

July 1, 2014

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING CHANGES TO THE  
DECOMMISSIONING FUNDING PROGRAM DESCRIPTION FOR CALENDAR  
YEAR 2014 - TECHNICAL ASSIGNMENT CONTROL NUMBER L36029

Dear Mr. Toelle:

This is in regard to your December 19, 2013, letter requesting U.S. Nuclear Regulatory Commission's (NRC's) review and approval of revisions to the Paducah Gaseous Diffusion Plant Decommissioning Funding Program Description for calendar year 2014 (GDP 13-0021, Agencywide Documents Access and Management Systems (ADAMS) Accession Number ML14015A136).

After receiving your submittal, the NRC staff performed an evaluation of the information provided and identified additional information that was needed before final action could be taken. As such, by letter dated April 16, 2014, the NRC staff transmitted a request for additional information (RAI) (ADAMS Accession Number ML14099A187). By letter dated May 14, 2014, you provided responses to the NRC staff's RAI (GDP 14-0012, ADAMS Accession Number ML14142A021).

The NRC staff evaluated your responses to the RAI and determined that clarification for the response to RAI number 1 is still needed. The enclosure to this letter provides the NRC staff's evaluation of your responses. We request that the requested additional information specified in the enclosure be provided within 15 days from the date of this letter. Please reference Technical Assignment Control Number L36029 for this action in your response.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

S. Toelle

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If you have any questions, please contact me at 301-287-9070, or by e-mail at [osiris.siurano-perez@nrc.gov](mailto:osiris.siurano-perez@nrc.gov).

Sincerely,

**/RA/**

Osiris Siurano-Perez, Project Manager  
Uranium Enrichment Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 70-7001  
Certificate No.: GDP-1

Enclosure:  
Request for Additional Information

S. Toelle

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If you have any questions, please contact me at 301-287-9070, or by e-mail at [osiris.siurano-perez@nrc.gov](mailto:osiris.siurano-perez@nrc.gov).

Sincerely,

Osiris Siurano-Perez, Project Manager  
Uranium Enrichment Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 70-7001  
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Enclosure:  
Request for Additional Information

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**U.S. NUCLEAR REGULATORY COMMISSION STAFF EVALUATION  
OF UNITED STATES ENRICHMENT CORPORATION'S RESPONSES  
TO REQUEST FOR ADDITIONAL INFORMATION REGARDING CHANGES TO THE  
DECOMMISSIONING PROGRAM DESCRIPTION FOR CALENDAR YEAR 2014  
FOR THE PADUCAH GASEOUS DIFFUSION PLANT  
Docket No.: 70-7001**

- (1) Confirm the estimated volume of low level radioactive waste (LLRW) and mixed waste requiring disposition (Title 10 of the *Code of Federal Regulations* [10 CFR] 76.35(n) and NUREG-1757, Volume 3, Rev. 1, Section 4.1).**

The NRC staff reviewed the United States Enrichment Corporation's (USEC's) April 16, 2014, response to this request and determined that additional clarification on the answer to request for additional information (RAI) #1 is necessary.

The staff requested that USEC disclose the amount of LLRW and mixed waste that remains in storage at the Paducah Gaseous Diffusion Plant (PGDP) from calendar year (CY) 2013 that will require disposal to ensure that the full cost of LLRW and mixed waste disposal is included in the decommissioning cost estimate. In response, USEC stated that there is approximately 1,300 cubic feet of waste that was generated in 2013 that is currently remaining onsite at PGDP. The RAI response did not identify the waste as LLRW or mixed waste. The decommissioning cost estimate in the Decommissioning Funding Plan (DFP) only includes costs for the LLRW (61,201 cubic feet) and mixed waste (93 cubic feet) expected to be generated in CY 2014. As a result, the cost associated with disposal of the 1,300 cubic feet of waste generated in 2013 that is currently remaining onsite at the PGDP does not appear to have been included in the decommissioning cost estimate.

The RAI response states that the estimated cost for disposal of LLRW and mixed waste in the DFP is adequate because the cost estimate is based "upon a typical, full year's generation even though it was known that all UF<sub>6</sub> processing facilities would be completely shut down in early 2014 with a target de-lease of PGDP of October 1, 2014." Furthermore, "[a]s of May 1, 2014, the total amount accrued for the waste backlog (LLRW and mixed), including the waste generated in 2013, was approximately \$1.3 million. This leaves approximately \$1.0 million to address the remaining waste generation. USEC believes this should be adequate." In effect, the RAI response indicates that the cost associated with disposing of the CY 2014 waste is over-estimated, which compensates for the cost associated with disposing of the residual 1,300 cubic feet of waste from CY 2013.

Although it is possible that the \$2.3 million cost estimate for LLRW and mixed waste disposal costs is sufficient, without a revised waste generation estimate for LLRW and mixed waste in CY 2014 and disclosure of the amount of LLRW and the amount of mixed waste from CY 2013 that is in storage, the staff cannot confirm that current funding is sufficient to cover the costs associated with the CY 2013 waste. Therefore, the staff requests USEC to update the estimate of the amount of LLRW and the amount of mixed waste to be generated during CY 2014 and specify the portion of waste in storage that is LLRW and mixed waste to show that the \$2.3 million cost estimate is sufficient to cover the sum of the liability associated with the cost of disposal of the amount of waste estimated to be generated during CY 2014 plus the liability associated with the estimated amount of waste that is in storage from CY 2013. The following table may be useful to provide the information that is being requested:

Enclosure

	<b>Volume onsite as of January 1, 2014 to be disposed (ft<sup>3</sup>)</b>	<b>Estimated volume generated in CY2014 to be disposed (ft<sup>3</sup>)</b>	<b>Total volume to be disposed (ft<sup>3</sup>)</b>	<b>Estimated unit cost for disposal (\$/ft<sup>3</sup>)</b>	<b>Estimated total cost (\$)</b>
<b>LLRW</b>				\$35.12/ft <sup>3</sup>	
<b>Mixed Waste</b>				\$1,610/ft <sup>3</sup>	
<b>Total</b>					

**(2) Justify the estimated unit cost of LLRW disposal (10 CFR 76.35(n) and NUREG-1757, Volume 3, Rev. 1, Section 4.1).**

The NRC staff reviewed USEC's April 16, 2014, response to this request and determined that USEC's response to this RAI adequately addresses the staff's concerns and, as such, is acceptable.

The NRC staff requested that USEC provide an explanation justifying why special nuclear material (SNM) charges are no longer included in the calculation of the unit cost of LLRW disposal. In response, USEC stated that estimated SNM charges in the 2012 and 2013 forecasts were related to a specific waste population that was disposed of in 2013. The NRC staff determined that USEC provided sufficient detail in its response to this RAI.