



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381-2000

MAR 07 2005

10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

In the Matter of)	Docket No.50-327
Tennessee Valley Authority)	50-328
		50-390

**SEQUOYAH NUCLEAR PLANT (SQN) AND WATTS BAR NUCLEAR PLANT (WBN) -
NUCLEAR REGULATORY COMMISSION (NRC) GENERIC LETTER (GL) 2004-02:
POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION
DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER REACTORS (PWR)
- 90-DAY RESPONSE**

The purpose of this letter is to provide TVA's 90-day response to GL 2004-02 in accordance with 10 CFR 50.54(f). GL 2004-02 is a follow-on generic communication to Bulletin 2003-01 dated June 9, 2003.

GL 2004-02 requests that PWR licensees perform a mechanistic evaluation of the potential for the adverse effects of post-accident debris blockage and operation with debris-laden fluids to impede or prevent the recirculation functions of the emergency core cooling system (ECCS) and containment spray system (CSS) following all postulated accidents for which the recirculation of these systems is required.

GL 2004-02 requests two written responses:

- (1) The first response includes a description of the methodology for analysis, schedule for analysis, and whether containment walkdowns will support the analysis.
- (2) The second response will contain the results of analysis with additional details as specified in the GL, any related modification schedules, and any license amendments and/or exemption requests.

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TVA's first response for SQN Units 1 and 2 and WBN Unit 1 is as follows:

Westinghouse Electric Corporation (WEC) will perform PWR sump performance debris analysis for TVA. The agreement between TVA and WEC includes plant-specific analyses of debris generation, development of a computational fluid dynamics model of the containments to determine sump fluid velocity profiles, debris transport to the ECCS recirculation sump screens, pump head loss associated with debris accumulation, and associated affect on available net positive suction head. The results include analysis of the impact of debris that passes through the screens on components in the ECCS flow paths such as pumps, valves, and core components, and will conform to the intent of Nuclear Energy Institute (NEI) 04-07, "Pressurized Water Reactor Sump Performance Evaluation Methodology." The methodology is supplemented by design basis information and contractor proprietary information, as appropriate, to demonstrate compliance with 10 CFR 50.46, and 10 CFR 50, Appendix A, General Design Criteria 35 and 38. WEC is scheduled to provide the analysis reports by May 27, 2005.

TVA completed containment walkdowns of all three units to support the analyses. Enercon Services Incorporated (WBN) and WEC (SQN) conducted the walkdowns in consultation with TVA using the guidelines provided in NEI 02-01, "Condition Assessment Guidelines, Debris Sources inside Containment," Revision 1.

TVA is following the GL 2004-02 schedule to provide the results of the sump performance debris analyses by September 1, 2005. There are no regulatory commitments made by this letter. Please direct any questions to Rob Brown at (423) 751-7228.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 7th day of March 2005.

Sincerely,



Paul L. Pace
Manager,
Sequoyah/Watts Bar Licensing
and Industry Affairs

cc: See page 3

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