

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

REGION III

Report No. 50-346/81-19

Docket No. 50-346

License No. NPF-3

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

Facility Name: Davis-Besse Nuclear Power Plant, Unit 1

Inspection At: Davis-Besse Site, Oak Harbor, OH

Inspection Conducted: October 13-16, 1981

*D. E. Miller*  
Inspector: D. E. Miller

11/2/81

*L. R. Greger*  
Approved By: L. R. Greger, Chief  
Facilities Radiation  
Protection Section

11/2/81

Inspection Summary

Inspection on October 13-16, 1981 (Report No. 50-346/81-19)

Areas Inspected: Routine, unannounced inspection of licensee actions taken in response to Health Physics Appraisal findings, past items of noncompliance, past unresolved items, and radwaste shipping and transportation activities.

The inspection involved 35 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance were identified.

## DETAILS

### 1. Persons Contacted

- \*T. Murray, Station Superintendent
- S. Quennoz, Assistant Station Superintendent - Operations
- \*D. Briden, Chemist and Health Physicist
- \*B. Werner, Administrative Coordinator
- W. Fraser, Health Physics Specialist
- R. Scott, Chemistry/Radiochemistry Supervisor
- M. Horne, Health Physics Supervisor
- W. Armstrong, Chemistry and Health Physics Foreman
- \*B. Geddes, Quality Assurance Representative
- \*L. Reyes, Senior Resident Inspector, NRC
- \*W. Rogers, Resident Inspector, NRC

The inspector also contacted several other licensee employees during the inspection.

\*Denotes those present at the exit meeting.

### 2. General

This inspection, which began at 8:00 a.m. on October 13, 1981, was conducted to examine licensee actions taken in response to Health Physics Appraisal findings, past items of noncompliance, past unresolved matters, and radwaste shipping activities. The inspector reviewed radiation controls and postings during tours of radiologically controlled areas. No significant problems were noted. Housekeeping and cleanliness appeared good.

### 3. Chemistry and Health Physics (C&HP) Department Organization

Since the Health Physics Appraisal, conducted January 12-23, 1981, the following organizational changes have been made:

- a. Mr. W. Armstrong has been promoted from Chemistry and Health Physics Group Leader to Chemistry and Health Physics Foreman. The former foreman remains at the station, but is no longer in the C&HP department.
- b. Mr. T. Wakulenko, a former senior chemistry and radiation tester, was promoted to the position vacated by Mr. Armstrong.
- c. Three chemistry and radiation testers have terminated or taken other jobs within the company. Four assistant chemistry and radiation testers have been hired or transferred into the C&HP department.

4. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance Item (346/80-12-02): Concerning an overexposure which occurred during entry to the normal sump tunnel leading to the cavity beneath the reactor vessel. The licensee's corrective actions, described in his response dated July 15, 1980, include additional physical and management controls and training. These actions appear to be adequate. No additional problems were noted.

(Closed) Noncompliance Item (346/80-12-03): Concerning failure to make an adequate survey prior to, or during, the normal sump tunnel entry. The corrective actions described in the licensee's response dated July 15, 1980, were reviewed and appear to be adequate. No additional problems were noted.

(Closed) Noncompliance Item (346/80-12-04): Concerning failure to follow job planning procedures during entry to the normal sump tunnel. The corrective actions described in the licensee's response dated July 15, 1980, were reviewed and appear to be adequate. No additional problems were noted.

(Closed) Noncompliance Item (346/79-16-01): Concerning failure of the SRB to review certain radwaste solidification procedures as required. The corrective actions described in the licensee's response dated September 20, 1979, were reviewed and appear to be adequate. The inspector verified that solid radwaste procedures are now being reviewed by the SRB. No additional problems were noted.

(Closed) Noncompliance Item (346/79-03-01): Concerning failure to perform surveys of the normal sump tunnel to assure compliance with 10 CFR 20.203(c)(2). The corrective actions described in the licensee's response dated March 26, 1979 were reviewed and appear to be adequate. The two entrances to the tunnel are now maintained locked with strict control of the keys. No additional problems were noted.

(Closed) Noncompliance Item (346/78-18-01): Concerning failure to perform an evaluation of inoperable monitor RE1003 as required by 10 CFR 50.59(b). The corrective actions described in the licensee's response dated August 29, 1978 were reviewed and appear to be adequate. The inspector verified that the review had been completed and that a mechanism exists to prompt future reviews. No additional problems were noted.

5. Previous Unresolved Items

The following matters were left unresolved during past inspections pending further review.

- a. The inspector had noted a possible need for more formalized procedures for solid radwaste packaging, and more consistent use of inventory and disposal logs. Since then, the licensee has formalized these procedures and consistently uses formalized inventory and disposal logs. This matter is considered resolved. No additional problems were noted. (346/79-34-01)

- b. The inspector had found that evaluations performed by the licensee to verify that seal injection filters could be disposed of as LSA were not available for review. During this inspection, the inspector reviewed the licensee's evaluation and found it to be adequate. This matter is considered resolved. (346/79-34-02)
- c. The inspector had noted that higher than predicted neutron dose rates were identified in containment during full power testing. The licensee stated that this is because neutron shielding was not installed around and near the top of the reactor vessel because of possible operational problems. The licensee stated that if containment entry into the neutron radiation area during power operation is necessary, power level is reduced to ten percent or less. Routine containment entries are not made during power operation.

The licensee stated that preliminary designs for additional shielding exist, but it is unlikely that such shielding will be installed unless it is found that frequent or routine entries need to be made during power operation. The licensee stated that no significant quantity of personal exposure has resulted from this lack of shielding. Should the current situation be altered in the future, this matter will be further reviewed. The inspector has no further questions at this time.  
(346/78-13-01)

#### 6. Training

During the Health Physics Appraisal, it was noted that the health physics training program requires improvement regarding contract technician training, refresher training for chemical and radiation testers, and effluent quantification training for shift personnel.

In his response dated September 25, 1981, the licensee described additional training which had been performed, and will be performed on a continuing basis. No additional problems were noted during the inspector's review of the licensee's corrective measures.

The actions listed above have improved the situation.

#### 7. High Range Noble Gas Monitoring

During the Health Physics Appraisal, it was noted that the high range noble gas monitoring program needs improvement regarding instrumentation capabilities and procedure revisions.

In his response dated September 25, 1981, the licensee described several corrective measures including energy response evaluations, radiation environment evaluations, airflow and collection efficiency evaluations, and major procedural modifications. No additional problems were noted during the inspector's review of the licensee's corrective measures.

The actions listed above have improved the monitoring program.

8. ALARA

During the Health Physics Appraisal, it was noted that the ALARA program needs improvement regarding ALARA reviews, worker input, and management oversight.

In his response dated September 25, 1981, the licensee described corrective measures which result in a more structured ALARA program which provides for ALARA reviews, worker input, and management oversight. No additional problems were noted during the inspector's review of the licensee's corrective measures.

The actions described in the licensee's response has improved the ALARA program.

9. Transportation Activities

The inspector briefly reviewed the licensee's program for receipt, packaging, and transport of radioactive materials. Radioactive material shipping responsibilities are assigned to a health physics specialist who reports to the Chemist and Health Physicist. Written procedures are used which specify all the necessary documentation, notification, survey, and package preparation requirements for each type of shipment.

Records of radwaste shipments for CY 1980 and 1981 to date were reviewed for compliance with 49 CFR Parts 170-189 and 10 CFR 71. Report of quality assurance audits conducted during CY 1980 and 1981, to date, were reviewed. No problems were noted.

No items of noncompliance were identified.

10. Exit Meeting

The inspector met with licensee representatives (denoted in Section 1) at the conclusion of the inspection on October 16, 1981. The inspector summarized the scope and findings of the inspection.