



Briefing on De-Lease CAR

Meeting of NRC and USEC

April 6, 2010

Purpose of Meeting

- Review scope of de-lease: facilities and operations
- Review CAR: TSRs being deleted and TSRs remaining under Certificate
- Review status of plant safety significant SSCs and utility interfaces
- Discuss anticipated DOE activities in the de-leased facilities and associated Safety Basis and Authorization Basis
- Overall safety significance of change

Background

- USEC met with NRC-HQ in November 2009 to discuss the requirements for de-lease of facilities governed by NRC TSRs
- The result of the meeting was that NRC confirmed that prior NRC approval of a Certificate Amendment Request was required to delete such TSRs and facilities from the Certificate

Scope of De-Lease Plans Safety Significant Facilities

- De-Lease all Process Buildings (X-326, X-330, X-333) by September 30, 2010
- De-Lease all Autoclave Facilities (X-343, X-344, X-342) by September 30, 2010
- The above facilities have TSRs, NCSAs, and SAR Commitments

Current UF₆ Facility Conditions

- Enrichment cascade shutdown; minimal inventory in cascade cells and support equipment
- Most withdrawal capacity in cold shutdown minimal liquid UF₆ operations in X-326
- Limited liquid UF₆ operations in X-344, X-342; X-343 in cold shutdown

Scope of Facilities and Operations To Be Transferred to DOE

- Enrichment already in cold shutdown
- X-333, X-330 and X-326 limited operations for deposit removal, UF₆ cleanup and repackaging, equipment removal for PGDP & ACP
 - Low inventory and pressures in enrichment and support equipment
 - Limited UF₆ withdrawals at Extended Range Product (ERP) and X-326 Product Withdrawal (PW)
- X-344, X-342, X-343 facilities operations for deposit removal, UF₆ cleanup and repackaging
 - Liquid UF₆ transfer and sampling
 - Vapor UF₆ feed and transfer

Justification for CAR

- After De-Lease, USEC will no longer control facilities and thus cannot comply with NRC TSRs; also, NRC will no longer regulate the de-leased facilities
- Enrichment shutdown has reduced risk to public and workers from Process Buildings and Autoclave Facility remaining operations
- Postulated accidents from these facilities after de-lease would not have significant effect on remaining Leased, NRC-Certified operations
- Overall risk would remain well within the current NRC Safety Basis

TSRs Requested to be Deleted from Certificate by CAR

- All Process Buildings enrichment and support operations TSRs
- All withdrawal facility TSRs
- All autoclave facility TSRs
- Selected Definitions and parts of Administrative TSRs that were related only to the facilities and operations being de-leased to DOE and discontinued under Certificate (e.g. minimum staffing for transferred operations)

TSRs Remaining Under Certificate

- Almost all of TSRs Section 1, Use and Application remain
- X-705 TSRs remaining in total
- Miscellaneous Facilities CAAS TSR
- Almost all of TSRs Section 3, “Administrative Controls” remain

SSCs Important to Safety Plant Interfaces

- CAAS: operable for DOE use; de-lease isolation point in USEC area
- Building Evacuation systems (P.A.): operable for DOE use; delease isolation point in USEC area
- Fire alarm systems: operable for DOE use; de-lease isolation point in USEC area
- High Pressure Fire Water System (HPFWS): operable for DOE use; de-lease isolation point in USEC area
- Portions of the Fire alarm systems and HPFWS will be modified to ensure that future DOE D&D activities would not impact function of these systems in Certified space

Utility System Interfaces

- Utilities to be available for DOE use with isolation points in USEC space, except as noted below
 - Electrical – some isolation points will be within DOE Process Building due to LOTO concerns; but would not affect any NRC Certified facilities
 - Air & Nitrogen
 - Water
 - Sanitary and storm sewers
 - Steam

Air Emission Permits

Water Discharge Permits

- Transfer radioactive air emission (NESHAP) permits from USEC to DOE for Process Buildings and Autoclave facilities
- USEC retain NPDES Permit for water discharge points; keep Certificate requirements for water outfalls

CAR Significance Determination

Key Points

- No Significant Increase in Probability or Consequences of SAR Evaluated Accidents
 - No change to plant safety analysis or controls for remaining NRC Certified operations
 - Scope of DOE BIO is within operations previously analyzed in current NRC SAR

CAR Significance Determination Key Points (cont.)

- No new or different type of accident would be created by the proposed change
 - No new failure modes or initiating events than previously evaluated in remaining Certified operations
 - No new failure conditions for SSCs relied on by Certificate from DOE operations in de-leased facilities or interfaces with USEC SSCs

CAR Significance Determination

Key Points (cont.)

- Proposed change does not result in undue risk to Public, Worker, Environment or Common Defense and Security
 - Does not alter remaining Certified operations or physical plant; interfaces are controlled to prevent impact on Certified operations from DOE actions
 - DOE and NRC standards for handling waste and protecting the environment are equivalent
 - Security posture remains essentially unchanged
- DOE operational changes would be evaluated and communicated via Shared Site Process to allow USEC to evaluate potential impacts

Summary of CAR Significance

- Remaining Certified operations are relatively unaffected by the de-lease and DOE operations in the former enrichment facilities
- DOE operations at turnover are bounded by current SAR safety envelope and are being used as foundation for DOE safety basis
- Overall significance of change to existing risk is low; for remaining NRC Certificate operations, no USQ, no decrease in effectiveness of programs, no undue risk to the public, worker, environment or security

DOE Safety and Authorization Basis for Accepting De-Lease

- DOE has determined that the transfer will be a “seamless” transfer; the new Authorization Basis (AB) will allow DOE to perform all operations that are currently being performed by USEC under the Certificate in the Process Buildings and Autoclave Facilities
- DOE has contracted with USEC to prepare the AB and Safety Basis (SB) utilizing the existing NRC Certificate Safety Basis, safety management programs, with the implementing procedures, systems and engineering documents and existing OSHA and EPA compliance envelope (as they apply to the facilities and operations being returned to DOE)

Current NRC Safety Basis

- Developed under DOE regulation using early versions of current standards and approved in 1997
- Updated and submitted to NRC (SAR and TSRs) in September 2003
- Is also the Safety Basis for DOE Regulatory Oversight Agreement (ROA) that allows DOE to regulate USEC-leased, but not NRC Certified areas/operations

DOE Facility Safety Framework

- Authorization Agreement (similar to NRC License or Certificate)
- Authorization Basis
 - Safety Basis and SER, Environmental Permits and other environmental commitments, Integrated Safety Management System (ISMS), Environmental Management System (EMS), Verification reports, Readiness Reviews (if needed)
- Safety Basis
 - Basis for Interim Operation (BIO), TSRs, USQs, JCOs
 - Supporting documents (NCSAs, NS analyses)
 - Safety Management Programs (SMPs)
 - Flowdown/implementation documents (procedures, design basis documents)
- Preparation and Review in progress; completed, approved and implemented by 9/30/10

DOE Regulatory Implementation Requirements

- Approved BIO and AB (and any exemptions)
- Procedures implementing BIO and AB requirements are in place and available
- Design documents and associated SSC related controls are in place and available
- Personnel performing actions implementing BIO and AB requirements are trained and available
- Operations continue through implementation date; no restart required
- Safety of operations continues; transparent on the operating floor

Summary

- Primary UF₆ facilities and operations being de-leased and returned to DOE
- Certificate TSRs related to de-leased facilities are being deleted
- Using existing NRC safety basis and programs and OSHA/EPA programs to develop DOE Authorization Basis and Safety Basis

Summary

- NRC regulation continues to assure adequate safety for public and workers and compliance with 10 CFR 76 and NRC Certificate
- NRC review and prior approval of CAR will identify any issues regarding transition of regulatory authority to DOE
- The CAR process and timing will allow for any safety or regulatory issues to be resolved with DOE Authorization Basis prior to transition, thus utilizing regulatory resources more effectively
- Will allow for meeting DOE programmatic and schedule objectives