

300 Madison Avenue
Toledo, OH 43652-0001
419-249-2300

John P. Stetz
Vice President - Nuclear
Davis-Besse

Docket Number 50-346

License Number NPF-3

Serial Number 2247

September 16, 1994

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Subject: Response to NRC Generic Letter 89-10, Supplement 6,
"Information on Schedule and Grouping, and Staff
Responses to Additional Public Questions"
(TAC No. M75654)

Gentlemen:

The purpose of this letter is to provide updated information with regard to Toledo Edison's (TE's) commitments pursuant to NRC Generic Letter (GL) 89-10. This information involves clarification of the schedule for completion of the Motor Operated Valve (MOV) initial testing program for the Davis-Besse Nuclear Power Station (DBNPS) and clarification of changes to the planned scope of individual MOV testing.

Supplement 6 to GL 89-10, dated March 8, 1994 (Log Number 4170), requires licensees that intend to modify their current commitments to GL 89-10 and extend their schedule for completion of the GL 89-10 test program to provide the NRC staff with certain information. Specifically, the completion status of the GL 89-10 program as of the current commitment date and information on those MOVs whose capability will not be verified by dynamic testing by the current commitment date is required to be submitted.

By letters dated November 8, 1990 (Serial Number 1870) and September 21, 1992 (Serial Number 1-995), TE committed to completing the Davis-Besse Nuclear Power Station (DBNPS) MOV initial testing

Operating Companies:
Cleveland Electric Illuminating
Toledo Edison

9409270173 940916
PDR ADDCK 05000346
PDR

AD64 11

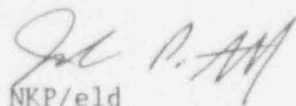
Docket Number 50-346
License Number NPF-3
Serial Number 2247
Page 2

program by startup from the ninth refueling outage (9RFO), which is scheduled to begin on October 1, 1994. Prior to 9RFO, approximately 50 percent of the dynamic tests and 60 percent of the static tests scheduled for the initial test program will be completed. Dynamic testing which is practicable and meaningful to conduct is expected to be completed within the previously committed time frame. In addition, valves within the scope of the GL 89-10 program will, as a minimum, be setup and tested under static conditions. Initial evaluations for continued operability for the tested MOVs will also be completed by the committed date. Upon completion of these activities, the functionality of these valves will be established using the best available information. However, additional time will be required to complete more detailed evaluations and preparation of closure justification packages.

Information on the planned extent of testing and information to be contained in the evaluations mentioned above is provided in the attachment to this letter. Additionally, data obtained from the testing will be used as input into valve performance prediction models to predict valve performance under design basis conditions. Since these models are not yet available for use, the extension of the evaluation schedule is justified. Completion of these activities is expected by April 1, 1995. Deficiencies identified during the detailed evaluations will be evaluated and corrected within the scope of the DBNPS corrective action program, which will include an evaluation of MOV operability. Corrective actions or additional testing deemed necessary as a result of the detailed evaluations will be completed no later than the end of the tenth refueling outage.

Should you have any questions or require additional information, please contact Mr. William T. O'Connor, Manager - Regulatory Affairs, at (419) 249-2366.

Very truly yours,


NKP/eld

Attachments

cc: L. L. Gundrum, NRC Project Manager
J. B. Martin, Regional Administrator, NRC Region III
S. Stasek, DB-1 NRC Senior Resident Inspector
Utility Radiological Safety Board

TOLEDO EDISON TESTING AND EVALUATION PHILOSOPHY

The following information provides clarification as to the general philosophy with regard to the extent of testing and content of evaluations necessary to complete the initial MOV testing program pursuant to NRC Generic Letter (GL) 89-10. Note that the dynamic testing philosophy is more comprehensive than was specified in TE's letter dated November 8, 1990 (Serial Number 1870).

Dynamic Testing Philosophy

It is the philosophy of Davis-Besse Nuclear Power Station (DBNPS) to dynamically test motor operated valves in the GL 89-10 program which are practicable and meaningful to test.

The dynamic test conditions are established as close as possible to design basis conditions. A test is considered not practicable if:

- 1) The test would place the plant in conditions outside Technical Specification limits;
- 2) Test line-up or conduct may endanger personnel or result in unacceptable equipment reliability;
- 3) A plant modification is required to perform the test; or
- 4) Interlocks must be defeated to perform the test.

A test is not considered meaningful if the results would provide little or no information in addition to that obtained in a static test.

Examples of tests which are not meaningful include:

- 1) Test conditions would be at insufficient differential pressure or flow to provide reliable data extrapolation to design basis conditions;
- 2) Dynamic test data is expected to differ little from static test data; or
- 3) Diagnostic test equipment cannot be used (i.e., stem or ambient temperatures are beyond the capability of the equipment).

The Davis-Besse MOV Valve Basis Document will provide documentation of which valves will be tested dynamically. It will also provide justification for those valves which will not be dynamically tested.

MOV Performance Evaluation Philosophy

It is the philosophy of the DBNPS that the valves included in the GL 89-10 program will be evaluated to verify their design basis capability in accordance with the general guidelines described below.

- 1) All valves subject to the GL 89-10 program will be tested under static conditions. As part of the static test, the valve's thrust values will be verified (and adjusted if necessary) to be within the limits established by the valve-specific calculations for static conditions. These calculations use conservative assumptions for valve parameters (e.g., valve factor, stem factor, etc.; based upon the best available industry information) and predict valve performance under design basis conditions. Static tests will be completed for each valve prior to startup from ninth refueling outage (9RFO).
- 2) Valves meeting the criteria described earlier for further testing will be dynamically tested. Data obtained from dynamic testing will be used in an initial evaluation of the valve's performance. The initial evaluation will be completed prior to returning a valve to service. The initial evaluations are intended to validate valve performance predictions obtained from the valve-specific thrust calculations. The initial evaluations provide reasonable assurance, in a timely manner, that a valve will be capable of performing its designated function under design basis conditions. Since all practicable and meaningful dynamic testing will be completed by startup from 9RFO, these initial evaluations will also be completed.
- 3) After completion of testing, a final evaluation will be performed for each valve. The final evaluations will involve the following activities, as required:
 - a) Revision of valve thrust calculations;
 - b) Comparison of test results with results of similar valve testing, both for industry and DBNPS testing; or
 - c) Comparison of test results with the Kalsi Engineering computer model. This computer model was developed as part of the Electric Power Research Institute valve test program and will be used to predict DBNPS specific valve performance under design basis conditions using best available data.

These final evaluations will serve as a basis for closure of the testing activities for each valve. Based upon experience gained during valve testing at DBNPS, the final evaluations are not expected to negate the results of the initial evaluations. However, deficiencies identified during these evaluations will be evaluated and corrected in accordance with the DBNPS corrective action program, which will include an evaluation of MOV operability. Should additional testing or corrective actions be warranted as a result of the final evaluations, they will be completed no later than the end of the tenth refueling outage (10RFO).

With the planned scope of testing during 9RFO, sufficient in-house resources are not available to perform the detailed final evaluations during 9RFO. In addition, the Kalsi Engineering computer model is presently undergoing verification and validation, and is therefore not yet available for use. As such, the final evaluations for all valves in the GL 89-10 program will not be completed until April 1, 1995.

Docket Number 50-346
License Number NPF-3
Serial Number 2247
Enclosure
Page 1 of 1

RESPONSE TO GENERIC LETTER 89-10, SUPPLEMENT 6


FOR

DAVIS-BESSE NUCLEAR POWER STATION

UNIT NUMBER 1

This letter is submitted pursuant to 10 CFR 50.54(f). Enclosed is Toledo Edison's response to Generic Letter 89-10, Supplement 6 (Serial Number 2247), "Information on Schedule and Grouping, and Staff Responses to Additional Public Questions"

By:


John P. Stetz
Vice President - Nuclear

Sworn and subscribed before me on this 16th day of September, 1994.


Notary of the Public

EVELYN L. DRESS
Notary Public, State of Ohio
My Commission Expires 7/28/99