

GE-Hitachi Nuclear Energy

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Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

**SUBJECT: GE-Hitachi Nuclear Energy (GEH) Planned Licensing Topical Report
For BWR Steam Dryer Load Methodology**

The purpose to this letter is to notify the NRC of GEH plans to submit a licensing topical report for a BWR steam dryer load methodology, and request a meeting to discuss the details of the methodology.

Operating experience at a BWR power plant following implementation of extended power uprate resulted in failure of a steam dryer and a main steam system component. As a result, the nuclear industry has sponsored scale model testing and developed analytical models to evaluate potential adverse steam flow effects in support of power uprate operation. Several different approaches have been used to define the steam dryer loads associated with extended power uprate operation. NRC recently issued a revision to RG 1.20 providing guidance for vibration assessment of reactor internals, including methods for evaluating the potential adverse effects from pressure fluctuations and vibrations in piping systems for both BWR and pressurized-water reactor (PWR) nuclear power plants. Lack of a consistent, approved method for defining the steam dryer load has caused delays in approval of EPU applications, and extraordinary resource expenditures by both the industry and NRC.

GEH has been extensively involved with the industry and NRC in pursuing an effective methodology to define steam dryer loads. This has been an evolving process and while substantial knowledge has been gained, a consistent, proven methodology has not yet been defined. NRC has expressed concerns with some aspects of the methodologies used by the industry and imposed large design margins on steam dryers to compensate for uncertainties.

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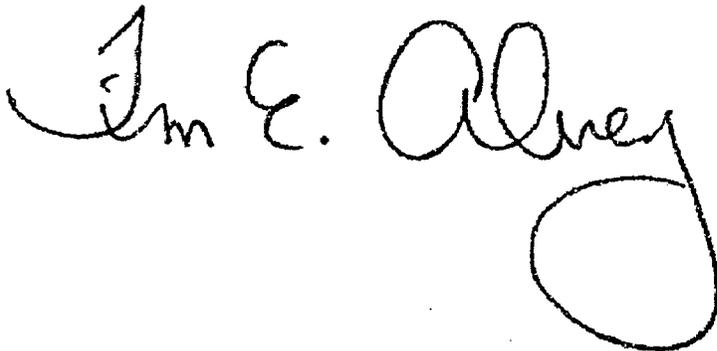
In early 2007, GEH partnered with LMS International, to assist in developing a comprehensive methodology for defining steam dryer loads. LMS, with company headquarters in Belgium, is a world leader in vibration and acoustic analyses and has done extensive work in such industries as automotive, naval surface vessels, aerospace, chemical and processing, power generation, and other industrial machinery and heavy equipment. LMS has a track record of success and a demonstrated ability to reach effective solutions to complex problems.

The current GEH/LMS work is promising and appears to address the issues with current technologies as well as the issues raised by the staff in RG 1.20. The methodology being developed is planned to meet the principles of RG 1.20, reduce the uncertainties associated with prior methodologies, address hydrodynamic loads, and eliminate the need for plant specific tuning of the load definition model.

GEH currently plans to complete the final acceptance testing and submit a topical report for staff review by the end of 2007. As such, GEH requests a meeting with the staff at your earliest convenience to discuss the proposed methodology and the topical report content.

Please contact me at (910) 675-6781 to schedule the meeting.

Sincerely,

A handwritten signature in black ink that reads "Tim E. Abney". The signature is written in a cursive style with a large, prominent loop at the end of the last name.

Tim E. Abney
Project Manger, Services Licensing

cc: J. Grobe, NRC/NRR/ADES
P. Hiland, NRC/NRR/ADES/DE
K. Manoly, NRC/NRR/ADES/DE/EMCB
T. Scarbrough, NRC/NRO/DE/CIB2
M. Honcharik, NRC/NRR/ADRO/DPR/PSP
A. Shahkarami, Exelon, BWROG Executive Chairman