

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

REGION III

Report No. 50-346/78-02

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: Davis-Besse Site, Oak Harbor, Ohio

Inspection Conducted: February 13-16, 1978

Inspectors: *T.H. Essig*
for A. G. Januska

3/10/78

J. W. Hiatt *JWH*

3/10/78

Approved By: *T.H. Essig*
T. H. Essig, Chief
Environmental and Special
Projects Section

3/10/78

Inspection Summary

Inspection on February 13-16, 1978 (Report No. 50-346/78-02)

Areas Inspected: Routine, announced environmental inspection including review of program management and implementation; review of program results; inspection of proper installation and operability of selected sampling stations; review of Licensee Event Reports; and collection of effluent samples for subsequent comparative analyses. The inspection involved 61 inspector-hours onsite by two NRC inspectors.

Results: Of the five areas inspected, no apparent items of non-compliance or deviations were identified in four areas; one apparent deviation was identified in one area (failure to collect airborne particulate samples in accordance with the schedule in the Supplement to Environmental Report, dated December 20, 1974 - Paragraph 5.a)

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DETAILS

1. Persons Contacted

*T. Murray, Station Superintendent
*D. Briden, Chemist and Health Physicist
*B. Geddes, Radiochemistry and Health Physics Specialist
J. Tapley, Chemistry and Health Physics Foreman
R. Scott, Chemistry and Radiochemistry Supervisor
L. Kurfis, I&C Foreman
R. Smith, Computer Systems Coordinator
W. Mills, Chemistry and Radiation Protection Engineer

The inspectors also talked with members of the operating reactor shift crew.

*denotes those attending the exit interview.

2. General

This inspection consisted of an examination of the licensee's nonradiological effluent and radiological and nonradiological environmental monitoring programs including: sampling schedules, sampling equipment and locations, program results, Licensee Event Reports and collection of effluent samples for the Confirmatory Measurements program. Management control aspects, including organizational structure, assignments of responsibility and authority, and administrative control were also reviewed. The licensee's Supplement to Environmental Report dated December 20, 1974, and the Appendix B Technical Specifications were used as the primary inspection criteria. The radiological program was examined for the period July 1976 through September 30, 1977, and the nonradiological program between July 1976 through December 31, 1976.

3. Management Control

Mr. D. Briden, Chemist and Health Physicist, has responsibilities for the overall direction of the nonradiological and radiological environmental monitoring programs. The radiological monitoring program is performed for the licensee by NALCO Environmental Sciences, Northbrook, Illinois and the nonradiological environmental program by the Center for Lake Erie Area Research, Ohio State University, Columbus, Ohio and the Bowling Green State University Environmental Studies Center, Bowling Green, Ohio.

4. Nonradiological Monitoring Program

a. Chlorine Toxicity Study

The inspectors reviewed a final draft copy entitled "The Effects of Intermittent Chlorination on Selected Warm Water Fishes," dated January 1978. This study was made to provide necessary information to determine the final effluent limitations for residual chlorine in the plant discharge. The inspectors had no further questions regarding this item.

b. Chemicals and Chemical Usage

The inspectors reviewed chlorination records, pH records, and monthly chemical usage records. The records indicate that chlorine concentration and pH measurements were made as required. The inspectors discussed the desirability of combining chlorination time and duration, chlorine sample times, and concentrations on single form in order to readily determine compliance with Technical Specifications.

c. Maximum Discharge - ΔT

The inspectors discussed monitoring of discharge temperatures, ambient lake temperatures and the subsequent computation of ΔT . Records reviewed showed that the intake element had been replaced and recalibrated by the I&C group. ΔT is computed and scanned once a minute, stored hourly and recorded daily on the control computer. The computer may be commanded to display or trend plot ΔT in the control room as required. Control room operator personnel appeared to know the proper response to be taken with various options dependent and on plant status if the 19^oF ΔT alarm actuated.

No items of noncompliance or deviations were identified in the above areas.

5. Radiological Monitoring Program

The results of the licensee's radiological environmental monitoring program for the period July 1976 through and including September 30, 1977, were examined for compliance and monitoring and recording requirements.

a. Air Sampling

Records reviewed by the inspectors revealed that between the period of September 20, 1976 through December 13, 1976, the licensee collected airborne particulate samples intermittently at several sample locations. The reason for the missing air particulate samples appears to be due, in part, to a lack of training of the individual collecting samples and to an error made by that individual.

The licensee therefore failed to comply with commitments of Table 6.1-2 of the Supplement to Environmental Report Operating License Stage, dated December 20, 1974, which requires that weekly airborne particulate samples be collected.

b. Domestic and Wildlife Samples

Domestic meat and wildlife species samples are to be collected semiannually. Records revealed that domestic meat samples were collected in July and October of 1977 and wildlife species samples in August and October of 1977. These collection frequencies do not meet the intent of semiannual collection. The inspectors and a licensee representative discussed the necessity for collecting domestic meat samples on a six-month interval and the licensee's attempt to amend the state Wildlife Permit for 1978 to permit wildlife species to be collected on a six month interval. If the 1978 Wildlife permit cannot be amended, it was recommended that the request for the 1979 Wildlife Permit reflect sampling on a six-month interval. The licensee representative acknowledged these comments. This item will be reviewed during a subsequent inspection.

c. Sampling Station Inspection

The inspectors and a licensee representative visited Stations 1, 2, 3, and 27, in order to determine if the air sampling equipment was operational. All sampling pumps were operational and a test performed by the inspectors revealed that there was no apparent leakage in the systems. The inspectors had no further questions regarding this item.

6. Confirmatory Measurements Program

The inspectors collected a particulate filter, charcoal adsorber, gas sample from a waste decay tank, and a liquid sample from a miscellaneous waste decay tank for future comparative analyses.

In addition, the licensee was given a spiked particulate filter and charcoal adsorber sample as part of this program. The results of the comparative analyses will be discussed during a subsequent inspection.

7. Exit Interview

The inspectors met with the licensee representatives (denoted in Paragraph 1) and in addition, Messrs. J. Grant, Vice President - Energy Supply (TECo) and K. Mauer, QA (TECo), at the conclusion of this inspection on February 16, 1978, and summarized the purpose and scope of this inspection and its findings. The licensee made the following remarks in response to certain items discussed by the inspectors:

- a. Acknowledged the apparent deviation in the air sampling program. (Paragraph 5.a)
- b. Acknowledged the discrepancies in the radiological monitoring program. (Paragraph 5.b)