

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-346/84-20(DRP)

Docket No. 50-346

License No. NPF-3

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

Facility Name: Davis-Besse 1

Inspection At: Oak Harbor, OH

Inspection Conducted: August 28 - October 1, 1984

Inspectors: W. Rogers
D. Kosloff

Approved By: *V. N. Jackiw*
V. N. Jackiw, Chief
Reactor Projects Section 2B

11-2-84
Date

Inspection Summary

Inspection on August 28 - October 1, 1984 (Report No. 50-346/84-20(DRP))

Areas Inspected: Routine, unannounced inspection by resident inspectors of licensee action on previous inspection findings; independent inspection; operational safety; maintenance; surveillance; licensee event reports; and plant trip. The inspection involved a total of 159 inspector-hours onsite by two NRC inspectors including 50 inspector-hours onsite during offshifts.

Results: Of the seven areas inspected, no items of noncompliance or deviation were identified in five areas; one item of noncompliance was identified in the areas of licensee action on previous inspection findings and operational safety verification (failure to follow procedures - Paragraphs 2 and 3).

DETAILS

1. Persons Contacted

- *S. Quennoz, Station Superintendent
- *D. Lee, Maintenance Engineer
- *W. O'Conner, Operations Engineer
- D. Briden, Chemist and Health Physicist
- L. Simon, Operations Supervisor
- *C. Daft, QA Director
- *J. Faris, Administrative Coordinator
- *J. Lingenfelter, Technical Engineer
- M. Stewart, Nuclear Training Manager

*Denotes those attending the exit interview on September 28, 1984.

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

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (346/83-20-05): Bechtel analysis incorporation into LER 83-12. Based on the inspection documented in IE Report 83-21, the information is unnecessary. This item is considered closed.

(Closed) Unresolved Item (346/84-18-03): Delay in declaring control room emergency ventilation system Freon compressor inoperable. The licensee conducted a test (TP 641.00) of the Control Room Emergency Ventilation System (CREVS) at 1400 on August 9, 1984. During the conduct of the test, licensee personnel determined that the #2 CREVS compressor was inoperable. This fact was not reported to the shift supervisor as required by AD 1839.00, Station Operations, and AD 1801.00. At 1515 on August 10, 1984, an operations staff member discovered that the #2 CREVS compressor was inoperable while reviewing a list of work requests and identified the condition to the shift supervisor. Additionally, there was no test leader for the conduct of the test as required by AD 1801.00, Station Modification Acceptance Test Procedure.

During the test, the Chronological Log required by AD 1801.00 was not kept, and the requirements of AD 1801.00 regarding identification of test participants were not met. Upon termination of the test on August 9, 1984, the contractor removed all test documentation from the station leaving the licensee without documentation of the test until August 13, 1984.

During the followup of this event, personnel were aware of the procedural violations but did not submit a written report following discovery as required by AD 1807.00, Control of Conditions Adverse to Quality.

Failure to follow the requirements of AD 1839.00, AD 1807.00, and AD 1801.00 are considered examples of an item of noncompliance (346/84-20-01).

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 1984. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the 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 Control Room Emergency Ventilation system to verify operability.

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.

During the plant tours, the inspector noted that on two occasions fire and pressure door No. 215 connecting the Auxiliary Feedwater Pump Rooms was left open and unattended. This door has no automatic closing mechanism and cannot perform its intended safety function when it is open and unattended. One safety function the door provides is the prevention of both Auxiliary Feedwater Pump rooms from being affected by flooding or steam pressure in the event of a single piping failure in one room. This safety function is discussed in USAR Section 3.6.

On both occasions, there was no one in either room except the inspector. In both cases, the shift supervisor had not been informed of the status of the door, no compensatory action was taken, and no determination was made as to the operability of the Auxiliary Feedwater Pumps. This is a failure to follow procedure AD 1839.00, Station Operations, and is considered an example of an item of noncompliance (346/84-20-01).

During the walkdown of the control room emergency ventilation system some C-clamps were observed holding together two steel beams on both trains. The safety function of the beams could not be determined by visual observation. However, they may be part of a ventilation damper actuator support. The inspector requested the licensee evaluate the condition and determine if the present beam configuration is in accordance with system design documents. This is considered an open item (346/84-20-03) and will be followed up in a future inspection.

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 of Component Cooling Water Pump
- Repair of Leaking Bearing Oil Sight Glass on Auxiliary Feedwater Pump
- Replacement of Pressurizer Code Safety Valve Internals

Following completion of maintenance on the Component Cooling Water and Auxiliary Feedwater Systems, 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 Auxiliary Feedwater System; ST 5071.03, Auxiliary Feed Pump Instrumentation 18 Month Calibration Test 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:

- ST 5013.04, Control Rod Exercise Monthly Test
- ST 5031.01, Safety Features Actuation System Monthly Test
- ST 5040.01, Pressurizer Code Relief Valve Setpoint Test
- ST 5051.10, DH/LPI Pump and Check Valve Test

No items of noncompliance or 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.

- 83-10 MS 106A would not close during surveillance testing
- 83-12 ECCS room coolers removed from service without ECCS operability considered
- 83-16 Failed amplifier on steam generator level transmitter
- 83-23 Loss of Y4 by shorting from a fallen spray can
- 83-28 Radiation monitor failures due to blown fuses
- 83-40 Defective auxiliary feedwater governors
- 83-43 RPS Channel 3 buffer amplifier out of tolerance
- 83-47 Failure of offsite power source fast transfer mechanism
- 83-48 HPI stop check valve stuck closed
- 83-51 Failure of snubber SR-4-R-3
- 83-53 Radiation monitor de-energized
- 83-54 CRD Group 8 API/RPI differ by more than 16%
- 83-57 Trip throttle valve on AFW pump tripped after pump initiation
- 83-62 CRD programmer board failures
- 83-65 Essential conduit inadequately supported
- 83-66 NI-5 reading erratically
- 83-68 Dropped rod 7-12
- 83-71 RIP fluctuations observed during CRD breaker testing
- 83-73 Failure of valve CV 5011 E to close during surveillance testing
- 81-53 Tornado shields protecting EDGs removed during maintenance activities

Listed below are other LERs that were reviewed and not closed out at this time:

(Open) LER 83-04: Decay heat initiation delayed due to misinstalled jumper. A portion of the licensee's corrective action was to replace pressure switch PSH-RC2B4 with a different type authorized by Facility Change Request FCR 82-168. This change has not been implemented. The LER will remain outstanding until the Facility Change Request is implemented.

(Open) LER 83-08: Battery cell voltage reading below minimum requirements. A portion of the licensee's corrective action was initiation of Facility Change Request FCR 82-29 incorporating new standard technical specifications for the station batteries. This FCR has yet to be implemented. The LER will remain outstanding pending FCR implementation.

(Open) LER 83-09: Failure of valve CV 5010D to close during surveillance testing. The LER attributed valve failure to the torque switch. This LER will remain outstanding until the LER is revised to include the correct cause code and actual corrective actions.

(Open) LER 83-19: Steam and Feedwater Rupture Control System (SFRCS) power supply loss, channel 3. A portion of the licensee's corrective action was to return the failed power supply to the vendor for analysis. This LER will remain outstanding until it is revised to include the results and evaluation of the vendor's analysis.

(Open) LER 83-20: Failure of valve RC 240 B to close. The LER attributed valve failure to an improperly lubricated valve stem and an improperly set torque switch. However, the cause code for equipment failure was incorrectly entered on the LER. The licensee will submit a revised LER with the correct cause code.

(Open) LER 83-29: MSSVs setpoints found out of tolerance low. A portion of the licensee's corrective action was for the licensee's engineering and Nuclear Safety personnel to work with the manufacturer to resolve the setpoint problems. This LER will remain open until the licensee's and manufacturer's efforts are implemented and the LER is revised to reflect the actions taken.

(Open) LER 83-32: Auxiliary Feedwater flow transmitter power supply turned off. A portion of the corrective action was to evaluate placing ventilation fans in the cabinets in which the power supplies are located. This LER will remain outstanding until it is revised to include the results of this evaluation.

(Open) LER 83-36: Failure of SFAS radiation monitors on numerous occasions. The corrective action for LER 83-4 states, in part, "Engineering, in conjunction with the vendor, is continuing to investigate the cause of these occurrences." Until the investigation results are implemented and the LER is revised to indicate what actions were taken, this LER will remain open.

(Open) LER 83-38: Overvoltage trip of SFRCS power supply causing a partial system trip. A portion of the corrective action states, "Facility Engineering is working with the vendor on power supply problems and is considering placing an in-line prefilter on the DC input to eliminate ripple." Until the licensee implements the results of the engineering/vendor recommendations and revises the LER to indicate what actions were taken, this LER will remain open.

(Open) LER 83-45: Loss of Y1 during RPS surveillance testing. The inspector reviewed the cause code and corrective action and found them in conflict. The licensee was requested to re-review this LER and provide a cause code that is consistent with the corrective action.

(Open) LER 83-52: DHR cooler valve not pinned closed. The long term corrective action of this LER was to repair/replace valve DH 13A per FCR 83-075. This FCR has not been implemented. Subsequent to FCR implementation, this LER will be reviewed for closure.

(Open) LER 83-69: Fire doors were found with hardware attached that was not UL approved. The affected fire doors are being fire watched per Technical Specifications. The licensee has not yet determined what the long term corrective action will be. This LER will remain open until the long term corrective action is determined and completed.

(Open) LER 83-70: High chloride concentration in Reactor Coolant System. The LER stated that the cause of the event was selection and use of the wrong type of resin. However, the cause code for equipment failure was incorrectly entered on the LER. The licensee will submit a revised LER with the correct cause code.

No items of noncompliance or deviation were identified.

7. Independent Inspection

On August 3, 1984, the licensee discovered the breaker to a hydrogen dilution system suction valve, SW 5067, open. The licensee initiated an investigation but was unable to determine how the breaker opened. The licensee's corrective action was to verify the position of all safety-related breakers on a shifting basis.

No items of noncompliance or deviations were identified.

8. Plant Trips

Following the plant trip on September 11, 1984, the inspector ascertained the status of the reactor and safety systems by observation of control room indicators and discussions with licensee personnel concerning plant parameters, emergency system status and reactor coolant chemistry. The inspector verified the establishment of proper communications and reviewed the corrective actions taken by the licensee.

All systems responded as expected, and the plant was cooled down to start the 1984 Refueling Outage. During the cooldown on September 12, 1984, a Steam Feed Rupture Control System actuation occurred due to low steamline pressure. Low steamline pressure was caused by a higher steam demand on steam generator No. 1. Plant conditions permitted one steam driven Main Feedwater Pump to be in service at the time. All systems responded as expected.

On August 31, 1984, the licensee experienced a dropped control rod due to a fuse failure. The fuse was replaced and the rod returned to service. The inspector verified adequate shutdown margin was maintained.

No items of noncompliance or deviations were identified.

9. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, and which involve some action on the part of the NRC or licensee or both. An open item disclosed during the inspection is discussed in Paragraph 3.

10. Exit Interview

The inspector met with the licensee representatives (denoted in Paragraph 1) throughout the month and on September 28, 1984, and summarized the scope and findings of the inspection activities. The licensee acknowledged the findings.