



June 10, 2005
AET 05-0039

Mr. Jack R. Strosnider
Director, Office of Nuclear Material Safety and Safeguards
Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**American Centrifuge Plant
Docket Number 70-7004
Submittal of Additional Information Related to Requests for Additional Information
Regarding the Environmental Report (TAC No. L32307)**

Dear Mr. Strosnider:

USEC Inc. (USEC) hereby submits to the U.S. Nuclear Regulatory Commission (NRC) additional information related to the Requests for Additional Information regarding the Environmental Report for the American Centrifuge Plant.

Enclosure 1 provides USEC's additional responses. Enclosure 2 provides a complete copy of the reference document entitled "Phase I Archaeological Survey for the Portsmouth Gaseous Diffusion Plant in Scioto and Seal Townships, Pike County, Ohio." Enclosure 3 provides additional CAP88PC input files for modeling purposes as verbally requested by the NRC.

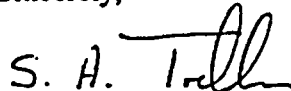
Enclosures 1 through 3 have been reviewed in accordance with the December 21, 2004 NRC Review Criteria to Identify Sensitive Information in Fuel Cycle Documents.

NM3501

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If there are any questions regarding this matter, please contact, Mr. Peter J. Miner, at (301) 564-3470.

Sincerely,

Handwritten signature of Steven A. Toelle in black ink.

Steven A. Toelle
Director, Nuclear Regulatory Affairs

cc: M. Blévin, NRC HQ
J. Davis, NRC HQ
Y. Faraz, NRC HQ
B. Smith, NRC HQ

Enclosures: As Stated

Reference

1. USEC Letter (AET 05-0017) from S. Toelle (USEC) to J. Strosnider (NRC), "Additional Responses to Request for Additional Information for the Environmental Report (TAC No. L32307)," dated April 20, 2005.

Enclosure 1 to AET 05-0039

**Additional Information Related to the Environmental Report
(Non-Proprietary Information)**

Enclosure 1 of AET 05-0039

1. NRC Questions 2-1 A and B

Specific questions and USEC's information are being submitted under separate cover (AET 05-0044).

2. NRC Question 3-3 - There was a slight difference noted in the level of the readings compared to the table that USEC provided in Table 9.2-8 of the License Application. USEC should map the reading locations that are currently in Table 9.2-8 into the thermoluminescence dosimeter (TLD) monitoring sites.

USEC Response

TLD locations labeled American Centrifuge Plant (ACP) ACP-1 through ACP-5 are future monitoring locations that will be used to monitor cylinder pads. The "Reservation" group of TLDs includes all other locations shown on the on-site map (Figure 9.2-7), TLD-876 (at the NW corner of this map) is reported separately because it monitors an area of increased activity caused by the U.S. Department of Energy (DOE) X-745C cylinder yard. Boundary stations are TLD locations around the reservation boundary as shown in Figure 9.2-8 (starting in the north, locations 24, 23, 12, 15, 3, 9, 29, and 8). The two off-site locations are also shown in Figure 9.2-8, number 6 being the Piketon monitoring location, and number 28 being the Camp Creek location. Camp Creek is the traditional background monitoring location about 7-8 miles from the plant with comparable geology. The Piketon station is in the Scioto River valley and is being exposed to a different strata of rocks with a slightly lower natural uranium concentration.

Table 9.2-8 of the License Application has been revised to include the TLD groupings and will be submitted under separate cover.

3. NRC Question 3-5B - The Phase I Archeological Survey (Schweikart) is missing the even pages 2-68. Also, please provide the foldout maps referenced in Appendix A of this survey.

USEC Response

Due to a reproduction error, the even pages were inadvertently not provided. Enclosure 2 of this letter provides a complete copy of the Archeological Survey (Schweikart) and the foldout maps referenced in Appendix A.

4. NRC Question 4-5A - Provide the approximate duration of the ground preparation activities (disturbances) during the construction phase needed to support the 7 million SWU plant. Also, provide additional information regarding the air quality during the construction activities that will assist the NRC in quantifying the dust that will be emitted during ground disturbance activities.

USEC Response

The proposed construction areas for the ACP were previously graded and prepared for the construction of additional process buildings during the original Gas Centrifuge Enrichment Plant project undertaken by DOE (see Sections 4.3.3 and 4.5.3 of the Environmental Report). Therefore, further ground preparation will be minimized and there would not be any significant air quality impact. USEC estimates that the ground preparation activity would take approximately three months.

Section 4.12.3.1 of the Environmental Report discusses the non-radiological impacts during the construction phase. Fugitive dust emissions released by excavation and grade work during the construction of additional cylinder yards and additional buildings would be mitigated by means of best management practices (e.g., dust suppression methods such as a water spray and speed limits on dirt roadways). No significant air quality impacts are expected from these excavation and ground preparation activities estimated to take approximately three months (see Section 4.3.3 and 4.5.3 of the Environmental Report).

The potential impacts of particulate matter (PM) released from near-ground level would be limited to the immediate vicinity of the construction site boundaries. The PM concentrations would decrease rapidly with distance from the source (DOE 2004).

No changes are required for the Environmental Report.

5. NRC Question 4-5H - USEC's response stated that the expected hydrogen fluoride (HF) concentration in the workspace air was insignificant. USEC should provide more quantity (i.e., data or estimates) to be more specific, as well as provide the detection limit.

USEC Response

Routine concentrations of HF in the general workspace atmosphere within the Withdrawal Buildings are expected to be less than in existing gaseous diffusion plant facilities where connection and disconnection of UF₆ cylinders occurs. Based on the operating experience in those gaseous diffusion plant facilities, HF concentrations intermittently exceed the odor threshold (approximately 0.04 parts per million [ppm]) but have not been known to exceed the detection limit of site Industrial Hygiene instruments (0.1 to 0.25 ppm, depending on the relative humidity) except in the immediate vicinity of an ongoing release. Concentration of HF in the process buildings would be expected to be less due to the fact that there are no routine connections or disconnections of systems containing UF₆.

No changes are required for the Environmental Report.

Enclosure 3 to AET 05-0039

**Additional CAP88PC Input Files for Modeling Purposes
(Non-Proprietary Information)**

Nov 11, 2003 10:07 am

4PBION.

END

Portsmouth American Centrifuge

OH

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U-234	D	1.0	2.000e-03	2.000e-01	5.480e-05		0
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U-235	72	313					
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Population Distribution (used in pop. dose only)

\$ Portsmouth

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39.5 LON= 83.0000 NSEC=16 NRADS=10
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