



January 13, 2006
AET 06-0006

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 Clarifying Information Related to Radiation Protection for the
American Centrifuge Plant (TAC Nos. L32306, L32307, and L32308)

Dear Mr. Strosnider:

Pursuant to a telephone conference call held with the U.S. Nuclear Regulatory Commission staff on January 9, 2006, USEC Inc. hereby submits additional clarifying information related to radiation protection for the American Centrifuge Plant as Enclosure 1 of this letter.

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter J. Miner', is written over the typed name and title of Steven A. Toelle.

Steven A. Toelle
Director, Nuclear Regulatory Affairs

cc: Y. Faraz, NRC HQ
B. Smith, NRC HQ

Enclosures: As Stated

Mr. Jack R. Strosnider

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Enclosure 1 of AET 06-0006

Additional Clarifying Information Related to Radiation Protection

Enclosure 1 of AET 06-0006

On January 9, 2006, USEC Inc. (USEC) held a telephone conference call with the U.S. Nuclear Regulatory Commission (NRC) concerning Chapter 4.0 of the license application for the American Centrifuge Plant (ACP). USEC agreed to provide clarification concerning the following issues.

1. Clarify standards used for development of Heath Physics (HP) Technician training.

USEC Response

HP technician training and qualifications follow the criteria found in American National Standards Institute (ANSI) N3.1 (1987) Sections 4.4.5, 4.4.3.2, 5, and 6. The following statement will be added to Section 4.5.4 of the license application.

“The qualification standard is based on the requirements of ANSI/ANS 3.1, Selection, Qualification, and Training of Personnel for Nuclear Power Plants, 1987 Edition.”

Changed pages will be submitted to the NRC during the next revision of the license application.

2. Ensure Table 4.6.1 of the license application is consistent with the Branch Technical Position for total contamination levels (200 versus 500 disintegration per minute [dpm]).

USEC Response

Table 4.6-1 of the license application is consistent with the levels stated in the United States Enrichment Corporation’s 10 *Code of Federal Regulations* (CFR) Part 76 Certificate and was chosen to provide consistent implementation for corporate-wide activities on the Department of Energy reservation. The 500 dpm/100 square centimeter (cm²) value for total contamination levels was chosen based on equipment sensitivities available at the gaseous diffusion plant when the Safety Analysis Report was written several years ago. Later model equipment is currently in use and the 500 dpm/cm² value will be revised to state 200 dpm/cm² for total contamination levels as shown.

Table 4.6-1 Contamination Levels

Nuclide ^a	Removable (dpm/100 cm ²) ^b	Total (Fixed + Removable) (dpm/100 cm ²)
U-natural, ²³⁵ U, ²³⁸ U, and associated decay products, Transuranics ≤ 2 percent by alpha activity, ⁹⁹ Tc, and beta-gamma emitters	1,000	5,000
Transuranic modified materials containing > 2 percent and < 8 percent transuranics by alpha activity, Th-natural, ²³² Th, ²²³ Ra, ²²⁴ Ra, and ²³² U	200	1,000
²²⁶ Ra, ²²⁸ Ra, ²³⁰ Th, ²²⁸ Th, ²³¹ Pa, ²²⁷ Ac, ¹²⁵ I, ¹²⁹ I, and Transuranics ≥ 8 percent by alpha activity	20	200

Changed pages will be submitted to the NRC during the next revision of the license application.

3. Include the reporting requirements of 10 CFR Parts 30 and 40 in Section 4.8.5 of the license application.

USEC Response

Section 4.8.5 of the license application will be revised to state:

“Reports and notifications of Radiation Protection issues are made pursuant to 10 CFR Part 20, Subpart M; 10 CFR 30.50; 10 CFR 40.60; 10 CFR 70.50; and/or 10 CFR 70.74.”

Changed pages will be submitted to the NRC during the next revision of the license application.

4. Clarify the commitment for summation of internal and external doses.

USEC Response

Internal and external doses are summed as described in Section 7.1 of NRC Regulatory Guide 8.34, *Monitoring Criteria and Methods to Calculate Occupational Radiation Doses*. Section 4.7.3 (fifth paragraph) of the license application will be revised to state:

“To comply with the reporting requirements of 10 CFR 20.2206, the site submits personnel monitoring information for the Radiation Exposure Information Reporting System (REIRS) report based on the personnel exposure database. This includes summation of internal and external doses as outlined in Section 7 of Regulatory Guide 8.34, *Monitoring Criteria and Methods to Calculate Occupational Radiation Doses*.”

Changed pages will be submitted to the NRC during the next revision of the license application.

5. Clarify how records of training for respirator users are maintained in Section 4.6.2 of the license application.

USEC Response

The records management program provides guidance for generation and maintenance of records at the ACP. The following statement will be added to Section 4.6.2 of the license application.

“Records of respirator user training and fit testing are maintained as required by Section 11.7 of this license application.”

Changed pages will be submitted to the NRC during the next revision of the license application.

6. Clarify standards used for the air sampling program.

USEC Response

The USEC Radiation Protection air sampling program procedures will be written to be consistent with the basic requirements of NRC Regulatory Guide 8.25, *Air Sampling in the Workplace*,

Sections 1, 2, 5, and 6. The program action levels are based on chemical toxicity of soluble uranium. Due to the low specific activity of uranium and the potential of having various enrichments at the ACP, air samples are not used as primary means of assigning internal dose. In addition, intakes exceeding 10 percent of an annual limit on intake are not anticipated. The following statement will be added to Section 4.7.5 of the license application.

“The ACP air sampling program is consistent with the basic requirements of Regulatory Guide 8.25, *Air Sampling in the Workplace*, Section 1, 2, 5, and 6.”

Changed pages will be submitted to the NRC during the next revision of the license application.

7. USEC should commit to use the Corrective Actions Program for evaluating incidents meeting reporting criteria of 10 CFR 70.74 within Section 4.8.5 of the license application.

USEC Response

Incidents requiring reporting to the NRC are investigated and corrective actions determined to prevent recurrence. This process is outlined in the Corrective Actions Program as detailed in Section 11.6.4 of the license application. The following statement will be added to Section 4.8.5 of the license application.

“Events requiring reporting to the NRC are investigated, tracked in a database, and monitored through completion in accordance with the Corrective Action Program.”

Changed pages will be submitted to the NRC during the next revision of the license application.

8. Clarify standards used for maintaining radiation protection records.

USEC Response

Records of the Radiation Protection Program are maintained as required by the Records Management Program. The following statement will be added to Section 4.8.5 of the license application.

“Records are maintained in the form required by 10 CFR 20.2110 and are retained as required by 10 CFR 20.2101 through 20.2106 according to the Records Management Program as outlined in Section 11.7 of this license application. USEC follows the guidance contained in ANSI N13.6, *Practice for Occupational Radiation Exposure Records Systems*, 1999 Edition, for radiological protection records.”

Changed pages will be submitted to the NRC during the next revision of the license application.

In addition, Chapter 1.0 of the license application will be revised to incorporate the additional codes and standards referenced within this response.