

UNITED STATES NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

IE Inspection Report No. 50-358/77-18

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

Davis-Besse Nuclear Power Plant, Unit 1  
Oak Harbor, OH

License No. CPPR-80  
Category: B

Type of Licensee: PWR (B&W) 926 MWe

Type of Inspection: Routine, Announced

Dates of Inspection: April 19-21, 1977

Principal Inspector: *C. C. Williams*  
C. C. Williams

7/8/77  
(Date)

Accompanying Inspectors: None

Other Accompanying Personnel: None

Reviewed By: *D. W. Hayes*  
D. W. Hayes, Chief  
Projects Section

7/8/77  
(Date)

8002040610

SUMMARY OF FINDINGS

Inspection on April 19-21, 1977, (77-18): Review of resolution of previously identified unresolved matters, construction deficiencies reported pursuant to 10 CFR 50.55(e); review of status of construction punch list items; observations and examination of various areas of the as-built plant.

Enforcement Action

None identified.

Licensee Action on Previously Identified Enforcement Items

None.

Licensee Action on Previously Identified Deviations

None.

Other Significant Items

A. Systems and Components

Reports per 10 CFR 50.55(e) (Review of Corrective Actions)

1. The licensee has reviewed and evaluated documentation on yoke material and replacement stems used on seven Velan supplied valves and operator. For the purpose of NRC concerns this matter is considered resolved.
2. The licensee is awaiting final documentation closeout relative to the high pressure injection pump bearing forced lube oil system. This item is open.
3. The licensee informed Region III on April 15, 1977, of a deficiency involving 144 (Nuclear Safety Related) Limitorque Motor operators. It is required that the valve stem nut be secured by the locking nut and that the top thread of the lock nut be crimped or staked. The "staking" of the threads was not done in all cases during installation. Thirty-one of these operators are within systems which must be operable prior to fuel load. Review of the corrective action and its completion for these thirty-one operators was examined and confirmed to be complete by the inspector. The remainder of the rework and the licensee's final report will be reviewed during subsequent inspections. (Paragraph 1, Report Details)

B. Facility Items (Plans and Procedures)

None.

C. Managerial Items

None.

D. Deviations

None.

E. Status of Previously Reported Unresolved Items

Documentation certifying that the motor operators of motor operated dampers in the heating ventilation and air conditioning system are seismically qualified is now available at the site and conforms to the requirements. The matter is resolved.

Management Interview

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

Toledo Edison Company (TECo)

L. E. Roe, Vice President  
L. D. Lendardon, QA Manager  
G. W. Eichenauer, QA Engineer

- A. The inspector stated that he had completed his "final" walkdown and inspection of those hangars and anchors within the systems designated as needed for fuel load. The discrepancies previously noted have been satisfactorily resolved. This aspect of hangar and anchor installations is considered resolved. (Paragraph 2, Report Details)

The inspector stated that he also reviewed the continuing work and inspection activity of the hangars and anchors for systems other than those required for fuel load. This work continues. (Paragraph 2, Report Details)

- B. The inspector stated that he reviewed the corrective action relative to the "staking" of the lock nuts for thirty-one limitorque operators on valves within the piping systems required for fuel load. This portion of the corrective action relative to the 10 CFR Part 50.55(e) deficiency report is considered resolved. However, the finalization of the required rework on the balance of the limitorque operators will be reviewed during subsequent inspections. (Paragraph 1, Report Details)

- C. The inspector stated that he reviewed the documentation associated with the change in component materials for the BISCO product No. SF-20. It was noted that additional testing for the new "two part" mix supplied by Dow Corning has been accomplished. (Paragraph 4, Report Details)
- D. The inspector stated that he reviewed the installation documentation and final acceptance package for valve No. MS 756. Completion of this valve was considered necessary prior to fuel load. This matter is resolved.
- E. The inspector stated that he reviewed the progress of completion for the remaining small Class 1, 2, and 3 valves which are currently being reworked. Completion of work and testing on those valves will become a condition of the license.

The licensee acknowledged this remark. (Paragraph 5, Report Details)

- F. The inspector stated that he reviewed the ultrasonic test report which documented the as-installed length of more than 100 randomly selected concrete fasteners for pipe hangers. No discrepancies were noted. (Paragraph 3, Report Details)
- G. The inspector noted that he had reviewed additional documentation relative to seismic qualification by the HVAC system dampers and this matter is resolved.
- H. The inspector noted that he had examined the status of open EIR 5000 and 8000 series. This work is currently incomplete. The remaining safety related open items are to become a condition of the license. (Paragraph 6, Report Details)

## REPORT DETAILS

### Persons Contacted

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

#### Toledo Edison Company (TECo)

D. Poage, QA Engineer  
T. Murray, Operations Supervisor

#### Bechtel Company (Bechtel)

A. Casalena, QC Inspector  
J. Heaton, QC Supervisor  
J. Kovach, Civil Engineer

#### Test Master Company (Test Master)

A. Homler, Level II, U.T. Inspector

#### 1. Limiterorque Operated Valves Type SMB Staking of the Lock Nut

Pursuant to 10 CFR Part 50.55(e) the licensee reported that due to the omission of the proper instruction in a limiterorque valve control assembly manual, a large number of installed valve operators did not have the stem locking nut staked. This is a minor operation in that it requires that the valve stem nut be secured tightly by the locking nut and the the top thread of the lock nut be crimped or staked.

The licensee has identified a total of 232 limiterorque motor operators installed at the site. All have been evaluated and inspected relative to this consideration, 144 of the 232 valve operators are within safety related systems.

TECo operations personnel evaluated each of limiterorque operators in terms of its need during the various operational modes of the plant. The order of completion of the rework was governed by this evaluation.

Thirty-one valve operators were identified that were within systems needed prior to fuel load. Among others, this portion of rework was verified by the inspector through observation and examination.

The remainder of limiterorque operators requiring rework will be reviewed during subsequent inspection.

The controlling documentation associated with this effort is as follows:

- a. Toledo Edison nonconformance report file No. 376 M210 spec. M210.
- b. Toledo Edison maintenance work order No. 77-0611.
- c. Limitorque valve control instruction and maintenance manual No. SMB1-170.
- d. Limitorque valve inventory as compiled by TECo QC.

2. Large and Small Pipe Hangars and Anchors

As previously reported (50-346/77-17) the licensee has indicated that piping hangars and anchors within the systems required for fuel load (decay heat removal, spent fuel cooling and component cooling water) must be complete prior to fuel load. During the previous inspection the work within these designated systems was found to be incomplete and several minor dimensional and configuration discrepancies were noted. During this inspection the inspector verified by selective examination and observation that the as-build hangars and anchors within the designated "fuel load" systems were complete and met the requirements. This item is no longer a hold point for fuel load activity.

The remaining large and small piping hangar rework will be monitored progressively during subsequent inspections.

Examples of components inspected in detail are as follows:

- a. Hangar No. 33B-GCA-6-HZ
- b. Hangar No. 33B-GCB-5-H1
- c. Hangar No. 33B-GCB-5-HB
- d. Hangar No. 33B-GCB-1-H12
- e. Hangar No. 33B-GCB-1-H17
- f. Hangar No. 33B-GCB-1-H10
- g. Hangar No. 34-GCB-5-H6
- h. Hangar No. PS-H4
- i. Anchor No. A-79-(ISO No. A3)

j. Anchor No. A-121-(ISO No. A2)

k. Anchor No. A-284-(ISO No. 255)

To date the licensee has reinspected approximately 600 of a total of 1970 hangars at the site.

3. Ultrasonic Verification of Anchor Bolt Length (Hangars and Anchors)

The licensee verified the as-built length of hangar fasteners (anchor bolts) by ultrasonic testing. More than 100 anchor bolts on 19 randomly selected hangars were tested. No discrepancies from design documents and instructions were noted in the final report dated April 20, 1977. The inspector also examined the ultrasonic test procedure and personnel qualifications which were judged to be technically appropriate and acceptable.

As previously reported concurrent with the hangar walkdown conducted by the NRC, the licensee identified an area of inadequately consolidated concrete and documented this finding on NCR No. 1200. During this inspection the inspector confirmed that the necessary repairs have been completed and NCR No. 1200 has been appropriately closed.

4. BISCO Fire Sealant Material SF-20

The licensee reported that its site contractor for penetration and blackout sealant had exhausted its supply of the original four component mix for SF-20 sealant material. Dow Corning Company is supplying a compatible two part mix which has been tested and approved for use at the site. The pertinent information related to the new two component material (replacement for BISCO SF-20) is to be submitted by the licensee to NRR for consideration in the resolution of RIII identified issues involving conformance to the requirements of ASTM-E119.

5. Rework Small Class 1, 2, and 3 Valves (50-346/77-17)

During this inspection the inspector examined the status of repair and testing relative to the subject valves. At this time approximately five of these valves remain to be completed.

6. Review of Status of EIR 5000 and 8000 Series (50-346/77-17)

The inspector reviewed the completion status of the rework associated with both the mechanical and electrical considerations. The rework and associated documentation (final as-built drawings, etc.) are incomplete.

5. The inspector had previously instructed the licensee to evaluate each of the open EIR items to determine if their open status adversely impacted fuel loading operations. This evaluation by the Bechtel Company concludes that the open status of these items will not preclude fuel loading activities. However, certain of these open EIR must be completed prior to initiating certain pre-operational test and startup procedures. These are to be designated.

This matter will be reviewed during subsequent IE Inspections.



DAVIS-BESSE NUCLEAR POWER STATION

CONSTRUCTION PERMIT REVIEW SCHEDULE

DOCKET NO. 50-346

<u>Item</u>	<u>Date</u>
Application Filed	August 1, 1969
Informal Meeting	September 10, 1969
Preliminary Report to ACRS	October 10, 1969
Questions & Additional Information Request	
to Reactor Projects	November 28, 1969
to Management	December 15, 1969
to Applicants	December 29, 1969
*Meeting with Applicant	December 4, 1969
Technical Meeting on QA	December 12, 1969
Applicant Response to Questions	March 1970
Technical Meeting on Applicant's Response to Questions	March 1970
Site Visit & ACRS Subcommittee Meeting	May 1970
ACRS Meeting	July 1970
Public Notice	August 1970
Safety Evaluation Completed	August 1970
Public Hearing	September 1970
Issuance of Construction Permit	September 1970

\*This meeting will cover only those matters which need clarification and can be resolved at the meeting. Those matters and questions which require information on answers for documentation will not be discussed.