Relevant Experience from Recent Licensing Reviews of Major Fuel Cycle Facilities

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Facilities reviewed under 10 CFR 70:

- **Mixed Oxide Fuel Fabrication Facility** construction authorization issued in March 2005, currently reviewing license application for possession and use.

- **USEC Lead Cascade Facility** license issued in February 2004.

- **LES National Enrichment Facility** license issued in June 2006.

- **USEC American Centrifuge Plant** EIS and SER complete in May 2006 and September 2006, respectively.

Overview of Part 70 requirements for new Special Nuclear Material (SNM) facilities:

- Baseline Design Criteria
- Performance requirements demonstrated based on an integrated safety analysis

	Highly Unlikely	Unlikely	Not Unlikely
<u>High Consequence</u> -Public dose > 25 Rem -Worker dose > 100Rem	Acceptable	Not Acceptable	Not Acceptable
<u>Intermediate Consequence</u> -Public dose 5 - 25 Rem -Worker dose 25 -100 Rem -Environmental release > 5000 x Pt 20, App B, Table 2	Acceptable	Acceptable	Not Acceptable
<u>Low Consequence</u> -Public dose < 5 Rem -Worker dose <25 Rem	Acceptable	Acceptable	Acceptable

- Operational Readiness inspection prior to operations

Overview of licensing reviews

- Promulgated new Part 70 in 2000
- Prepared regulatory guidance
  - NUREG 1520 for fuel cycle facilities—written primarily for existing facilities
  - NUREG 1718 for MOX Facility
- Pre-application meetings following notice of intent
- LES sought guidance from the Commission on key policy issues prior to the staff review; Commission addressed the issues and set out a 30-month review schedule in an order to the ASLB and the staff. Similar order was issued for the USEC ACP review.
- Provided opportunities to obtain public input and to discuss our regulatory process

Overview of licensing reviews-continued

- Guidance to reviewers on RAI process-nexus to regulations
- Reviewers draft SER and use “holes” as a basis for preparing RAIs
- Staff did not publish a draft SER for LES and USEC reviews; saved 3-4 months off schedule
- Gas Centrifuge reviews benefited from risk insights from Gaseous Diffusion Plants and prior staff reviews
- Made use of in-office reviews of detailed calculations and documentation, as necessary
- Early OGC involvement proved highly beneficial
- Developed and followed communications plans; communicated our decisions to the public

Lessons Learned

- More emphasis in SRPs on reviewing license applications with less than complete design information may have been helpful
  - In some cases staff review was based primarily on the applicants commitments to applicable codes and standards for the IROFS.
  - Regulatory guidance development a low budget priority
  - Inefficient to develop custom SRPs for every application
- Greater reinforcement of “realistic conservatism” and “reasonable assurance”
- A high quality license application that closely follows the staff guidance greatly speeds up the reviews
- Promptly raising issues to management facilitated early resolution