CENTERIOR ENERGY

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Subject: Response to Inspection Report Number 50-346/92010

Gentlemen:

Toledo Edison (TE) has received Inspection Report 92010 (Log Number 1-2721) dated August 20, 1992, and provides the following response.

Deviation
92010-03: Generic Letter (GL) 89-10, Supplement 1, Question 37, recommended that motor-operated valves (MOVs) should be tested as close to design basis conditions as practicable and, if necessary, later demonstrated operable under design-basis conditions when test data applicable to those conditions becomes available. The January 5, 1990, and November 6, 1990, responses to the GL did not take exception to this recommendation.

Contrary to the above, as of July 29, 1992, Davis-Besse did not plan to perform differential pressure and flow testing for some MOVs where a differential pressure of at least 70% of design basis could not be achieved.

Response: Reason for the Deviation

On June 28, 1989 (Log Number 2984), the NRC issued GL 89-10, "Safety Related Motor-Operated Valve Testing and Surveillance", to all licensees of Nuclear Power Plants. Item c under "Recommended Actions" stated, in part, "the MOV should be demonstrated to be operable by testing it at the design-basis differential pressure and/or flow determined in response to Item a. Testing MOVs at design-basis conditions is not recommended where such testing is precluded by the existing plant configuration". Item f of the "Recommended

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Actions" states, in part, "Alternatives to testing a particular MOV in situ at design-basis pressure or flow, where such testing cannot practically be performed, could include a comparison with appropriate design-basis test results on other MOV's, either in situ or prototype. If such test information is not available, analytical methods and extrapolations to design-basis conditions, based on the best data available, may be used until test data at design-basis conditions become available to verify operability of the MOV."

In a January 5, 1990 letter (Serial Number 1748), in response to Item c, TE stated that, "Toledo Edison can not test all MOV's under full flow test conditions. Approximately 40 out of 165 safety related valves have been tested at maximum differential pressure with 10 of these valves being tested under full flow conditions . . . Toledo Edison is currently evaluating any further flow testing that may be possible. It is expected that only approximately 35% of the MOV population will be testable under these conditions."

On June 13, 1990 (Log Number 3260), the NRC issued Supplement 1 to GL 89-10, "Results of the Public Workshops." This letter was issued subsequent to TE's initial response to GL 89-10. The response to question 37 of this letter provided further clarification as to acceptable testing methods for MOVs. No response to this letter was required from Toledo Edison.

On August 8, 1990 (Log Number 3300), the NRC staff reviewed TE's response to Generic Letter 89-10 and recommended the use of the "two stage" approach for testing of MOVs as described in the GL and GL 89-10, Supplement 1 unless alternative means could be justified. No response to this recommendation was requested, however, TE was requested to provide a schedule for completion of the MOV testing program. Toledo Edison provided the requested information by letter dated November 6, 1990 (Serial Number 1870).

Based upon the above correspondence, TE developed an MOV Program Manual. In the section of the manual entitled "Testing", TE stated, "Dynamic testing is performed as close to limiting conditions as possible. Davis-Besse has evaluated all of its Generic Letter 89-10 valves for applicability of full flow testing. The results of this evaluation indicate that at the present time approximately 32% of Generic Letter 89-10 MOVs can be tested at 70% of limiting conditions. Although additional valves may be tested, it is felt that test conditions less than 70% of limiting conditions may not yield data that can be extrapolated."

The 70% criterion mentioned above was intended to be used as a test scheduling tool by TE. Data obtained from this testing would be used in analyses to justify whether or not further testing was necessary. Additional testing would be scheduled and performed in the event useful data was not available. This data would also be used to analytically assure operability of valves that could not be tested. Toledo Edison believed this position to be consistent with the approach given by the NRC in GL 89-10 and GL 89-10, Supplement 1 (See NRC response to questions 22, 24-28 and 37).

During July of 1992, the NRC conducted its routine safety inspection of TE activities in response to GL 89-10. The inspectors revieved the MOV Program Manual, which identified valves to be differential pressure tested. The NRC inspection team was advised that the initial criterion for testing was based on the ability to achieve a nominal 70% of design basis differential pressure and/or flow. Valves in which this value could not be achieved would be evaluated after testing of those valves that met the 70% criterion. At that time, testing of valves that did not meet the 70% criterion was not scheduled. It was TE's intent to schedule these valves for testing, if necessary, during Cycle 9 and the Ninth Refueling Outage (9RFO) based upon results of testing during the Eighth Refueling Outage (8RFO). This approach is consistent with the "two-stage" approach identified by the NRC in their August 8, 1990 letter (Log Number 3300).

Corrective Actions Taken and Results Achieved

By using the prioritization method described above, TE continues to be committed to testing as practicable as stated in its letter dated November 6, 1990 (Serial Number 1870).

The approach to testing described above, and TE's understanding of its commitments with regard to the MOV program were discussed with Region III Management on August 20, 1992.

Revisions to the MOV Program Manual necessary to incorporate the approach to testing described above were implemented on September 14, 1992.

Corrective Steps To Avoid Future Deviations

Toledo Edison will continue to determine the most appropriate and feasible methods of MOV testing to obtain useful test data. Toledo Edison plans to work to analytically model the MOVs, with those MOVs believed to have the smallest margins receiving highest priority. The

valve manufacturers' dimensional tolerances, or if warranted actual dimensions, will be input into the analytical model and valve performance will be verified by testing, where practical. This represents a "two-stage" approach using the latest engineering principles as described in GL 89-10 and GL 89-10, Supplement 1. It is anticipated that TE will complete valve testing from which useful data is expected to be obtained by the end of 9RFO as originally committed. By this date, adequate technical justification will be provided for valves that cannot be tested. Toledo Edison also intends to use data from prototype MOV testing sponsored by the Electric Power Research Institute (EPRI) under the valve performance prediction program. The EPRI efforts in prototype testing are expected to be completed in early 1994.

Date Corrective Actions Will Be Completed

The corrective steps described above will be completed by the end of 9RFO, currently scheduled for the fall of 1994.

Should you have any questions or require additional information, please contact Mr. Robert W. Schrauder, Manager - Nuclear Licensing, at (419) 249-2366.

Very truly yours,

NKP/dlc

cc: A. B. Davis, Regional Administrator, NRC Region III
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