

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

REGION III

Report No.: 50-346/79-31

Docket No.: 50-346

License No.: NPF-3

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

Facility Name: Davis-Besse 1

Inspection At: Oak Harbor, Ohio

Inspection Conducted: December 3-7, 10-14, 17-21, 26-28, 31, 1979

Inspector: L. A. Reyes

T. Tambling for

1/29/80

Approved By: T. N. Tambling, Acting Chief
Reactor Projects Section 2-2

T. N. Tambling

1/28/80

Inspection Summary

Inspection on December 3-7, 10-14, 17-21, 26-28, 31, 1979 (Report No. 50-346/79-31)

Areas Inspected: A routine, unannounced inspection of plant operations, physical protection (security organization, physical barriers, access control, communications), followup of licensee event reports, the modification of the hot leg RTD's, nuclear instrumentation calibration procedure and HPI line restraint work. The inspection involved 175 inspector-hours onsite by the Resident Inspector.

Results: No items of noncompliance or deviations were identified.

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Details

1. Persons Contacted

*T. Murray, Station Superintendent
B. Beyer, Assistant Station Superintendent
P. Carr, Maintenance Engineer
S. Quennoz, Technical Engineer
D. Miller, Operations Engineer
D. Briden, Chemist and Health Physicist
J. Hickey, Training Supervisor
L. Simon, Operations Supervisor
C. Daft, Operations QA Manager
G. Grime, Nuclear Security Manager

*Denotes those present at the exit interview on December 28, 1979.

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

2. Plant Operations

The inspector reviewed the plant operations including examinations of control room log books, locked valve log book, shift foreman log book, containment purge log, special operating orders, and jumper and lifted wire logs for the month of December. The inspector observed plant operations during 4 offshifts during the month of December. The inspector also made visual observations of the routine surveillance and functional tests in progress during the period. This review was conducted to verify that facility operations were in conformance with the requirements established under Technical Specifications, 10 CFR, and Administrative Procedures. A review of the licensee's deviation reports for the period was conducted to verify that no violations of the licensee's Technical Specifications were made. The inspector conducted a tour of the containment building, auxiliary building and turbine building throughout the period and noted that the monitoring instrumentation was recorded as required, radiation controls were properly established, fluid leaks and pipe vibrations were minimal, seismic restraint oil levels appeared adequate, equipment caution and information cards agreed with control room records, plant housekeeping conditions/cleanliness were adequate, and fire hazards were minimal. The inspector observed shift turnovers to verify that plant and component status and problem areas were being turned over to relieving shift personnel.

No items of noncompliance or deviations were identified.

3. Physical Protection - Security Organization

The inspector verified by observation and personnel interview (once during each operating shift) that at least one full time member of the security organization who has the authority to direct the physical security activities of the security organization was onsite at all times; verified by observation that the security organization was properly manned for all shifts; and verified by observation that members of the security organization were capable of performing their assigned tasks.

No items of noncompliance or deviations were identified.

4. Physical Protection - Physical Barriers

The inspector verified that certain aspects of the physical barriers and isolation zones conformed to regulatory requirements and commitments in the physical security plan (PSP); that gates in the protected area were closed and locked if not attended; that doors in vital area barriers were closed and locked if not attended; and that isolation zones were free of visual obstructions and objects that could aid an intruder in penetrating the protected area.

No items of noncompliance or deviations were identified.

5. Physical Protection - Access Control (Identification, Authorization, Badging, Search, and Escorting)

The inspector verified that all persons and packages were identified and authorization checked prior to entry into the protected area (PA), all vehicles were properly authorized prior to entry into a PA, all persons authorized in the PA were issued and displayed identification badges, records of access authorized conformed to the PSP, and all personnel in vital areas were authorized access; verified that all persons, packages, and vehicles were searched in accordance to regulatory requirements, the PSP, and security procedures; verified that persons authorized escorted access were accompanied by an escort when within a PA or vital area; verified that vehicles authorized escorted access were accompanied by an escort when within the PA; and verified by review of the licensee's authorization document that the escort observed above was authorized to perform the escort function.

No items of noncompliance or deviations were identified.

6. Physical Protection - Communications

The inspector verified by observation (during each operating shift) that communications checks were conducted satisfactorily at the beginning of and at other prescribed time(s) during the security personnel work shift and that all fixed and roving posts, and each member of the response team successfully communicate from their remote location; and verified that equipment was operated consistent with requirements in the PSP and security procedures.

No items of noncompliance or deviations were identified.

7. Review and Followup on Licensee Event Reports

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's 79-92, 93, 102, 103, 104, 105, and 106.

No items of noncompliance or deviations were identified.

8. Modification to Hot Leg RTD's

A very small leak was discovered in a thermal element (RTD) in the Loop 2 hot leg. The hot leg temperature indication to the RPS failed December 1, 1979 when the reactor was in Mode 2 (power had been reduced to fill the oil reservoir of RCP-1-2). Investigation on December 2, 1979 showed water in the junction box for the temperature element. The primary water was leaking out around the temperature element leads. The leak was declared a pressure boundary leak and the unit taken to Mode 5.

The licensee proceeded to install new RTD's in both hot legs but encountered some interference in the hot leg pipe connections. The hot leg pipe connection for the leaking RTD had been bent due to interference between a hot leg pipe restraint and a Furnanite box on the RTD. The Furnanite box had been previously installed around the RTD to seal a leaking gasket on the RTD assembly. The clearance allowance between the Furnanite box and the pipe restraint was approximately 2.5 inches. This clearance was inadequate to accommodate total thermal growth of the system calculated to be 3.11 inches. Two additional hot leg connections were replaced because of thread damage caused by the removal of the existing RTD's. A hydrotest at 2200 psig and 500 F for a duration of four hours will be performed before the unit will proceed to Mode 2 (startup). The Resident Inspector will verify completion of the acceptance test before the unit proceeds to Mode 2.

No items of noncompliance or deviations were identified.

9. Nuclear Instrumentation Calibration Procedures

On December 31, 1979 the licensee notified the Resident Inspector that the calibration procedure for the power range nuclear instrumentation were not consistent with the assumptions of the FSAR. Specifically, two transients which exhibit excessive heat removal, a decrease in feedwater temperature and a small steamline break. The accident analysis assumes that indicated power level is equal to or greater than the heat balance power level. However, the station procedures allow the indicated power level to be 2% lower than heat balance power. The licensee is in the process of modifying the applicable procedure to insure that indicated power is maintained greater than or equal to heat balance. The Resident Inspector will verify the applicable procedures are completed before the unit proceeds to Mode 1 (power) operation.

The licensee is submitting a followup licensee event report (LER) on this event. The inspector will close out this LER in a subsequent inspection.

10. HPI Line Restraint

While taking the actions required by Bulletin 79-02 the licensee determined on December 17, 1979 that the slenderness ratio for restraint 33-CCB-2 H46 was not acceptable. This restraint is located in the 2.5 inch HPI line inside containment. All repairs were completed while the unit remained in Mode 5 (cold shutdown).

No items of noncompliance were identified.

11. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection on December 28, 1979 and summarized the scope and findings of the inspection activities.