

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

REGION III

Report No. 50-264/81-01

Docket No. 50-264

License No. R-108

Licensee: Dow Chemical, U.S.A.
1602 Building
Midland, MI 48640

Facility Name: Dow Nuclear Research Reactor

Inspection Conducted: January 12-14, 1981

Inspector: *K. B. Ridgway*
K. B. Ridgway

1/22/81

Approved By: *D. C. Boyd*
D. C. Boyd, Chief
Projects Section 4

1/23/81

Inspection Summary

Inspection on January 12-14, 1981 (Report No. 50-264/81-01)

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 followup action relative to IE Circulars and previous noncompliance items. The inspection involved a total of 15 inspector-hours onsite by one NRC inspector including 0 inspector-hours onsite during off-shifts.

Results: No items of noncompliance were identified in the seven areas inspected.

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DETAILS

1. Persons Contacted

- *O. Anders, Reactor Supervisor
- *K. Kelly, Senior Reactor Operator
- *J. Macki, Building Supervisor
- *E. Bickel, Industrial Hygienist
- *C. Kocher, Operator Trainee
- *T. Quinn, Senior Reactor Operator

*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 operations, 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.

There have been no organizational changes since the last inspection.^{1/} The licensee expects to have three operators ready for licensing in March, 1981.

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.

^{1/} IE Report No. 50-264/80-03

The license and Technical Specifications do not require any internal audits, however, the licensee does conduct an annual review of safety practices in the laboratory.

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 January, 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.

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.

No items of noncompliance were identified.

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 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. Followup on Items of Noncompliance

The inspector reviewed the licensee's corrective action taken in response to a previous noncompliance where a monthly surveillance test

had been missed.^{2/} The licensee has established a scheduling board to avoid this type of oversight. We have no further questions on this matter.

11. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on January 14, 1981 and summarized the scope and findings of the inspection.

^{2/} IE Report No. 50-264/79-03