



May 30, 2007  
AET 07-0035

Mr. Michael F. Weber  
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; License Number SNM-2011  
Submittal of Information Concerning Radiological Characterization Results for the American  
Centrifuge Plant**

Dear Mr. Weber:

Please find enclosed the details regarding the radiological characterization survey completed for facilities/areas that have been leased/subleased as of May 30, 2007 for the American Centrifuge Plant as Enclosure 1 of this letter.

This submittal is being provided for information purposes only and no action is requested. If you have any questions regarding this matter, please contact me at (301) 564-3470.

Sincerely,

Peter J. Miner  
Director Regulatory and Quality Assurance

Enclosure: As Stated

cc: J. Henson, NRC Region II  
J. Olivier, NRC HQ  
B. Smith, NRC HQ

**Enclosure 1 of AET 07-0035**

**Radiological Characterization Results for Facilities/Areas Leased/Subleased  
on May 30, 2007 for the American Centrifuge Plant**

Enclosure 1 of AET 07-0035

Reviewer: R.L. Coriell  
Date: May 30, 2007

The following facilities were reviewed and assessed for turnover to USEC Inc. (USEC) on May 30, 2007:

- X-7721 – Maintenance, Stores, and Training Building, Second Floor (including Building Heating, Ventilation, and Air Conditioning/Electrical Rooms, Stairwells, and Elevator)
- X-7725 – Recycle/Assembly (R/A) Facility, First Floor South Lunchroom/Restroom area
- X-7725 – R/A Facility, Fourth Floor Air Handling//Mechanical Rooms (designated as Rooms 471 and 488)
- X-6002 – Boiler System (land)

Other facilities/areas are scheduled for turnover at later dates as shown in Exhibit A of the Gas Centrifuge Enrichment Plant Lease. Surveys were performed and no facilities were identified with radiological concerns based on USEC's criteria (defined in Reference 1). The following summarize the survey results:

1. X-7721 building, second floor areas are a sublease from the United States Enrichment Corporation. The X-7721 was surveyed during the site characterization as part of the activities associated with the Portsmouth Gaseous Diffusion Plant Compliance Plan Issue 13, Posting of Radioactive Materials. Since use history and physical inspection of the areas revealed no radiation protection concerns, it was determined that a physical survey was not required.
2. The X-7725 facility, first floor south lunchroom/restroom area was surveyed by U.S. Department of Energy (DOE) personnel, which indicated no contamination. DOE posting on an air conditioning unit indicated potential internal contamination. This unit will be surveyed when the system is shut down for maintenance. No contamination is anticipated to be discovered in the X-7725 first floor area. Confirmatory surveys revealed removable contamination less than 200 disintegration per minute (dpm)/100 square centimeter (cm<sup>2</sup>) alpha and 700 dpm/100 cm<sup>2</sup> beta; with maximum total contamination levels of 90 dpm/100 cm<sup>2</sup> alpha, 1,385 dpm/100 cm<sup>2</sup> beta contamination (taken on ceramic floor tiles). Penetrating radiation levels in both areas were at or below normal background levels.
3. X-7725 facility, fourth floor air handling /mechanical room (designated as Room 471) provided building ventilation. DOE clearance surveys were unavailable; therefore, the area was surveyed by American Centrifuge personnel to determine acceptability. The survey revealed that removable contamination samples were all less than 200 dpm/100 cm<sup>2</sup> alpha and 700 dpm/100 cm<sup>2</sup> beta; and maximum total contamination levels were 62 dpm/100 cm<sup>2</sup> alpha and 822 dpm/100 cm<sup>2</sup> beta. Penetrating radiation levels were at or below normal background levels. DOE posting on air handlers indicated potential internal contamination. This equipment will be surveyed when the system is shut down for maintenance. No contamination is anticipated to be discovered in the X-7725 fourth floor area.

4. X-7725 facility, fourth floor air handling /mechanical room (designated as Room 488) provided building ventilation. DOE clearance surveys were unavailable; therefore, the area was surveyed by American Centrifuge personnel to determine acceptability. The survey revealed that removable contamination samples were all less than 200 dpm/100 cm<sup>2</sup> alpha and 700 dpm/100 cm<sup>2</sup> beta; and the maximum total contamination levels were 90 dpm/100 cm<sup>2</sup> alpha and 994 dpm/100 cm<sup>2</sup> beta. Penetrating radiation levels were at or below normal background levels. In addition to the posting indicating "potential contamination" in multiple vent ducts, piping in Room 488 connected to the Casing Cleaning System are labeled "Contaminated Vent" and "Contaminated Water." Walk down of the piping indicated multiple components within the Casing Cleaning System that are labeled as "Radioactive Material." Based on inconclusive discussions with DOE personnel concerning possible use of the system and the unavailability of confirmatory data, USEC can not determine if piping is actually contaminated or just conservatively labeled. Confirmatory surveys will be conducted to determine the actual extent of contamination, if any.
5. X-6002A Boiler System (land) was surveyed during the site characterization as part of the activities associated with Portsmouth Gaseous Diffusion Plant Compliance Plan Issue 13, Posting of Radioactive Materials. American Centrifuge personnel surveyed the area to confirm conditions of the area had not changed. Since this was an outside area, only direct measurements were taken. Results were all less than 400 dpm/100 cm<sup>2</sup> alpha and 5,000 dpm/100 cm<sup>2</sup> beta.

Reference:

1. USEC letter AET 07-0023 to M.F. Weber (NRC) from P.J. Miner (USEC) regarding Submittal of Information Concerning Radiological Characterization Results for the American Centrifuge Plant, dated April 20, 2007.