ACNW INFORMATION BRIEFING

LICENSING STATUS OF NRC'S REVIEW OF USEC INC.'S APPLICATION

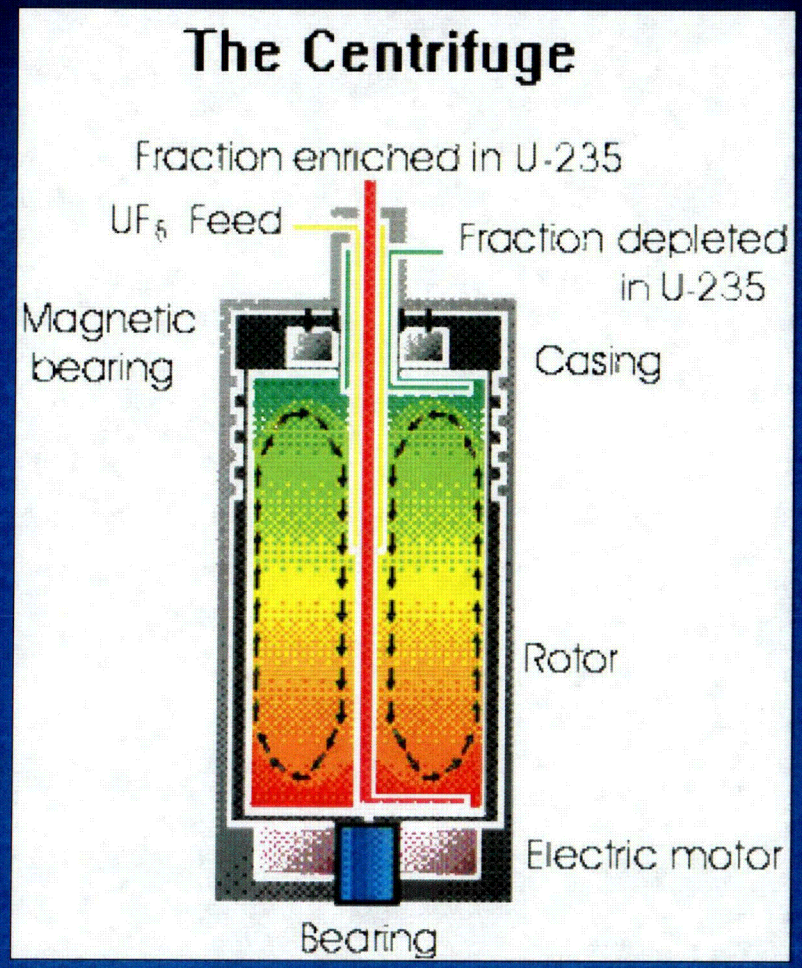
March 16, 2005

4:00 – 5:00 PM

Proposed project

- USEC Inc. (USEC) is proposing to enrich uranium using a gas centrifuge process in Piketon, OH
- The gas centrifuge process will use a high-speed rotor to separate the U-235 and U-238 isotopes and increase the U-235 content typically from 0.7 to 3 to 5 percent with a maximum of 10 percent
- USEC is relying to a large extent on DOE's technology
- USEC is proposing to house the plant primarily in several existing gas centrifuge buildings which it plans to lease from DOE

Centrifuge machine



Key characteristics of the facility

- Principal hazards are chemical and criticality
- Feed and withdrawal stations do not liquify UF_6; liquid UF_6 only at cylinder sampling and transfer stations
- Uses less than 5 percent of electricity of gaseous diffusion plants
- Technology is classified up to the Secret-RD level

Unique regulatory requirements

- Environmental Impact Statement required
- Formal subpart G hearing required
- Hearing must be completed prior to issuance of license for construction and operation
- Pre-operation inspection required
- Liability insurance required

USEC licensing status

- Application dated August 23, 2004
- On October 7, 2004, the Commission issued an order accepting the application for formal review, initiating the proceeding and offering an opportunity for the public to petition to intervene
  - Order set a 30-month schedule for final agency decision (February 2007)
  - Hearing covers safety, safeguards and environmental issues

Review schedule

- Staff to complete safety/safeguards review and issue Safety Evaluation Report (SER) in 18 months or sooner (February 2006 or sooner)
- Staff to prepare Environmental Impact Statement (EIS) in 18 months (February 2006)
- Hearing Board to complete hearing in 8 months (October 2006)
- Commission to make final determination in 4 months (February 2007)

Petitions to intervene

- Two petitions received on February 28 deadline set by the Commission
  - A group identified as Portsmouth/Piketon Residents for Environmental Safety and Security (PRESS)
  - A member of the public

Safety contentions raised

Some safety contentions raised include:

- Criticality monitoring exemption
- Radiation work permits
- UF_6 cylinder labeling
- Enrichment authorization request of 10% U-235
- Domino effect of failure of centrifuges
- Health risks
- Need for enriched feed at 3.9% U-235

Environmental and other contentions raised

- Some of the 20+ environmental and general contentions raised include:
  - Compliance with the National Historic Preservation Act
  - Decommissioning funding
  - Need for the facility
  - Significant portions of the application deemed unnecessarily sensitive
  - USEC's poor compliance history
  - National security
  - Ground and surface water contamination

Requests for additional information (RAI)

- Staff issued a safety/safeguards RAI on the application and the ISA Summary to USEC on February 7, 2005
- Staff issued an RAI on the Environmental Report to USEC on February 23, 2005
- Staff issued a classified RAI on the Fundamental Nuclear Material Control Plan to USEC on March 4, 2005
- RAIs pertain primarily to clarifications
- USEC responded to the RAIs on March 9

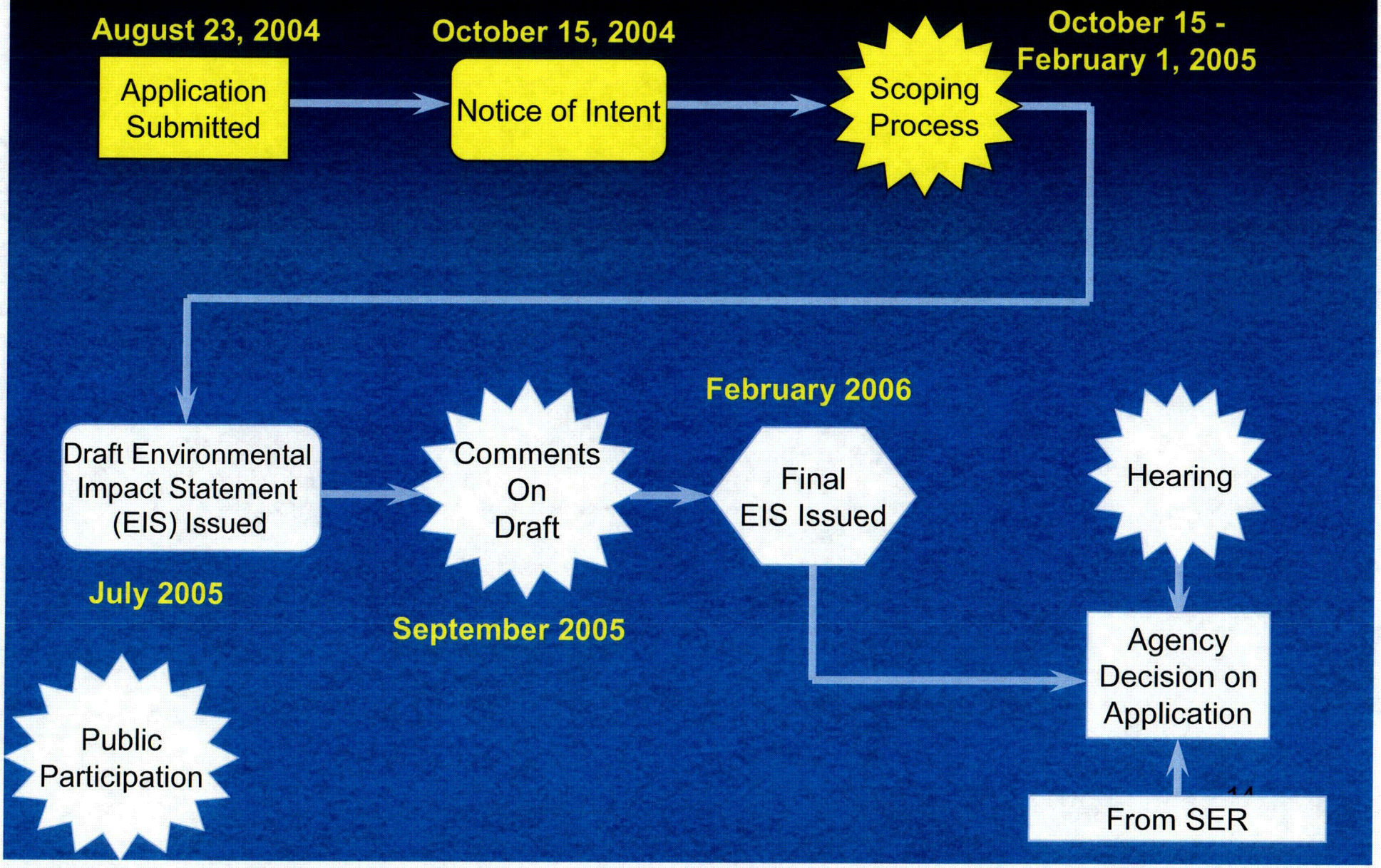
ISA

- USEC did not perform a probabilistic risk assessment (PRA) as it is not required for fuel cycle facilities
- USEC used a semi-quantitative risk index method recommended in the Standard Review Plan for fuel cycle facilities, NUREG-1520

NRC/DOE Memorandum of Understanding

- Staff to develop an MOU with DOE to
  - Delineate each agency's regulatory oversight responsibilities as the ACP is proposed to be built and operated on a DOE reservation
- Staff provided a draft MOU to DOE in December 2004
- DOE to provide its input by May 2005
- Staff and DOE intend to discuss the draft MOU with USEC in a meeting in Piketon later this summer

Environmental Review Status



Major Scoping Comments

- Public and Occupational Health
- USEC Credibility
- Depleted Uranium Disposal
- Transportation
- Alternative site uses
- Need for Facility
- Historical/Cultural Resources
- Non-proliferation
- Safety Issues

Resource Areas for Evaluation in EIS

- Public and Occupational Health
- Water Resources
- Waste Management
- Transportation
- Cumulative Effects
- Air Quality
- Ecology
- Historical/Cultural
- Socioeconomics
- Environmental Justice