Year 2010

#### United States Enrichment Corporation

#### Paducah Gaseous Diffusion Plant Portsmouth Gaseous Diffusion Plant

#### RAI 1

The United States Enrichment Corporation (USEC or certificate holder) is requested to clarify Section 3.3 to both the December 30, 2009 (Agency Documents Access and Management System [ADAMS] Accession No. ML100760597), and the April 6, 2010 (ADAMS Accession No. ML101180070), submittals by including the sources for labor costs, explaining whether labor costs in 1998 dollars have been updated, and updating them if necessary. (NUREG-1757, Volume 3, Appendix A, Section A-3)

Both submissions specify in Section 3.3 that labor costs were estimated based on the costs provided in NUREG/CR-6477, "Revised Analyses of Decommissioning Reference Non-Fuel-Cycle Facilities," dated July 1998. No details were provided regarding the types of labor (e.g., supervisor, laborer, health physicist, skilled laborer) for which costs were obtained, and no citation to the source in NUREG/CR-6477 was included in the submittals. Furthermore, NUREG/CR-6477 provides costs that are "expressed in early 1998 dollars and include a 25 percent contingency." (Page 2.8) Because the costs in NUREG/CR-6477 are more than ten years old, the certificate holder is requested to explain whether the labor costs were escalated to current dollars. If 1998 labor costs are used, escalate the labor costs to costs expressed in current dollars and provide a detailed basis for the escalation factor utilized.

#### RAI 2

The certificate holder is requested to clarify the Payment Surety Bond from Westchester Fire Insurance Company in the December 30, 2009, submission by:

- listing only the correct U.S. Nuclear Regulatory Commission (NRC) certificate of compliance number for the Paducah Gaseous Diffusion Plant (PGDP), and
- including a provision that no decrease in the penal sum may take place without the written permission of the NRC. (NUREG-1757, Volume 3, Appendix A, Pages A-93 to A-95)

The Payment Surety Bond from Westchester Fire Insurance Company states that it covers the PGDP—but lists NRC certificate of compliance numbers "GDP-1 and GDP-2." To avoid confusion regarding which facility is being covered by the bond, clarify by removing the certificate of compliance number for the Portsmouth Gaseous Diffusion Plant (PORTS), GDP-2, from the bond, if appropriate.

The staff noted that the Payment Surety Bond submitted by Westchester Fire Insurance Company generally follows the model language for surety bonds found in NUREG-1757, Volume 3, Appendix A, Pages A-93 to A-95. However, the staff also noted that the submitted bond does not contain the clause from NUREG-1757 which states the following: “The Principal and Surety hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount provided that the penal sum does not increase by more than 20 percent in any one year and *no decrease in the penal sum takes place without the written permission of NRC*” (emphasis added). The certificate holder is requested to justify the reasons as to why a statement such as “The Principal and Surety hereby agree that no decrease in the penal sum takes place without the written permission of NRC” is not being included.

Also, upon reviewing the Payment Surety Bond language for SAFECO Insurance Company of America, Westchester Fire Insurance Company (effective date 12/19/2006) and National Union Fire Insurance Company, the staff identified a similar omission. The certificate holder is requested to justify its reasons for the omission for the aforementioned—and any additional surety bonds. Additionally, for the National Union Fire Insurance Company surety bond, (1) justify the bond number indicated on the surety rider dated December 16, 2005, and (2) the date of the originally executed surety bond as listed on the surety rider dated December 19, 2001. Furthermore, for all surety bonds, justify the name of the financial institution that, with the certificate holder, established the standby trust fund. Lastly, ensure that all surety bonds are free of typographical errors.

### RAI 3

Schedule B to the Standby Trust Agreement in both the December 30, 2009, and the April 6, 2010, submittals provides the names of the financial institutions supplying financial assurance; but does not provide any other information. The certificate holder is requested to clarify the information contained in Schedule B by including the amount of financial assurance being provided by each institution and by specifying whether the financial assurance being supplied by each is intended to cover decommissioning of PGDP, PORTS, or both facilities.

In addition, the staff noted that Schedule B in both the December 30, 2009, and the April 6, 2010, submissions lists Rockwood Casualty Insurance Company as one of the providers of a surety bond; and neither lists Argonaut Insurance Company. Clarify Schedule B by listing the correct names of the institutions providing financial assurance.

### RAI 4

NUREG-1757, Volume 3, Appendix A, Section A-3, recommends that licensees provide an explanation in their decommissioning funding plan of how they will amend the cost estimate and financial assurance as necessary to address changes in facility conditions or operations and changes in expected decommissioning procedures. Article 9.03 of the Cooperative Agreement states the following:

In the event the total costs incurred for the project are less than the \$90,000,000, the total amount of DUF6 transferred to Department of Energy (DOE) will be adjusted on a pro rata basis to equal DOE's share of the total project costs to the nearest full cylinder. Within thirty (30) days of the delivery of the final report of the total cost of the project, DOE shall notify USEC of the need to return title to Transferred Material and identify the cylinders to be returned. . . .USEC will notify DOE of any objection to the return of the

cylinders identified within ten (10) days of receiving DOE's notice. DOE shall transfer and USEC shall accept title to such material on the latter of (i) the eleventh day after USEC's receipt of DOE's notice if no objection is delivered to DOE; (ii) the date DOE and USEC agree to the transfer; (iii) the date any dispute is resolved under Article 21 [claims, disputes, and appeals].

The certificate holder is requested to justify how it would provide financial assurance in a timely manner for decommissioning and disposition of any materials that might be returned under Article 9.03 of the Cooperative Agreement.

#### RAI 5

Table 1 in the Depleted Uranium (DU) Management Plan of the April 6, 2010, submission indicates the total "Estimated net cumulative USEC DU" as of Calendar Year 2013, the expiration date of the Certificate of Compliances, as 39407 metric tons uranium (U), consisting of 39047 metric tons U at PGDP and 360 metric tons U at PORTS, respectively. These amounts cannot be easily related to the amounts used to calculate the total cost per kilogram (kg) DU in Tables 1 and 2 of the Analysis of Depleted Uranium Disposal Costs. The staff noted that the estimate for USEC depleted uranium hexafluoride (DUF<sub>6</sub>) in Scenario 2 may be mislabeled since it refers to "USEC-ACP [American Centrifuge Plant] DUF<sub>6</sub>" rather than PGDP or PORTS.

The certificate holder is requested to justify why the amount of DUF<sub>6</sub> in Scenario 2, which is labeled PORTS, is greater than the amount in Scenario 1 labeled PGDP. In other parts of the submittals, the opposite is indicated (e.g., Table 1 of the DU Management Plan and Page 7a of the Decommissioning Funding Program Description). Because a substantially larger amount of DUF<sub>6</sub> is at PGDP, explain why it does not constitute a larger pro rata share of the investment cost of the Plant which might, in turn, result in a higher cost per kg DU.

In addition, the certificate holder is requested to provide clarification and/or detailed explanation, where appropriate, of the relationship between Tables 1 and 2 in the Analysis of Depleted Uranium Disposal Costs to Table 1 in the Depleted Uranium Management Plan, by including conversion to comparable units, specifying the conversion factor used to convert amounts of DUF<sub>6</sub> to amounts of DU, explaining the calculation of DU disposal costs, and correcting the references to USEC-ACP in the Analysis of Depleted Uranium Disposal Costs.