

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

REGION III

Report of Operations Inspection

IE Inspection Report No. 050-346/76-12

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

Davis-Besse Nuclear Power Station  
Unit 1  
Oak Harbor, Ohio

License No. CPPR-80  
Category: B

Type of Licensee: PWR (B&W) 906 MWe

Type of Inspection: Routine, Announced

Dates of Inspection: June 30 - July 2, 1976

Principal Inspector: *R. D. Martin*  
R. D. Martin

7/16/76  
(Date)

Accompanying Inspectors: None

Other Accompanying Personnel: None

Reviewed By: *R. C. Knop*  
R. C. Knop, Chief  
Reactor Projects Section No. 1

7/16/76  
(Date)

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SUMMARY OF FINDINGS

Inspection Summary

Inspection on June 30, 1976 - July 2, 1976, (76-12): Review of conduct of preoperational test program; review of preoperational and post-ascension test procedures; review of operating staff training; and review of licensee review committee activities.

Enforcement Action

No items of noncompliance with NRC requirements were identified during this inspection.

Licensee Action on Previously Identified Enforcement Items

Not within scope of this inspection.

Other Significant Findings

A. Systems and Components

Initial run-in of the reactor coolant pump motors has been completed. The repair of the main steam line at steam generator No. 1 has been completed, and modifications to the Component Cooling Water System are in progress.

B. Facility Items (Plans and Procedures)

None identified during this inspection.

C. Managerial Items

The licensee is taking steps to assure more timely review and subsequent approval by management of temporary modifications to procedures.

D. Noncompliance Identified and Corrected by Licensee

None identified during this inspection

E. Deviations

None identified during this inspection.

F. Status of Previously Reported Unresolved Items

Inspection Report No. 050-346/76-03

This report discussed the reported instances of nonobservance of clean boundary controls. During this inspection the inspector investigated the clean boundary controls utilized during the modification to the Component Cooling Water System and the repair of the main steam line. These control measures were in accordance with administrative procedures of the licensee. This specific matter is considered resolved; however, the inspector will include the observance of clean boundary control measures as part of his regular inspection activities.

Management Interview

A. The following persons attended the management interview at the conclusion of the inspection:

L. Roe, Vice President, Facilities Development  
J. Evans, Station Superintendent  
D. Briden, Chemist and Health Physicist  
L. Grime, Inspection Engineer  
B. Beyer, Maintenance Engineer  
R. Franklin, Training Supervisor  
J. Humphreys, Assistant Engineer  
W. Green, Assistant To Station Superintendent  
J. Lenardson, Quality Assurance Manager  
K. Cantrell, Operations Quality Assurance Engineer  
J. Buck, Operations Quality Assurance Engineer  
C. Daft, Field QA Engineer  
P. Narducci, Quality Control Engineer

B. Matters discussed and comments were as follows:

1. The inspector summarized the more significant comments he provided to licensee staff members on Test, Administrative, and Quality Assurance Procedures he reviewed. (Paragraph 1, Report Details)
2. The inspector stated that he had conducted a tour of the facility, and that no significant deficiencies were noted during that tour. (Paragraph 2, Report Details)

3. The inspector stated that he had observed, during the tour, the clean boundary controls in effect during the modification of the Component Cooling Water System, and had reviewed the controls applied during the repair of the steam line on Steam Generator 1. The Administrative Procedures appeared to have been properly implemented during their activities. The inspector noted that he was made aware of information regarding the stress relieving of the weld repair on the steam line, and that the information would be transmitted by him to cognizant personnel in the Region III Construction Branch for appropriate followup. (Paragraph 3, Report Details)

The licensee acknowledged the inspector's statement and noted that a Report of Nonconformance had been prepared on this issue and was being followed through normal channels.

4. The inspector summarized his review of the licensee's Company Nuclear Review Board and Station Review Board activities. (Paragraph 4, Report Details)
5. The inspector summarized his review of the training information contained in the license applications prepared for the operator license applicants. (Paragraph 5, Report Details)
6. The inspector noted that he had reviewed the over-all controls associated with the implementation of the preoperational test program, and no deficiencies were observed during that review. (Paragraph 6, Report Details)
7. The inspector stated that he had reviewed the implementation of the program for handling test program records, and that no significant deficiencies were noted. (Paragraph 7, Report Details)

The inspector asked the licensee to establish guidelines as to how long a Control Copy of a Test Procedure would be permitted to be out of the central files when a test had been delayed since this copy is the only record of testing completed to date. The licensee agreed to consider the inspector's request.

8. The inspector summarized his discussions with licensee representatives regarding the details of the "Loss of Station Air Test" and the "Core Flood Tank Functional Test". (Paragraph 8, Report Details)

## REPORT DETAILS

### Persons Contacted

The following persons, in addition to those listed under the Management Interview section of this report, were contacted during this inspection:

#### Toledo Edison Company

E. Novak, General Superintendent, Power Engineering and Construction.  
T. Murray, Operations Engineer.  
S. Hall, Shift Foreman.  
D. Snyder, Supervising Operator.  
R. Flood, Supervising Operator.  
J. Orkins, Instrument and Control Engineer.  
J. Troknya, Office Supervisor  
R. Kwiatkowski, Chemistry and Health Physics Foreman  
D. Miller, Assistant Engineer  
J. Lingenfelter, Senior Assistant Engineer.

#### Babcock and Wilcox Construction Company

E. Kearney, Mechanical Supervisor

#### Babcock and Wilcox Company

E. Michaud, Test Program Manager  
B. Bethards, Test Engineer  
M. Morrison, Test Engineer

### Results of Inspection

1. Procedure Review
  - a. Administrative Procedures

The inspector provided a licensee representative with comments on AD 1852.00 "Nondestructive Examination". This procedure relates to duties of the Inspection Engineer in this area. The inspector was informed that certain forthcoming management decisions may affect these duties. The inspector

informed the licensee that he would review these management decisions against the licensee commitments when those decisions are reached.

b. Test Procedures

- (1) The inspector informed the licensee that he had reviewed the following approved procedures, and that no significant deficiencies were found during that review:

TP 271.05	Main Steam Safety Valves Preoperational Test
TP 301.02.1	Nuclear Instrumentation Detector Cabling Test
TP 302.01.1	Incore Instrument Handling Test
TP 302.02	Incore Instrument Receipt and Installation Test
TP 800.03	Site and Station Radiation Survey

- (2) The licensee was informed of the following comments on the indicated Test Procedures. These items are to be resolved either prior to implementing the test procedure or before final acceptance of test results, as appropriate.

- (a) TP 100.01 "Communication System Acceptance Test."  
This procedure is listed in the Carol Program as a nuclear safety related test and therefore requires review by the Station Review Board and approval by the Manager of Quality Assurance.
- (b) TP 200.11 "Reactor Coolant Flow Test Procedure."  
This procedure is a safety related procedure and should receive the approval of the Manager of Quality Assurance. Section 5.3 should be revised to reflect the current Technical Specifications conditions and nomenclature; the minimum and maximum flow acceptance criteria must be checked against current design values; and "enclosure 1" to that procedure "Flow Co~~ast~~er Acceptance Criteria" must be shown to be a valid set of criteria developed and provided under suitable document control methods.

- (c) TP 205.07 "High Pressure Injection System SFAS Test." This procedure does not call for deenergization of the pressurizer heaters as indicated in the abstract in the FSAR (page 14-37b, item 2.4). In discussions with the licensee, it appeared that the test as planned may result in a combination of pressure and temperature of the RCS which will not conform to the limits which will be in section 3.4.4.9 of the Technical Specifications. The data to be used in this section was not available for review so this item will remain unresolved.
- (d) TP 320.02.1 "Integrated Control System Open Loop Calibration." The licensee was requested to review the input values to be used in this procedure against current listings. The licensee indicated that such was their intent.
- (e) TP 600.33 "Reactor Vessel Internals Inspection After Hot Functional Testing." The licensee indicated that he would:
- ((1)) Note the revision number of drawings used during dimensional inspections on the data sheets used.
  - ((2)) Provide a temporary modification to the procedure to formalize additional data taken, and to assure this data will be retaken at the conclusion of Hot Functional Testing.
- (f) TP 2400.21 "Reactor Temperature Instrumentation Preoperational Calibration - Instrument Strings RC 3A and 3B."; TP 2400.25 "Containment Pressure to SFAS and RPS Preoperational Calibration"; and TP 2400.26 "Containment Radiation Level Inputs to SFAS Preoperational Calibration."

These three procedures are expected to be revised. The inspector requested updated copies be provided when available, and that the referenced Surveillance Test Procedures be included since they are necessary to permit an appropriate review.

c. Quality Assurance Procedures

The inspector provided the licensee with comments on the following approved Quality Assurance Procedures (QAP's)

QAP 2030          Rev. 2      "Design Control"

QAP 2180          Rev. 2      "Audits"

The licensee indicated that these comments would be considered during the next revision to these procedures.

2. Facility Tour

The inspector conducted a tour of the facilities and the following items are considered noteworthy:

- a. No load testing of the reactor coolant pump motors is essentially complete.
- b. The licensee was preparing to fill steam generator No.2 in preparation for hydrostatic test, flushing, and preoperational testing of the associated level instrumentation for that generator.
- c. Local leak rate testing of mechanical penetrations is expected to resume during the week of July 5.
- d. Approximately one third of the alarms in the control room have been checked out and turned over to the licensee (inspector's estimate).
- e. A review of the Unit Logbook, the Jumper and Lifted Wire Logbook, and the Startup Jumper and Lifted Wire log revealed no significant deficiencies when compared against the licensee's administrative procedures.
- f. The inspector verified that the licensee is utilizing the procedure for the monitoring of systems in a "lay-up" status as committed to and discussed in Inspection Report No. 050-346/75-14. The licensee representative was advised to discuss with his management the appropriate



storage location for the records developed during these monitoring activities. The inspector will discuss these items further during a subsequent inspection.

- g. The repair of the steam line weld in one of the lines from generator No. 1 has been completed. This is discussed further in the following section.
- h. The Component Cooling Water System is shut down for valve installation. This is discussed further in the following section.

3. Clean Boundary Controls

During the facility tour, the inspector determined that the clean boundary controls required by Administrative Procedure AD 1835.01 had been or were being properly implemented by the work forces for the following work:

- a. The cleanliness controls associated with the repair of weld imperfections by the installation of a spool piece in one of the steam lines from steam generator No. 1 were reviewed by the inspector. Appropriate "Cleaned System Rework Release Forms" were prepared as required. Protective measures were taken to keep the cleaned steam line from contamination during weld preparation activities, and the spool piece was cleaned and certified clean by licensee test prior to installation. Visual inspection, by QC personnel of the work force, verified removal of protective barriers prior to spool piece placement. The inspector had no further questions on this matter.

During discussions with the contractors' personnel relative to the above activities, the inspector was made aware that the stress relieving activity which followed spool piece welding was done at a temperature of 1050°F for three hours while B&W Procedure 9W601N calls for 1100°F - 1150°F for one hour per inch of weld. The licensee was informed that this information would be passed on to the Construction Branch inspectors who will be following this repair activity.

- b. The cleanliness control activities involved in the installation of a valve in the Component Cooling Water System were reviewed by the inspector. The inspector verified that the appropriate

documentation had been prepared, construction flushing personnel were providing full time monitoring of the work activity, and that the controls in use appeared effective to maintain system cleanliness during this operation. The inspector had no further questions on this matter.

4. Review Board Activities

The inspector reviewed the activities of the Company Nuclear Review Board (CNRB) and the Station Review Board (SRB) to verify that they were functioning in accordance with licensee commitments contained in the FSAR. This review included:

- a. Review of CNRB minutes for their first three meetings (minutes of June 24, 1976, meeting not yet published and available for review).
- b. Review of SRB minutes for meeting numbers 200 (June 16, 1976), 201 (June 22, 1976), 202 (June 23, 1976), and 203 (June 25, 1976).
- c. Discussions with the chairmen of both boards.
- d. Attending portions of the SRB meeting of June 30, 1976, during the review of portions of TP 200.09 "Steam Generator Secondary Hydro".

No deficiencies were noted in these activities relative to commitments in the FSAR. The inspector noted that the boards were also functioning in accordance with the requirements which are contained in their proposed Technical Specifications. The inspector also noted that formal charters for these boards are in advanced stages of development, and he will review the final versions in detail during a subsequent inspection.

5. Training

The inspector reviewed the training activities of the licensee to:

- a. Confirm that the licensee has completed training of the operating staff.

- b. Confirm that a continuing program of training is being conducted.
- c. Verify that the replacements receive training equivalent to that required for originally selected personnel.

The inspector reviewed the licensee applications of the 26 license applicants (15 SRO; 11 RO) which included records of their training and verified that the licensee had completed his training commitments. Included in this group were personnel added after the original selection of the operating staff. Training of personnel is continuing in preparation for the operator examinations, and on the job training will continue throughout the Hot Functional Testing Sequence.

The inspector attended a portion of a lecture being given to one of the operating crews.

The inspector has no further questions on this matter of training at this time.

6. Preoperational Test Program Implementation

The inspector reviewed licensee activities and records to ascertain that the licensee has implemented the administrative controls he has developed in support of FSAR commitments and regulatory requirements with regard to the preoperational test program. The areas of Test Program, Test Organization, Test Program Administration, Document Control, Design Changes, Plant Maintenance, Equipment Protection, Test Equipment, and Test Personnel Training were reviewed. No significant deficiencies were observed when reviewing these activities against current licensee commitments

7. Preoperational Test Records

The inspector reviewed selected licensee preoperational test records to ascertain that the program for control of these records is in accord with FSAR commitments and regulatory requirements. The inspector reviewed the files for the following records:

TP 180.01	MWO 1271
TP 600.33	MWO 1101
TP 310.01	

Except for general record storage matters which were previously identified in Inspection Reports No. 050-346/76-06 and No. 050-346/76-10, for which corrective action is under development by the licensee, no significant deficiencies were identified. However, the licensee was asked to consider the development of suitable administrative controls to prevent the control copy of preoperational test procedures to be adequately protected during those periods when tests are interrupted for prolonged periods. The licensee noted that this comment would be given consideration.

8. Testing Clarifications

The inspector had further discussions with representatives of the licensee regarding his concerns over the performance of two preoperational tests as currently planned by the licensee. This discussion with the licensee followed the inspector obtaining further guidance from his management.

a. TP 256.01 "Station Response to Loss of Instrument Air Test"

Inspection Report No. 050-346/76-04 had indicated that the inspector planned to pursue with his management that the licensee be required to demonstrate that safety related pneumatic devices are properly connected to their respective headers as shown on facility drawings by tests such as header isolations. During this inspection the licensee indicated that he intended to develop such a test procedure, but that details were not available for review by the inspector since the assigned engineer was unavailable due to illness. Since the licensee plans to conduct appropriate tests, no further action on this matter is required other than the inspector reviewing the test procedure when completed and verifying its' implementation.

b. TP 201:03 "Core Flood Tank Functional Test"

Previous inspection reports (No. 050-346/76-03, and No. 050-346/76-10) have documented the inspector's concerns over the need for flow rate testing of the core flood tanks. During this inspection, further discussions were held, and the licensee representative agreed to consider this matter further and contact the inspector in the near future with additional information. The licensee acknowledged his understanding that the inspector's management believed this matter could better be resolved at the regional level, but that escalation to higher levels would be considered if necessary to obtain resolution.