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UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

**GE-Hitachi Global Laser
Enrichment LLC Facility
Mandatory Hearing**

July 11-13, 2012

**NRC Staff Presentation Topic 4:
Tracking and Implementation of
Applicant Commitments**



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UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Environmental License Conditions,
Mandatory Mitigation Measures, and Commitments

Part of Topic 4(a) and 4(b)

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Definitions

- **Commitments**
 - Commitments are statements made in a licensing document where an applicant promises to take certain actions

- **License Conditions**
 - Supplemental provisions that are added to an NRC license if
 - Necessary to ensure compliance with the AEA, NRC regulations, or other NRC requirements;
 - Memorializes NRC staff approval of an exemption; or
 - The applicant agrees to be bound by the provision

- **Mandatory Mitigation Measures**
 - Measures required to meet NRC regulations
 - Measures required to comply with other regulations or statutes
 - Measures required by other Federal, State, or Local permitting agencies

Environmental License Conditions

- **Historic and Cultural Resources**
 - Ensure NRC compliance with Section 106 of the National Historic Preservation Act
 - Triggered before GLE engages in any developmental activity that was not previously assessed and would physically disrupt or disturb an inventoried historic property OR if unanticipated discovery
 - GLE contacts the North Carolina State Historic Preservation Office
 - Self-reporting by GLE
- **401 Water Quality Certification (Ex. NRC040)**
 - Required by Section 1341(d) of the Clean Water Act (33 U.S.C. 1341(d))
 - This certification identifies specific measures that GLE shall employ to avoid impacts to waterways and wetlands to the extent practicable
 - Compliance relies on self-monitoring by GLE and complaints from other persons
 - Any State-identified violation or non-compliance issue would also be a violation of the NRC license (if issued)

Mandatory Mitigation Measures

- NRC staff will inspect and monitor implementation of mitigation measures that are required to meet NRC regulations and requirements
- Other Statutory Requirements
 - GLE Site Nuclear Safety Program and Industrial Program is intended to meet applicable State, NRC, and Occupational Safety and Health Administration requirements
- Measures required in construction and operating permits issued by other Federal, State, or Local permitting agencies
- Agencies that are responsible for other statutory requirements or that issue a permit to GLE would be responsible for ensuring that measures required by those statutes or permits are implemented and tracked

Environmental Commitments (Voluntary Mitigation Measures)

- NRC staff considered GLE's proposed mitigation measures that are not mandatory (i.e., voluntary measures) to be commitments
- If GLE implements only mandatory mitigation measures, the NRC staff determined that this would be protective of health and safety and the environment, so none of the voluntary mitigation measures are important commitments
- GLE's ER (Ex. GLE006) would not be tied-down into an NRC license (if issued), so voluntary mitigation measures would not be tracked by the NRC staff
- If GLE implemented some of the voluntary measures, impacts in some resource areas could be lower, but would not affect the overall impact conclusions in the FEIS (Ex. NRC003)



Safety-Related License Conditions and Commitments

Topic 4(a)

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Safety-Related License Conditions

- Staff proposes to include license conditions in for the proposed GLE facility to ensure that safety requirements are met.
- License conditions include standard conditions and facility-specific conditions discussed in the SER (Ex. NRC001) and in the Table in the prefiled testimony.

License Conditions

- Authorized place of use - standard license condition
- Tie-down condition - lists all the licensing documents with which the licensee shall comply
- License expiration – standard license condition
- Provides a minimum 60-day advanced notice for the construction inspection in accordance with 10 CFR 40.41(g) and 70.32(k) and an operational readiness review
- Limitation on tails cylinder storage - SER Section 1.1.3 (Ex. NRC001)

License Conditions

- Assurance of availability of adequate construction and operation funding – SER Section 1.2.3.3.2 (Ex. NRC001)
- Proof of liability insurance - SER Section 1.2.3.4 (Ex. NRC001)
- Notice prior to production greater than 5 weight percent to support product shipments - SER Section 1.2.3.5 (Ex. NRC001)
- Release for unrestricted use authorization - SER Sections 1.2.3.7.1 and 4.3.7 (Ex. NRC001)
- License Application change process authorization - SER Section 1.2.3.7.2 (Ex. NRC001)

License Conditions

- Exemption from use of 10 CFR Part 20, Appendix B dose coefficients - SER Section 1.2.3.7.3 (Ex. NRC001)
- Exemption to the labeling requirements in 10 CFR 20.1904 - SER Section 1.2.3.7.4 (Ex. NRC001)
- Decommissioning financial assurance - SER Section 1.2.3.7.5 and 10.3.2.2 (Ex. NRC001)
- Exemption from 10 CFR 21.3 definitions - SER Section 1.2.3.7.6 (Ex. NRC001)
- Exemption to the CAAS requirements in 10 CFR 70.24 - SER Section 1.2.3.7.7 (Ex. NRC001)

License Conditions

- Exemption to the CAAS ISA Summary requirements in 10 CFR 70.65(b)(4) - SER Section 1.2.3.7.8 (Ex. NRC001)
- Exemption to material control and accounting (MC&A) detection system requirements in 10 CFR 74.33(c)(5) - SER Section 1.2.3.7.9 (Ex. NRC001)
- Changes to nuclear criticality safety validation report - SER Section 5.3.5.1 (Ex. NRC001)
- Notice prior to product withdrawal exceeding 5 weight percent to ensure nuclear criticality safety - SER Section 5.3.5.1 (Ex. NRC001)

License Conditions

- Restriction on changes to Section 5.4 of the License Application - SER Section 5.3.5.1 (Ex. NRC001)
- Fundamental Nuclear Material Control Plan requirements - SER Section 12.2 (Public Version, Ex. NRC001); SER Section 12.4 (Non-Public Version, Ex. NRC002)
- Use of IROFS using digital equipment - SER Section 16.2 (Public Version, Ex. NRC001); SER Section 16.3.2.3.3 (Non-Public Version, Ex. NRC002)

Tie-Down License Condition

- Lists all the licensing documents with which the licensee shall comply.
- Through this tie-down condition, the applicant's commitments that support the NRC staff's safety and security reviews are incorporated into the license and become enforceable.

Tie-Down License Condition

The following documents would be tied-down:

- GLE License Application
- Fundamental Nuclear Material Control Plan
- Radiological Contingency and Emergency Plan
- Standard Practice Procedures Plan (SPPP) for the Protection of Classified Matter, SPPP-03
- Standard Practice Procedures Plan for the Protection of Classified Matter Global Laser Enrichment Wilmington, NC Facility,” GLEP-0009-R
- Quality Assurance Program Description
- GEMER Monte Carlo Code Validation Report
- Physical Security Plan
- Decommissioning Funding Plan
- Nuclear Material Transportation Security Plan
- Human Factors Engineering Program Plan
- Program Cyber Security Plan for the MSF/OREF
- Program Cyber Security Plan - GLE Engineering and Industrial Controls



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Topic 4(b) and 4(c)

Presenters:

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Sr. Fuel Facility Project Inspector
Fuel Facility Inspection Branch 2
NRC Region II, Division of Fuel Facility Inspection

Region II Division of Construction Projects (DCP) Branch Chief and Senior Project Inspector

- Responsible for overseeing and implementing the construction inspections and ORR inspections.
- Responsible for the planning, performance, documentation, and enforcement associated with the construction inspection program.
- Responsible for tracking implementation of requirements and commitments.
- Assisted by Senior Project Manager from NMSS, regional construction inspectors, HQ inspectors, and inspectors from the Region II Division of Fuel Facility Inspection.

Basis for the Construction Inspection Program

- Section 193(c) of the AEA provides that:
 - “prior to commencement of operation of a uranium enrichment facility licensed hereunder, the Commission shall verify through inspection that the facility has been constructed in accordance with the requirements of the license for construction and operation.”
- This requirement is codified in the NRC’s regulations under 10 CFR 40.41(g) and 70.32(k) and applies to each construction phase and each cascade planned to be placed into operation.

The Inspection Process

The inspection process will be detailed in an Inspection Manual Chapter.

Inspectors are required to be familiar with license application commitments.

Inspection of the construction of items relied on for safety (IROFS) – the IROFS are prioritized by NMSS technical staff

Operational Readiness Reviews (ORRs) will be required by license condition and performed before the authorization to commence operations

Inspections performed in phases

Inspection Coordination

- Routine Communications with the licensee
- Periodic Construction Schedule Updates
- Primavera Scheduling Software
- Weekly Scheduling Meetings

Conclusions about Inspections Prior to Operations

- Operations will not be authorized by the NRC until the NRC staff verifies through inspection that the facility has been constructed in accordance with the requirements of the license, as required by 10 CFR 70.32(k).
- Region II Division of Construction Projects has the management structure, processes, tools, training, and resources needed to verify that the proposed GLE Facility is constructed in accordance with their license requirements.
- All required inspections will be scheduled and conducted.

NRC Inspections of Fuel Facilities During Operations

- NRC staff performs routine inspections
- Inspection results are evaluated by Region II management
- NRC Region II office is responsible for oversight



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