

USEC Proprietary Information



October 4, 2011
AET 11-0048

ATTN: Document Control Desk
Ms. Catherine Haney, Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**American Centrifuge Lead Cascade Facility
Docket Number 70-7003; Materials License Number SNM-7003
Supplemental Responses to Request for Additional Information Regarding the Revision to
the Decommissioning Program for the American Centrifuge Lead Cascade Facility (TAC
No. L33103) – USEC Proprietary Information**

**INFORMATION TRANSMITTED HERewith IS PROTECTED FROM PUBLIC
DISCLOSURE AS CONFIDENTIAL COMMERCIAL OR FINANCIAL INFORMATION
AND/OR TRADE SECRETS PURSUANT TO 10 CFR 2.390 AND 9.17(a)(4)**

Dear Ms. Haney:

Purpose

The purpose of this letter is to provide supplemental USEC Inc. (USEC) responses to the U.S. Nuclear Regulatory Commission's (NRC) request for additional information (RAI) related to the Decommissioning Program for the American Centrifuge Lead Cascade Facility (Lead Cascade) for review.

Background

On January 28, 2011 (Reference 1), USEC submitted proposed changes to Chapter 10.0 of the License Application and the Decommissioning Funding Plan (DFP) for the Lead Cascade to the NRC for review and approval. On May 24, 2011 (Reference 2), the NRC issued RAIs regarding the revision to the DFP. On July 22, 2011 (Reference 3), USEC submitted RAI responses and associated proposed changes for the DFP and Chapter 10.0 of the License Application to the NRC for review and approval. On September 19, 2011 (Reference 4), the NRC issued clarifying questions regarding the Decommissioning Program for the Lead Cascade.

Discussion

Enclosure 1 of this letter provides USEC's supplemental responses to the RAIs. Enclosure 2 of this letter provides USEC's in-depth calculations related to the annual labor by classification and staffing estimated in phased man days.

**Document herewith contains
USEC Proprietary Information
When separated from Enclosure 2 this letter is uncontrolled.**

USEC Inc.
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Telephone 301-564-3200 Fax 301-564-3201 <http://www.usec.com>

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USEC Proprietary Information

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Enclosure 2 of this letter contains USEC Proprietary Information; therefore, USEC requests that this information be withheld from public disclosure pursuant to 10 *Code of Federal Regulations* (CFR) 2.390(a)(4). An affidavit required by 10 CFR 2.390(b)(1)(ii) is provided as Enclosure 3 of this letter.

Contact

If you have any questions regarding this matter, please contact me at (301) 564-3470 or Terry Sensue at (740) 897-2412.

Sincerely,



Peter J. Miner
Director, Regulatory and Quality Assurance

Enclosures: As Stated

cc: J. Calle – NRC RII
J. Downs – NRC HQ
D. Hartland – NRC RII
O. Siurano – NRC HQ
B. Smith – NRC HQ

References:

1. USEC letter AET 11-0001 from P.J. Miner to C. Haney (NRC) regarding Submittal of Revision to the Decommissioning Program for the American Centrifuge Lead Cascade Facility, dated January 28, 2011
2. NRC letter from O. Siurano-Perez to P.J. Miner (USEC) regarding Request for Additional Information Regarding the Revision to the Decommissioning Funding Plan for the American Centrifuge Lead Cascade Facility (TAC No. L33103), dated May 24, 2011
3. USEC letter AET 11-0039 from P.J. Miner to C. Haney (NRC) regarding Response to Request for Additional Information Regarding the Revision to the Decommissioning Program for the American Centrifuge Lead Cascade Facility (TAC No. L33103), dated July 22, 2011
4. NRC letter from O. Siurano-Perez to P.J. Miner (USEC) regarding Clarifying Questions Regarding the Decommissioning Program for the American Centrifuge Lead Cascade Facility (TAC No. L33103), dated September 19, 2011

Enclosure 1 of AET 11-0048

**USEC Inc. Supplemental Responses to Request for Additional Information
for the American Centrifuge Lead Cascade Facility**

**Information contained within
does not contain
Export Controlled Information**

**Reviewer: G. Peed
Date: 10/04/2011**

**USEC Inc. Supplemental Responses to Request for Additional Information
for the American Centrifuge Lead Cascade Facility**

The USEC Inc. (USEC) supplemental responses to the Requests for Additional Information (RAIs) do not alter the justification or significance determination as presented in Enclosure 1 of USEC letter AET 11-0001, dated January 28, 2011.

Clarifying question on USEC's response to RAI 1: Clarify calculations in Table D3.13 (NUREG-1757, Volume 3, Appendix A)

The U.S. Nuclear Regulatory Commission (NRC) requested that USEC clarify the wage rates and the method used to develop the exempt/non-exempt wage rates. USEC provided a response with additional detail on the methodology. However, when the NRC staff applied USEC's methodology, it was not able to verify certain calculations. Specifically, the staff multiplied the labor unit cost in the Worker Unit Cost Schedule (Table D3.12) by the total work days by labor category (Table C3.11) and was not able to reproduce the total labor costs by major decommissioning task (Table D3.13).

The staff requests USEC to clarify calculations in Table D3.13. If the differences in calculations are due to the use of an average wage rate, please clarify the method of averaging (e.g., arithmetic, weighted, etc.) relied on to obtain the average wage rate.

USEC Response:

The average wage rates provided in Table D3.12 of the Decommissioning Funding Plan (DFP) for the Lead Cascade Facility (Lead Cascade) cannot be directly used to arrive at the totals shown in Table D3.13 of the DFP. The wage rates provided in Table D3.13 of the DFP were calculated using 2010 Industry Compensation Survey amounts for key labor classifications as stated in Assumption 4 of Table D3.12 of the DFP. The first page of Enclosure 4 of AET 11-0039 entitled "Annual Labor By Phase" includes a note providing detail on the method used to calculate annual labor with additional worksheets for Annual Wages and Staffing - Phase Man Days. The additional worksheets are being provided within Enclosure 2 of this letter for your review. Based upon the above, no changes need to be made to the DFP or Chapter 10.0 of the License Application for the Lead Cascade.

Clarifying question on USEC's response to RAI 6: Clarify the assumptions with respect to the disposal of centrifuges (NUREG-1757, Appendix A.3.1 and A.3.1.3)

The NRC requested that USEC clarify the assumption that centrifuge machine casings will be used as waste disposal casks for centrifuges. In the response, USEC explained that the U.S. Department of Energy (DOE) and USEC have previous experience using this method to dispose of over 1,100 centrifuges. Consistent with NRC guidance, the Decommissioning Funding Plan

(DFP) should assume that a third party will carry out the decommissioning of the site. While DOE may have previously accepted centrifuges from USEC using this method, it is unclear whether DOE would continue to accept this method if it is carried out by a party other than USEC (e.g., a third party decommissioning the site). Therefore, it is unclear whether such a cost-saving approach (using machine casings as casks) could be implemented by the third-party contractor.

The staff requests USEC to either revise its cost estimate include the disposal costs associated with centrifuges assuming the centrifuge machine casing cannot be used, or provide justification as to whether this method could be implemented by a party other than USEC.

USEC Response:

There is a limited number of disposal facilities in the United States authorized to handle classified contaminated waste streams. As stated within the assumptions for Table C3.14 of the DFP, the Lead Cascade classified waste is targeted for disposal at the Nevada Test Site (NTS) [now known as the Nevada National Security Site (N2S2)]. The authorized classified waste disposal facility determines how the classified waste can be shipped and acceptable methods for disposal. NTS previously approved the disposal method of using the centrifuge machine casings as a disposal cask. This method is not USEC or DOE specific, but can be utilized by any third party contractor dependent upon approved waste and transportation plans. Based upon the above, no changes need to be made to the DFP or Chapter 10.0 of the License Application for the Lead Cascade.

Clarifying question on USEC's response to RAI 7: Clarify the assumption regarding disposal of uranium hexafluoride (NUREG-1757, Appendix A.3.1.2 and A.3.1.2.2)

The NRC requested that USEC clarify why the disposal of uranium hexafluoride (UF_6) does not appear to be included. USEC explained that any UF_6 tails remaining at the Lead Cascade facility will be transferred to an authorized facility at decommissioning and its ultimate disposition will be accounted for by the receiving facility (e.g., Paducah Gaseous Diffusion Plant [PGDP]). In the 2011 DFP and Depleted Uranium Plan (DU Plan) for PGDP and the Portsmouth Gaseous Diffusion Plant [PORTS], USEC does not appear to identify any additional DU or UF_6 to be received from the Lead Cascade facility in the future.

The staff requests that USEC provide additional detail in the Lead Cascade DFP and/or the PGDP DU Plan to account for the UF_6 that will be sent to PGDP from the Lead Cascade facility.

USEC Response:

As stated within Section 1.1.1.4 of the License Application for the Lead Cascade, the centrifuge machines operate on a recycle mode as a "closed loop" system in the gaseous state. This recycle mode in the "closed loop" causes the enriched product material within the cascade to be mixed again with the depleted material within the cascade prior to it re-entering the feed stage.

Accordingly, the Lead Cascade does not generate any depleted uranium waste stream and the UF₆ is recombined to feed material. Since this UF₆ feed material is an asset, it is not considered a waste in accordance with environmental regulations.

As stated in Section 10.2.2 of the License Application for the Lead Cascade, at the end of testing, the Lead Cascade is shut down and UF₆ material [up to 250 kg] is removed to the fullest extent possible by normal process operation. This is followed by evacuation and purging of the process systems. This feed material would be dispositioned prior to the decommissioning phase being entered and the Materials License being terminated.

Based upon the above, no changes need to be made to the DFP or Chapter 10.0 of the License Application for the Lead Cascade.

Other Comments:

- With respect to USEC's draft Surety Bond, consistent with NUREG-1757, Volume 3, Appendix A.9.3, USEC should confirm that a broker/agent's power of attorney authorizing the broker/agent to issue bonds on behalf of the issuing company is included with the executed surety bond rider.

USEC Response:

USEC confirms that a power of attorney authorizing the broker/agent to issue bonds on behalf of the issuing company will be included with the Executed Surety Bond Rider.

Other Comments:

- With respect to USEC's draft Standby Trust Agreement, consistent with NUREG-1757, Volume 3, Appendix A.17.3, USEC should include an unexecuted draft specimen certificate of events and an unexecuted draft specimen certificate of resolution with the Standby Trust Agreement submittal.

USEC Response:

A Model Specimen Certificate of Events and Model Specimen Certificate of Resolution are contained in Appendix A of the DFP for the Lead Cascade. USEC confirms that unexecuted drafts of these specimen certificates will accompany an Executed Standby Trust Agreement.

Enclosure 3 of AET 11-0048

Affidavit

**Information contained within
does not contain
Export Controlled Information**

**Reviewer: G. Peed
Date: 10/04/2011**

**AFFIDAVIT OF PETER J. MINER
SUPPORTING APPLICATION TO WITHHOLD FROM
PUBLIC DISCLOSURE CERTAIN INFORMATION CONTAINED
IN ENCLOSURE 2 OF AET 11-0048 FOR THE
AMERICAN CENTRIFUGE LEAD CASCADE FACILITY**

I, Peter J. Miner, of USEC Inc. (USEC), having been duly sworn, do hereby affirm and state:

1. I have been authorized by USEC to (a) review the information owned by USEC and is referenced herein relating to the total annual labor by classification and phase man days worksheets as part of the decommissioning cost estimate for the American Centrifuge Lead Cascade Facility (Lead Cascade), which USEC seeks to have withheld from public disclosure pursuant to section 147 of the *Atomic Energy Act* (AEA), as amended, 42 U.S.C § 2167, and 10 CFR 2.390(a)(4), and 9.17(a)(4), apply for the withholding of such information from public disclosure by the U.S. Nuclear Regulatory Commission (NRC) on behalf of USEC.
2. Consistent with the provisions of 10 CFR 2.390(b)(4) of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
 - i. The information sought to be withheld from public disclosure is owned and has been held in confidence by USEC.
 - ii. The information is of a type customarily held in confidence by USEC and not customarily disclosed to the public. USEC has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute USEC policy and provide the rational basis required. Under that system, information is held in

confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where presentation of its use by any of USEC's competitors without license from USEC constitutes a competitive economic advantage over other companies.
 - b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage (e.g., by optimization or improved marketability).
 - c) Its use by a competitor would reduce their expenditure of resources or improve their competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
 - d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of USEC, its customers or suppliers.
 - e) It reveals aspects of past, present, or future USEC or customer funded development plans and programs of potential commercial value to USEC.
 - f) It contains patentable ideas, for which patent protection may be desirable.
 - g) It reveals information concerning the terms and conditions, work performed, administration, performance under or extension of contracts with its customers or suppliers.
- iii. There are sound policy reasons behind the USEC system which include the following:
- a) The use of such information by USEC gives USEC a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the USEC competitive position.

- b) It is information, which is marketable in many ways. The extent to which such information is available to competitors diminishes USEC's ability to sell products and services involving the use of the information.
 - c) Use by our competitors would put USEC at a competitive disadvantage by reducing their expenditure of resources at USEC expense.
 - d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components or proprietary information, any one component may be the key to the entire puzzle, thereby depriving USEC of a competitive advantage.
 - e) Unrestricted disclosure would jeopardize the position of prominence of USEC in the world market, and thereby give a market advantage to the competition of those countries.
 - f) The USEC capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- iv. The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.
- v. The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
3. The proprietary information sought to be withheld is contained in Enclosure 2 to USEC letter AET 11-0048. Enclosure 2 contains USEC's in-depth calculations related to the annual labor by classification and staffing estimated in phased man days as used in the development of the Decommissioning Cost Estimate for the Lead Cascade. The information contained within Enclosure 2 has not been previously disclosed and is likely to cause substantial harm to the

competitive position of USEC because it contains details of our labor rates which may provide insights into USEC's forward pricing rates.

This information is part of that which will enable USEC to:

- Continue to deploy the Lead Cascade; and
- Ensure adequate funding is available for decommissioning activities for the Lead Cascade.

Further, this information has substantial commercial value as follows:

- The development of the information described in part is the result of applying many person-hours and expenditure of thousands of dollars on analysis to develop the information which is sought to be withheld; and
- In order for a competitor of USEC to duplicate this information sought to be withheld, a similar process would have to be undertaken and a significant effort and resources would have to be expended.

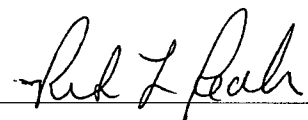
Further the deponent sayeth not.

Peter J. Miner, having been duly sworn, hereby confirms that I am the Director, Regulatory and Quality Assurance of USEC, that I am authorized on behalf of USEC to review the information attached hereto and to sign and file with the U.S. Nuclear Regulatory Commission this affidavit and the attachments hereto, and that the statements made and matters set forth herein are true and correct to the best of my knowledge, information, and belief.


Peter J. Miner

State of Maryland)
) ss.
County of Montgomery)

On this 4th day of October 2011, the individual signing above personally appeared before me, is known by me to be the person whose name is subscribed to within the instrument, and acknowledged that he executed the same for the purposes therein contained. In witness hereof I hereunto set my hand and official seal.


Rita L. Peak, Notary Public
My commission expires December 10, 2013

