

# USEC/NRC MEETING SILEX TEST LOOP

NRC Headquarters

February 20, 2001

# AGENDA

- Introduction and Opening Remarks
- Overview of Advanced Technology
- Regulatory Aspects of SILEX Test Loop at a GDP
- Technical Aspects of SILEX Test Loop (PROPRIETARY)

# OVERVIEW OF ADVANCED TECHNOLOGY

- Gas Centrifuge
- SILEX
- Near-term Plans

# SILEX TEST LOOP

- Objectives
  - Evaluate enrichment efficiency in full-scale components
  - Evaluate integrated operation of laser and separator systems
  - Provide a basis for plant capital and operating cost estimates
- Features
  - Test components and features unique to SILEX
  - Minimize the total  $\text{UF}_6$  used
  - Closed loop; no removal of enriched product
  - Small footprint

# REGULATORY ASPECTS

- 10 CFR Part 76 offers flexibility to amend the certificate to include the SILEX Test Loop
- Under 10 CFR 76.68, Plant Changes
  - “(d) The Corporation may at any time apply under §76.45 for amendment of the certificate to cover proposed new or modified activities not permitted by paragraph (a) of this section.”**
- USEC proposes to submit a Certificate Amendment for the SILEX Test Loop

# REGULATORY ASPECTS

- 10 CFR 76.45, Application for amendment of certificate

**“(a) In addition to the application for certificate submitted under §76.31, the Corporation may at any time apply for an amendment of the certificate to cover proposed new or modified activities. The amendment application should contain sufficient information for the NRC to make findings of compliance or acceptability for the proposed activities in the same manner as was required for the original certificate.”**

# REGULATORY ASPECTS

- Certificate Basis
  - SAR Table 1.4, “Authorized Uses of NRC-Regulated Materials”
    - **Enrichment of Uranium**
    - **Laboratory analysis and testing**
- NRC Compliance Evaluation Report
  - **“If additional activities are planned, USEC will need to perform a safety analysis and propose TSRs as necessary prior to conducting the activity.”**

# REGULATORY ASPECTS

- Technical Specification Requirements
  - 3.10.5, Responsibilities
    - “The PORC shall be used to conduct, as a minimum, reviews of the following:**
    - (e) All proposed changes to the plant or the plant’s operations, including tests and experiments, that require a written safety analysis in accordance with 10 CFR 76.68”**



# TECHNICAL ASPECTS

Proprietary Information  
(Closed to members of the public)