

January 27, 1999

Mr. J. A. Scalice
President, TVA Nuclear and
Chief Nuclear Officer
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON RESPONSE TO GENERIC
LETTER 96-05 FOR THE WATTS BAR NUCLEAR PLANT, UNIT 1 (TAC NO.
M97118)

Dear Mr. Scalice:

On September 18, 1996, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves," to request that nuclear power plant licensees establish a program, or ensure the effectiveness of the current program, to verify on a periodic basis that safety-related motor-operated valves (MOVs) continue to be capable of performing their safety functions within the current licensing basis of the facility.

On April 28, 1998, Tennessee Valley Authority (licensee of Watts Bar Nuclear Plant, Unit 1) submitted an updated response to GL 96-05 indicating its intent to implement the provisions of a Joint Owners Group (JOG) Program on MOV Periodic Verification at Watts Bar. The NRC staff has encouraged licensees to participate in the industry-wide JOG program to provide a benefit in reactor safety by sharing expertise and information on MOV performance and to increase the efficiency of GL 96-05 activities at nuclear plants. Licensee participation in the JOG program also minimizes the amount of information necessary for the NRC staff to review each licensee's response to GL 96-05. As a result, the NRC staff requires only limited information to complete its GL 96-05 review for Watts Bar.

Attached is a request for additional information regarding the GL 96-05 program at Watts Bar. As discussed with your staff on January 25, 1999 we are requesting your response to be provided within ninety (90) days of the date of this letter.

Sincerely,
Original signed by
Robert E. Martin, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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Docket No. 50-390

Enclosure: Request for Additional Information

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WATTS BAR NUCLEAR PLANT

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REQUEST FOR ADDITIONAL INFORMATION
REGARDING GENERIC LETTER 96-05 PROGRAM

WATTS BAR NUCLEAR PLANT

DOCKET NO. 50-390

1. In U.S. Nuclear Regulatory Commission (NRC) Inspection Report No. 50-390 & 391/95-48, the NRC staff closed its review of the motor-operated valve (MOV) program implemented at Watts Bar Nuclear Plant (Watts Bar) in response to Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance." In the inspection report, the NRC staff discussed certain aspects of the licensee's MOV program to be addressed over the long term. For example, the inspectors noted that (1) the licensee agreed to review the NRC's safety evaluation and confirm the Electric Power Research Institute MOV Performance Prediction Program information that was applied to Watts Bar's Pratt butterfly valves; (2) the power-operated relief valve block valves had low thrust margins; and (3) future in-plant testing would be used to improve the long-term basis for selected valve factors, stem friction coefficients, and load sensitive behavior values. The licensee should describe the actions taken to address the specific long-term aspects of the MOV program at Watts Bar noted in the NRC inspection report.
2. The licensee indicates that its MOV static diagnostic periodic verification program will include test methods at the valve and the motor control center. Will diagnostic data be obtained for all GL 96-05 MOVs, including gate, globe and butterfly valves? If not, the licensee should describe its plans to monitor degradation in capability for those MOVs not diagnostically tested.
3. The licensee should briefly describe its plans for the use of test data from the motor control center (MCC) including (1) correlation of new MCC test data to existing direct force measurements; (2) interpretation of changes in MCC test data to changes in MOV thrust and torque performance; (3) consideration of system accuracies and sensitivities to MOV degradation for both output and operating performance requirements; and (4) validation of MOV operability using MCC testing.
4. The Joint Owners Group (JOG) program focuses on the potential age-related increase in the thrust or torque required to operate valves under their design-basis conditions. In the NRC safety evaluation dated October 30, 1997, on the JOG program, the NRC staff specified that licensees are responsible for addressing the thrust or torque delivered by the MOV motor actuator and its potential degradation. In a letter dated April 28, 1998, the licensee stated that potential actuator degradation would be identified through review and trending of actuator performance parameters. The licensee should describe the actions taken at Watts Bar for ensuring adequate ac and dc MOV motor actuator output capability, including consideration of recent guidance in Limitorque Technical Update 98-01 and its Supplement 1 in more detail.

ENCLOSURE