



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

August 8, 1990

Docket No. 50-346

Mr. Donald C. Shelton  
Vice President - Nuclear  
Toledo Edison Company  
Edison Plaza - Stop 712  
300 Madison Avenue  
Toledo, Ohio 43652

Dear Mr. Shelton:

SUBJECT: RESPONSE TO GENERIC LETTER 89-10, "SAFETY-RELATED MOTOR-OPERATED VALVE (MOV) TESTING AND SURVEILLANCE" (TAC NO. M75654)

On June 28, 1989, the NRC issued Generic Letter (GL) 89-10 requesting the establishment of a program to ensure the operability of all safety-related MOVs under design basis conditions. The program in GL 89-10 significantly expands the scope of the program outlined in NRC Bulletin 85-03 and its supplement.

The schedule provided in the generic letter requested that a description of your MOV program be available for review by June 28, 1990, or the first refueling outage after December 28, 1989, whichever was later. Due to delays in issuing Supplement 1 of the generic letter, the staff has decided to delay inspections until at least January 1, 1991. Therefore, your program description need not be available on site until January 1, 1991, or the first refueling after December 28, 1989, whichever is later. Information that should be contained in your program description was discussed during the workshops held in September 1989 and is provided in Supplement 1 to the generic letter. As your MOV program is developed, justification for any differences between your program and the generic letter exemplified by Supplement 1 should be incorporated into your program description.

On January 5, 1990, you submitted a response to GL 89-10, regarding the Davis-Besse Nuclear Power Station. Several comments on your submittal are provided below.

In the cover letter to your January 5 submittal, you requested the NRC staff to respond to a letter dated November 17, 1989, from T.E. Tipton, Nuclear Management and Resources Council (NUMARC), to T.E. Murley, NRC, requesting clarification of several aspects of the generic letter. On January 29, 1990, J.E. Richardson, NRC, responded in a letter to T.E. Tipton, NUMARC. In that letter the staff discussed the points raised by NUMARC and indicated that the results of the public workshops would provide additional information.

In your response to Item c of the generic letter, you indicate that you had performed some tests of MOVs under design-basis conditions. The selection of valves for testing under design-basis conditions was said to have been based

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on the appearance of lowest valve capability and highest thrust requirement. You then state that you are "currently evaluating any further flow testing that may be possible." We interpret this to mean that you will apparently rely on static or partial flow tests with diagnostics for those MOVs that will not be tested under design-basis conditions. As you are aware, recent research results reveal that it is difficult to anticipate which valves will have the least capability and highest thrust requirement. Furthermore, research results and operating experience have found that tests at static conditions do not always demonstrate that a MOV will operate under design-basis conditions. For these reasons, the staff recommends that you test MOVs in situ under full flow and differential pressure design basis conditions, where practicable. For MOVs that cannot be tested in this manner, you should attempt to demonstrate the capability of those MOVs using alternative methods. Where alternative methods cannot be adequately justified at this time, the staff recommends you use the "two stage" approach discussed at the workshops.

In your response regarding the generic letter schedule, you indicate that you have implemented and completed the provisions of the generic letter with the apparent exception that testing of MOVs under design-basis testing is not always performed where practicable. You also state that you do not believe the 5-year or three-refueling outage schedule for completion of the initial program to be realistic if design-basis testing is to be performed. The staff recommended that MOVs be tested in situ under design-basis conditions, where practicable, because of the concerns regarding the extrapolation of test data from static conditions and the applicability of test data from one MOV to another. The staff considers the need to complete the initial program within 5 years to be important. Also important, however, is the need to conduct the program in a manner that provides adequate confidence that the MOVs will perform their safety functions. Therefore, the staff requests that you provide an estimated schedule for completion of the initial program as described in the generic letter and discussed at the workshops.

In reference to your response to item d of the generic letter, the staff recommends that you provide a description of your methodology for the periodic verification of MOV switch settings in your program description.

Your program description should be retained on-site for possible further NRC staff review.

Sincerely,

Original signed by John N. Hannon for/  
M. D. Lynch, Sr. Project Manager  
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Division of Reactor Projects - III,  
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Office of Reactor Regulation

cc: See next page

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