

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

REGION III

Report No. 50-2/81-01

Docket No. 50-2

License No. R-28

Licensee: University of Michigan
Phoenix Memorial Laboratory
Ann Arbor, MI 48105

Facility Name: Ford Nuclear Reactor

Inspection Conducted: January 26-28, 1981

Inspectors: *K. R. Kistner*
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7/6/81
2/6/81
2/9/81

Inspection Summary

Inspection on January 26-28, 1981 (Report No. 50-002/81-01)

Areas Inspected: Routine, unannounced safety inspection of records; logs and organization; review and audit functions; requalification training; procedures; surveillance and maintenance; experiments; fuel handling activities; and follow-up action relative to IE Circulars. The inspection involved a total of 34 inspector-hours onsite by two NRC inspectors including zero inspector-hours onsite during off-shifts.

Results: Of the seven areas inspected, one apparent item of noncompliance was identified. The required primary coolant system surveillance was not completed in its entirety during the 1980 Christmas shutdown (Paragraph 6).

DETAILS

1. Persons Contacted

- *R. Burn, Reactor Manager
- *G. Cook, Assistant Reactor Manager
- B. DuCamp, Supervisor of Reactor Operation

*Indicates those present at the exit interview.

2. Organization, Logs and Records

The facility organization was reviewed and verified to be consistent with the Technical Specifications and/or Hazards Summary Report. The minimum staffing requirements were verified to be present during reactor operation, and fuel handling or refueling operations.

The reactor logs and records were reviewed to verify that:

- a. Required entries were made.
- b. Significant problems or incidents were documented.
- c. The facility was being maintained properly.
- d. Records were available for inspection.

No items of noncompliance or deviations were identified.

3. Reviews and Audits

The licensee's review and audit program records were examined by the inspector to verify that:

- a. Reviews of facility changes, operating and maintenance procedures, design changes, and unreviewed experiments had been conducted by a safety review committee as required by Technical Specifications or Hazards Summary Report.
- b. That the review committee and/or subcommittees were composed of qualified members and that quorum requirements and frequency of meetings had been met.
- c. Required safety audits had been conducted in accordance with Technical Specification requirements and that any identified problems were resolved.

During the review of the Safety Review Committee (SRC) meeting minutes, the inspector noted that some items which require SRC review and approval were not clearly documented as being approved by the committee. The licensee stated that SRC approval would be clearly documented in the future.

The inspector also noted the thoroughness of the annual audits performed in August, 1979 and July, 1980 by the licensee's consultant.

No items of noncompliance were identified.

4. Requalification Training

The inspector reviewed procedures, logs and training records; and interviewed personnel to verify that the requalification training program was being carried out in conformance with the facility's approved plan and NRC regulations. Annual requalification examinations had been conducted in March, 1980.

No items of noncompliance were identified.

5. Procedures

The inspector reviewed the licensee's procedures to determine if procedures were issued, reviewed, changed or updated, and approved in accordance with Technical Specifications and HSR requirements.

This review also verified:

- a. That procedure content was adequate to safely operate, refuel and maintain the facility.
- b. That responsibilities were clearly defined.
- c. That required checklists and forms were used.

The inspector determined that the required procedures were available and the contents of the procedures were adequate.

The inspector noted that the Procedure Review Committee required by Administrative Procedure Number One (AP-1) had not been meeting and the annual review of procedures was being accomplished by the Reactor Manager. The licensee agreed to correct this discrepancy.

The inspector noted that the procedures used by the operators at the control console contained the correct procedure content, but the procedure review page, in several procedures, was not the current page. The licensee agreed to change the method of entering procedure changes to avoid this type of oversight.

No items of noncompliance were identified.

6. Surveillance

The inspector reviewed procedures, surveillance test schedules and test records and discussed the surveillance program with responsible personnel to verify:

- a. That when necessary, procedures were available and adequate to perform the tests.
- b. That tests were completed within the required time schedule.
- c. Test records were available.

Technical Specification 4.4.a states that the primary coolant pH be measured weekly. Operating Procedure Number 301 (OP-301) states pH to be measured with a pH meter.

Contrary to the above, the primary coolant pH was not measured with a pH meter during the weeks of December 22 through December 28, 1980 and December 29, 1980 through January 4, 1981.

Technical Specification 4.4.b states that the primary coolant resistivity be measured weekly.

Contrary to the above, the primary coolant resistivity was not measured during the week of December 29, 1980 through January 4, 1981.

The licensee agreed to implement a scheduling system so that required surveillance would not be overlooked during University Holiday periods.

This is an item of noncompliance identified in Appendix A (50-002/81-01-01).

7. Experiments

The inspector verified by reviewing experiment records and other reactor logs that:

- a. Experiments were conducted using approved procedures and under approved reactor conditions.
- b. New experiments or changes in experiments were properly reviewed and approved.
- c. The experiments did not involve an unreviewed safety question, i.e., 10 CFR 50.59.
- d. Experiments involving potential hazards or reactivity change were identified in procedures.
- e. Reactivity limits were not or could not have been exceeded during the experiment.

No items of noncompliance were identified.

8. Refueling

The facility refueling (fuel handling) program was reviewed by the inspector. The review included the verification of approved procedures for fuel handling and the technical adequacy of them in the areas of radiation protection, criticality safety, Technical Specification and security plan requirements. The inspector determined by records review and discussions with personnel that fuel handling operations and startup tests were carried out in conformance to the licensee's procedures.

No items of noncompliance were identified.

9. IE Circular Followup

For the IE Circulars listed below, the inspector verified that the Circular was received by the licensee management, that a review for applicability was performed, and that if the circular was applicable to the facility, appropriate corrective actions were taken or were scheduled to be taken.

- a. IEC 79-08, Attempted Extortion - Low Enriched Uranium
- b. IEC 80-02, Nuclear Power Plant Staff Work Hours
- c. IEC 80-14, Radioactive Contamination of Plant Demineralized Water System and Resultant Internal Contamination of Personnel

10. Review of Periodic and Special Reports

The inspector reviewed the following reports for timeliness of submittal and adequacy of information submitted:

Report on Reactor Operation - 1979, dated March, 1980.

11. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on January 28, 1981, and summarized the scope and findings of the inspection.

During the meeting the licensee agreed to:

- a. Clearly document the Safety Review Committee's approval of required items in the meeting minutes.
- b. Revise the Administrative Procedure (AP-1) to agree with present methods of annual procedure reviews.
- c. Assure that "procedure review" pages will be inserted in the Control Room Procedure Manual.
- d. Assure that required surveillance items during vacation periods are completed.