

March 26, 1992

Docket No. 50-461

Mr. Frank A. Spangenberg  
Manager - Licensing and Safety  
Clinton Power Station  
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Dear Mr. Spangenberg:

SUBJECT: CLINTON POWER STATION - GENERIC LETTER (GL) 89-10, SUPPLEMENT 3,  
MOTOR-OPERATED VALVES (MOVS) (TAC NO. M77770)

By letters dated December 13, 1990, March 11, 1991 and February 19, 1992, you provided information responding to GL 89-10, Supplement 3, "Consideration of NRC-Sponsored Tests of MOVs" (Multi-Plant Action "B116"). The NRC staff conducted an inspection of your GL 89-10 activities from October 7 to October 11, 1991 (Inspection Report 50/461-91-019). The staff's inspection resulted in several concerns being raised related to the ability of the Reactor Water Cleanup (RWCU) system valves to perform their intended safety function of isolating a postulated pipe break downstream of these valves. Results from your re-evaluation of these and other MOVs were forwarded to the staff in your letter dated February 19, 1992.

This action closes TAC No. M77770 and MPA B116 for the Clinton Power Station. Any further staff action related to GL 89-10 will be in the context and scope of further inspections of your MOV program and any plant-specific issues that may arise.

During inspections of the GL 89-10 program, the NRC staff will confirm your assumptions and calculations for the MOVs within the scope of GL 89-10. Among the areas to be included in the staff's future MOV inspection activities are: (1) Verification that the licensee has considered the structural limits of each MOV in light of increased torque and thrust requirements and decreased diagnostic equipment accuracy; (2) verification that any reduction in thrust delivered by the actuator as a result of the "rate-of-loading" phenomenon has been considered; (3) verification that potential effects of reduced motor operator output due to high ambient temperature have been considered; (4) verification that potential effects on isolation leakage rates (if closed on limit switches) have been considered; (5) verification that assumed values for stem friction coefficients have been adequately justified; (6) verification that the assumed values of differential pressure under which MOVs may be called upon to operate are adequately justified; (7) verification that

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Mr. Frank A. Spangenberg

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consideration has been given to appropriate MOV diagnostic equipment inaccuracy; (8) verification that consideration has been given to the complete range of power supply voltages over which MOVs may be called upon to operate, and (9) verification that design basis closing stroke times are consistent with Technical Specifications and Chapter 14 accident analysis assumptions (particularly for DC motors). In addition to reviewing data from your own testing of MOVs to validate the assumptions in your switch setting methodology, you may wish to consider the MOV test data from other organizations. With respect to the review of the NRC-sponsored MOV tests by the Electric Power Research Institute (EPRI), the NRC staff agrees with the evaluation performed by the Idaho National Engineering Laboratory (INEL) provided in EGG-SSPE-9926 (November 12, 1991), "Evaluation of EPRI Draft Report NP-9926 - Review of NRC/INEL Gate Valve Test Program."

If you have any questions concerning this action, please contact me at (301) 504-1387.

Sincerely,

Original Signed By:

Anthony T. Gody, Jr., Project Manager  
Project Directorate III-3  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

cc: See next page

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