

Docket No. 50-346

License No. NPF-3

Serial No. 1-352

April 29, 1983



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Mr. C. E. Norelius, Director  
Division of Engineering and Technical Programs  
United States Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Dear Mr. Norelius:

Toledo Edison acknowledges receipt of your March 8, 1983 letter (Log No. 1-747, Inspection Report No. 50-346/83-01), summarizing the inspection activities at Davis-Besse Nuclear Power Station, Unit 1. The inspection report contains a Notice of Violation with items of non-compliance in the areas of operability determination, document control, and maintenance activities.

The items of non-compliance raised concern within Region III, which resulted in an Enforcement Conference at Davis-Besse on March 9, 1983. At the Enforcement Conference, Toledo Edison outlined several programs aimed at improving the areas of concern. This letter addresses the items of non-compliance in Inspection Report 83-01 and formally submits to you the programs outlined at the March 9, 1983 Enforcement Conference.

Your March 8, 1983 letter also outlines two areas of concern to which you requested a response. Toledo Edison's response to the items of concern is as follows:

Concern: Toledo Edison did not adequately implement the corrective actions related to drawing control, which were discussed during the Management Meeting on January 21, 1982.

Response: Following the January 21, 1982 meeting, Toledo Edison undertook several structural and procedural changes within the drawing control organization aimed at ensuring that drawings accurately reflected the changes made to the facility during the 1982 refueling outage. As time went on it became apparent that additional changes were necessary and the program was scrutinized to determine which areas required further change. This was underway prior to the

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NRC's notification of the Enforcement Conference and the program changes to be made as a result of this effort are outlined in our response to the items of non-compliance concerning document control.

Concern: Reportable Event, LER 81-045, was not reported in a timely fashion.

Response: Although Toledo Edison realizes that the determination of inoperability of the blowout panels took an inordinately long time to complete, once the determination was made, the LER was submitted in a timely fashion. The series of circumstances leading to the delayed determination were unique and not procedural in nature. Therefore, we do not plan to make additional changes at this time. The need for timely tracking and followup of outstanding corrective actions associated with the LER was reviewed and emphasized to those involved with this evaluation.

The following are Toledo Edison's responses to the items of violation listed in Inspection Report 83-01.

1. Violation: Technical Specification 6.8.1 requires that written procedures be established, implemented and maintained.

Administrative Procedure AD 1844.00 "Maintenance" enclosures 14 and 15 require that changes to the plant be documented in plant drawings.

Contrary to the above, plant drawings were not updated to reflect plant changes resulting from FCRs 79-317, 79-078, 80-091 Supplement 6, 80-131 Supplement 3, 77-386 Supplement 0 and 7, 79-221 Supplement 0-7, 79-439, and 80-115.

5. Violation: 10 CFR 50 Appendix B, Criterion VI, states in part, "Measures shall be established to control the issuance of . . . drawings, including changes thereto, which prescribe all activities affecting quality. These measures shall assure that documents, including changes . . . are distributed to and used at the location where the prescribed activity is performed."

Administrative Procedure AD 1844.05, "Control of Drawings and Instruction Manuals," requires that drawing changes be affixed to the controlled drawings at the radwaste panel.

Contrary to the above, of 154 DCNs/FCNs that should have been attached to controlled "M" drawings at the radwaste panel, only 70 were attached.

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Response: (1) Corrective action taken and results achieved:

- A. Statusing of the referenced Facility Change Requests (FCR's) was initiated to assure that drawings reflected the as-built condition. These FCR's will be given priority in our overall status efforts.
- B. The Radwaste Panel drawing stick was brought to the drawing room and completely updated and verified.
- C. An interim program was established whereby the Administrative Assistant to the Shift Supervisor brought the drawing stick to the drawing room for revision. Since that time, a drawing clerk was badged to enable her to maintain the Radwaste Panel drawings at the existing location. This also allows for immediate updating of these drawings whenever changes are received.
- D. To correct the problem of Design Change Notices (DCN's) falling off the Radwaste Panel drawings, which are used extensively by the equipment operators, we have provided a separate file of the 11 key drawings identified as being high usage at the Radwaste Panel. These 11 drawings are maintained in a separate file so the operators can use them without having to handle the full set of drawings.
- E. To reduce the amount of DCN's attached to drawings Toledo Edison has reviewed all P&ID's and has instructed the firm performing drawing generation and revision (Bechtel Power Corp., Gaithersburg, MD) to update a P&ID when the number of sheets of design change notices attached to it reaches a total of five (5). A program is in place within the Engineering Administration department to inform Bechtel when a drawing is to be updated. This updating process will take no more than 90 days from notification. An initial list of high interest drawings other than P&ID's is being prepared and will be sent to Bechtel by May 2, 1983. This list will be used by Bechtel to plan the process of updating these drawings.

- (2) Corrective action taken to avoid further non-compliance:

On March 1, 1983, the Nuclear Engineering Administration Department was formed. One of the primary responsibilities of the Nuclear Engineering Administration Manager is Design Document Control. The Manager's highest priority is the resolution of problems related to drawing control.

- A. Effective March 1, 1983, a Task Force was formed and charged with the responsibility of:

- i. Ensuring that drawings in use reflect current Station status.
- ii. Determining where the Toledo Edison drawing control and distribution system could be improved.

This ad hoc Task Force is chaired by a member of the Nuclear Mission appointed by the Mission Vice President. Task Force members were selected by members of the Nuclear Mission staff and represent the Davis-Besse Station, Nuclear Facility Engineering, Nuclear Services (Licensing), Nuclear Safety, and Quality Assurance. To keep Toledo Edison upper management informed of projects status activities, the Drawing Control Task Force Chairman will submit a written report providing status and recommendations to the Mission Vice President monthly. The NRC Resident Inspector and Quality Assurance Director will be on the distribution of this document.

- B. All drawing room clerks were required to read AD 1848.05 (Control of Drawings and Instruction Manuals) after which their activities and responsibilities were discussed in detail with their supervisor. The existing drawing control procedure will be revised as appropriate drawing control task force recommendations are received. In addition, a program is being established to keep the drawing clerks knowledgeable of drawing control procedure changes as they occur.
- C. Effective March 7, 1983, the Administrative Coordinator was assigned to monitor and coordinate the progress of the document control program within the station. His written monthly reports to the Station Superintendent will detail current status on document control efforts. The

NRC Resident Inspector and Quality Assurance  
Director will be on distribution of this document.

- D. Toledo Edison has initiated a program to verify the accuracy of all drawing indices. Procedures for performing this verification and for keeping the indices current will be in place by May 2, 1983, with program completion by December 31, 1983. This activity will be performed by appropriately trained temporary personnel under the direction of the Engineering Administration Department, which has primary responsibility for drawing control. The priorities for index verification are as follows:

i.	DCN Index	8/1/83
ii.	Alpha Index	9/1/83
iii.	FCN Index	10/1/83
iv.	Drawing Log	11/1/83
v.	VDCN Log	12/1/83
vi.	Vendor Drawing Log	12/31/83

- E. The station drawing control clerks will update all controlled drawings within the protected area. Technical Support Center drawings will be distributed and updated by Nuclear Engineering Administration. All other controlled drawings outside the protected area will be distributed by Nuclear Engineering Administration and updated by the using organization. This program will be in place by May 15, 1983.
- F. A determination of the status of all open accessible FCR's, with revision of drawings to reflect as-built condition, will be completed by August 1, 1983. Revision of drawings to reflect the as-built condition will consist of attaching as-built DCN's to their appropriate drawings.

All FCR's requiring access to containment for as-built verification will be identified prior to the start of the 1983 refueling outage. Walk downs will be performed during the outage. The date by which the applicable drawings will reflect the as-built condition will be determined when the walkdowns have been completed.



- G. Quality Assurance will monitor this program to ensure the corrective action is accomplished in accordance with the provisions of this response and the Toledo Edison Nuclear Quality Assurance Program.

- (3) The date when full compliance will be achieved.

The compliance date for individual items in the action plan are discussed in part 2 of this response.

2. Violation: 10 CFR 50 Appendix B, Criterion XVI, requires that measures be established to assure that conditions adverse to quality are identified and corrected and, in the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude repetition.

Contrary to the above, the cause was not determined for the following significant conditions adverse to quality:

- a. Spurious closure of the suction valve to Auxiliary Feedwater Pump No. 1 in September 1982, and
- b. Significant steam flow through closed Main Steam Isolation Valve No. 2 in January 1983.

- Response: (1) Corrective actions taken and results achieved:

- A. Toledo Edison has investigated both of the above occurrences as documented in LER NP-33-82-49 and LER NP-33-83-06. No cause was determined for the failure of the two items.
- B. The electrical control circuitry for both FW 786 and FW 790 was thoroughly checked under direction of the Facility Engineering Department. No problems were identified and due to the design of the circuitry, it was concluded that the control room switch might have been inadvertently pressed. Protective covers were installed to prevent these switches from being accidentally actuated.
- C. Main Steam Isolation Valve (MSIV) MS-100 was completely disassembled and no specific problems were found.
- D. Toledo Edison Operations, Maintenance, Engineering, and Nuclear Safety Departments, as well as the vendor, were tasked with the review of possible

causes and with reviewing the present status of MS 100 for proper function. The results of these efforts are contained in the referenced LER.

- E. The MSIV maintenance procedure was identified to be revised by August 1, 1983, to specify all critical dimensions which are to be set and/or recorded during maintenance.
  - F. Following maintenance on MS 100, the valve was tested for leakage using compressed gas before heatup and then tested with steam after heatup to insure that it functioned as designed.
- (2) Corrective action to be taken to avoid further non-compliance.

Toledo Edison is conducting a complete review of its maintenance program and the following action plan is being established to facilitate improvements in the control of maintenance activities.

- A. The Maintenance Department staff was briefed on the importance of using "as found" data in determining causes of equipment failures and malfunctions.
- B. A Maintenance Specialist has been assigned to coordinate the responses to various maintenance related audit findings and commitments. This is being done to reduce the number of late commitment responses and to insure that proposed resolutions are followed to satisfactory completion.
- C. The Davis-Besse Administrative Coordinator has been assigned, on a temporary basis, to assist both the Maintenance Engineer and Maintenance Specialist in monitoring administrative activities and establishing new administrative controls.
- D. A separate electrical group is being established within the Maintenance Department. At the present time this electrical staff is being augmented using contractor personnel on a temporary basis. It is planned to bring this group under the direction of a permanent Lead Electrical Support Engineer who will be hired by January 1, 1984.

- E. To better distribute the work load within our recently formed Maintenance Planning Group, two additional planners and two data clerks will be permanently added to the staff by August 1, 1983. Here again, the present staff is being augmented on a temporary basis with contract personnel, until our additional permanent employees are in place.
- F. Toledo Edison is implementing, on a corporate wide basis, the Kepner-Tregoe Problem Solving and Decision Making Program. The Kepner-Tregoe Program is designed to improve the application of problem solving and decision making skills in daily job situations. The program has proven to give practical insights into common sense approaches for coping with the kinds of concerns faced on everyday jobs. All Nuclear Mission Maintenance management personnel are scheduled to complete the Kepner-Tregoe program by January 1, 1984.
- G. Management techniques used for other company management personnel are being extended to the foreman level. Establishment of performance standards, goals, and objectives for each of them will be completed during the next year as their annual reviews are held.
- H. Management will become more involved in observation of daily activities through the cleanliness-material inspection program which will be instituted in May, 1983, through AD 1835.00 (Plant Cleanliness Inspection Program), and through a Job Observation Program, which will be implemented by June 1, 1983.
- I. The Maintenance Engineer will issue a Standing Order to the Maintenance Department which will give further direction on the conduct of maintenance. This Standing Order will include requirements to review and conduct maintenance activities with special emphasis on identifying the causes of equipment failures, trending, and identification of possible generic problems. Additional emphasis will be placed on the fact that all equipment, especially safety related, is to be maintained in a state of good repair. The Standing Order will be issued by June 2, 1983, and further amplified within each individual's goals and objectives.



- J. The Maintenance Department has formed a pilot program called "Quality Circles" in the Mechanical Group. This program is designed to give more worker involvement in the conduct of their work to improve its quality. We are optimistic that this will be successful and will be expanded through the Company.
- K. An improved Preventative Maintenance Program under the direction of a coordinator has been established combining the Mechanical, Electrical, and I&C Preventative Maintenance into one system. A feedback system has been included to further increase the program effectiveness. The program includes a Master PM schedule and special work order numbering sequence for easy recognition. Future planned improvements to the Preventative Maintenance Program will include expanded vibration analysis/trending, a valve repacking/repair program, expanded lube oil analysis/trending, and expanded valve motor operator inspections. These planned improvements will be in place by the end of 1983.
- L. Toledo Edison is planning to implement the initial phases of the Davis-Besse Maintenance Management System (DBMMS) by the end of 1983. DBMMS is a combined information tracking and scheduling system consisting of five conversion units. Each unit is interrelated and is intended to assist in the control and tracking of maintenance activities. This system includes a computerized information access system which will be utilized by our Maintenance Planning Group to improve station work flows. Further, the DBMMS Program will provide easier access to design and nameplate data, automatic work order generation and tracking, as well as an activities tracking program including Facility Change Request (FCR) status.
- M. In the past year, additional training of various Maintenance Department management personnel was established to further improve the conduct of maintenance. Our Training Department established a program designed to acquaint new engineers with plant systems, technical specifications and health physics procedures. This is a 240 hour self taught course which utilizes Station Technical Specification procedures, and system study guides along with a Computer Lesson Plan and Testing

Program. Currently five Maintenance and seven I&C personnel are enrolled in or have completed the program.

- N. A required reading program for the Maintenance Department staff and shops has been established which ensures dissemination of appropriate procedure changes and provides for annual review of Standing Orders, Special Orders, and Administrative Memorandums. The program is administered by the Training Department which ensures that the assigned reading is acknowledged. Training facilities and dedicated Maintenance Instructors have been established for electrical, mechanical, and I&C groups. This plan includes training on technical skills, as well as administrative requirements.
- O. All Maintenance personnel will be instructed in the requirements of conducting maintenance, with an emphasis on their responsibilities of documentation of work performed, and evaluation of equipment malfunction before the start of physical work. The training conducted will include procedural changes to AD 1844 and DBMMS. The training indicated above will be completed by May 9, 1983.
- P. Communications within the Maintenance Department will be improved by regular meetings between managers, supervisors, and shop personnel. This will be in effect by July 1, 1983, and will provide a regular forum for the dissemination of information, policy, and problems; both up and down our organization.
- Q. Quality Assurance will monitor this program to ensure the corrective action is accomplished in accordance with the provisions of this response and the Toledo Edison Nuclear Quality Assurance Program. In addition, Quality Assurance will increase its surveillance of the day-to-day activities of the Maintenance Department.

- (3) The date when full compliance will be achieved.

The compliance date for individual items in the action plan are discussed in part 2 of this response.

3. Violation: 10 CFR 50 Appendix B, Criterion XV, requires that nonconforming items be identified, documented, reviewed, and accepted, rejected, repaired, or reworked in accordance with documented procedures.

Toledo Edison Nuclear Quality Assurance Manual approved January 3, 1983, Section 15.1.3 requires that nonconformances discovered during installation or surveillance activities are documented on a Nonconformance Report. Section 5.15.1, dated October 22, 1980, required the identification, documentation, segregation, review, disposition, and notification of affected organizations of nonconforming items.

Contrary to the above:

- a. Nonconformances found during installation and surveillance are routinely not identified, documented, and handled as nonconformances.
- b. On December 8, 1981, it was discovered by a QC inspector that "explosion" release fasteners should have been installed on the blow out panels repaired on July 30, 1981, instead of the standard aluminum bolts used.  
No Nonconformance Report was written.

- Response: (1) Corrective action taken and results achieved.

The use of standard aluminum bolts instead of "explosion" release fasteners was discovered by the QC inspector during his review of MWO 81-4019 prior to his signoff. Upon discovery, the QC inspector initiated Deviation Report 82-159 and notified the Lead Maintenance Engineer. A new Maintenance Work Order (MWO 81-4297) was issued to replace the incorrect bolts. Knowing that MWO 81-4297 had been issued, the QC inspector signed off the original MWO (MWO 81-4019). These actions were proper and in accordance with the requirements of Quality Assurance Procedure 2160.

- (2) Corrective action to be taken to avoid further non-compliance.

Toledo Edison has recognized the inherent advantages of documenting deficiencies as described above on a nonconformance document. Toledo Edison will, therefore, develop a system to identify, document, disposition,

and trend deficiencies discovered by QC as a result of maintenance or modification activities.

- (3) The date when full compliance is achieved.

Toledo Edison will have in place a system to identify document, disposition, and trend deficiencies discovered by QC as a result of maintenance or modification activities prior to July 1, 1983.

4. Violation: 10 CFR 50 Appendix B, Criterion XI, requires that a test program be established to assure that all testing required to demonstrate that structures, systems and components will perform satisfactorily in service. Technical Specification 4.0.5 require that valves SA 502, IA 501, NN 58, CV 124, CV 125, AF-1, and AF-2 be functionally tested every three months or each cold shutdown to demonstrate operability. Technical Specification 4.6.3.1.1 requires that main steam isolation valves be demonstrated operable prior to returning the valves to service after maintenance.

Contrary to the above, the following are examples of failure of the test program to demonstrate components will perform satisfactorily in service:

- a. Containment Isolation Check Valves SA 502, IA 501 NN 58, CV 124, and CV 125 were functionally tested in the forward flow direction but not in their closed safety function position.
- b. Main Steam Isolation Valve MS-100 was not adequately tested following maintenance to demonstrate that the valve was capable of performing its intended function of fully closing to its seated position.
- c. Auxiliary Feedwater Pump Suction Check Valves AF-1 and 2 were functionally tested in the forward flow direction but not in their closed safety function position.

- Response: (1) Corrective action taken and results achieved.

The containment isolation check valves SA 502, IA 501, NN 58, CV 124, and CV 125 have been tested in the reverse flow direction. These valves have also been included in the overall review of check valves and their safety functions to be discussed in section (2). Toledo Edison made the determination that, at the time MS 100 was returned to service following maintenance, the test performed on the valve (stroking) was adequate

to assure operability, and in accordance with the requirements of Section XI of the ASME Code. Further discussion on maintenance practices can be found in Toledo Edison's response to violation No. 2 of Inspection Report 50-346, 83-01, in this letter.

AF-1 and AF-2 were tested in the reverse flow direction and specifically included in the check valve evaluation program.

- (2) Corrective action to be taken to avoid further non-compliance.

In response to questions of operability and safety assessment raised in this Inspection Report and certain other recent events, Toledo Edison has begun a program to upgrade our capabilities in that area. To help achieve an appropriate determination of the safety function of a piece of equipment and its requirements to maintain operability Toledo Edison is instituting:

- A. Standardized procedures for safety evaluations, and for reviews by the SRB and CNRB for safety evaluations.

A mission-wide policy (NPP) will provide for more consistency in departmental procedures for safety evaluations performed at Toledo Edison. Review by the SRB and CNRB will allow senior Toledo Edison personnel an overview of the justification for plant changes and provide a second level of review to assure continued plant safety. The guidance NPP will be in place by June 1, 1983.

- B. Increased emphasis on design assumptions listed in the current revision of the Updated Safety Analysis Report (USAR).

The procedure review process has been expanded to provide the reviewer with the related USAR sections for use in their assigned procedure reviews.

The current round of procedure reviews will be completed by December, 1984.

C. Methods to record safety and operability requirements.

We are currently investigating methods to record safety and operability requirements into a retrievable format as they are identified. This program is being developed by the Station Technical Section, and the program development will be completed by August 1, 1983.

D. Performance of a thorough review of Toledo Edison's ASME Section XI Inservice Inspection check valve testing program.

This review is being performed by both Station personnel and an outside consulting firm. The review will focus on the following areas:

- i. To determine safety function of these valves.
- ii. To review our current testing procedures and determine if any valves should be reverse flow tested.
- iii. To determine the method of testing the valves that require reverse flow test.

When the review is completed, surveillance testing procedures will be modified to include the testing determined to be appropriate. These procedure revisions will include testing intervals and testing will be performed as scheduled. The program will be submitted to the NRC as an revision to the ASME Section XI Inservice Inspection submittal by August, 1983.

E. Upgrading the testing of and procedures for Technical Specification mandated alarms.

Toledo Edison has initiated an appropriate testing program for Technical Specification alarms. Procedure modification to enhance the operator's ability to evaluate the accuracy of the Technical Specification related annunciator alarms is underway and will be completed by July 1, 1983. The procedures being modified include:

- i. AP 3005.01 - Tilt, Imbalance, Rod Insertion Limits.



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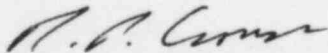
- ii. ST 5020.01 - Imbalance, Tilt and Rod Index Calculations with Group 38 Alarms Inoperable.
- iii. A new surveillance test procedure is being written to perform a channel functional test on the Quadrant Power Tilt, Axial Power Imbalance, Rod Insertion Index, and APSR position alarms on a quarterly basis.

In the interim, Operations personnel will also be provided with training to enhance their understanding of the inputs to the Axial Power Imbalance, Quadrant Power Tilt, Rod Insertion Index, and APSR Position alarms.

- (3) Date when full compliance will be achieved.

The compliance dates for individual items in the action plan are discussed in part 2 of this response.

Very truly yours,



RPC:LDY:RFP:JAF:nlf  
cc: DB-1 NRC Resident Inspector