

April 23, 2010

MEMORANDUM TO: Michael D. Tschiltz, 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/**
Uranium Enrichment Branch
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

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

SUBJECT: APRIL 14, 2010, TELEPHONE SUMMARY: GENERAL
ELECTRIC-HITACHI REQUESTS FOR ADDITIONAL
INFORMATION RESPONSES

On April 14, 2010, the U.S. Nuclear Regulatory Commission (NRC) staff held a telephone conference call with staff from General Electric-Hitachi (GEH) to discuss the responses to Requests for Additional Information (RAIs) in the Seismic and Structural areas applicable to the GEH application for a laser-based uranium enrichment facility. The RAI responses were transmitted to NRC on December 28, 2009, and January 13, 2010.

CONTACT: Timothy Johnson, NMSS/FCSS
301-492-3121

I am attaching the telephone summary for your use. No proprietary or classified information is discussed.

Docket No.: 70-7016

Enclosure: GEH Telephone Summary

cc:	William Szymanski/DOE	Bruce Shell/New Hanover County
	Patricia Campbell/GEH	Marty Lawing/Brunswick County
	Robert Brown/GEH	George Brown/Pender County
	Tammy Orr/GEH	Bill Saffo/Wilmington
	Mike Giles/CFC	Malissa Talbert/Wilmington
	Tom Clements/FOTE	Wanda Lagoe/NCOSH
	David Springer/CFRW	Cameron Weaver/NCDENR
	Stephen Rynas/NCDENR	Emily Hughes/USACE
	Jennifer Braswell/New Hanover County	Lee Cox/NCDENR
	Christopher O'Keefe/New Hanover County	David Weaver/New Hanover County
	Lafayette Atkinson/NCOSH	Julie Olivier/GEH
	Mathew Allen/GEH	Jerald Head/GEH

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Matthew Allen/GEH	Jerald Head/GEH

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ML

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DATE	04/21/10	04/23/10	04/23/10

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Telephone Conference Call Summary

General Electric-Hitachi Uranium Enrichment Facility Seismic and Structural Responses to Requests for Additional Information

DATE AND TIME: April 14, 2010; 2:00 PM

CALL PARTICIPANTS:

T.C. Johnson/NRC	S. Hsiung/CNWRA
A. Chowdhury/CNWRA	J. Stamatakos/CNWRA
J. Olivier/GEH	S. Painter/GEH
K. Givens/GEH	L. Paulson/GEH
D. Norris/GEH	C. Enos/GEH
J. Beavers/GEH	D. Knight/GEH

On April 14, 2010, a conference call between the U.S. Nuclear Regulatory Commission (NRC) and General Electric-Hitachi (GEH) staffs was held to discuss responses to the Requests for Additional Information (RAIs) in the Seismic and Structural areas applicable to GEH's license application for a laser-based uranium enrichment facility. The RAI responses applicable to this conference call had been transmitted to NRC on December 28, 2009, and January 13, 2010.

DISCUSSION:

Seismic

NRC staff discussed the confirmation of soil liquefaction analysis results presented in the Environmental Report (RAI GI-19). GEH staff indicated that confirmation will not be possible until a geotechnical investigation is completed prior to construction. NRC staff indicated that a license condition will be included in the NRC license to request this confirmation.

For the seismic hazard assessment (ISAS-SD-7 through ISAS-SD-10), in lieu of using a probabilistic assessment to identify the 10^{-5} seismic hazard event, the applicant proposes to conduct a new deterministic seismic hazard assessment for the site. This new assessment will develop a response spectra based on the contributions of local, small magnitude events (higher spectral frequencies) and a repeat of the 1886 Charleston earthquake located within the Charleston source zone nearest to the applicant site (lower spectral frequencies). The details of these two seismic sources (local and Charleston) and the ground motion equations used to model the attenuation of earthquake energy from the sources to the site will be adopted from the existing United States Geological Survey to seismic hazard assessment. The resulting response spectra will be compared to the minimum design loads for building and structures (American Society of Civil Engineers 7, "Minimum Design Loads for Buildings and Other Structures") to show that the buildings and structures have the necessary capacity to withstand the deterministic seismic loads, and thus that seismic initiators can be screened from the Integrated Safety Analysis (ISA).

Enclosure

Structural

NRC staff discussed RAI GI-16 related to snow hazard and ISAS-SD-11 for extreme rain hazard estimations. The applicant indicated that it will characterize snow and extreme hazards using deterministic approaches that are consistent with those used for characterizing the nuclear power plant sites. The applicant further indicated that the flood hazard at the site will also be assessed using a deterministic approach. The results and summary of analyses for these hazards will be documented in the next version of the ISA Summary update and this update will be completed at the end of June 2010.

NRC staff discussed RAI ISAS-FD-1 (related to the structural analysis approach for the main processing facilities), ISAS-FD-2 (related to the conceptual structural design), and ISAS-FD-3 (related to structural load combinations). GEH staff indicated they would provide additional information in all three areas so that the reasonableness of the proposed structural analysis approach, structural design approach, and the structures of the main process building could be assessed by NRC staff. This information will include the type of seismic analysis to be used; the major analysis assumptions, such as fixed-supported structural analysis or soil-structure interaction analysis; preliminary design dimensions of the structural members; the foundation system design; load combinations for concrete members; and the structural design criteria.

ACTION ITEMS: None