

AGENDA

USEC Government Services NRC Headquarters Site Familiarization Visit

Tilda Liu
Rosemary Reeves
Marissa Bailey

July 13, 2010
8:30 a.m. – 3 p.m.

| | | |
|------------------------------|--|--|
| 8:30 a.m. | Arrival, Badging <i>(X-100 Lobby)</i> | Len Sendek |
| 9:00 a.m. -10:00 a.m. | Visit American Centrifuge Facility - Overview of LCF / ACP in the Buffer Storage Area with a tour of RA areas (Receiving and Static Assembly) - Driving tour of ACP | Dan Rogers Terry Sensue |
| 10:30 a.m.-11:15 p.m. | Plant Overview <i>(Leadership Conference Room)</i> | Mark Keef |
| 11:15 a.m.-11:45 p.m. | Working Lunch & Project Review: - CAR / DOE Basis of Interim Operation <i>(boxed lunches provided)</i> | Ed Wagner |
| 11:45-12:00 p.m. | Future Planning: - De-lease Project | Rob Rodino |
| 12:00-2:30 p.m. | Plant Tour - X-333 Demonstration Cell (Jack Snyder) - X-340 Complex Tour (Don Davidson) - Driving Tour | Mark Keef Jim Anzelmo Doug Fogel Steve Toelle |
| 3 p.m. | Depart Site | |

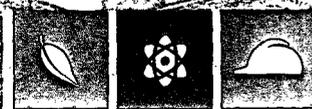
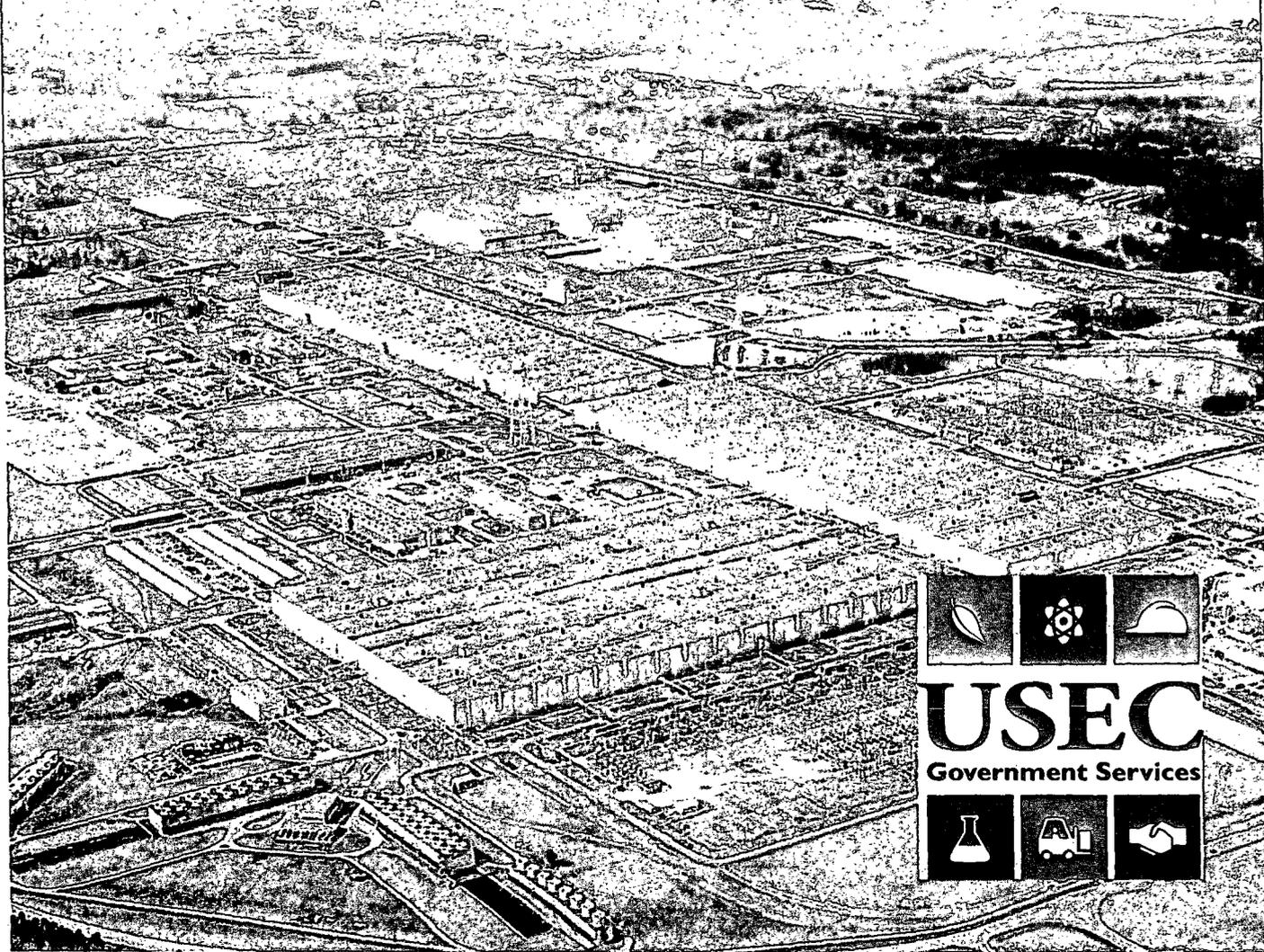
Note

USEC Participants for X-100 presentations: Mark Keef, Jim Anzelmo, Toni Brooks, Damon Detillion, Pam Potter, Bob Lawton, Doug Fogel, Ed Wagner, Rob Rodino, Steve Toelle, Jason Lovins, Marianne Heiskell, Tom Hines



Government Services

A Proud Heritage with a Focus on the Future



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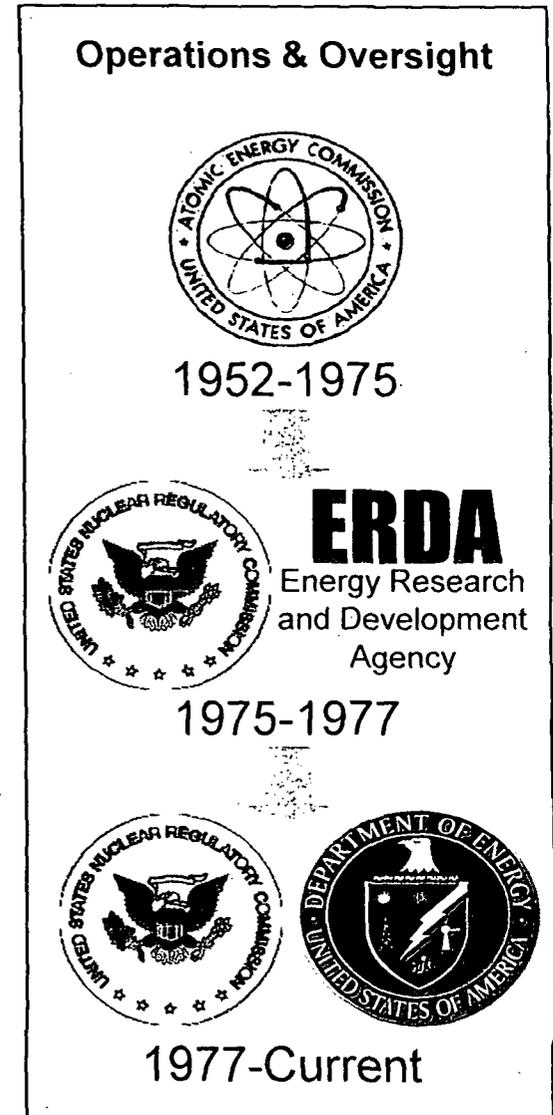


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Companies and Contractors

- 1952 Goodyear Atomic Corporation
- 1986 Martin Marietta
- 1992 Energy Policy Act creates USEC to take over government's uranium enrichment enterprise
- 1993 USEC assumes responsibility for Piketon facility, DOE retains responsibility for environmental restoration
- 1994 USEC contracts with Martin Marietta for operations and maintenance of plant
- 1995 Lockheed and Martin Marietta form Lockheed Martin
- 1998 USEC is privatized, becomes USEC Inc., an investor-owned company
- 1998 USEC takes over direct operation of Piketon plant, as well as Paducah
- 2001 Enrichment Operations discontinue at Portsmouth



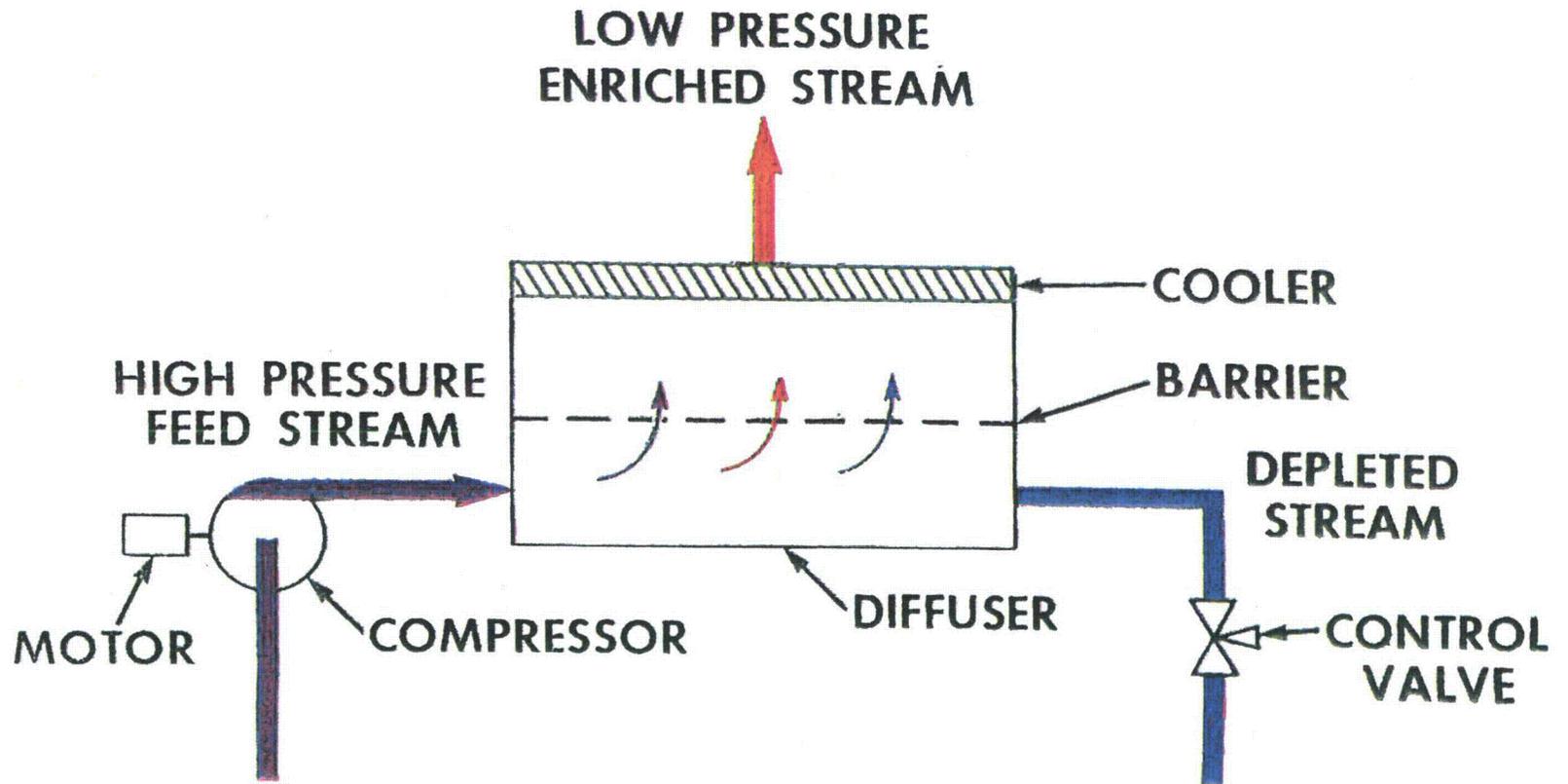
Lease Agreement

- Signed July 1, 1993
- Leasehold defined by exhibits
 - Exhibit A is list of leased facilities
 - Exhibit B is list of leased process equipment & other personalities
- Leasehold must be used for purpose or enriching uranium
 - DOE can authorize exceptions
 - Must be in writing
- Lessee will maintain leasehold in good & serviceable condition
- Option to expand or reduce leasehold
 - Lessee will provide 60 days notice of intent
 - Exhibits A & B will be amended to reflect change
- Return of leasehold
 - Applies end of lease term or when leasehold is reduced
 - 6 turnover requirements apply

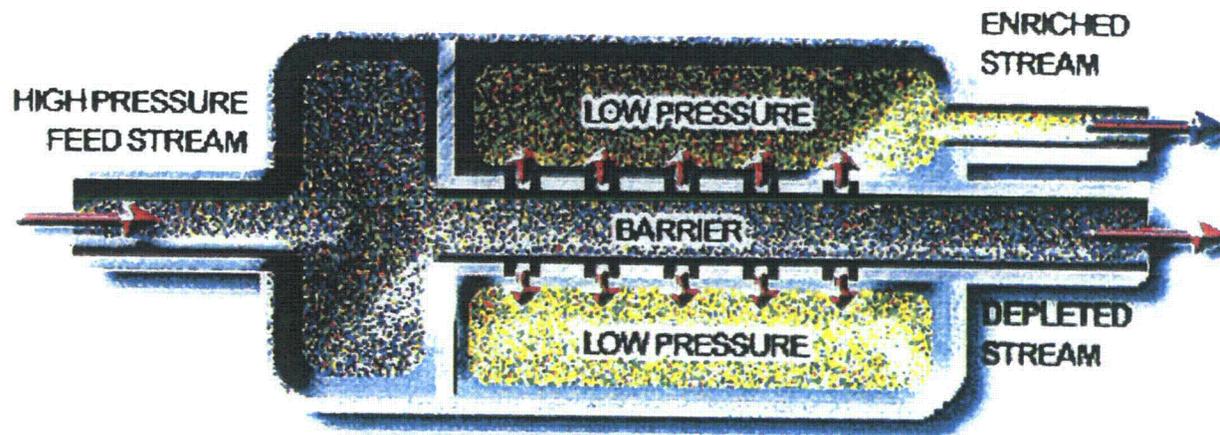


Basic Principles of Gaseous Diffusion Technology

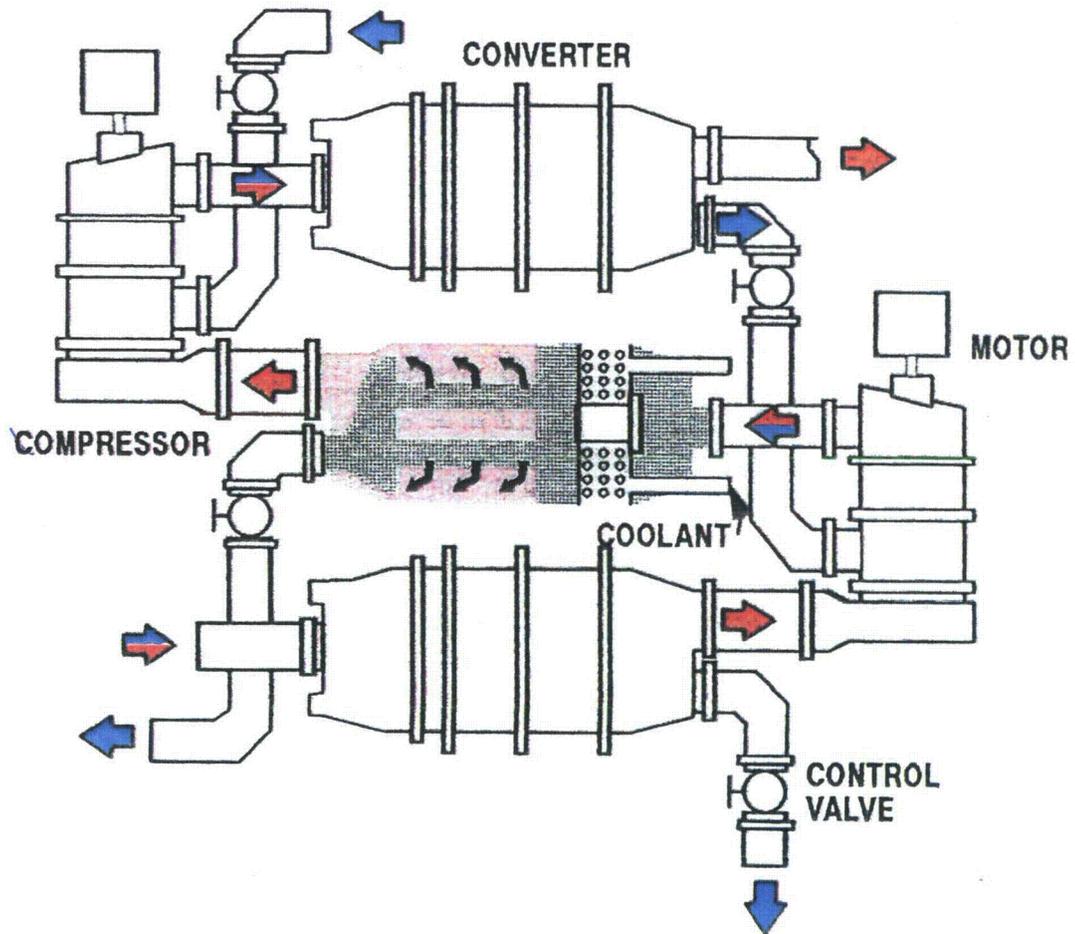
SCHEMATIC OF GASEOUS DIFFUSION STAGE



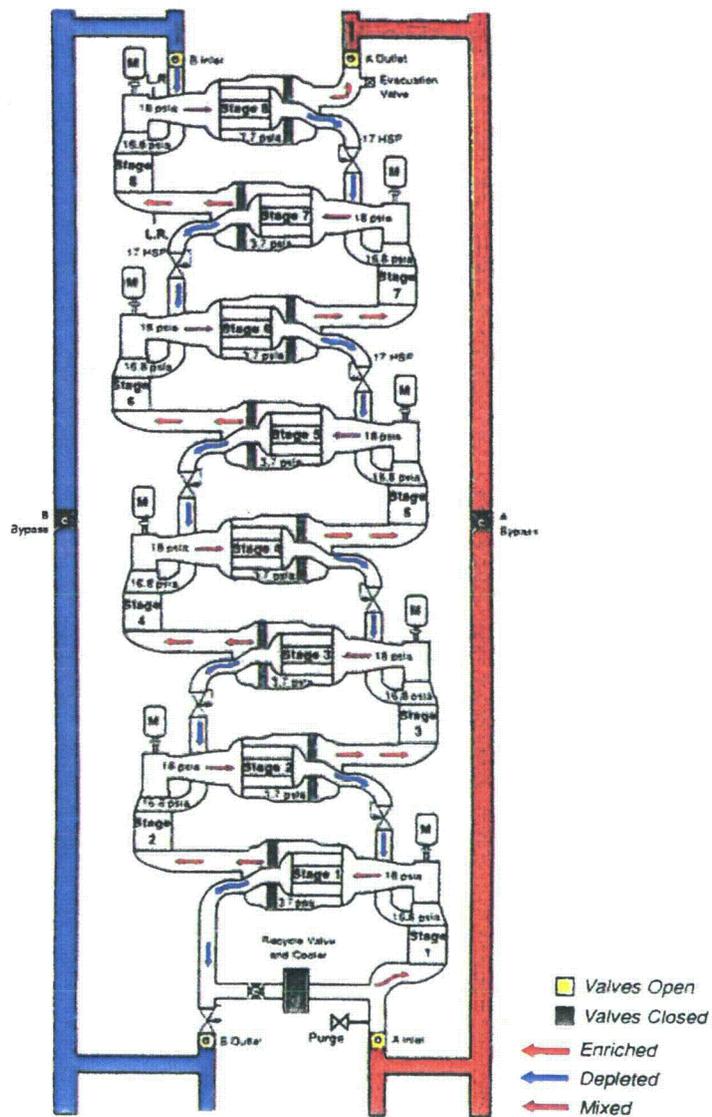
GASEOUS DIFFUSION STAGE



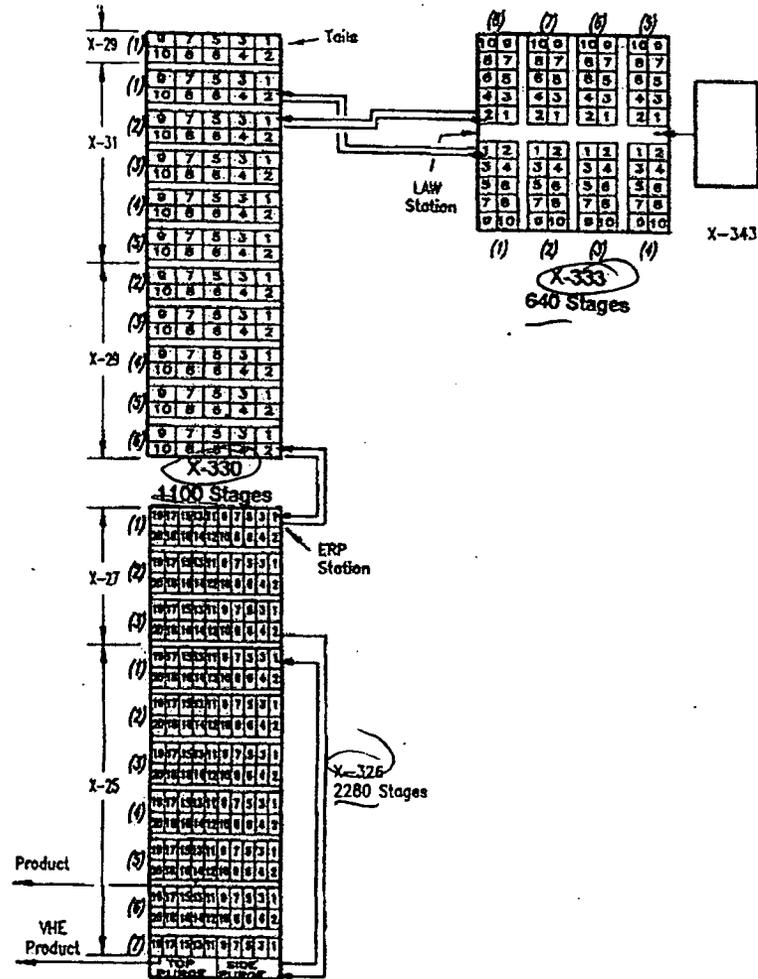
STAGE ARRANGEMENT



000 CELL



PORTSMOUTH CASCADE





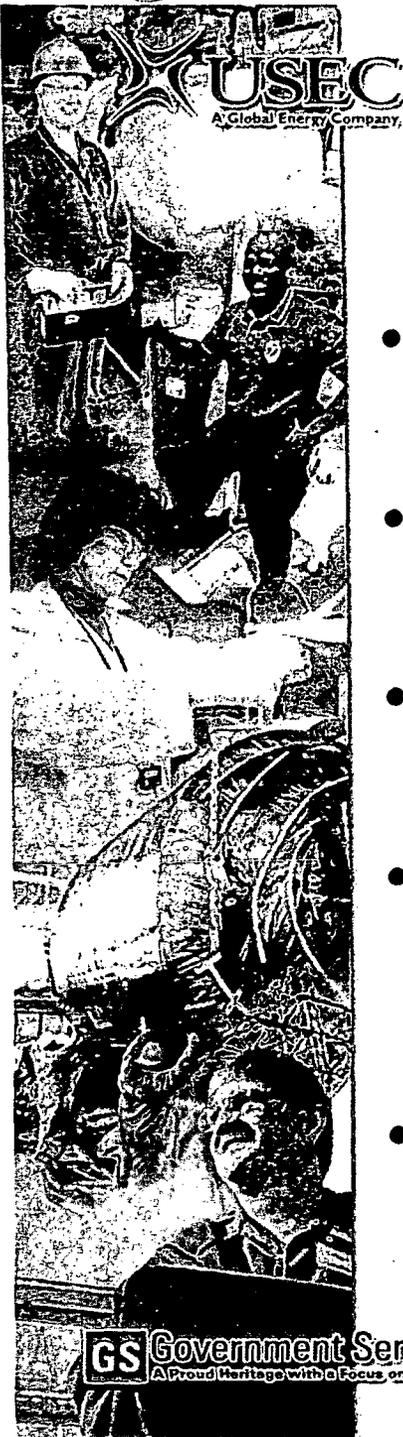


Briefing on De-Lease CAR and DOE BIO

NRC HQ Site Familiarization Visit

July 13, 2010

presented by
Ed Wagner
Nuclear Safety



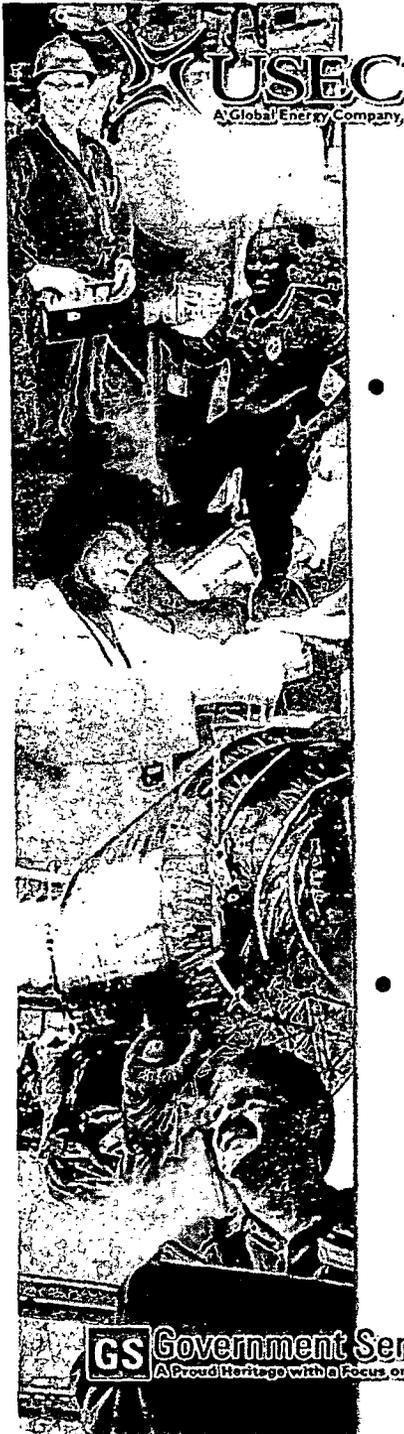
Topics To Be Covered

- 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



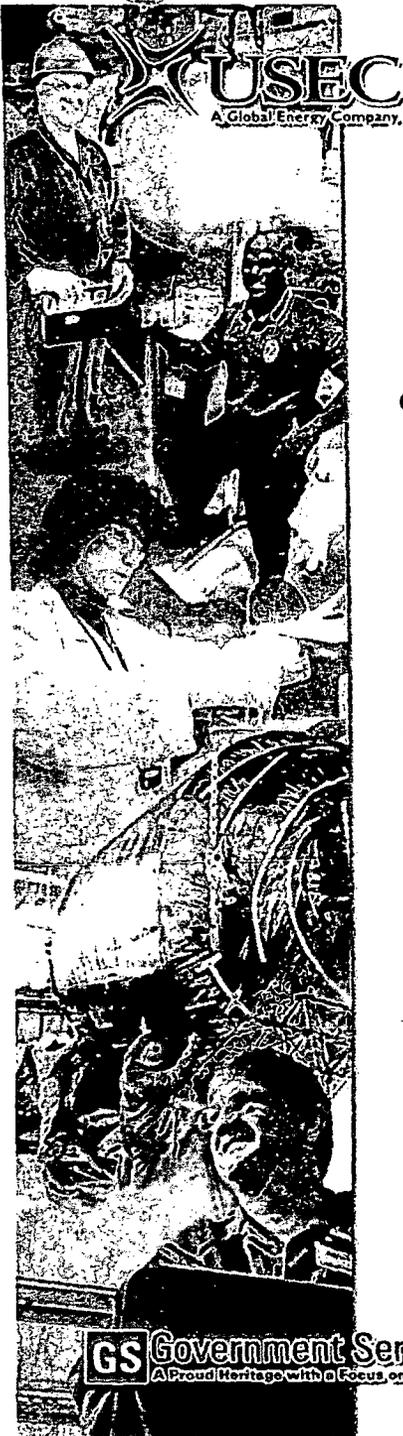
Background

- 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



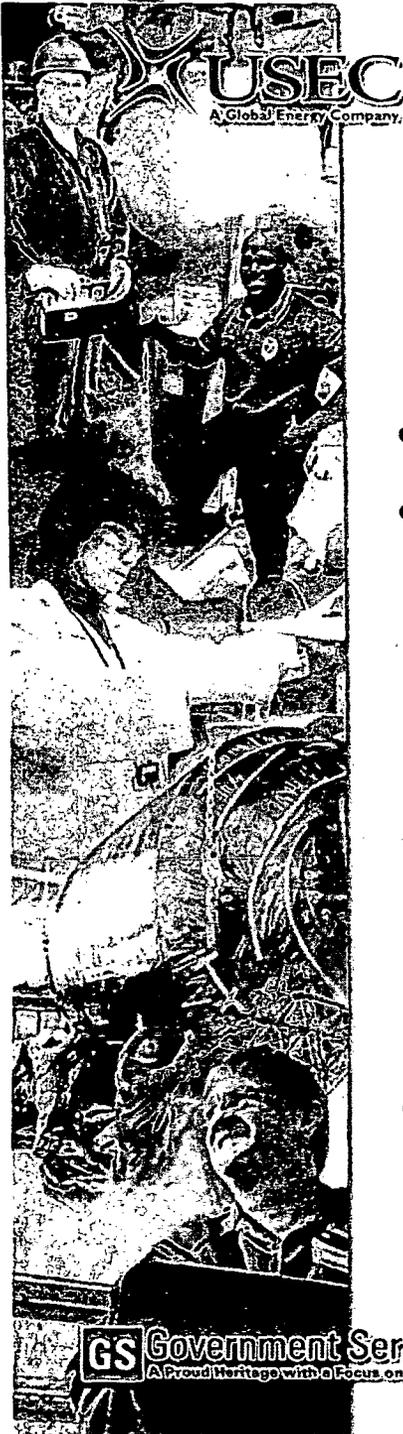
Scope of De-Lease Plans

- De-Lease primary UF₆ Processing 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
- Retain X-705 Decontamination Building, X-710 Laboratory, Maintenance Facilities, and Cylinder Yards, and Utility supply & distribution systems



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 and X-342; X-343 in cold shutdown



Scope of Facilities & Operations to be Transferred to DOE

- Enrichment already in cold shutdown
- X-333, X-330 and X-326 limited operations for deposit removal, UF_6 cleanup and repackaging, equipment removal for PGDP & ACP
 - Low inventory and pressures in enrichment and support equipment
 - Limited UF_6 withdrawals at Extended Range Product (ERP) and X-326 Product Withdrawal (PW)
- X-344, X-342, X-343 facilities operations for deposit removal, UF_6 cleanup and repackaging
 - Liquid UF_6 transfer and sampling
 - Vapor UF_6 feed and transfer



Justification for CAR

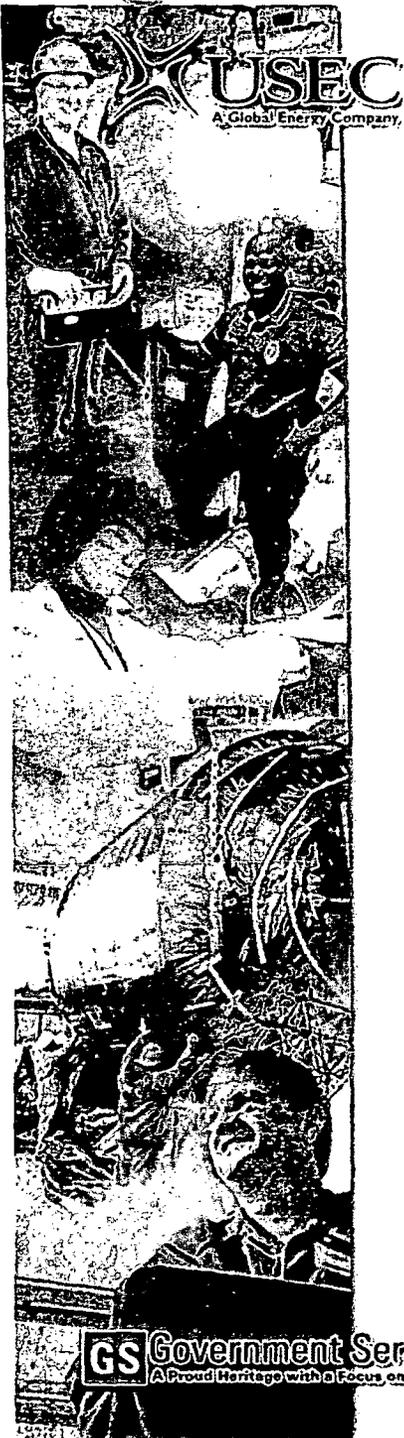
- After De-Lease, USEC will no longer control facilities and thus cannot comply with NRC TSRs; also, NRC will no longer regulate the de-leased facilities
- Enrichment shutdown has reduced risk to public and workers from Process Buildings and Autoclave Facility remaining operations
- Postulated accidents 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



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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)



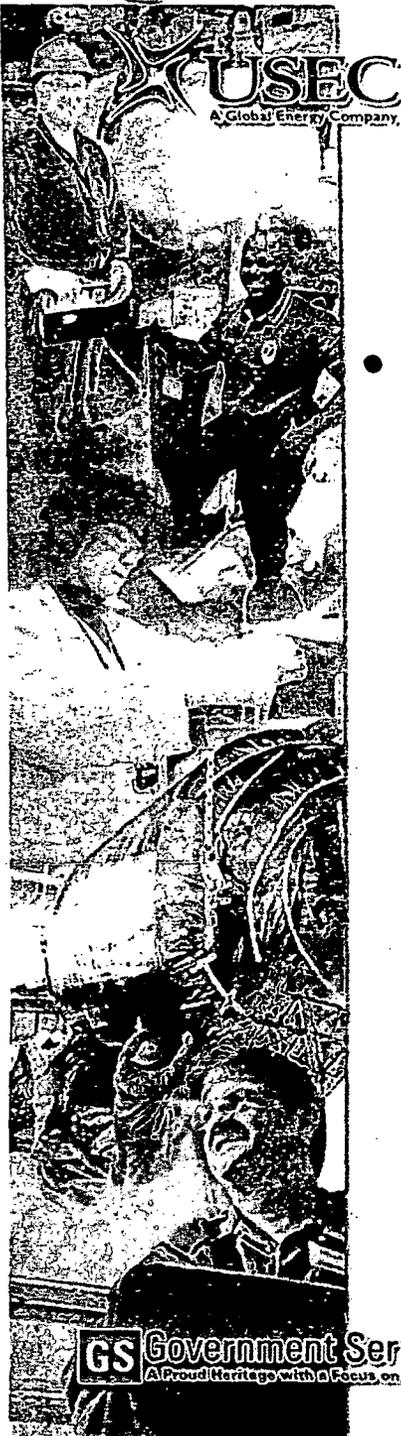
TSRs Remaining Under Certificate

- Almost all of TSRs Section 1, Use and Application remain
- X-705 TSRs remaining in total
- CAAS TSR for Miscellaneous Facilities (X-710, X-720, X-700, XT-847)
- Almost all of TSRs Section 3, “Administrative Controls” remain



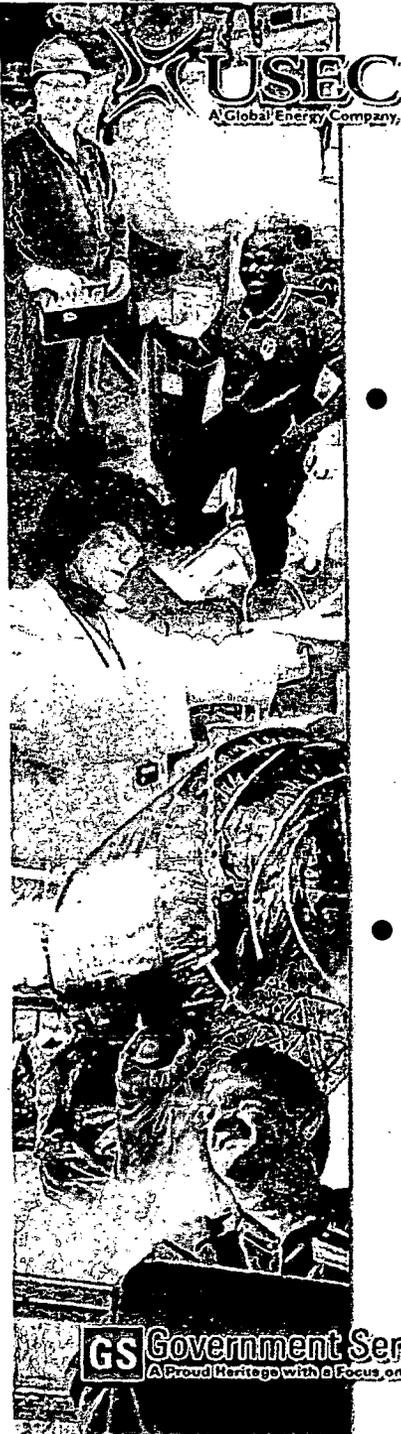
SSCs Important to Safety Plant Interfaces

- CAAS: operable for DOE use; de-lease isolation point in USEC area
- Building Evacuation systems (P.A.): operable for DOE use; de-lease 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; 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 (one inside X-326 PB)



Air Emission Permits Water Discharge Permits

- USEC will continue as “operator” for the radioactive air emission (NESHAP) permits under contract to DOE for Process Buildings and Autoclave facilities
- USEC retain NPDES Permit for water discharge points; keep Certificate requirements for water outfalls

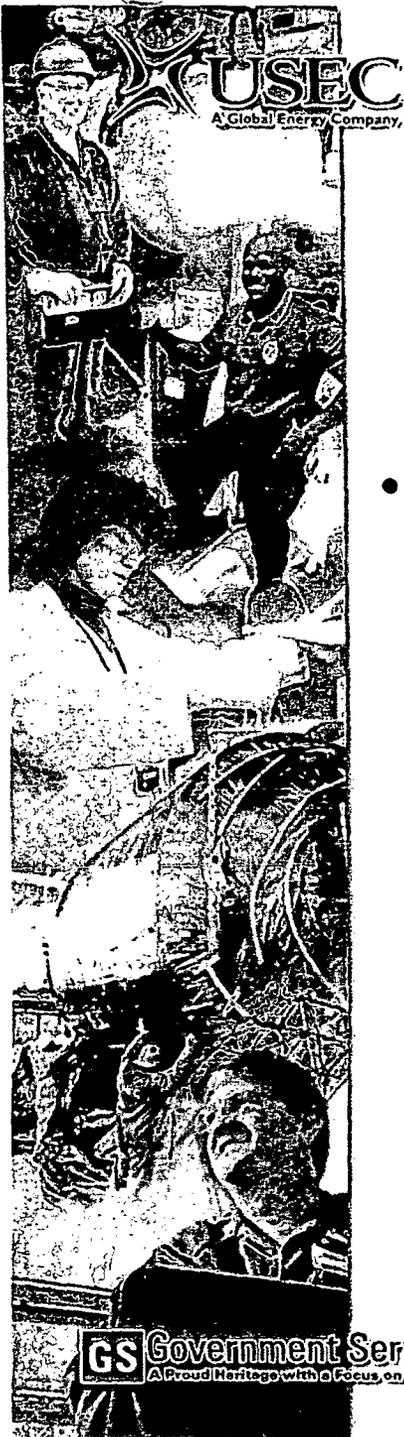


CAR

Significance Determination

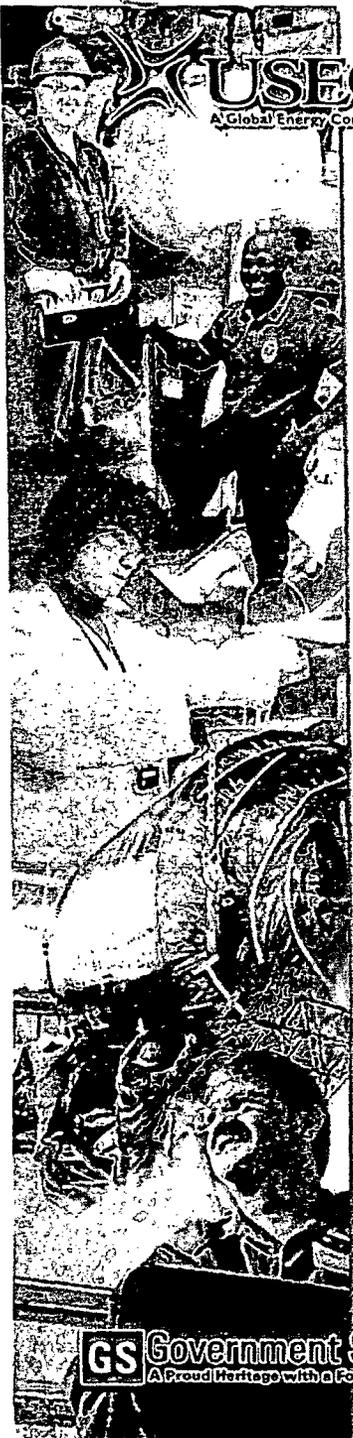
Key Points

- 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



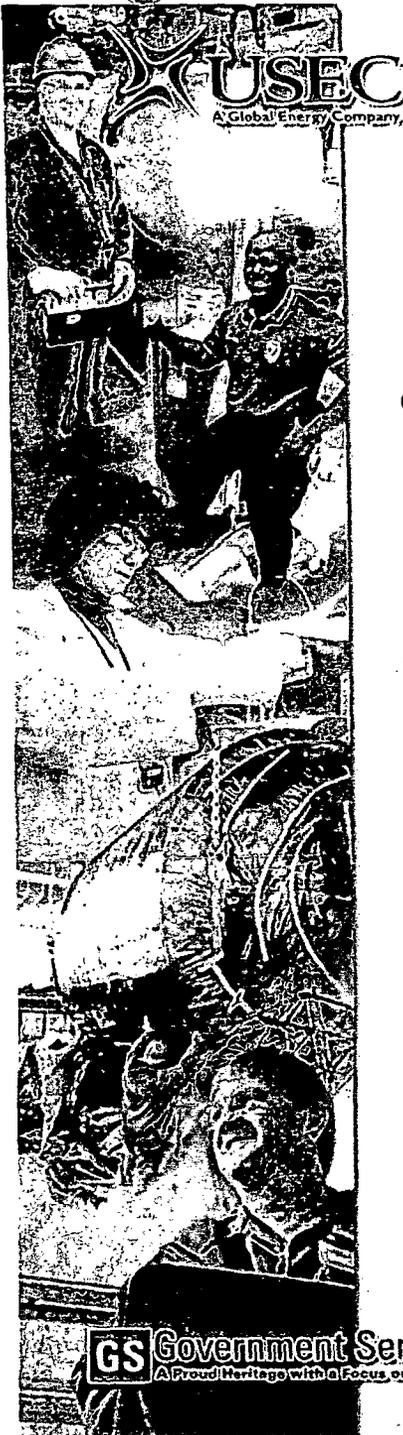
Summary of CAR Significance

- 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 & 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



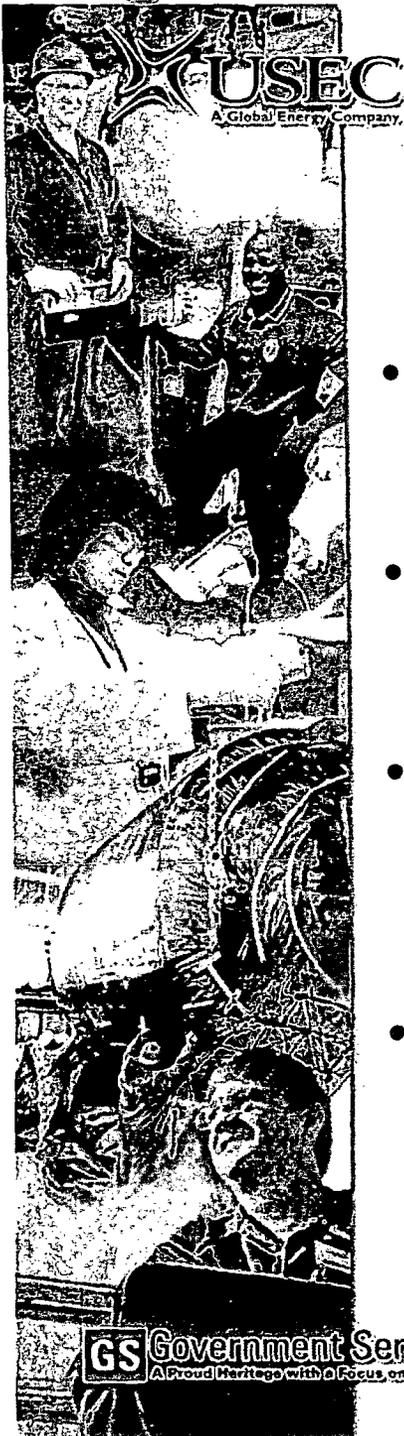
DOE Regulatory Implementation Requirements

- 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



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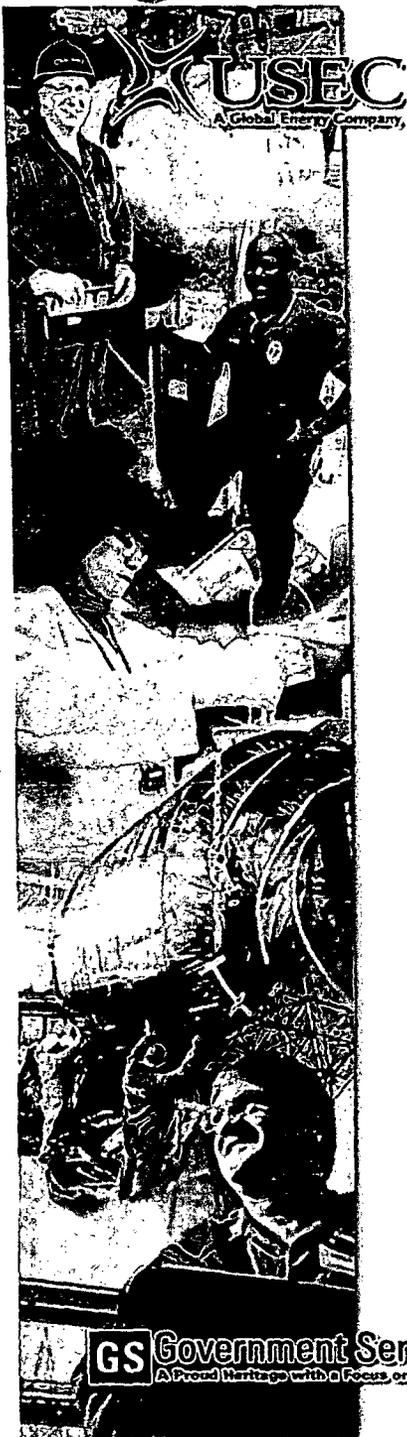
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De-lease Project

Rob Rodino

July 13, 2010

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De-lease Process

- Formalized process jointly developed by USEC and DOE.
- Based on requirements contained within the USEC GDP Lease.
- Contains ~350 actions for USEC, DOE-ORO, and DOE-PPPO personnel.
- Status provided weekly to USEC and DOE management in addition to monthly status meetings.



Notice of Intent

- Document used to formally announce the de-lease of facilities on a certain date to DOE.
- Commence scheduling activities.
- Document submitted on January 28, 2010.



Binding Facility Agreements

- Agreement between DOE and USEC to provide for the following:
 - Establish jurisdictional boundaries of each system that penetrates these facilities.
 - Allow USEC access to perform specific activities within these facilities.
 - Establish USEC ownership of specific property within these facilities.



60 Day Letter

- Document issued by USEC and used to:
 - Alert DOE of pending de-lease in 60 days, and
 - Document compliance with the Lease Turnover Requirements.
 - Terminate facility operations.
 - Remove solid deposits that are >GSM.
 - Remove immediate threats to human health and safety.
 - Ensure nothing adversely affects operability of enrichment systems.
 - Remove all USEC waste.
 - Provide current status of compliance with environmental, health, and safety requirements.
 - Provide available and current documents.



Documents Return

- Over 100,000 documents will be provided to DOE during this de-lease project.

- The following documents are scheduled for return and will be provided to DOE:
 - Radiological data
 - Hazardous material data
 - Industrial hygiene data
 - Environmental data
 - Problem reports
 - Drawings
 - Specifications
 - Vendor Manuals
 - Procedures



Final Walkdowns

- Performed by USEC, DOE-ORO, and DOE-PPPO to verify the completeness of actions associated with the de-lease.
 - Waste and property removal
 - Jurisdictional boundaries
 - Turnover requirement compliance
 - Facility status



Facility Transfer

- Activity performed on the date of return between the outgoing and oncoming custodians of the facility.