



Program Management Office  
4350 Northern Pike  
Monroeville, Pennsylvania 15146

WCAP-16793-NP  
Project Number 694

April 22, 2009

OG-09-163

Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-001

Subject: PWR Owners Group  
**Submittal of WCAP-16793-NP, Revision 1, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating" (PA-SEE-0312)**

Reference: (1) PWROG Letter, Frederick P. Schiffley to U.S. NRC Document Control Desk, Submittal of WCAP-16793-NP, Revision 0, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid," OG-07-264, June 4, 2007.

(2) NRC Letter, Peter J. Rabideau to Gordon Bischoff of the PWROG granting a fee waiver for NRC review of the report in accordance with the applicable provision of 10 CFR 170.11, June 27, 2007.

(3) PWROG Letter, Frederick P. Schiffley to U.S. NRC Document Control Desk, Responses to the NRC Request for Additional Information (RAI) on WCAP-16793-NP, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid," OG-07-477, October 31, 2007.

(4) PWROG Letter, Frederick P. Schiffley to U.S. NRC Document Control Desk, Responses to the NRC Request for Clarification to Request for Additional Information (RAI) on WCAP-16793-NP, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid," OG-08-18, January 17, 2008.

(5) PWROG Letter, Dennis Buschbaum to U.S. NRC Document Control Desk, Responses to the NRC Request for Additional Information (RAI) on WCAP-16793-NP, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid," OG-09-84, March 2, 2009.

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The Pressurized Water Reactor Owners Group (PWROG) is requesting formal review of WCAP-16793-NP, Revision 1, in accordance with the Nuclear Regulatory Commission (NRC) licensing topical report program for review and acceptance for referencing in licensing actions. The text in WCAP-16793-NP, Revision 1 has been revised to include responses to NRC RAIs issued since Revision 0 as well as additional text defining the acceptance criteria for debris mass that would not impede core inlet flow.

WCAP-16793-NP, Revision 1 provides methods and information for each PWR licensed in the U. S. that can be used to perform an assessment of the following:

- Impact of debris ingested into the ECCS to affect long-term core cooling when recirculating coolant from the containment sump.
- Debris that has been postulated to either form blockages or adhere to the cladding, thereby reducing the ability of the coolant to remove decay heat from the core.
- Chemical precipitants that have been postulated to plate-out on fuel cladding, again resulting in a reduction of the ability of the coolant to remove decay heat from the core.
- Limits on the debris mass (particulate, fibrous and chemical) that could bypass the reactor containment building sump screen and not result in unacceptable head loss that would impede core inlet flow and challenge long-term core cooling (LTCC).

This letter transmits four (4) copies of WCAP-16793-NP, Revision 1.

Correspondence related to this transmittal should be addressed to:

Mr. Anthony Nowinowski  
Manager, Owners Group Program Management Office  
Westinghouse Electric Company  
Mail Stop ECE 5-16  
P.O. Box 355  
Pittsburgh, Pennsylvania 15230-0355

If you have any questions, please do not hesitate to contact me at 254-897-5851 or Mr. Anthony Nowinowski of the Owners Group Program Management Office at 412-374-6855.

Sincerely yours,



K. Nemit Approving for D. Buschbaum

Dennis E. Buschbaum, Chairman  
PWR Owners Group

Enclosure:

WCAP-16793-NP, Revision 1, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid"

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PWROG Licensing Subcommittee  
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