



June 5, 2006  
AET 06-0075

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 10 CFR Part 140 Exemption Request for the American Centrifuge Plant (TAC Nos. L32306, L32307, and L32308) – Proprietary Information**

**INFORMATION TRANSMITTED HEREWITH IS PROTECTED FROM PUBLIC  
DISCLOSURE AS CONFIDENTIAL COMMERCIAL OR FINANCIAL INFORMATION  
AND/OR TRADE SECRETS PURSUANT TO 10 CFR 2.390 AND 9.17(a)(4)**

Dear Mr. Strosnider:

Pursuant to discussions between USEC Inc. (USEC) and U.S. Nuclear Regulatory Commission staff personnel on May 26, 2006, USEC hereby submits as Enclosure 1 of this letter, the changed pages to the License Application incorporating its 10 *Code of Federal Regulations* (CFR) Part 140 Exemption Request for the American Centrifuge Plant. In support of this Exemption Request, Enclosure 2 of this letter provides a pre-decisional draft of Article X, Price-Anderson Indemnification, Section 10.1 of the current lease provision between the U.S. Department of Energy and USEC.

Enclosure 2 contains Proprietary Information and USEC requests that this enclosure be withheld from public disclosure pursuant to 10 CFR 2.390(a)(4). An affidavit required by 10 CFR 2.390(b)(1)(ii) is provided in Enclosure 3.

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

Sincerely,

Steven A. Toelle  
Director, Regulatory Affairs

cc: S. Echols, NRC HQ  
B. Smith, NRC HQ

Enclosures: As Stated

**Enclosure 1 of AET 06-0075**

**Changed Pages for the License Application for the American Centrifuge Plant**

loss of use of property, arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of chemical compounds containing source or special nuclear material arising out of activities under the lease. This indemnification is sufficient to meet the requirements of Section 193(d) of the *Atomic Energy Act* of 1954, as amended, and 10 CFR 140.13b, because the DOE indemnity provides greater financial protection than commercially available liability insurance. Therefore, the appropriate amount of separate liability insurance that should be required by the NRC is zero and an exemption from the requirements of 10 CFR 140.13b crediting DOE indemnity in lieu of nuclear liability insurance as discussed in this section is provided in Section 1.2.5 of this license application. USEC proposes that the license be conditioned as follows: USEC will provide to the Commission, at least 120-days prior to receiving licensed material in the ACP, a signed agreement between DOE and USEC regarding the indemnification.

Information indicating how reasonable assurance will be provided that funds will be available to decommission the facility as required by 10 CFR 70.22(a)(9), 10 CFR 70.25, and 10 CFR 40.36 is described in Chapter 10.0 of this license application.

### 1.2.3 Type, Quantity, and Form of Licensed Material

The type, quantity, and form of NRC-regulated special nuclear, source, and by-product material are shown in Table 1.2-1.

### 1.2.4 Authorized Uses

The ACP enriches UF<sub>6</sub> up to 10 wt. percent <sup>235</sup>U. The specific authorized uses for each class of NRC-regulated material are shown in Table 1.2-2.

USEC will provide a minimum 60-day notice to the NRC prior to initial customer product withdrawal of licensed material exceeding 5 wt. percent <sup>235</sup>U enrichment. This notice will identify the necessary equipment and operational changes to support customer product withdrawal, storage, processing, and shipment for these assays.

### 1.2.5 Special Exemptions or Special Authorizations

The following exemption to the applicable 10 CFR Part 20 requirements are identified in Section 4.8 of this license application:

- UF<sub>6</sub> feed, product, and depleted uranium cylinders, which are routinely transported inside the DOE reservation boundary between ACP locations and/or storage areas at the ACP, are readily identifiable due to their size and unique construction, and are not routinely labeled as radioactive material. Qualified radiological workers attend UF<sub>6</sub> cylinders during movement.
- Containers located in Restricted Areas within the ACP are exempt from container labeling requirements of 10 CFR 20.1904, as it is deemed impractical to label each and every container. In such areas, one sign stating that every container may contain

would be breached. These requirements are established as items relied on for safety to ensure the health and safety of the public and workers.

The UF<sub>6</sub> cylinders stored in storage yards are not covered by a criticality monitoring system unless those cylinders contain licensed material greater than 5.0 weight percent <sup>235</sup>U. NCS evaluation of product cylinders of any size, configured in infinite planar arrays, containing material enriched up to 5.25 weight percent <sup>235</sup>U, has concluded that subcritical conditions are maintained. The ACP ISA has concluded that cylinders containing licensed material less than or equal to 5.0 weight percent <sup>235</sup>U cannot be involved in a criticality accident sequence that has a probability of occurrence that exceeds  $5 \times 10^{-6}$ /year.

The frequencies of criticality events in the cylinder yards have been decreased to the Highly Unlikely range ( $<10^{-5}$ /year) through the establishment of preventive controls established by the ISA in accordance 10 CFR 70.62. Considering the conservatism of the ISA methodology in developing the unmitigated frequency and actual historical data related to cylinder operations, the frequency values could be reduced further. This additional reduction considers the fact that during 50 years of GDP operations, only one cylinder breach has occurred due to mishandling or equipment failure. Since that occurrence, cylinder handling equipment has been redesigned and cylinder handling methods have been revised to minimize the potential for breaches to occur. Another fact not considered in the ISA is that holes with a dimension of less than one inch will self-seal such that moderating material cannot infiltrate the breach. A third factor not considered in the ISA is that enriched cylinder operations require constant use and monitoring of cylinders such that corrosion breaches in enriched cylinders are highly unlikely. Allowing for this additional reduction in frequency, the probability for a criticality event becomes incredible, therefore CAAS coverage is not necessary.

The increased vehicular and pedestrian traffic in support of CAAS maintenance and calibration requirements would cause a subsequent increased likelihood for impact events involving cylinders and there would be an increased safety risk for workers from radiation exposure due to the ongoing CAAS maintenance and calibration requirements. To meet the CAAS coverage requirements in ANSI 8.3 and the operating requirements for the ACP, enriched cylinder storage yards would require a minimum of 60 clusters. Clusters would need to be at a height of approximately 40 feet, which would require maintenance equipment and pedestrian traffic to perform testing and preventative maintenance tasks to ensure their reliability and operability. This equipment and traffic would increase the likelihood for fire and impact events in the cylinder storage yards such that workers would be at a higher risk for injury and exposure relative to the minimal mitigative value produced by the presence of CAAS.

The following exemption from the requirements of 10 CFR 140.13b crediting DOE indemnity in lieu of nuclear liability insurance as discussed in Section 1.2.2 of this license application.

10 CFR 140.13b requires, that "Each holder of a license issued under Parts 40 or 70 of this chapter for a uranium enrichment facility that involves the use of source material or special nuclear material is required to have and maintain liability insurance. The liability insurance must be the type and in the amounts the Commission considers appropriate to cover liability claims arising out of any occurrence within the United States that causes, within or outside the United States, bodily injury, sickness, disease, death, loss of or damage to property, or loss of use of property arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of chemical compounds containing source material or special nuclear material. Proof of liability insurance must be filed with the Commission as required by § 140.15 before issuance of a license for a uranium enrichment facility under parts 40 and 70 of this chapter."

In accordance with Section 3107 of the *USEC Privatization Act*, the Lease with DOE for the DOE owned facilities that will be used for the ACP includes an indemnity agreement from DOE under Section 170d of the *Atomic Energy Act* (AEA) for liability claims.

The Commission may, pursuant to 10 CFR 140.8, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and are otherwise in the public interest. This exemption is authorized by law because there is no statutory prohibition on crediting the DOE indemnity agreement in lieu of nuclear liability insurance. The DOE indemnity agreement contained in the Lease pursuant to DOE's authority in Section 170d of the AEA is sufficient to meet the requirements of Section 193(d) of the *Atomic Energy Act* of 1954, as amended. Section 193(d) states that "the Commission shall require, as a condition of the issuance of a license ... for a uranium enrichment facility, that the licensee have and maintain liability insurance of such type and in such amounts as the Commission judges appropriate to cover liability claims ..."

The Lease requires that USEC obtain "financial protection to cover public liability, [as defined in the AEA] in such amount and of such type as is commercially available at commercially reasonable rates, terms and conditions" (Lease at Section 10.1(c)). To the extent required by the Lease, USEC will obtain such financial protection and will provide proof of such financial protection to the NRC prior to commencing operations.

The indemnity agreement contained in the Lease will "cover liability claims arising out of any occurrence within the United States that causes, within or outside the United States, bodily injury, sickness, disease, death, loss of or damage to property, or loss of use of property arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of chemical compounds containing source material or special nuclear material." Section 193(d) affords the Commission the discretion to determine the type and amount of liability insurance that is required to cover liability claims. The Commission has the discretion to conclude that no liability insurance is required in light of the DOE indemnity agreement. Therefore, the requested exemption is authorized by law.

Moreover, the requested exemption is in the public interest since it will facilitate deployment of the ACP, thereby maintaining domestic enrichment capacity using more efficient centrifuge technology. Requiring separate nuclear liability insurance would at best impose an unnecessary financial burden on the licensee and at worst preclude the construction of the ACP if

commercial insurance ultimately is unavailable for facilities, such as the ACP, which are located on a DOE owned site. ANI, the only company providing commercial nuclear liability insurance in the U.S., has informed us that it has never insured a facility located on a DOE owned site. Furthermore, the separate liability insurance would not provide a commensurate benefit to the public since the DOE indemnity covers any public liability under Section 170 of the AEA up to the statutory limit of liability. The DOE indemnity agreement in the Lease adequately provides financial protection for the public for public liability as defined in the AEA. Therefore, the requested exemption is in the public interest.

The following Special Authorization has been identified in this license application:

- Surface Contamination Release Levels for Unrestricted Use – Items may be released for unrestricted use if the surface contamination is less than the levels listed in Table 4.6-1.

### **1.2.6 Security of Classified Information**

USEC is required by 10 CFR 70.22(m) to submit, as part of its application for a license for the ACP, a plan describing the plant's proposed security procedures and controls, as set forth in 10 CFR Part 95, for the protection of classified matter. USEC satisfies the 10 CFR 70.22(m) requirements by submittal of the Security Plan for the Protection of Classified Matter as Chapter 2 of the Security Program for the American Centrifuge Plant. The Security Program is being submitted for NRC review along with this license application. In accordance with 10 CFR Part 95.15(b), USEC will submit, at least 60 days prior to operation of the ACP, an application for the transfer of Facility Clearance from DOE to the NRC.

The specific design of the intrusion detection and alarm system is not yet complete. The license should be conditioned as follows: USEC's design of the intrusion detection and alarm system will require that the Security Program be updated, as appropriate, consistent with Section 8.1 of 10 CFR Part 95 *Format and Content Guide*. Upon completion of the design, USEC shall provide the Commission with at least 120 days advance notice of its plan to introduce classified matter in the American Centrifuge Plant, the final design for the intrusion detection and alarm system, and the updated Security Program for review and approval.

### **1.2.7 Security of Special Nuclear Material of Low Strategic Significance**

Pursuant to 10 CFR 70.22(k) USEC is submitting, as part of its application for a license for the ACP, a plan describing the measures used to protect Special Nuclear Material of Low Strategic Significance that USEC uses, possesses, or has access to at the plant. USEC satisfies the 10 CFR 70.22(k) requirement by submittal of the Physical Security Plan for the Protection of Special Nuclear Material of Low Strategic Significance as Chapter 1 of the Security Program for the American Centrifuge Plant. The Security Program is being submitted for NRC review along with this license application.

**Enclosure 3 of AET 06-0075**

**Affidavit**

**AFFIDAVIT OF STEVEN A. TOELLE  
SUPPORTING APPLICATION TO WITHHOLD FROM  
PUBLIC DISCLOSURE CERTAIN INFORMATION CONTAINED IN  
ENCLOSURE 2 FOR THE AMERICAN CENTRIFUGE PLANT**

I, Steven A. Toelle, of USEC Inc. (USEC), having been duly sworn, do hereby affirm and state:

1. I have been authorized by USEC to (a) review the information owned by USEC and is referenced herein relating to Enclosure 2 regarding USEC's Facility Lease for the American Centrifuge Plant (ACP), which USEC seeks to have withheld from public disclosure pursuant to section 147 of the *Atomic Energy Act* (AEA), as amended, 42 U.S.C § 2167, and 10 CFR 2.390(a)(3), 2.390(a)(4), 2.390(d)(1) and 9.17(a)(4), and (b) apply for the withholding of such information from public disclosure by the U.S. Nuclear Regulatory Commission (NRC) on behalf of USEC.
  
2. Consistent with the provisions of 10 CFR 2.390(b)(4) of the Commission's regulations, the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure should be withheld.
  - i. The information sought to be withheld from public disclosure is owned and has been held in confidence by USEC.
  - ii. The information is of a type customarily held in confidence by USEC and not customarily disclosed to the public. USEC has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute USEC policy and provide the rational basis



required. Under that system, information is held in confidence if it falls in one or more of several types, the release of which might result in the loss of an existing or potential competitive advantage, as follows:

- a) The information reveals the distinguishing aspects of a process (or component, structure, tool, method, etc.) where presentation of its use by any of USEC's competitors without license from USEC constitutes a competitive economic advantage over other companies.
  - b) It consists of supporting data, including test data, relative to a process (or component, structure, tool, method, etc.), the application of which data secures a competitive economic advantage (e.g., by optimization or improved marketability).
  - c) Its use by a competitor would reduce their expenditure of resources or improve their competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing a similar product.
  - d) It reveals cost or price information, production capacities, budget levels, or commercial strategies of USEC, its customers or suppliers.
  - e) It reveals aspects of past, present, or future USEC or customer funded development plans and programs of potential commercial value to USEC.
  - f) It contains patentable ideas, for which patent protection may be desirable.
  - g) It reveals information concerning the terms and conditions, work performed, administration, performance under or extension of contracts with its customers or suppliers.
- iii. There are sound policy reasons behind the USEC system which include the following:
- a) The use of such information by USEC gives USEC a competitive advantage over its competitors. It is, therefore, withheld from disclosure to protect the USEC competitive position.

- b) It is information, which is marketable in many ways. The extent to which such information is available to competitors diminishes USEC's ability to sell products and services involving the use of the information.
  - c) Use by our competitors would put USEC at a competitive disadvantage by reducing their expenditure of resources at USEC expense.
  - d) Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components or proprietary information, any one component may be the key to the entire puzzle, thereby depriving USEC of a competitive advantage.
  - e) Unrestricted disclosure would jeopardize the position of prominence of USEC in the world market, and thereby give a market advantage to the competition of those countries.
  - f) The USEC capacity to invest corporate assets in research and development depends upon the success in obtaining and maintaining a competitive advantage.
- iv. The information is being transmitted to the Commission in confidence and, under the provisions of 10 CFR Section 2.390, it is to be received in confidence by the Commission.
- v. The information sought to be protected is not available in public sources or available information has not been previously employed in the same original manner or method to the best of our knowledge and belief.
3. The proprietary information sought to be withheld is contained in Enclosure 2 to USEC letter AET 06-0075. Specifically, the enclosure contains a pre-decisional draft of Article X, Price-Anderson Indemnification, Section 10.1 of the current lease provisions between the U.S. Department of Energy (DOE) and USEC. Since the current lease provisions are considered pre-

decisional draft and the detailed deliberations between USEC and DOE have been conducted in confidence and not disclosed publicly, both USEC and DOE request that this information be only used for the purpose of licensing the ACP and withheld from public disclosure.

Further the deponent sayeth not.

Steven A. Toelle, having been duly sworn, hereby confirms that I am the Director, Regulatory Affairs of USEC, that I am authorized on behalf of USEC to review the information attached hereto and to sign and file with the U.S. Nuclear Regulatory Commission this affidavit and the attachments hereto, and that the statements made and matters set forth herein are true and correct to the best of my knowledge, information, and belief.

S. A. Toelle

Steven A. Toelle

On this 5<sup>th</sup> day of June 2006, the individual signing above personally appeared before me, is known by me to be the person whose name is subscribed to within the instrument, and acknowledged that he executed the same for the purposes therein contained. In witness hereof I hereunto set my hand and official seal.

Rita L. Peak-Campbell  
Rita L. Peak-Campbell, Notary Public  
State of Maryland, Montgomery County  
My commission expires December 1, 2009

