

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-346/77-16

Docket No. 50-346

License No. NPF-3

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

Facility Name: Davis-Besse Unit 1

Inspection At: Davis-Besse Unit 1 Site, Oak Harbor, OH

Inspection Conducted: May 5, 16-18, 25, 26, 31; June 1, 2, and
20-22, 1977

Inspectors: *T. N. Tambling*
T. N. Tambling 7/12/77
date signed

T. L. Harpster
T. L. Harpster 7/12/77
date signed

T. Tambling for
R. Martin 7/12/77
date signed

Approved by: *R. C. Knop for*
R. C. Knop, Chief 7/12/77
Reactor Projects Section 1 date signed

Inspection Summary

Inspection on May 5, 16-18, 25, 26, 31; June 1, 2, and 20-22, 1977, (Report No. 50-346/77-16)

Areas Inspected: Licensee prerequisites required prior to entering Mode 5 and Mode 4 of operations, review of plant operations, status of deferred preoperation testing, power ascension test procedures, and followup of outstanding inspection items. The inspection effort involved 88 inspector-hours onsite by three NRC inspectors.

Results: Within the areas inspected three apparent items of non-compliance were identified (deficiency-failure to document SRB review of proposed license amendment, Paragraph 5; deficiency-failure to document SRB review of technical specifications violation, Paragraph 9; deficiency-failure to document reviews on DVR's according to procedures, Paragraph 8)

8002060 798

DETAILS

1. Persons Contacted

- *L. Roe, Vice President, Facilities Development
- *J. Evans, Station Superintendent
- *L. Stalter, Technical Engineer
- *T. Murray, Operations Engineer
- *L. Grime, Reliability Engineer
- *W. Green, Assistant to Station Superintendent
- *J. Buck, Operations Quality Assurance Manager
- C. Daft, Quality Control Engineer
- J. Humphreys, I&C Engineer
- *J. Lingenfalter, Nuclear and Performance Engineer
- D. Briden, Chemistry and Health Physicist
- E. Michaud, Test Program Manager (B&W)

The inspector also talked with and interviewed other licensee employees, including members of the technical and engineering staffs, reactor shift crews, and startup test leaders.

*denotes those attending exit interviews.

2. Licensee Action on Previous Inspection Findings

(Closed) (346/76-23): Licensee to develop additional procurement controls of safety related chemicals. The inspector found that procedure LI 4782.00.3 was revised to include controls over procurement, receipt, storage, and handling of safety related chemicals.

(Closed) (346/77-06): Licensee to specify work areas where work may proceed without knowledge of operations personnel. The inspector found that Revision 2 to procedure AD 1844 adequately treats where work activities can proceed without operations personnel knowledge and approval.

(Closed) (346/77-06): Licensee to address additional procedural controls for activities involving welding, open flame, or other ignition sources. The inspector found that Revision 2 to procedure AD 1844 instituted an "Open Flame, Welding, and Cutting" permit system.

(Closed) Unresolved Item (346/77-13): Apparent failure to complete valve verification list B to procedure SP 1103.03.1. The inspector found that subsequent sequence valve lineups per procedure PP 1502.04, Initial Fuel Loading, were properly completed and reviewed prior to initial fuel loading.

3. Completed and Approved Test Procedure Results

The inspector reviewed the following deferred *preoperational test procedures for completeness with regard to:

- a. Meeting acceptance criteria.
- b. Appropriate management review and approval.
- c. Conformance to the requirement of administrative procedures.

The review of deferred sections of the test packages included review of temporary and major procedure changes, QC verification sheets, chronological logs, resolution of deficiency reports and other related material.

TP 160.02	Containment Purge System
TP 201.03	Core Flooding System
TP 203.07	LPI - SFAS Test
TP 240.01	Component Cooling Water System

In each test the acceptance criteria were met.

*Completion of certain portion of these tests had been deferred until after fuel loading when plant conditions would permit retest.

4. Test Procedure Review

TP 800.31	- Vibrations and Loose Post Monitoring System
TP 800.26	- Loss of External Load Including Offsite Power Test
TP 710.01	- Zero Power Physics Test
TP 800.00	- Power Escalation Sequence

These tests were reviewed by the inspector for format, technical content, acceptance criteria, commitments in FSAR, Regulatory Guide 1.68 and reviewed and approval in accordance with administrative procedures.

TP 800.31 - Vibrations and Loose Post Monitoring System

From discussions with a representative of the licensee the inspector understands that:

- a. The plant plans to essentially duplicate any data to be taken by the contractor and that any independent analysis of the data pertinent to the test would be included. (Sections 1 and 7 of the procedure)
- b. During the initial operation of the reactor coolant pumps (Section 7.2) it is intended to look at vibrations in the 0 to 25 hertz range to check for indications of core barrel movement. It is also intended to select specific channels for recording at the same time for coherence evaluation (such as upper and lower channels on the reactor vessel).

TP 800.26 - Loss of External Load Including Offsite Power Test.

The licensee stated that this test procedure would be rewritten to meet the intent of Reg Guide 1.68 for the loss of offsite power. As originally written the test procedure would test the plant normal response to a loss of offsite power (same as load rejection). However, it did not cover the situation of an abnormal plant response in that load shedding between essential and nonessential buses and loading of the diesel generators were not tested.

The licensee stated that they would run the test in two steps. One diesel generator would be started and loaded prior to the test. The test then would be repeated with the other diesel generator running and loaded and the first diesel generator in standby. This would insure seal water flow to the reactor coolant pumps and prevent possible damage to the seals.

TP 710.01 - Zero Power Physic Test.

Final review of this test procedure by the inspector is pending a request for technical assistance regarding the technique proposed by the licensee to measure the reactivity worth of the most reactive stuck rod.

TP 800.00 - Power Escalation Sequence.

The procedure provides the sequence of testing from completion of Zero Power Physic Test through 100% rated core power operations setting forth the requirements for each sequential power escalation. The procedure was found acceptable.

5. License Amendment No. 1

By letter dated May 20, 1977, from L. E. Roe to J. F. Stolz, the licensee requested an amendment to Appendix A, Section 3.4.1.a, of their operating license. A review of Station Review Board (SRB) minutes for the period May 5 through May 20, 1977, indicated that the proposed amendment to the licensee had not been officially reviewed by the SRB as required by Section 6.5.1.6.c of the Technical Specifications (Appendix A to the license). This is considered to be an item of noncompliance with the requirements of Section 6.5.1.6.c of the Technical Specifications.

Furthermore, in the review of Power Engineering Instructions (PEI's) (See Paragraph 6) it was noted that PEI 333, License Amendments, and PEI 334 Safety Evaluations were still in the abstract form. These two procedures cover the internal control for license amendments.

During a subsequent part of this inspection it was noted that:

- a. The SRB had completed their official review of the requested license amendment. (May 31, 1977)
- b. The SRB had completed and documented their review of subsequent request for license amendments.
- c. PEI 333 and PEI 334 were issued as procedures on June 6 and June 1, 1977, respectively.

Based upon these findings, the corrective action of the licensee appears to be adequate to prevent recurrence.

6. Review of Power Engineering Instructions (PEI's)

While reviewing the above PEI's to determine if revisions had occurred as discussed during the inspection covered by inspection report No. 50-346/76-23, the inspector noted that the following PEI's were still in abstract form.

323	Document Distribution Control
333	License Amendments
334	Safety Evaluations
351	Work Package
361	Test Procedure-Design Considerations
S-015	Corrective Action Requests

During a subsequent part of the inspection the inspector reviewed PEI's-333, 334, and S-015 which were issued June 8, June 1 and May 27, 1977, respectively.

A representative of the licensee stated the other three procedures are being actively worked on. Current schedule calls for the procedures to be completed the week of June 27.

7. DH 11 and 12 Valve Pit Leak Test

The inspector reviewed the results of the construction leak test on the valve pit of Decay Heat Valves 11 and 12. The test involved a vacuum test of the sealed valve pit to insure the water tightness of the pit during a postulated LOCA. It was noted that the acceptance criteria was met.

Prior to the test the inspector reviewed the calculations for determining the acceptance criteria to determine whether the leak test would meet the requirements of Technical Specifications. The method was found acceptable. The station has written a surveillance test procedure based upon the same acceptance criteria to cover routine surveillance requirements and resealing of the pit after any maintenance work.

8. Review of Deviation Reports (DVR's)

DVR's issued to date were reviewed to determine whether the requirement of AD 1807.00 were being followed and if reporting requirements of the Technical Specifications were being met.

Within this review it was noted that there was not complete adherence to procedure AD 1807.00 in that DVR's were being distributed prior to signoff by the Technical Engineer, Station Review Board, and Station Superintendent and that followup action and resolution was not being signed off per Sections 6.11 and 6.12 filed per 6.13 of the procedure. Two examples are DVR 008-1 and 009-1, dated May 27, and 28, 1977, respectively. Failure to follow procedure AD 1807.00 is considered to be an item of noncompliance with the requirements of the approved QA manual.

9. Review of Station Review Board (SRB) Minutes

SRB minutes were reviewed for the periods of April 16 through June 10, 1977, to determine whether violations of Technical Specifications were being reviewed as required by Section 6.5.1.6 of the Technical Specifications.

Within this review it was noted that the reportable occurrence No. NP-33-77-2 (inadvertent boron dilution due to improper adjusted control valve) was not documented as having been reviewed by the SRB. This failure to document the review as required by Section 6.5.1.8 of the Technical Specifications is considered to be an item of noncompliance.

10. Review of Plant Operations

Unit log books, operating orders, and jumper-lift wire logs were reviewed for compliance with administrative procedures and Technical specifications requirement.

The unit logs from April 24, 1977 through May 24, 1977 were reviewed. Standing Orders 1 through 18 and Special Orders 81 through 87 were reviewed.

The jumper-lifted wire log was reviewed. The inspector noted that a significant number of outstanding jumper-lifted wires existed dating back to 1975.

No items of noncompliance or deviations were identified.

11. Decay Heat Suction Valves

A member of a TECo operations shift crew contacted RIII on May 2, 1977, concerning the proper interpretation of a facility license condition which specifies when power is required on the valve operators for decay heat suction valves DH-11 and DH-12. The inspector discussed the interpretation of the license condition with the licensee and reviewed the following documents relative to the station's implementation of the license condition.

- a. Proposed FSAR Revision No. 27, submitted to the NRC on April 7, 1977.
- b. Temporary modification request T-1531 to SP 1104.04, "Decay Heat and Low Pressure Injection Operation Procedure."

The licensee committed to implement similar modifications prior to entering Mode 5 for procedures: PP 1102.02, "Plant Startup Procedure," and PP 1102.10, "Station Shutdown and Cooldown." Based on the inspector's review of the above material, the licensee's interpretation and implementation was determined to be correct. The inspector has no further questions regarding this matter.

12. Overpressure Protection

A condition to the operating license states: "Prior to entering Mode 5 (Cold Shutdown), Toledo Edison Company shall make a modification which ensures that the decay heat removal relief valve would actuate prior to automatic closure of the isolation valves. This change will allow the relief valve to be available for mitigating the consequences of an overpressure event."

The inspector reviewed Maintenance Work Order I & C 157-77 (in progress), which changes the setpoint of the automatic closure feature on valves DH-11 and DH-12 from 280 to 414 psig. The inspector has no further questions regarding this matter.

13. Surveillance Test Procedures

The inspector reviewed the status of surveillance test procedures required prior to entering Mode 5. Four procedures require SRB recommendation and plant superintendent approval: ST 5030.02, ST 5036.02, ST 5036.03, and ST 5036.04. Five procedures require plant superintendent approval only: ST 5030.09, ST 5031.14, ST 5050.02, ST 5051.01, and ST 5030.13. The licensee stated that procedure ST 5030.12 had been reviewed and approved, however, it was not available for inspection.

Completion of these procedures was later verified by the inspector prior to the plant entering Mode 5 operations.

14. Nonconformance Reports

The inspector reviewed the status of outstanding NCR's that have Mode 5 restraints.

- a. NCR No. 215-77: Reactor vessel head O-Ring gasket clips.
- b. NCR No. 234-77: Reactor vessel flange.
- c. NCR No. 177-77: NI source range detector cabling.

The licensee stated that these NCR's will be closed out prior to entering Mode 5 operations.

15. Nuclear Instrumentation

The inspector discussed with the licensee, plans to take noise measurements on the nuclear instrumentation when major equipment is started. This matter will be reviewed further in subsequent inspections.

16. Surveillance

The inspector reviewed a surveillance test status report dated May 2, 1977, to determine the status of surveillance required prior to entering Mode 5. The inspector verified that the licensee is completing the surveillance in accordance with the master surveillance schedule.

Completion of all surveillance required prior to entering Mode 5 operations were verified in a subsequent part of this inspection.

16. Exit Interviews

The inspectors met with licensee representatives (denoted in Paragraph 1) at various stages of the inspection and at the conclusion of the inspection to summarize the findings of the inspection. The licensee representatives made the following remarks in response to certain of the items discussed by the inspector.

Acknowledged the statements by the inspector with respect to the items of noncompliance. (Paragraphs 5, 8, and 9)

Acknowledged the inspector's understandings regarding TP 800.31 and TP 800.26. (Paragraph 4)