May 6, 2008

Mr. James A. Gresham, Manager
Regulatory Compliance and Plant Licensing
Westinghouse Electric Company
P.O. Box 355
Pittsburgh, PA 15230-0355

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RE: WESTINGHOUSE ELECTRIC COMPANY (WESTINGHOUSE) TOPICAL REPORT (TR) WCAP-16766-P, "WESTINGHOUSE NEXT GENERATION CORRELATION (WNG-1) FOR PREDICTING CRITICAL HEAT FLUX IN ROD BUNDLES WITH SPLIT VANE MIXING GRIDS" (TAC NO. MD7230)

Dear Mr. Gresham:

By letter dated October 26, 2007 (Agencywide Documents Access and Management System Accession No. ML073050397), Westinghouse submitted for U.S. Nuclear Regulatory Commission (NRC) staff review TR WCAP-16766-P, "Westinghouse Next Generation Correlation (WNG-1) for Predicting Critical Heat Flux in Rod Bundles with Split Vane Mixing Grids." Upon review of the information provided, the NRC staff has determined that additional information is needed to complete the review. On April 23, 2008, William Slagle, Principal Engineer, Fuel Engineering Licensing, and I agreed that the NRC staff will receive your response to the enclosed Request for Additional Information (RAI) questions by July 18, 2008. If you have any questions regarding the enclosed RAI questions, please contact me at 301-415-1119.

Sincerely,

/RA/
Jon H. Thompson, Project Manager
Special Projects Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Project No. 700

Enclosure 2 transmitted herewith contains SUNSI. When separated from Enclosure 2, this transmittal document is decontrolled."

Enclosures: 1. RAI questions (non-proprietary version)
2. RAI questions (proprietary version)

cc w/encl: See next page

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cc:
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SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RE: WESTINGHOUSE ELECTRIC COMPANY TOPICAL REPORT WCAP-16766-P, "WESTINGHOUSE NEXT GENERATION CORRELATION (WNG-1) FOR PREDICTING CRITICAL HEAT FLUX IN ROD BUNDLES WITH SPLIT VANE MIXING GRIDS"

Date: May 6, 2008

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REQUEST FOR ADDITIONAL INFORMATION

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

WCAP-16766, "WESTINGHOUSE NEXT GENERATION CORRELATION (WNG-1) FOR PREDICTING CRITICAL HEAT FLUX IN ROD BUNDLES WITH SPLIT VANE MIXING GRIDS

WESTINGHOUSE ELECTRIC COMPANY

PROJECT NO. 700

1. Define Dh, Dhm.

2. To which specific fuel designs does the WNG-1 correlation apply?

3. Describe the process for applying the WNG-1 correlation to a new fuel design (i.e., a design which the WNG-1 correlation was not previously applied to.).

4. For each specific fuel design (as identified in RAI question 2), are there any anticipated changes in grid spacer location with reference to the tested assembly for that fuel design? If yes, provide a reasoning why the change in grid spacer location is a minor change and does not constitute a new fuel design.

5. Provide justification for the use of the correlation at qualities **[ ]**.

6. Provide additional explanation related to the axial location of critical heat flux, namely the uncertainty surrounding the exact location, the effect of this uncertainty on the correlation, and the instrumentation used to capture the location.

7. Reproduce Figures 4.2-2, 4.2-3, and 4.2-4 of WCAP-16766-P for each fuel design (identified in RAI question 2). Also provide a 95/95 for each fuel design.

ENCLOSURE 1