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

REGION III

Report No. 50-346/79-29

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: November 1, 2, 5-10, 12-16, 19-21, 26-30, 1979

Inspector: T. Tambling for L. A. Reyes 12/27/79

Approved By: R. F. Warnick, Chief 12-28-79
Reactor Projects Section 2

Inspection Summary

Inspection on November 1, 2, 5-10, 12-16, 19-21 and 26-30, 1979 (Report No. 50-346/79-29)
Areas Inspected: A routine, unannounced inspection of followup of previous inspection findings, plant operations, physical protection (security organization, physical barriers, access control, communications), followup of licensee event reports, followup of IE Bulletins and NRR generic letter on Containment Purging. The inspection involved 140 inspector-hours onsite by the Resident Inspector.
Results: Of the nine areas inspected, no items of noncompliance or deviations were found in eight areas; one item of apparent noncompliance was identified in the other area (Infraction - failure to verify change in High Flux and Flux-Flux-Flow trip setpoints).

1934 280

8002070352

## 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 interviews on November 9 and 30, 1979.

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

2. Previous Inspection Findings

(Closed) Unresolved Item (50-346/79-19-01): The inspector reviewed the revised procedure, "Filling and Venting of the RCS Operating Procedure," SP 1103.02 and determined that appropriate guidance has been included to; 1) sample RCS boron concentration at four hour intervals during the fill, 2) to immediately stop the fill if any RCS boron concentration discrepancies arise and 3) to close the demineralized water to Primary Makeup System Isolation Valve, DW-66, when lining up the Clean Waste Receiver tank to the RCS for filling. The inspector reviewed Work Order 79-1586 and determined that work on Valve MU-39 was completed. The inspector reviewed the Required Reading List routed between May through July 3, 1979 to determine that all Operations personnel had reviewed the details of the incident. The inspector witnessed portions of the RCS Filling Activities on November 8, 1979 and determined that the revised procedure was adhered to.

3. 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, standing orders, and jumper and lifted wire logs for the month of November. The inspector observed plant operations during 8 offshifts during the month of November. The inspector also made visual observations of the routine surveillance



1934 281

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.

The inspector conducted a tour of the reactor buildings and turbine buildings 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 hold 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. The inspector observed one shift turn over that did not involve the day shift.

Technical Specification 3.1.3.3.b

The inspector reviewed TS 3.1.3.3.b and determined that the words absolute position indicator and relative position indicator had been inadvertantly interchanged. The licensee informed NRR of this discrepancy and will submit a TS change to correct it. The licensee has included this information in a memo to all the personnel in the Operations Section. The inspector verified that the licensee is observing the revised TS 3.1.3.3.b.

RCS Flow

On November 22, 1979, while operating at 93% power the licensee made a routine flow verification check and found that reactor coolant system flow with four reactor coolant pumps in service was below 800 gpm the 396,800 gpm minimum required by Technical Specifications. RCS flow is normally about 402,000 gpm. The licensee commenced shutting down as required. A recheck at 72% power showed the flow to be above the TS minimum and power was held at that level. On November 25 the flow was again determined to be below the required minimum. Power was cut to 67% where the flow was above the TS minimum. The licensee intends to limit power to 72%, assuming RCS flow is within TS limits, while the 18 month calibration test, which is normally run at 70% power, is performed and an evaluation is completed.

This item is unresolved pending the evaluation and implementation of corrective actions by the licensee and the inspectors review of the actions taken. (50-346/79-29-01)

Operation with three RCP's

On November 26 at 9:45 p.m. a low level alarm on the lower motor bearing of RCP 1-2 was received. The licensee proceeded to reduce



1934 282

power and trip RCP 1-2. The Shift Foreman submitted a MWO to reduce the setpoints for the high flux trips to 78.5% of Rated Thermal Power (RTP). On November 27 the Operations Engineer and the Operations Supervisor determined that this value was in excess of the setpoint specified in Technical Specification (TS) 2.2.1. The licensee then proceeded to reduce the setpoint values to 78.3% of RTP. Subsequent to the licensee actions the inspector determined that the trip setpoint for the Flux-$\Delta$ Flux-Flow trip had not been verified to be consistent with TS 2.2.1 as is required by TS 4.4.1

This is an item of noncompliance of the Infraction Level.

While reviewing the shift foreman log the inspector noticed that the log entry of November 27 at 11:15 a.m. and 1:11 p.m. indicated that a noncompliance with TS 3.0.3 had occurred in that the Flux-$\Delta$ Flux-Flow trips were inoperable. The inspector had conversed with the shift foreman, Operations Supervisor, Operations Engineer and Plant Superintendent to discuss the details of the events that occurred on November 27 between 11:15 a.m. and 1:11 p.m. At the conclusion of the discussions the inspector determined that the log entry was misleading and that compliance with TS 3.03 existed during this period. The licensee then proceeded to include a late entry in the Shift Foreman Log on November 30, to clarify the entries made on November 7, 1979.

No other items of noncompliance or deviations were identified.

4. 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.

5. 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.

1934 283

No items of noncompliance or deviations were identified.

6. 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.

7. 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.

8. 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 79-91

On November 9, 1979, the licensee reported that while taking the actions required by Bulletin 79-21, temperature effects on level measurements, it was determined that the steam generator (SG) level setpoint for SFRCS actuation was less conservative than required by the Technical Specifications. The licensee increased the SFRCS low



1934 284

SG level setpoint from 23 inches to 25.6 inches H20 indicated to properly compensate for operating temperature and pressure in the SG.

The new SFRCS low SG level setpoint of 25.6 inches required a change to the normal SG operating level during startup of the unit to prevent spurious SFRCS trips on low level. The licensee changed the low operating level administrative limit from 28 to 35 inches H20 indicated. Changing the startup SG level to 35 inches resulted in a change to the startup Tave program. Prior to the unit startup, station procedures were revised to reflect the new operating conditions.

The inspector witnessed the startup of the unit and noted that a discrepancy existed between the predicted values of Tave and power level for the new low operating level limits of 35 inches. Tave of 582 F was not reached until approximately 33% power versus an estimated 25% power. Calculations indicated that the actual water level in the SG was higher than indicated by the startup range level indicator. This was also supported by the fact that SFRCS level indicators were indicating approximately 7 inches of water higher than the level indicator used during startup.

During normal power operation SG water level is automatically controlled by the operating range level instrumentation that is temperature compensated.

This apparent discrepancy between level indications will remain unresolved pending further analysis and testing by the licnesee. (50-346/79-29-02)

No items of noncompliance or deviations were identified.

9. IE Bulletin Followup

For the IE Bulletin listed below the inspector verified that the written response was within the time period stated in the bulletin, that the written response included the information required to be reported, that the written response included adequate corrective action commitments based on information presented in the bulletin and the licensee's response, that licensee management forwarded copies of the written response to the appropriate onsite management representatives, that information discussed in the licensee's written response was accurate, and that corrective action taken by the licensee was as described in the written response. IE Bulletin 79-15, Deep Draft Pump Deficiencies.

No items of noncompliance or deviations were identified.

1934 285

10. NRR Generic Letter Titled, "Containment Purging During Normal Plant Operation"

The inspector verified that the licensee had received the NRR generic letter and that the licensee had reviewed the design of all safety actuation signals which incorporate a manual override feature to ensure that overriding of one safety signal does not also cause the bypass of any other safety actuation signal. The inspector verified that limited containment purging requirements specified in Technical Specification 3.6.1.7 are being adhered to.

No items of noncompliance or deviations were identified.

11. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in Paragraphs 2 and 8.

12. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection on November 9 and 30, 1979, and summarized the scope and findings of the inspection activities.

1934 286