

May 24, 2007

Mr. Peter J. Miner  
Director, Nuclear Regulatory Affairs  
USEC Inc.  
6903 Rockledge Drive  
Bethesda, MD 20817-1818

SUBJECT: USEC INC. - REVIEW OF CALENDAR YEAR 2006 INTERNALLY AUTHORIZED FACILITY CHANGES FOR THE AMERICAN CENTRIFUGE LEAD CASCADE FACILITY (TAC NO. L32370)

Dear Mr. Miner:

This refers to your letter dated January 30, 2007 (AET 07-0008), which contained a list of facility changes made to the American Centrifuge Lead Cascade Facility during calendar year 2006. In our letter dated April 6, 2007, we selected a diverse sampling of potentially safety significant changes for detailed review and requested the Facility Change Evaluation (FCE) for each of those changes.

In your correspondence dated April 19, 2007 (AET 07-0024), you provided us with the requested FCE's. Each requested FCE was reviewed and was found to be either a change for which adequate safety measures were in place, or it was administrative in nature. The individual results from our review are documented in the Enclosure.

Our review has determined that all facility changes we reviewed were appropriately made in accordance with the requirements of 10 CFR 70.72, and that prior United States Nuclear Regulatory Commission (NRC) approval of these changes were not required. We have no further questions at this time.

In accordance with 10 CFR 2.390 of the NRC's Rules of Practice, a copy of this letter will be available electronically from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

**/RA/**

James R. Downs, P.E.  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket No.: 70-7003  
License No.: SNM-7003

Enclosure: Review of Selected American Centrifuge Lead Cascade Facility Change Evaluations

cc: Terry Sensue (USEC)

Mr. Peter J. Miner  
 Director, Nuclear Regulatory Affairs  
 USEC Inc.  
 6903 Rockledge Drive  
 Bethesda, MD 20817-1818

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Sincerely,  
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 James R. Downs, P.E.  
 Division of Fuel Cycle Safety  
 and Safeguards  
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Docket No.: 70-7003  
 License No.: SNM-7003

Enclosure: Review of Selected American Centrifuge Lead Cascade Facility Change Evaluations

cc: Terry Sensue (USEC)

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## **Review of Selected American Centrifuge Lead Cascade Facility Change Evaluations**

### **Review of USEC American Centrifuge Lead Cascade Facility Change Evaluation (FCE) 06-0080 “Revision to Procedure AC4-OP-026, Machine Connections Leak Checking”**

#### Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61?      YES       NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?      YES       NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function?      YES       NO

Does the change alter any sole IROFS?      YES       NO

Is the change prohibited by other regulations?      YES       NO

#### Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff performed a technical review of the change package that described the procedural change associated with the machine connections leak checking. The staff also reviewed the quality assurance checklist procedures and determined that they appear to be adequate and complete. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

### **Review of USEC American Centrifuge Lead Cascade FCE 06-0086 “Revision to Procedure AC-4-OP-001, Purge Vacuum Normal Operating Procedure”**

#### Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61?      YES       NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?      YES       NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function?      YES       NO

Does the change alter any sole IROFS?      YES       NO

Is the change prohibited by other regulations?      YES       NO

#### Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

Enclosure

**Review of USEC American Centrifuge Lead Cascade FCE 06-0089 “Design, Construction, and Use of Sample Tubes for the Sample Cart”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff performed a technical review of the change package that described the design of the sample tubes used for the sample cart. The staff also reviewed the ISA Summary change pages, and the quality assurance checklist procedures. Both documents appear to be complete and adequate. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-0122 “Revision to Procedure AC2-EG-017, IROFS Surveillance”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-0148 “LC1a Centrifuge Machine Design”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff performed a technical review of the change package that described the design changes associated with the centrifuge machine. The staff also reviewed the quality assurance checklist procedures and determined that they appear to be adequate and complete. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE-0158 “Modification and Testing of the X-3001 Battery Room Ventilation System”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-177 “Revision to the Lead Cascade License Application, Chapters 1 and 7”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-0183 “Revision to Procedure AC4-OP-016, Feed Cart Operation”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff performed a technical review of the change package that described the procedure changes associated with feed cart operation. The staff also reviewed the quality assurance checklist procedures and determined that they appear to be adequate and complete. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-0241 “Revision to the Lead Cascade License Application and ISA to Add Feed Cart Fire Suppression System and Eliminate the Reference to a Halon System in the X-3012 ACR”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61?      YES       NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?      YES       NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function?      YES       NO

Does the change alter any sole IROFS?      YES       NO

Is the change prohibited by other regulations?      YES       NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-0285 “Revision to Procedure AC2-EG-017, IROFS Surveillance Program”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61?      YES       NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience?      YES       NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function?      YES       NO

Does the change alter any sole IROFS?      YES       NO

Is the change prohibited by other regulations?      YES       NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-0297 “Various Corrections to the Lead Cascade Integrated Safety Analysis Documents”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.

**Review of USEC American Centrifuge Lead Cascade FCE 06-0086 “DUF6 Conversion Facility Temporary Use and Storage of Propane for Heating During Cold Weather”**

Findings

Does the change create a new type of accident sequence that, unless mitigated or prevented, would exceed the performance requirements of 70.61? YES  NO

Does the change use new processes, technologies, or control systems for which the licensee has no prior experience? YES  NO

Does the change remove an item relied on for safety (IROFS) without equivalent replacement of the safety function? YES  NO

Does the change alter any sole IROFS? YES  NO

Is the change prohibited by other regulations? YES  NO

Conclusion

The staff has reviewed the FCE submitted by the licensee and agrees with the above determinations. The staff concludes that the FCE demonstrates compliance with 10 CFR 70.72.