

9

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April 7, 2008

MEMORANDUM TO: Michael Tschiltz, Acting Deputy Director
 Fuel Facility Licensing Directorate
 Division of Fuel Cycle Safety
 and Safeguards
 Office of Nuclear Material Safety
 and Safeguards

THRU: Brian W. Smith, Chief */RA/*
 Enrichment and Conversion Branch
 Division of Fuel Cycle Safety
 and Safeguards
 Office of Nuclear Material Safety
 and Safeguards

FROM: Timothy C. Johnson, Senior Project Manager */RA/*
 Enrichment and Conversion Branch
 Division of Fuel Cycle Safety
 and Safeguards
 Office of Nuclear Material Safety
 and Safeguards

SUBJECT: MARCH 24, 2008, MEETING SUMMARY: GENERAL
 ELECTRIC-HITACHI MEETING ON INTEGRATED SAFETY
 ANALYSIS ISSUES

On March 24, 2008, U.S. Nuclear Regulatory Commission staff met with staff from General Electric-Hitachi Global Laser Enrichment (GEH) to discuss integrated safety analyses issues applicable to the GEH laser-based uranium enrichment plant project. I am enclosing the meeting summary for your use. This summary contains proprietary information.

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Docket No.: 70-7016

Enclosure: General Electric-Hitachi Meeting Summary

cc: William Szymanski/DOE Albert Kennedy/GEH
 Patricia Campbell/GEH James Ross/GEH
 Julie Olivier/GEH

CONTACT: Timothy Johnson
 301-492-3121

I-2

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Summary of
General Electric-Hitachi Integrated Safety Analysis Issues Meeting

Date: March 24, 2008

Place: U.S. Nuclear Regulatory Commission (NRC) Offices
Rockville, MD

Attendees: See Attachment

Purpose:

The purpose of this meeting was to discuss issues applicable to the submittal of the Integrated Safety Analysis (ISA) Summary for the General Electric-Hitachi Global Laser Enrichment (GEH) laser-based uranium enrichment plant project.

Discussion:

After introductions, GEH staff presented a proprietary discussion of the project status. They provided general layout drawings of the proposed 6 million Separative Work Unit facility. The drawings showed the laser and separation areas, feed and withdrawal areas, technical support areas, and a 10-year capacity cylinder storage yard. GEH staff indicated that they will propose a 40-year operating license. They expect to transfer depleted uranium to the U.S. Department of Energy (DOE) during operations so that the 10-year storage capacity is not exceeded. With regard to both facility processing and storage, GEH staff stated that uranium hexafluoride would be in either a solid or gaseous form except for product cylinder sampling, where a liquid is needed to obtain representative samples.

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GEH staff indicated that Chapters 3 and 4 of the Environmental Report (ER) are almost complete and the entire ER is about 85 percent complete. GEH staff stated that it is still considering an early ER submittal, but wishes to have further discussions with NRC on legal implications of an early submittal. The full application is scheduled to be submitted in September 2008. NRC staff agreed to future discussions on these issues with GEH.

GEH is in the process of preparing an Emergency Plan (EP) for the facility. If the Wilmington, North Carolina site is ultimately selected, GEH would propose an integrated EP that includes the fuel fabrication facility. GEH will provide a draft EP to the applicable offsite agencies for their review and comment.

For the ISA, GEH will propose an assay limit of 10 percent in expectation of future industry needs for enrichments that exceed 5 percent. GEH staff stated that they understand the need to provide a validation report that supports nuclear criticality analyses up to the 10 percent assay level.

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GEH staff indicated that it will base its submittal on a 0.25 percent depleted uranium tails assay level. This level would be important for determining the total volume of tails to be generated and the costs for decommissioning funding plan.

GEH staff said that the ISA approach would be analogous to the fuel fabrication facility ISA. NRC staff stated that the agency has been using more restrictive definitions of highly unlikely and unlikely for new plants consistent with the guidance in NUREG-1520, "Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility." NRC staff suggested that GEH follow the guidance or provide a demonstration of sufficient levels of conservatism, if risk levels analogous to the fuel facility are used. NRC staff also pointed out that the ISA approach needs to be presented in Chapter 3 of the Safety Analysis Report (SAR) in addition to the ISA Summary.

Regarding fire safety, NRC staff indicated that fires during cylinder handling and on-site cylinder movement need to be considered in the ISA Summary, including fires involving incoming and outgoing trucks.

NRC staff asked when the Quality Assurance (QA) Program would be submitted. NRC suggested that early submittal of the QA program document for review has worked well for other applicants to ensure that licensing basis documents are prepared in accordance with the QA program.

GEH staff indicated that it expects both unclassified and classified portions of the ISA Summary and SAR will be needed. GEH staff expects the ER will be unclassified. NRC staff also discussed the need for GEH to coordinate with DOE staff on export controlled information.

NRC staff stated that it recently had discussions with North Carolina Occupation Safety staff on laser safety regulatory responsibilities. In these discussions, North Carolina staff indicated that it will probably need security clearances to fully fulfill its regulatory responsibilities. NRC and North Carolina are in the initial stages of preparing a Memorandum of Understanding on these issues.

GEH indicated that it is planning to have future pre-application meetings on environmental issues and on early submittal of the ER.

Action Items: None