Westinghouse
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May 6, 1999

NSD-NRC-99-5832

Mr. Robert L. Pettis
Senior Reactor Engineer
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Ref.: 1. NRC Inspection Report No. 99900404/98-02, July 29, 1998
2. NRC Response to Westinghouse Reply, December 14, 1998
3. NRC Reply to Westinghouse Response, March 4, 1999
4. Westinghouse Request for Time Extension, April 7, 19[illegible]

Subject: **Response to Questions from NRC Letter of March 4, 1999**

Dear Mr. Pettis:

This letter is provided in response to NRC Inspection Report 99900404/98-02, Violation 98-02-01 (Part 1), where the NRC staff expressed a concern that the Westinghouse Ice Basket Sheet Metal Screw testing and evaluation (Ref. 2) may not bound the conditions that exist for the screws in-service at the Watts Bar Nuclear Plant (WBNP). This concern was restated in your letter of March 4, 1999 (Ref. 3).

Westinghouse witnessed the recent (2/99) shear load tests on randomly selected in-service screws from Watts Bar Nuclear Plant (WBNP) performed at the TVA Central Research Laboratories. The tests included 80 randomly selected screws from a total population of 288 screws. The total population was developed using a computer-based selection criteria to achieve a sample representative of the attributes of the installed screws. The total population consisted of twelve randomly selected screws from each of the 24 ice condenser bays. Each test specimen consisted of four (two upper basket and two lower basket) screws arranged in a butt-joint configuration with a connector plate. The joints were tested at approximately 15-20 degrees Fahrenheit to represent the service conditions. Although Westinghouse has not been provided the actual test report by TVA, from witnessing the testing, it is Westinghouse's understanding that the testing showed that failure loads exceeded the design basis loads by a factor of approximately 1.5 to 2.0, thus demonstrating that significant margin to failure against design basis loads exists in the WBNP installed ice baskets. WBNP tested single 4-screw connections and the Westinghouse test examined a single basket coupling with 33% of the screws missing. Westinghouse believes the two tests each demonstrate that significant design margin exists in as-installed sheet metal screws. The actual WBNP test report is available for NRC review at the WBNP site.

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Based on the above, Westinghouse believes that it is appropriate to close Violation 98-02-01 (Part 1), from further consideration.

Should you wish to discuss this issue further, please do not hesitate to contact me at (412) 374-5036, at your convenience.

Very truly yours,

Gary W. Whitney for

J. S. Galembush, Acting Manager
Regulatory and Licensing Engineering