

August 25, 2004

Anthony R. Pietrangelo
Senior Director, Risk Regulation Nuclear Generation
Nuclear Energy Institute
1776 I Street, N.W., Suite 400
Washington, D.C. 20006-3708

SUBJECT: INDUSTRY PROGRESS ON EFFECT OF CHEMICAL REACTIONS ON PWR
SUMP PERFORMANCE

Dear Mr. Pietrangelo:

By letter dated May 28, 2004, the Nuclear Energy Institute (NEI) submitted the outstanding sections and appendices to NEI report on sump performance evaluation methodology. The methodology is intended to help the industry and the Nuclear Regulatory Commission (NRC) resolve generic safety issue (GSI) 191, Pressurized-Water Reactor (PWR) Sump Performance. As noted in the executive summary and Section 7.4 of the methodology, NEI does not provide any guidance on the assessment of chemical effects on PWR sump performance. In the NEI sump performance evaluation methodology, NEI states that:

“Guidance to address the effects of corrosion products on head loss is deferred until the [planned] testing is completed and the data have been appropriately evaluated.

At several public meetings on the results from NRC-sponsored research and the development of NEI sump performance evaluation methodology, NRC management has identified the need for the industry to address the uncertainties associated with the effect of chemical reactions on PWR sump performance in a proactive manner. Since the ongoing test program to address these uncertainties may not be completed prior to the time that PWR licensees are expected to evaluate the performance of containment sumps and, if necessary, design solutions, NRC management has stated that it may be prudent to introduce a reasonable amount of margin in the NEI sump performance evaluation methodology to account for these uncertainties and to avoid the potential to have to make additional design changes to the sumps once the ongoing test program is complete.

In correspondence to the staff, dated, July 12, 2004, (ADAMS Accession Number ML042290564), NEI stated support for this position and mentioned that NEI is currently looking into a process to facilitate the introduction of margin to address uncertainties associated with the effect of chemical reactions on PWR sump performance. We would appreciate it if you would keep the staff informed of your ongoing activities to introduce an appropriate amount of margin into the NEI sump performance evaluation methodology.

A. Pietrangelo

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I appreciate your continued attention to this important matter. If you have any questions concerning this letter, please contact Mr. David Solorio at 301-415-0149.

Sincerely,

//RA//

Brian W. Sheron
Associate Director for Project Licensing
and Technical Analysis
Office of Nuclear Reactor Regulation

A. Pietrangelo

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I appreciate your continued attention to this important matter. If you have any questions concerning this letter, please contact Mr. David Solorio at 301-415-0149.

Sincerely,

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Brian W. Sheron
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Office of Nuclear Reactor Regulation

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