

August 22, 2007

Ms. Andrea Sterdis, Manager  
Licensing and Customer Interface  
Regulatory Affairs and Standardization  
Westinghouse Electric Company  
Nuclear Power Plants  
P.O. Box 355  
Pittsburgh, PA 15230-0355

SUBJECT: WESTINGHOUSE AP1000 STANDARD COMBINED LICENSE TECHNICAL REPORT 26, AP1000 VERIFICATION OF WATER SOURCES FOR LONG-TERM RECIRCULATION COOLING FOLLOWING A LOSS-OF-COOLANT ACCIDENT (APP-GW-GLR-079), REVISION 1

Dear Ms. Sterdis:

By letter dated June 21, 2007, Westinghouse Electric Company (Westinghouse) submitted AP1000 Technical Report (TR) 26, "AP1000 Verification of Water Sources for Longer-Term Recirculation Following a loss-of-coolant accident (LOCA)," Revision 1, with the intent to complete and document on a generic basis, activities required for closure of Combined Operating License (COL) Information Item 6.3-2 in the AP1000 Design Control Document (DCD). On July 27, 2007, a telephone conference was conducted with members of Westinghouse staff to discuss TR 26. The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the report, and based upon this review and the subsequent conference with Westinghouse, the NRC staff has determined that:

- Down stream effects in the core are not addressed in TR 26. During the July 27, 2007 conference, Westinghouse acknowledged that the issue was not addressed and also stated that Westinghouse would probably not be able to rely on information that is currently under review for operating reactors.
- Westinghouse did not adequately justify the adequacy of the sump screens. Westinghouse did not reference a specific head loss correlation and did not conduct head-loss tests. When the head loss correlation was discussed, Westinghouse described the head loss correlation but was not able to establish its applicability to the AP1000. Westinghouse would need to establish applicability to the AP1000 or conduct head loss tests with a prototypical model.
- Westinghouse has referenced information regarding chemical effects that is currently under review for operating reactors. The applicability of this information to AP1000 has not been established.

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- Westinghouse has not described the break selection criteria.
- Westinghouse has not explained how flow velocities were calculated and has not justified the non-transport of all unqualified coatings and qualified coatings in the zone of influence.
- Westinghouse has not justified the loss of redundancy in the screen design.

In conclusion, the NRC staff has determined that TR 26 does not contain information that would be required to support closure of Information Item 6.3-2.

Please contact me at (301) 415-1439, if you have any other questions on this issue.

Sincerely,

**/RA/**

David H. Jaffe, Senior Project Manager  
AP1000 Projects Branch 2  
Division of New Reactor Licensing  
Office of New Reactors

Project No. 740

cc: See next page

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