



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

December 8, 1992

Docket No. 50-298

Mr. Guy R. Horn  
Nuclear Power Group Manager  
Nebraska Public Power District  
Post Office Box 499  
Columbus, Nebraska 68602-0499

Dear Mr. Horn:

SUBJECT: CLOSEOUT OF GENERIC LETTER 89-10, SUPPLEMENT NO. 3, "CONSIDERATION OF THE RESULTS OF NRC-SPONSORED TESTS OF MOTOR-OPERATED VALVES," FOR COOPER NUCLEAR STATION (TAC NO. 77771)

On October 25, 1990, the NRC issued Supplement 3 to Generic Letter (GL) 89-10, "Consideration of the Results of NRC-Sponsored Tests of Motor-Operated Valves." By letters dated December 10, 1990, and March 11, 1991, you responded to Supplement 3, as requested, within 30 and 120 days of its receipt. By letters dated August 7, and October 15, 1991, you responded to staff requests for additional information regarding your initial responses to Supplement 3. Based on the information you provided (including planned actions), the NRC staff has not identified any immediate concerns regarding the capability of the motor-operated valves (MOVs) within the scope of Supplement 3 to perform their design basis function to isolate containment in the event of a pipe break downstream of the valves. Therefore, the NRC staff considers it appropriate for you to address the MOVs applicable to Supplement 3 as part of your GL 89-10 program and schedule, unless further information dictates accelerated action.

Among the aspects that you should address are:

- (1) the structural limits of each MOV in light of the increased thrust and torque requirements based on industry experience and research testing,
- (2) the reduction in thrust delivered by the actuator that may occur as a result of the "rate of loading" phenomenon,
- (3) the reduction of motor output that may occur as a result of high ambient temperature,
- (4) the capability of the valves to satisfy any leakage limits associated with your safety analyses when closing under design basis conditions (particularly where the torque switch is set assuming low valve factors, but is bypassed for a significant portion of the valve stroke),
- (5) your justification for the assumed valve stem friction coefficient,
- (6) your justification for the assumed differential pressure under which the MOVs may be called upon to operate in light of the intent of GL 89-10,

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Mr. Guy R. Horn

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- (7) the inaccuracy of MOV diagnostic equipment in measuring delivered torque or thrust, and
- (8) the assumed minimum voltage available to the motor as compared to your licensing commitments.

In addition to your own MOV tests, you will be expected to consider MOV tests by other organizations for information on the torque and thrust required to operate the valves under design basis conditions. You will be expected to take action to ensure MOV operability where those tests raise questions regarding the required torque or thrust estimates. 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 by the Idaho National Engineering Laboratory (INEL) provided in EGG-SSRE-9926 (November 12, 1991), "Evaluation of EPRI Draft Report NP-9226 - Review of NRC/INEL Gate Valve Test Program."

During inspections of the GL 89-10 program, the NRC staff will confirm your assumptions and calculations for MOVs within the scope of Supplement 3 as well as other MOVs within the scope of GL 89-10. As stated in NRC Inspection Report No. 50-298/92-02, the NRC has examined your program for implementing GL 98-10. Several weaknesses were identified in the program, but no valve operability concerns were identified. NPPD Management attention is warranted to correct these weaknesses to assure that your program is implemented according to your commitments to GL 89-10. The implementation of these commitments will be examined in future inspection activity.

This concludes the NRC staff licensing actions with regard to Supplement 3 to GL 89-10, and closes TAC No. 77771. If you have any questions regarding this issue, please contact me.

Sincerely,

ORIGINAL SIGNED BY:  
Harry Rood, Senior Project Manager  
Project Directorate IV-1  
Division of Reactor Projects - III/IV/V  
Office of Nuclear Reactor Regulation

cc: See next page

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concurrence

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ACRS (10)(P315)

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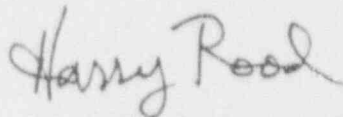
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Harry Rood, Senior Project Manager  
Project Directorate IV-1  
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Cooper Nuclear Station

cc:

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