

Presentation to the U.S. Nuclear Regulatory Commission

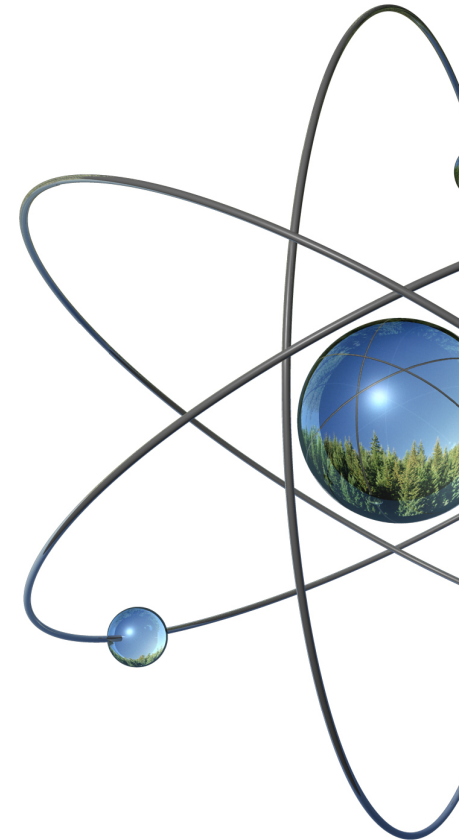
Global Nuclear Fuel ISA Project Review

November 2, 2010



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Agenda

Introductions

Opening Statement

Purpose

Notice of Violation Response

Project Schedule & Status

Project Results

License Amendment

Communication Plan



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Opening Statement

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Purpose

To provide an update of progress & status of reviewing & revising the GNF-A Integrated Safety Analysis



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Notice of Violation Response

Key Elements

- Assigned full-time program manager
- Developed plan to address programmatic deficiencies
- Committed to methods of reporting results of ISA review
- Provided schedule & milestones to complete ISA review and implementation
- Committed to full compliance by March 2012



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Project Schedule & Status

Uranium Conversion	Jan 2011
Fuel Fabrication	May 2011
Balance of Plant	Nov 2011
Complete ISA & ISA Summary	Mar 2012

(Implementation 90 days following milestone completion)

On track to meet Jan 2011 milestone



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Uranium Conversion Milestone

Includes process areas:

- Cylinder Handling
- UF6 Vaporization
- UF6 Conversion
- HF Recovery
- DCP Powder, Powder Pack & Receipt
- DCP Miscellaneous

All PHAs in final draft, QRAs ~60% complete

Developing draft implementation plans



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Project Results

Identifying new accident sequences & IROFS...

➤ **Cylinder Handling**

Four (4) new accident sequences

Eight (8) existing controls to be re-designated IROFS

Originally ~40 accident sequences & 3 IROFS

➤ **UF6 Vaporization**

Two (2) new accident sequences

Nineteen (19) existing controls to be re-designated IROFS

Originally ~80 accident sequences & 5 IROFS

➤ **UF6 Conversion**

Four (4) new accident sequences (all H2 sequences)

Fifteen (15) existing controls to be re-designated IROFS

Originally ~90 accident sequences & 23 IROFS



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Project Results

Correcting all credible criticality sequences to $S=3$

Limited assumptions

- Maximum Credible Enrichment: 5.0 wt% ^{235}U
- Maximum Credible UO_2 Powder Density: 4.5 g/cc

No “Design Features”

- The MRA facility features required for safety are designated as administrative IROFS

Developing chemical & radiological calculations supporting consequences



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Results Summary

Generally, criticality & radiation safety sequences were adequately addressed.

Traditional safety hazards such as chemical & fire hazards required more work.



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License Amendment

SNM 1097 Chapter 3 “ISA Methodology”

- Submitted Aug 13th (SPM 10-031)
- Aligned methodology with NRC guidance
- Requested expedited review
- Reviewed in detail with NRC licensing staff
- *Implementation requires amendment approval*



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Communication Plan

Site visits

- Sample final draft PHA/QRA/ISA documents
- Interface with Leadership & Review Team

Milestone completions

- Report on controls re-designated IROFS
- Report on completion of implementation plans

Periodic management reviews



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Summary

On track to meet first milestone

Project is addressing & correcting
the identified programmatic issues



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Questions?



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