Westinghouse Electric Company
Nuclear Services
P. O. Box 355
Pittsburgh, Pennsylvania 15230-0355
USA

Direct tel: (412) 374-3403
Direct fax: (412) 374-5139
e-mail: steinejl@westinghouse.com

Our ref: LTR-LIS-07-159

March 14, 2007

10 CFR 50.46 Annual Notification and Reporting for 2006
1999 EM and S2M

Dear Sir or Madam:

This is a summary of the 10 CFR 50.46 reporting information pertaining to the Westinghouse CE PWR Appendix K large break LOCA (LBLOCA) Evaluation Model (1999 EM) and the Westinghouse CE PWR Appendix K small break LOCA (SBLOCA) Evaluation Model (S2M) for model year 2006. The attachment to this letter provides the 10 CFR 50.46 reporting information for a process improvement to the rod-to-rod radiation enclosure selection procedure used in the 1999 EM for LBLOCA ECCS Performance Evaluations. This information was previously transmitted. There were no other changes or enhancements to the 1999 EM in 2006. In addition, there were no changes or enhancements to the S2M in 2006.

This information is for your use in making a determination relative to the reporting requirements of 10 CFR 50.46, and the attached standardized reporting page will be provided to the NRC via Westinghouse letter. The information that is provided in this letter was prepared in accordance with Westinghouse's Quality Management System (QMS).

J. L. Steiner (Electronically Approved)*
Author, LIS II

E. J. Rogers (Electronically Approved)*
Verifier, Operations Analysis

S. P. Rigby (Electronically Approved)*
Manager, Operations Analysis

Attachment (1 page)

**Electronically approved records are authenticated in the Electronic Document Management System*

Rod-to-Rod Radiation Enclosure Selection Process Improvement for the 1999 EM
(Enhancements/Forward-Fit Discretionary Changes)

Background

The Appendix K ECCS Performance Analysis for LBLOCA for CE plants is performed with the 1999 Evaluation Model (1999 EM). The hot rod heat-up portion of this analysis contains a component model for rod-to-rod radiation, which utilizes an enclosure of fuel rods. In the Evaluation Model Topical Report, the rod-to-rod radiation methodology and a related SER limitation/constraint require that a bounding radiation enclosure will be used in the analysis. Search criteria are specified in the NRC-accepted Topical Report for ensuring that these conditions are met. The process for identifying candidate limiting enclosures for the rod-to-rod radiation model includes the use of an automated survey of the core on a pin-by-pin basis. The REX Code is the utility code that executes the surveying process for identifying potentially limiting radiation enclosures for evaluation in the LBLOCA Performance Analysis.

In 2005, a problem developed with the REX code, in that inappropriate radiation enclosures for the rod-to-rod radiation model were being identified. This had the potential for adding considerable inefficiency to the reload analysis process, since all identified candidates must be dispositioned for the analysis. This problem coincided with the introduction of ZrB_2 IFBA bearing cores, which have flatter power distributions. It was found that some candidate enclosures contained target hot rods operating below the power of the average rod of the hot assembly. This result produced candidate enclosures that fall outside the range of applicability of the rod-to-rod radiation methodology and therefore are inappropriate for the analysis. The REX utility code was modified to eliminate inappropriate enclosures derived from the survey process. This modification has no impact on the final limiting enclosure used in determining PCT.

Affected Evaluation Model

Appendix K LBLOCA Evaluation Model, 1999 EM

Estimated Effect

This process improvement has no impact on the licensed methodology or on the NRC-accepted search criteria and does not conflict with the SER limitation/constraint imposed on the radiation model. There is no impact on PCT for 10 CFR 50.46 reporting purposes.