

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-346/82-27(DPRP)

Docket No. 50-346

License No. NPF-3

Licensee: Toledo Edison Company  
Edison Plaza  
300 Madison Avenue  
Toledo, OH 43652

Facility Name: Davis-Besse Nuclear Power Station, Unit 1

Inspection At: Oak Harbor, OH

Inspection Conducted: August 2 through October 1, 1982

Inspectors:	<i>L. A. Reyes</i> L. A. Reyes	<u>11/3/82</u>
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	<i>L. A. Reyes for</i> W. G. Rogers	<u>11/3/82</u>
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Inspection Summary

Inspection on August 2 through October 1 1982 (Report No. 50-346/82-27(DPRP))

Areas Inspected: Routine resident inspection of License Action on Previous Inspection Findings; Operational Safety Verification; Monthly Maintenance Observation; Monthly Surveillance Observation; License Event Report Follow-up; Maintenance During Refueling; Inspection During Long Term Shutdown; Start-up Testing; CAL Verification; Region's Requests and Management Meeting. The inspection involved 404 inspector-hours onsite by four NRC inspectors including 112 inspector-hours onsite during off-shifts.

Results: Of the seven areas inspected, no items of noncompliance or deviations were identified in five areas. Two items of noncompliance were identified in two areas (ASME Section XI testing of containment isolation check valves - paragraph 2 and missed surveillance testing of pressure switches - paragraph 5).

## DETAILS

### 1. Persons Contacted

- +\*T. Murray, Station Superintendent
- B. Beyer, Assistant Station Superintendent
- S. Quennoz, Assistant Station Superintendent
- P. Carr, Maintenance Engineer
- J. Werner, Instrumentation Supervisor
- D. Miller, Operations Engineer
- D. Briden, Chemist and Health Physicist
- C. Daft, QA Director
- \*J. Greer, QA Supervisor
- \*R. Peters, Nuclear Operations Licensing Specialist
- + T. Meyers, Nuclear Services Director
- + R. P. Crouse, Vice-President Nuclear

\*Denotes those attending the exit interview on September 28, 1982.

+Denotes those attending the October 1, 1982, management meeting held in Region III.

The inspectors also interviewed other licensee employees, including members of the technical, operations, maintenance, I&C, training, health physics and security staff.

### 2. Follow-Up on Previous Inspection Items

(Closed) Open Item (346/81-18-04). The Licensee sent the broken leaf spring to Babcock & Wilcox for evaluation. The actual cause of the failure was not positively determined. However, the evaluation was able to determine that the failure was not a normal ductile rupture or typical fatigue. During the previous refueling outage, no other leaf springs were found damaged. The inspector considers this item closed.

(Closed) Open Item (346/80-14-01). The Licensee reported a design deficiency under 10 CFR Part 21.21(b) dealing with the exhaust from both auxilliary feed pump turbines (AFPT) being through common piping and partially routed through a non-seismic class I structure. The licensee initiated FCR 79-421 to modify the AFPT exhaust. The inspector verified that the AFPT exhaust has been modified in accordance with FCR 79-421 to provide separate exhaust piping for each AFPT and that the exhaust piping is totally routed through seismic Class 1 structures.

(Closed) Unresolved Item (346/82-02-03). During a previous inspection the inspector found five containment isolation check valves that had not been tested at the frequency required by Section XI of the ASME Boiler and Pressure Vessel Code. At which time a question arose as to whether missing the surveillance frequency of Section XI made the valves inoperable and also placed the licensee in the action statement for containment integrity regarding these five valves. The licensee considered

the valves still operable and did not enter any action statements. The inspector requested additional guidance from supervision on this matter. The guidance was supplied via a "position statement regarding inservice inspection of certain valves" from the Engineering and Technical Support Branch. The position statement emphasized that operability is dependent on performing surveillance testing at the required time interval including Section XI of the ASME Boiler and Pressure Code surveillance testing. Therefore, the unresolved item has been elevated to an apparent item of noncompliance (346/82-27-01).

(Closed) Open Item (346/79-05-07). Review of facility Change Requests (FCR). The licensee has established a Computer Tracking System to monitor the status of the FCRs. A new position was created in the facility Engineering Group to coordinate the review, installation and closeup of FCRs. This position is currently filled. Improvement in this area has been noticeable.

(Closed) Unresolved Item (346/81-04-03). Procedure for testing non-radioactive ventilation systems as per requirements of IE Bulletin 80-09. The licensee issued Procedure PT 5109.02, "Non-Radvent System Functional 18 Month Test". The test was successfully completed and is on the licensee's test implementation schedule.

(Closed) Open Item (346/80-25-03). Modifications to comply with IEB 79-18. The licensee completed the installation of Facility Changes 77-276 and 79-325. These modifications provide visual indications of an evacuation alarm in areas with audibility problems.

### 3. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of September. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of auxiliary building and turbine building were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the month of September, the inspector walked down the accessible portions of the auxiliary feedwater, containment spray and diesel generator systems to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

No items of noncompliance or deviations were identified.

4. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

Preventive maintenance on Diesel Generator.

Following completion of maintenance on the diesel generator, the inspector verified that these systems had been returned to service properly.

No items of noncompliance or deviations were identified.

5. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the miscellaneous instrument shift checks, ST 5099.01 and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the following test activities: Auxiliary Feed System Monthly Test - ST 5071.01, Emergency Diesel Generator Monthly Test - ST 5081.01, Steam Rupture Control System (SFRCS) Monthly Functional Test - ST5031.14.

On September 16, 1982, the licensee found that Section 6.2 of ST 5031.14 had not been performed at its required surveillance interval by four days. Section 6.2 performs the channel functional test on all (both trains) steam pressure switches used as inputs to the SFRCS logic for a steam line break. After discussions as to whether the switches were inoperable or not, the licensee declared the pressure switches inoperable, based on NRC Region III input. The licensee entered Technical Specification 3.0.3 (shutdown in one hour) at this time. An emergency Technical Specification change to allow operation until the pressure switches were tested was requested by the licensee and granted by the Office of Nuclear Reactor Regulation. The change allowed operation until midnight September 16, 1982, thus providing sufficient time to test the pressure switches. The switches were satisfactorily tested prior to the midnight deadline. Failure to test the switches at the required frequency is considered an item of noncompliance (346/82-27-02).

One item of noncompliance and no deviations were identified.

6. Licensee Event Reports Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

LER 82-015      Chlorine detector AE 5358A not declared inoperable during preventive maintenance.

No items of noncompliance or deviations were identified.

7. Maintenance - Refueling

The inspector verified maintenance procedures include administrative approvals for removing and return of systems to service; hold points for inspection/audit and signoff by QA or other licensee personnel; provisions for operational testing following maintenance; provisions for special authorization and fire watch responsibilities for activities involving welding, open flame, and other ignition sources; reviews of material certifications; provisions for assuring LCO requirements were met during repair; provisions for housekeeping during and following maintenance; and responsibilities for reporting defects to management.

The inspector observed the major maintenance activities listed below and verified work was accomplished in accordance with approved procedures and by qualified personnel.

Main Steam Isolation Valve shaft to disc pin replacement.  
Modification of the steam generator auxiliary feedwater header.

No items of noncompliance or deviations were identified.

8. Inspection During Long Term Shutdown

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the month of August. The inspector verified surveillance tests required during the shutdown were accomplished, reviewed tagout records, and verified applicability of containment integrity. Tours of containment, auxiliary and turbine building accessible areas, including exterior areas were made to make independent assessments of equipment conditions, plant conditions, radiological controls, safety, and adherence to regulatory requirements and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector observed plant housekeeping/cleanliness conditions, including potential fire hazards, and verified implementation of radiation protection controls. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan. The inspector reviewed the licensee's jumper/bypass controls to verify there were no conflicts with technical specifications and verified the implementation of radioactive waste system controls. The inspector witnessed portions of the radioactive waste systems controls associated with radwaste shipments and barreling.

During the removal of scaffolding from the auxiliary building, some scaffolding was found outside which had not been released by Health Physics. No contaminated scaffolding was removed from the site. As a precaution, procedures have been changed to require Health Physics notification whenever the equipment door to the auxiliary building is opened.

On August 18, 1982, while the licensee was trying to return to power operation from cold shutdown, loud noises were heard in the turbine building. The noises were water hammers in the steam lines resulting from the steam line drains being left closed. The inspector walked the steam lines down and noted no visible damage to steam line piping/insulation or seismic anchors/restraints. The procedural inadequacy that allowed the drains to be closed has been rectified.

No items of noncompliance or deviations were identified.

9. Confirmatory Action Letter dated August 13, 1982

On August 13, 1982, a Confirmatory Action Letter was issued to the licensee to document certain agreements relating to actions associated with the startup of Davis-Besse Unit 1 from the 1982 refueling outage. Item 3 of the letter was clarified in a letter issued on August 23, 1982.

a. The following agreements were documented in the letter:

item 1. Resolve all NRR outstanding issues relating to the modified auxiliary feedwater system other than those associated with the retired auxiliary feedwater header before entering Mode 3.



Item 2. Water hammer flow verification tests will be performed prior to entering Mode 2.

Item 3. Reactor power will be limited to 1% of rated thermal power until NRR completes its review of the retired auxiliary feedwater header and issues a SER on this matter and the flow verifications and water hammer test results have been reviewed by Region III.

b. Actions Taken

Item 1. Several meetings were held between the licensee and NRR to discuss the outstanding issues. All issues were resolved prior to the unit entering Mode 3.

Item 2. The licensee conducted a water hammer and flow verification test prior to the unit entering Mode 2. The inspector witnessed the water hammer test conducted on August 21, 1982.

Item 3. NRR issued an SER on August 20, 1982, to document review of the licensee's submittals. The inspector reviewed the flow verification and water hammer test results.

The inspectors observed the tests listed above and verified that the refueling outage start-up testing was conducted in accordance with Technically adequate procedures and that the facility was being operated within license limits.

No items of noncompliance or deviations were identified.

10. Management Meeting

A management meeting with Toledo Edison was held in the NRC Region III offices on October 1, 1982. In addition of the licensee's representatives denoted in paragraph 1 the following NRC personnel attended the meeting:

L. Spessard, Division Director, Division of Project and Resident Programs  
J. Streater, Chief, Projects Branch 2  
T. Peebles, Senior Resident Inspector  
P. Byron, Project Inspector

The subject of the meeting was surveillance testing and operability. The following NRC position was stated:

Whenever a surveillance test interval, including grace period, is exceeded, the related equipment must be declared inoperable and all associated action statements must be met.

The following events were discussed:

1. IE Report 50-346/80-29 found that an inadequate test for the containment pressure transmitters had been conducted. They were declared inoperable.

2. IE Report 50-346/82-02 found that ASME Section XI testing was not done on five containment isolation check valves. The valves were not declared inoperable.
3. This inspection report finds that surveillance testing was missed on four channels of steam feed rupture control system pressure transmitters. They were not declared inoperable.

The licensee stated that he understood the NRC position and the proper course of action if surveillance was not performed. However, the licensee noted that a one hour period to get the plant into Hot Standby was too rapid. It was agreed that a Technical Specification change based upon the Revision 4 to the Babcock and Wilcox Standard Technical Specification for Section 3.0.3 would be submitted.

#### 11. Regional Requests

The resident inspector was requested by Region III to determine the manufacturer of installed bullet resistant fire doors. It was determined that the doors were manufactured by Protective Materials. The doors in question are the double doors to the control room/shift supervisor areas and the door to the central alarm station. Also, requested was a determination as to whether the doors had been approved by a nationally recognized laboratory. The inspector verified underwriters Laboratory stickers with the proper fire rating were affixed to the doors. The resident inspector requested information as to whether the fire rating validation was performed prior to the doors being modified for bullet resistance. The licensee honored the request by providing documentation from Protective Materials stating that final fire rating validation was completed after modification. However, a question (generic) has arisen regarding the validity of Protective Materials fire rating testing of these type doors. This will be pursued in subsequent inspections.

No items of noncompliance or deviations were identified.

#### 12. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection on September 28, 1982 and summarized the scope and findings of the inspection activities.

The inspector noted that recently several temporary procedure modifications had not been reviewed by the station review board and the Station Superintendent within 14 days. The licensee stated that corrective action had been implemented. The inspector noted that inspection report replies by the licensee had not been timely. The inspectors will follow the corrective actions and their effectiveness.