



August 31, 2011  
GDP 11-0022

Mr. Kevin S. Mattern, NRC Project Manager  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Material Safety and Safeguards  
Attention: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

**Portsmouth Gaseous Diffusion Plant (PORTS)**

**Docket No. 70-7002, Certificate No. GDP-2**

**Response to NRC Request For Additional Information Dated August 25, 2011, Regarding Notification of the United States Enrichment Corporation's Intent to Terminate Portsmouth Gaseous Diffusion Plant's Operations and Other Activities Authorized Under the Certificate of Compliance (TAC No L32771)**

Dear Mr. Mattern:

This letter provides the United States Enrichment Corporation's (USEC's) response to the request for additional information (RAI) identified by the NRC staff in a letter from Mr. Kevin S. Mattern (NRC) to Mr. Steven A. Toelle (USEC) dated August 25, 2011. The identified RAI supports the NRC staff's technical review of USEC's June 28, 2011, submittal and supplemental information provided on July 25, 2011. Enclosure 1 of this letter identifies the specific additional information requested by the NRC staff in the cited NRC letter and includes USEC's response to the request.

Should you have any questions related to this submittal, please contact me at (301) 564-3250. There are no new commitments contained in this submittal.

Sincerely,

Steven A. Toelle  
Director, Regulatory Affairs

Enclosure: Response to NRC RAI Dated August 25, 2011, Regarding Notification of the United States Enrichment Corporation's Intent to Terminate Portsmouth Gaseous Diffusion Plant's Operations and Other Activities Authorized Under the Certificate of Compliance (TAC No L32771)

cc: J. Calle, NRC Region II Office  
D. Hartland, NRC Region II Office

**Enclosure  
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## **NRC RAI**

*Section 76.35(m) requires that the United States Enrichment Corporation (USEC) provide a description of the program "for processing, management, and disposal of mixed and radioactive wastes and depleted uranium generated by operations." The last Gaseous Diffusion Plant's Decommissioning Funding Plan (DFP) received by the U.S. Nuclear Regulatory Commission from USEC, prior to the July 25, 2011 submittal, was dated December 29, 2010. In this document, USEC identified various waste streams in need of disposal. These wastes were described in general terms, identifying the total volume for each type of waste (i.e., low-level radioactive waste [LLRW], mixed waste, depleted uranium). According to USEC's July 25, 2011, submission, the U.S. Department of Energy (DOE) has accepted possession and ownership of "all" regulated materials and radioactive waste at the PORTS facility. However, the Statement of Work for the Reverse Work Authorization between DOE and USEC, in the June 288, 2011, submittal identifies the specific source; special nuclear; and/or byproduct material covered by the Reverse Work Authorization. These "items" are individually inventoried and identified by an "RFD Number." The items are presented in a table format that spans over 20 pages.*

*Provide additional detail regarding PORTS's waste streams addressed in the CY 2010 DFP to satisfy criteria in Title 10 of the code of Federal Regulations 76.35(m). Provide written confirmation that "all" wastes identified in the previous DFP are covered by the Reverse Work Authorization dated June 27, 2011. Specifically, provide confirmation in writing that the following wastes from the December 29, 2010, DFP for PORTS are covered in their entirety by the Reverse Work Authorization or other agreement.*

<u>Section of the December 29, 2010 DFP</u>	<u>Amount/Type of Waste</u>
3.1.1	18,000 ft <sup>3</sup> LLRW
3.1.2	300 ft <sup>3</sup> mixed waste
3.1.3	100 ft <sup>3</sup> mixed waste
3.1.4	13,300 ft <sup>3</sup> LLRW
3.2	399,000 kgU depleted uranium

### **USEC's Response:**

Per your request, we are providing additional detail with respect to the PORTS materials addressed in the CY-2010 DFP. The DFP provided, as required, an estimate of the wastes projected to be generated during CY-2011 and an estimate of what would remain in storage at the end of CY-2011. The DFP also provided a projected quantity of DUF<sub>6</sub> requiring dispositioning. This estimate was based on the anticipated operating conditions during CY-2011 including what was anticipated at the time regarding GDP de-lease. Subsequently, the decision was made, in conjunction with the DOE, to completely de-lease the PORTS facilities during 2011 and, consequently, USEC submitted to NRC its notification of intent to cease activities under the Certificate. The expanded de-lease scope has resulted in changes in waste generation and storage compared to what was anticipated.

As described in the July 25 submittal documentation, DOE agreed to take ownership and possession of all DUF<sub>6</sub> at PORTS as listed in the DFP. Ownership of this DUF<sub>6</sub> has been transferred to DOE; possession will be transferred to DOE at the time of de-lease. An equivalent amount of DUF<sub>6</sub> was transferred to USEC at PGDP.

During CY-2011, USEC has shipped a significant part of the waste stored at the beginning of the calendar year and some of the waste generated during the calendar year. The amount of waste generated this year has been less than originally estimated since only part of the year has passed. As part of the preparation for Certificate termination, USEC and DOE have negotiated the disposition of all regulated material on-site including the expected DFP materials (LLRW and mixed waste) that would remain at the time of complete de-lease of all current GDP facilities regulated under the Certificate and transition of all operations from USEC to DOE. DOE has agreed to accept possession and ownership of all regulated materials at the time of transition; this letter between DOE and NRC is being finalized. With respect to the regulated materials described in the DFP, the Statement of Work for the Reverse Work Authorization between DOE and USEC (included as part of the July 25 submittal) states that all USEC wastes containing regulated material will be inventoried and added to the list of materials to be accepted for disposition under the Reverse Work Authorization under Statement of Work, SOW-11-360-003, Attachment 1. As noted above, DOE agreed to take ownership and possession of these regulated materials.

As noted in the Statement of Work for the Reverse Work Authorization included as part of the July 25 submittal, USEC and DOE have agreed that USEC would provide a final inventory of the USEC generated regulated waste material remaining at the time of de-lease to DOE as an updated Attachment 1 to the Statement of Work. This finalized listing of the regulated materials (LLRW and mixed waste) would be by container and would encompass all of the remaining volume of USEC waste. As noted above, DOE has agreed to take ownership and possession of these regulated materials.

Therefore, all of the waste materials remaining from what was described in the December 29, 2010, submittal are accounted for by the Reverse Work Authorization and will be transferred to DOE at the time of de-lease.