July 12, 2010

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 URAIUM 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 (NRC) staff has reviewed the December 30, 2009 (Agencywide 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 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 2010.

Specifically, the April 6, 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 $189,200,000 for decommissioning USEC's PGDP and its PORTS sites, and this estimate also covers the costs of depleted uranium disposal.

Your submission was in furtherance of a Cooperative Agreement dated March 23, 2010, entered into between USEC and the U.S. Department of Energy (DOE), a copy of which you included in your submittal. Based on the Cooperative Agreement, you provided a rider to a surety bond previously issued by SAFECO Insurance Company of America, proposing to amend the bond by reducing its penal sum from $58,867,631 to $50,000. Similarly, you provided a rider to a surety bond previously issued by Argonaut Insurance Company, proposing to amend that bond by reducing its penal sum from $15,000,000 to $217,631.

The proposed reductions in the bond amounts, and the revised cost estimate of $189,200,000, reflect a transfer of title to DOE of up to 19,700,000 kilograms (kg) of depleted uranium hexafluoride (DUF_6), in accordance with the Cooperative Agreement. This transfer of title is intended to fund USEC's American Centrifuge Plant (ACP) project by releasing up to $45 million previously obligated through surety bonds as financial assurance for depleted uranium (DU) management.

The NRC staff concludes that USEC will continue to meet the regulatory requirements to provide financial assurance, set forth in 10 CFR 76.35(n). The staff finds that the riders to the SAFECO and Argonaut surety bonds may be signed by the NRC to effect the requested reductions in each bond's liability. The staff finds that the aggregate dollar amount of USEC's various financial instruments provides adequate financial assurance to cover USEC's revised cost estimate. The staff concludes that there is reasonable assurance that the proposed revisions to the decommissioning funding program and DU management plan will 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. The certificate holder remains liable for any costs not covered by the surety agreement.

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 April 6, 2010, submittal. The signed riders are also enclosed.

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 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/

Marissa Bailey, Deputy Director
Special Projects and Technical
Support Directorate
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Enclosures: As stated

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

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

Mr. Vernon Shanks, Manager
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Mr. Douglas Fogel, Manager
Nuclear Regulatory Affairs
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Piketon, OH 45661

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.

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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 URAIUM MANAGEMENT PLAN AND FINANCIAL ASSURANCE FOR CALENDAR YEAR 2010 (TAC NOS. L32747 AND L32743)

BACKGROUND

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 76, "Certification of Gaseous Diffusion Plants," Section 76.35, "Contents of Application," subsection (n), requires certificate holders 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 regulation further states that the funding program which is 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." As indicated below, to meet these financial assurance requirements, the United States Enrichment Corporation (hereinafter referred to as "USEC" or "certificate holder") relies in part on several surety bonds. USEC also relies on a Letter of Credit issued by JP Morgan.

In accordance with 10 CFR 76.35(n), on December 30, 2009, USEC submitted its annual update to the Decommissioning Funding Program (DFP) Description and Depleted Uranium Management Plan (DU Plan) for the Paducah Gaseous Diffusion Plant (PGDP) and the Portsmouth Gaseous Diffusion Plant (PORTS) for calendar year (CY) 2010 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML100760597). The total cost estimate submitted on December 30, 2009, was $262,800,000, a $30,800,000 increase from the cost estimate for CY 2009. This submission included a new surety bond issued by the Westchester Fire Insurance Company with a penal sum of $30,800,000, sufficient to cover this increase in the cost estimate. A separate surety bond issued by Westchester in December 2006 with a penal sum of $63,300,000 remains in full force and effect.

On April 6, 2010, USEC submitted a revised DFP and DU Plan for CY 2010 (ADAMS Accession No. ML101180070). As part of this submission, USEC provided: (1) a copy of a Cooperative Agreement (the "agreement"), signed on March 23, 2010, between USEC and the U. S. Department of Energy (DOE); (2) a rider to a surety bond previously issued by SAFECO Insurance Company of America, reducing the penal sum of that bond from $58,867,631 to $50,000; and (3) a rider to a surety bond previously issued by Argonaut Insurance, reducing the penal sum of that bond from $15,000,000 to $217,631.

Pursuant to Article 8 of its agreement with DOE, USEC's April 6, 2010, revision reflects a transfer of title to DOE of up to 19,700,000 kilograms (kg) of Depleted Uranium Hexafluoride (DUF_6). This transfer of title is intended to fund USEC's American Centrifuge Plant (ACP) project by way of releasing up to $45 million previously obligated through surety bonds as financial assurance for depleted uranium (DU) management. Specifically, Article 8.01 of the agreement states that "[t]he Total Estimated Cost of the project is approximately $90 million. DOE has agreed to accept title to certain quantities of DUF_6 that will enable USEC to release encumbered funds for approximately fifty percent (50%) of the Total Estimated Cost of the project up to $45 million. The maximum Government obligation to USEC is limited to accepting no more than 19,700,000 kg of DUF_6."

DISCUSSION

Cost Estimate for Site and Facility Decommissioning, Depleted Uranium Management

The total cost estimate of USEC's April 6, 2010, submission is $189,200,000 – a reduction of $73,600,000 from USEC's December 30, 2009, estimate. This reflects the transfer of title to DOE of 19,700,000 kg DUF_6. However, as discussed further below, there has also been an increase in the assumed disposal cost of USEC's low level radioactive waste (LLRW).

Pursuant to Article 8.02 of the agreement, "USEC will transfer title to no more than 19,700,000 kg of DUF_6 and the cylinders in which the DUF_6 is contained…to DOE and DOE will accept title to, and responsibility for the disposition of, such Transferred Material as of the effective date of this Agreement."

Section 3.0 of USEC's April 6 revised DU Management Plan, states that DOE agreed to take title to 13,312,411 kg DU. In Section 3.2 (Depleted Uranium Disposition), USEC projected that it would be responsible for the disposal of 31,106,000 kg DU at the PGDP facility. This represents a decrease of 13,331,411 kg DU with respect to the December 30, 2009 submission. The difference between the 13,312,411 kg DU and 13,331,411 kg DU figures presented in Section 3.0 and 3.2, respectively, is due to different starting points with regard to DU at PGDP. The PGDP DU starting point in USEC's April submission is 38583 metric tons Uranium (MTU) compared to 38602 MTU in the December 30, 2009, submission. Utilizing the 38583 MTU figure, USEC estimates that 5840 MT DU will be generated, and estimates that 5 MT DU will be re-fed into the cascade or sold. USEC's DU Management plan reflects that DOE has already taken title to 13,312,411 kg DU (13,312 MTU). The aggregate of these changes in PGDP DU sums to a projected 31,106 MTU at the end of CY 2010, upon which financial assurance for 2010 is based. The staff finds that the revised DU Management Plan does not adversely impact the amount of financial assurance provided.

In both its December 30, 2009, and April 6, 2010, submissions, USEC projected that it would be responsible for the disposal of 360,000 kg DU at the PORTS facility. Likewise, in both submissions, the unit disposal costs for PGDP and PORTS is $4.44 kg/U and $5.11 kg/U, respectively.

Exclusive of the LLRW that does not currently have a disposal outlet, the April 6, 2010, submission increased the assumed unit cost for LLRW disposal, for the PORTS facility, to $74/cubic feet ($ft^3$) from $65/$ft^3$. This change increased the estimated cost of LLRW disposal (Section 3.1.1 of the DFP) and increased the estimated cost of disposing LLRW in storage (Section 3.1.4 of the DFP).

As stated in USEC's DFP Section 3.3 (Labor Cost), such costs were estimated based on the costs provided in NUREG/CR-6477, "Revised Analyses of Decommissioning Reference Non-Fuel-Cycle Facilities," dated December 2002. The April 6, 2010, submission estimated the aggregate labor cost to be $500,000. By letter dated May 12, 2010, the staff sent a request for additional information (RAI) (ADAMS Accession No. ML101320238) and requested that this figure be escalated to reflect current costs. By letter dated May 18, 2010 (ADAMS Accession No. ML101870334), USEC acknowledged that the cost has not been escalated since 2001 and that the labor rates should be escalated to current dollars. However, USEC indicated that because the financial instruments for CY 2010 had already been issued, modifying the dollar amounts would be an administrative burden and would require USEC to implement an extensive plant change process. USEC provided a written commitment to escalate the labor costs no later than December 31, 2010. Given that the labor cost constitutes less than 1% of the total decommissioning cost estimate, the staff finds that USEC's commitment is acceptable. However, this finding should not be interpreted as precedent for accepting outdated labor cost estimates in the future.

The cost estimates of both the December 30, 2009, and April 6, 2010, submissions are consistent with NUREG-1757, Volume 3, "Consolidated NMSS Decommissioning Guidance: Financial Assurance, Recordkeeping, and Timeliness," dated September 2003. The staff finds that USEC's submissions contain sufficient detail and are based on reasonable and documented assumptions. Accordingly, the staff finds that the $189,200,000 cost estimate for the site and the facility decommissioning and DU disposal, detailed in the April 6, 2010, submission, is acceptable.

Financial Instruments and Supporting Information

The April 6, 2010, submission included surety riders amending bonds issued by SAFECO Insurance Company of America and Argonaut Insurance Company. These riders reduce USEC's financial assurance by an aggregate amount of $73,600,000, reflecting the reduced cost estimate discussed above. However, given the new surety bond issued by Westchester Fire Insurance Company in December 2009, the net reduction in surety, with respect to the previously approved cost estimate, is $42,800,000.

The table set forth below (based on USEC's response to RAI 3, in a letter dated May 18, 2010) shows the existing financial assurance mechanisms and their amounts, and reflects the reductions in the SAFECO and Argonaut bonds discussed above. The aggregate financial assurance provided equals the approved cost estimate of $189.2 million.

Financial Instrument Issuer	Amount Provided
Westchester Fire Insurance Company[1]	$30,800,000.00
Westchester Fire Insurance Company[2]	$63,300,000.00
SAFECO Insurance Company of America	$50,000.00
Argonaut Insurance Company	$217,631.00
National Union Fire Insurance Company	$67,330,000.00
JP Morgan	$27,502,369.00
	Total $189,200,000.00

The above surety bond providers are listed in Treasury Circular 570, and each individual surety bond's penal sum is below the underwriting limitation listed in Treasury Circular 570. Although the sum of the two Westchester Fire Insurance Company surety bonds exceeds the current underwriting limitation, the underwriting limitation is on a per bond basis (31 CFR 223.10). Additionally, JPMorgan Chase, the financial institution providing USEC's Letter of Credit, is federally regulated. Therefore, the above mentioned issuers providing financial assurance are acceptable to the NRC staff.

In its response to RAI 2, by letter dated June 11, 2010, the certificate holder provided a surety rider to the 2006 Westchester bond, amending it to include the following clause:

> No decrease in the penal sum of the bond may take place without the written permission of the NRC.

This wording is consistent with the NRC guidance provided in NUREG-1757, Volume 3, ("Consolidated NMSS Decommissioning Guidance: Financial Assurance, Recordkeeping, and Timeliness," dated September 2003, at p. A-94), and the staff finds it acceptable. Similarly, by letter dated June 2, 2010, the certificate holder provided surety riders to the surety bonds issued by SAFECO Insurance Company of America, Westchester Fire Insurance Company (effective date December 21, 2009), National Union Fire Insurance Company, and Argonaut Insurance Company, amending these bonds.

In its response to RAI 2, USEC also addressed the following items:

- the surety rider for the Westchester Fire Insurance Company (effective date December 21, 2009) surety bond also indicates that the surety bond covers both PGDP and PORTS,

[1] December 2009 Surety Bond
[2] December 2006 Surety Bond

- the surety rider for the National Union Fire Insurance Company surety bond corrects the surety bond number listed on the December 16, 2005, dated surety rider, and corrects the date of the originally executed surety bond as listed on a surety rider dated December 19, 2001.

The staff finds that the amended surety riders submitted by USEC adequately responded to RAI 2.

In its response to RAI 3, by letter dated June 22, 2010, the certificate holder provided revised Schedules A, B and C to its Standby Trust Agreement. Revised Schedule B lists the names of the financial institutions providing a surety instrument and includes the dollar amount of each corresponding institution's surety instrument. The staff finds that the revised Schedules A, B, and C are consistent with the guidance contained in NUREG-1757, Volume 3, and are acceptable.

Material Transferred to DOE, Pursuant to the Agreement

USEC's 2010 agreement with the DOE provides that if the total cost of the ACP project is less than the current $90,000,000 estimate, DOE would transfer back to USEC title of an amount of DUF_6 , such that DOE only takes title to an amount of DUF_6 equal to DOE's pro rata share of the total project costs. USEC would then be required to provide financial assurance for such material. The certificate holder described several sources of funds to meet the increased decommissioning liability resulting from a return of Transferred Material. For instance, USEC stated that when the decommissioning financial assurance is initially released, USEC will place those funds into a restricted bank account that will only be drawn upon once USEC's matching expenditures are incurred.

On this point, Article 9.03 of USEC's 2010 agreement with the DOE states in relevant part as follows:

> In the event the total costs incurred for the project are less than the $90,000,000, the total amount of DUF_6 transferred to 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].

USEC stated that the total cost of its ACP project in all likelihood will equal $90,000,000, and that any return of transferred material would likely occur in CY 2011. USEC stated that it updates its DFP annually in advance of DU production, therefore, any returned DU would be included in its CY 2011, update. USEC also stated that if funding remains under the Agreement as of December 31, 2010, USEC may request a scope change to the Agreement, to utilize funds into early CY 2011. If such a scope change is approved, USEC plans to expend all the remaining funds under the Agreement, therefore no transferred material would be returned to USEC.

Based on the discussion above, the staff concludes that the certificate holder would be able to provide adequate financial assurance in a timely manner for any materials that might be returned under Article 9.03 of the Agreement.

As set forth in Article 8.02 of the Agreement, after DOE has taken title to this DUF_6, "USEC shall remain responsible for custody, possession, and the safe and secure storage of the Transferred Material at USEC's own expense, and in accordance with USEC's procedures and applicable NRC regulatory requirements, until DOE takes custody and possession of the material." RAI 6, transmitted via e-mail dated May 27, 2009, was concerned with the financial responsibility (USEC or DOE) with respect to a leak or spill of Transferred Material that remains onsite. In its response dated May 27, 2010 (ADAMS Accession No. ML101540305), USEC explained that a leak or spill of such Transferred Material remaining onsite is extremely unlikely; however, in the event of such a release, USEC would remediate the leak or spill and would then determine whether USEC or DOE would bear the financial responsibility for the remediation. USEC further stated that such remediation would be considered an operating expense and would be handled accordingly. The staff finds that this USEC response is acceptable.

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 financial assurance for CY 2010 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 financial assurance, as set forth in 10 CFR 76.35(n). The certificate holder remains liable for any costs not covered by the surety agreement.

PRINCIPAL CONTRIBUTOR

Roman Przygodzki