



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555-0001

February 18, 1994

Docket Nos. 50-313
and 50-368

Mr. Jerry W. Yelverton
Vice President, Operations ANO
Entergy Operations, Inc.
Route 3 Box 137G
Russellville, Arkansas 72801

Dear Mr. Yelverton:

SUBJECT: ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 (ANO-1&2) - RESPONSE TO GENERIC LETTER 89-10, SUPPLEMENT 5, "INACCURACY OF MOTOR-OPERATED VALVE DIAGNOSTIC EQUIPMENT" (TAC NOS. M87912 AND M87913)

On June 28, 1993, the NRC staff issued Supplement 5, "Inaccuracy of Motor-Operated Valve Diagnostic Equipment," to Generic Letter (GL) 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance," requesting nuclear power plant licensees and construction permit holders (1) to re-examine their motor-operated valve (MOV) programs and to identify measures taken to account for uncertainties in properly setting valve operating thrust to ensure operability, and (2) to evaluate the schedule necessary to consider the new information on MOV diagnostic equipment inaccuracy and to take appropriate action in response to that information. Within 90 days of receipt of Supplement 5 to GL 89-10, licensees were required (1) to notify the NRC staff of the diagnostic equipment used to confirm the proper size, or to establish settings, for safety-related MOVs, and (2) to report whether they had taken actions or planned to take actions (including schedule) to address the new information on the accuracy of MOV diagnostic equipment.

The staff has reviewed the responses, and has found that, for the most part, licensees and permit holders have been actively addressing the uncertainties regarding the accuracy of MOV diagnostic equipment. The increased inaccuracy of MOV diagnostic equipment can raise questions regarding (1) the adequacy of torque switch settings to provide sufficient thrust while not exceeding thrust or torque structural limits and (2) the capability of actuator motors at current settings. In their responses, licensees and permit holders indicated that many MOVs had the potential for underthrusting or overthrusting as a result of the higher than expected inaccuracy of MOV diagnostic equipment. Consequently, some licensees reported that MOVs have been retested, adjusted, or modified to resolve the concerns regarding the accuracy of MOV diagnostic equipment.

Entergy Operations response, dated September 30, 1993, states that ANO used the ITI-MOVATS, Inc. diagnostic system to measure thrust from 1986 to 1991, and Liberty Technology's VOTES equipment since 1991. The letter states that all MOVs whose torque switches were originally set using the MOVATS system

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have been analyzed and found operable at those switch settings using the guidance given by NUMARC in their letter of May 18, 1992 (the staff recognizes that the NUMARC letter refers to ITI-MOVATS Engineering Report 5.2).

The September 30, 1993, letter also states that most of the MOVs setup using the MOVATS system had been retested using VOTES with the remaining MOVs scheduled to be retested by June 28, 1994. The letter states that all of the VOTES data had been re-evaluated with the VOTES 2.3 software. Twenty (20) MOVs (previously identified as marginal) were found to be in an overthrust condition, but operable. An additional 26 MOVs (previously identified as non-marginal) were also found to be in an overthrust condition. The letter states that no operability concerns are believed to exist with these valves, and evaluations are scheduled to be completed by November 15, 1993. Also, evaluations for 3 MOVs with ball-screw designs (previously identified as marginal) are scheduled to be completed by December 31, 1993.

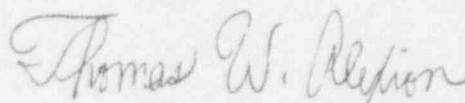
During a future inspection, the NRC staff will discuss the licensee's resolution of the MOV diagnostic equipment accuracy issue. Particularly, the staff will discuss (1) the results of the licensee's evaluation of the MOVs setup with the MOVATS system and the basis for not completing retesting until June 1994, (2) the licensee's operability evaluations of the original 20 overthrust MOVs, and (3) the status of the licensee's operability evaluations of the additional 26 overthrust MOVs.

This completes all efforts on TAC Nos. M87912 and M87913. If you have any questions regarding this issue, please contact us.

Sincerely,



George Kalman, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV/V
Office of Nuclear Reactor Regulation



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