

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

REGION III

Report No. 50-329/81-08; 50-330/81-08

Docket No. 50-329; 50-330

License No. CPPR-81; CPPR-82

Licensee: Consumers Power Company  
1945 West Parnall Road  
Jackson, MI 49201

Facility Name: Midland Nuclear Power Plant, Units 1 and 2

Inspection At: Midland Site, Midland, MI

Inspection Conducted: June 1-30, 1981

Inspector: R. J. Cook

*R. J. Cook*

7/17/81

Approved By: D. C. Boyd, Chief  
Reactor Project Section 1A

*D. C. Boyd*

7/21/81

Inspection Summary

Inspection on June 1-30, 1981 (Report Nos. 50-329/81-08; 50-330/81-08)

Areas Inspected: Examination of site conditions and laydown areas; change of QA/QC responsibility for installation of HVAC systems; additional review of prior NRC findings associated with HVAC construction activities; allegations pertaining to installation of small bore piping; and on site storage of CRD primary breakers, battery chargers and fuel storage racks. The inspection involved a total of 68 inspector-hours on site by one NRC inspector including 2 inspector-hours on site during off-shifts.

Results: Of the five areas inspected, one apparent item of noncompliance (Criterion XIII - three examples to maintain proper storage conditions - Paragraphs 2.e.(1), (2) and (3)) was identified in one area.

## DETAILS

### 1. Persons Contacted

#### Consumers Power Company Personnel

- D. Miller, Site Manager
- \*D. Turnbull, Superintendent, Site Project QA
- \*M. Schaeffer, Section Head, IE&TV
- H. Leonard, Section Head, HVAC QA
- \*D. Vokal, PMO Senior Engineer
- \*D. Nott, Supervisor, Electrical QA
- E. Oswood, QA Electrical
- D. Cochran, QA Electrical
- D. Martin, Supervisor, HVAC Verification Activities

#### Bechtel Power Corporation Personnel

- P. Kreshinski, Maintenance Engineer
- B. Begin, Laydown Area Supervisor
- R. MacGlasian, Subcontract QC

Numerous other principal staff and personnel were contacted during the reporting period.

\*Denotes those present during the exit interview conducted during the reporting period.

### 2. Functional or Program Areas Inspected

#### a. Site Tours

At periodic intervals during the report period, tours of selected site areas were performed. These tours were intended to assess the cleanliness of the site; storage conditions of equipment and piping being used in site construction; the potential for fire or other hazards which might have a deleterious effect on personnel and equipment; and to witness construction activities in progress. During these tours, it was noted that the storage conditions were not adequate for some equipment located in the battery rooms, Poseyville Road laydown area, and the 674' elevation of the control block. These conditions are discussed in subsequent paragraphs of this report.

b. Change of QA/QC Responsibilities for Installation of HVAC Systems

Effective June 1, 1981, Consumers Power Company, Midland Project QA Department (MPQAD) has taken on the direct responsibility for implementing the entire on-site QA program for installation of heating, ventilating and air conditioning systems (HVAC). Included in this transfer of responsibility, Consumers Power Company has assumed the responsibility for QC and QA functions. Consumers Power Company has received custody and control of the QA/QC documentation for the HVAC systems. These functions and controls were previously handled by The Zack Company. The changes in responsibility were implemented to "establish more effective QA/QC interface; provide increased technical support for problem identification and process corrective action; and provide a mechanism to improve inspection performance to existing requirements.

c. Investigation - Construction Activities Pertaining to Installation of HVAC Systems

During the reporting period, the Resident Inspector reviewed additional information pertaining to the findings documented in NRC Inspection Report No. 50-329/80-10; 50-330/80-11 which were generated as a result of investigations into the fabrication and installation of heating, ventilating and air conditioning (HVAC) systems. The results of this inspection effort are documented in the NRC response to Consumers Power Company letter dated January 30, 1980, which addressed the NRC Notice of Violation dated January 7, 1981. The NRC response is being reviewed by the staff.

d. Allegations - Small Bore Pipe Installation

During the reporting period, the Resident Inspector was notified by the licensee that they had received allegations pertaining to irregularities in the design package review for small bore piping installation. The licensee stated that they were performing an investigation into the allegations. The Resident Inspector stated that the NRC would review the results of their investigation and resolution of substantiated discrepancies at a later time. The alleged contacted the NRC pertaining to these matters during the next subsequent reporting period.

e. On Site Storage of Material and Equipment

During the reporting period, some adverse conditions were noted in the storage conditions for the fuel storage racks; battery chargers and associated equipment; and control rod drive primary breakers located at the 674' elevation of the control block. The conditions as noted by the Resident Inspector are elaborated upon in the following paragraphs and constitute three examples of a single violation with 10 CFR 50, Appendix B Criterion XIII.

- (1) Storage of Control Rod Drive (CRD) Primary AC Breakers: The CRD primary breakers are located on the 674' elevation of the control block. On June 15, 1981, after heavy rain, the Resident Inspector noted that water was on the floor in the area where the Unit 2 breakers are installed. An approximately 3 inch wide by 4 foot high opening to the outside environment existed where the room is adjacent to the Unit 2 containment. Also, the dehumidifier was not operating; the protective polyethylene cover over the breakers was open at the top and damaged; and the area cleanliness did not appear to meet the requirements of ANSI Standards or the intent of the storage maintenance and inspection activities. Similar conditions were noted in the area where the Unit 1 CRD primary breakers are stored, with the exception that the opening was about one foot shorter and water was not on the floor. The Material Maintenance Engineer measured the relative humidity in both areas at greater than 90% shortly after the normal day shift had terminated. The manufacturer's storage instructions and the storage requirements require the breaker cabinets to be stored in an enclosed dry area where the temperature and humidity conditions remain constant. The long term storage requirements are - temperature within 60<sup>o</sup> to 85<sup>o</sup>F and 30% to 60% relative humidity.

Failure to supply appropriate storage conditions for the CRD Primary AC Breakers is considered an item of noncompliance.

- (2) New and Spent Fuel Storage Racks: On June 29, 1981, the Resident Inspector noted, while touring the Poseyville laydown area, that the cover on one of the fuel storage racks located at position L13N (in the laydown area) was badly torn and allowed exposure of the fuel racks to the environment. The Resident Inspector was informed that Bechtel QC personnel had noted this condition on about June 19, 1981, however, the storage condition was found as stated above. The storage level requirements for the fuel racks is level "D" as described in ANSI N45.2.2. This requirement requires the item to be protected from the environment.

Failure to maintain protective coverings for the fuel storage racks stored in the Poseyville laydown area is considered an item of noncompliance.

- (3) Battery Chargers: On June 25, 1981, the Resident Inspector informed the licensee that he desired the storage requirements for the battery chargers and associated equipment located in the battery rooms. On June 29, 1981, the Resident Inspector was informed that the storage requirements were for the ventilation openings to be covered. On this day (June 29, 1981), the Resident Inspector noted that the ventilation openings were not covered and some of the cabinets were open. The heating, ventilation and air conditioning (HVAC) contractor was installing HVAC systems in the battery rooms - and had been for some period of time. The HVAC installation work activities required some grinding and other activities which generated industrial dust.

Failure to provide protective covering for the battery chargers and associated equipment located in the battery room while industrial dust was being generated by the HVAC contractor is considered an item of noncompliance.

Exit Interview

The Resident Inspector met with licensee representatives (denoted in paragraph 1) on June 30, 1981. The inspector summarized the scope and findings of the inspection effort to date. The licensee acknowledged the findings reported herein.