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

Report No. 50-298/81-01

Docket No. 50-298 License No. DPR-46

Licensee: Nebraska Public Power District
P. O. Box 499
Columbus, Nebraska 68601

Facility Name: Cooper Nuclear Station

Inspection At: Cooper Nuclear Station, Nemaha County, Nebraska

Inspection conducted: January 12 - February 6, 1981

Resident Inspector: T. F. Westerman for — 2-26-81
D. DuBois, Resident Reactor Inspector — Date
Reactor Projects Section No. 1

Accompaning Personnel: T. F. Westerman for — 2-26-81
R. Spangler, Reactor Inspector — Date
Reactor Projects Section No. 1

T. F. Westerman for — 2-26-81
L. Constable, Reactor Inspector — Date
Reactor Projects Section No. 1

J. Gagliardo, Chief, — 2/26/81
Nuclear Support Section — Date

Approved by: T. F. Westerman — 2-26-81
T. F. Westerman, Chief, — Date
Reactor Projects Section No. 1

Inspection Summary

Inspection on January 12 - February 6, 1981 (Report No. 50-298/81-01)

Areas Inspected: Routine, announced inspection of follow up to previously identified items, operational safety verification, monthly surveillance observation, design changes and modifications, review of the annual report, follow up to IE Bulletins and Circulars, follow up to LERs, and independent inspection effort. This inspection involved 225 inspector hours on-site by five (5) NRC inspectors.

Results: Within the areas inspected no violations or deviations were identified.

DETAILS

1. Persons Contacted

L. Bednar, Staff Engineer
P. Borer, Operations Supervisor
R. Brungardt, Surveillance Coordinator/Planner
B. Converse, Engineer
P. Doan, Engineer
H. Jantzen, I&C Supervisor
*L. Lessor, Plant Superintendent
L. Lawrence, Maintenance Supervisor
R. Noyes, Engineering Supervisor

*Indicates presence at exit meetings.

2. Follow up on Previously Identified Items

(Closed) Open Item 8009-01 (Inspection Report 80-09, paragraph 5): Addition of HPCI-loop 8 and TIC-48 to Maintenance Procedure 7.5.9.1.

Revision 2 to MP 7.5.9.1 incorporated the above instrument loops.

(Closed) Unresolved Item 8009-04 (Inspection Report 80-09, paragraph 7b): Address the use of shop guides in the Administrative Procedures.

After further review in this area, the inspector was not able to identify instances in which a shop guide was used solely in place of an approved procedure during maintenance on safety related systems. Based on the above, this item is considered resolved. However, the inspector continues to maintain that station management should explicitly indicate for all crafts the conditions under which materials such as shop guides can be used. This should aid in assuring that the various requirements for use of approved procedures will not be compromised. This item will remain as an open item (8101-01).

(Closed) Open Item 8009-02 (Inspection Report 80-09, paragraph 5): Scheduling of Procedure 6.2.2.3.17 annually.

Procedure 6.2.2.3.17 includes the calibration of the HPCI Turbine Pump Speed circuit. HPCI Turbine speed is recorded during surveillance testing. The Plant Engineering Supervisor indicated that this data is recorded to verify the design point on the flow versus head curve for the pump. Any deterioration of this parameter would lead to review and trouble shooting during which the speed channel would be verified to be in calibration. There is no need to reschedule this procedure.

(Closed) Open Item 8011-04 (Inspection Report 80-11, paragraph 6): Revision of Emergency Procedure 5.2.6 and Abnormal Operating Procedure 2.4.6.8.

The Operations Supervisor reviewed the procedures above and determined that it would be preferable not to make the changes discussed with the inspector during inspection 80-11. The inspector, after discussions with the Operations Supervisor, concurred with this determination.

(Closed) Open Item 8015-01 (Inspection Report 80-15, paragraph 4): Address the training requirements of ANSI N45.2.12 and N45.2.23 in the QA Program.

QAI-5, revision 12, now addresses the qualifications of auditors and lead auditors as discussed in ANSI N45.2.23. QAI-17 has been issued to formally implement the guidance of ANSI N45.2.12 in the areas of training for QA personnel.

(Closed) Open Item 8015-03 (Inspection Report 80-15, paragraph 5): Tracking of audit findings when no follow-up audit is scheduled.

As a result of discussions with the site QA Supervisor the inspector's concerns in the above area were resolved. No further action in this area is required.

3. Operational Safety Verification

The inspectors observed control room operations, instrumentation, controls, and reviewed applicable logs and conducted discussions with control room operators. The inspectors verified the operability of the A and B Core Spray Systems and number 2 Diesel Generator, reviewed tagout records and verified proper return to service of affected components. They also verified that maintenance requests had been initiated for equipment discovered to be in need of maintenance, that the appropriate priority was assigned and that maintenance was performed in a timely manner commensurate with the priority assigned.

Tours of accessible areas of the facility were conducted to observe plant and equipment conditions including cleanliness, radiological controls, fire suppression systems, emergency equipment, potential fire hazards, fluid leaks, excessive vibration and instrumentation adequacy.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established in the Technical Specifications, 10 CFR and Administrative Procedures.

No violations or deviations were identified in these areas.

4. Monthly Surveillance Observation

The inspectors observed the Technical Specification required surveillance testing on the number 2 Emergency Diesel Generator, e.g., 6.3.12.1, and verified that testing was performed in accordance with adequate procedures, that test instrumentation was in calibration, that Limiting Condition for Operations were met, that removal and restoration of the affected components

was accomplished, that test results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the person directing the test, and that any deficiencies identified during testing were properly reviewed and resolved by appropriate management personnel.

The inspectors performed a complete walk-down of the ESF B Core Spray System and verified correct system lineup and that appropriate check-lists and as-built drawings were in agreement with the as-built configuration. Attention was also given to equipment and general area conditions that might degrade system performance.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established in the Technical Specifications, 10 CFR and Administrative Procedures.

No violations or deviations were identified in these areas.

5. Design Changes and Modifications

The inspector reviewed selected design changes to verify that they had been reviewed and approved in accordance with 10 CFR Part 50.59, the licensee's TS, and the licensee's QA Program requirements. The inspector also verified that the selected design changes were controlled by approved procedures, subjected to post modification testing, and given final approval by licensee management. The inspector further verified that the procedures and drawings affected by the design changes had been changed accordingly.

Design changes which do not require NRC approval are referred to as Minor Design Changes (MDC) by the licensee. The MDC packages which were selected for review were:

MDC 79-59	Overcurrent Relays for Breakers 1FA and 1GB
MDC 79-65	Replace Carbon Steel Pipe and Install Equalizing Valves in CRD System
MDC 79-30	MSIV Limit Switch Retrofit
MDC 80-09	Replacement of Main Steam Relief Valves
MDC 80-10	Installation of MSRV Position Indicating Switches
MDC 80-30	Feedwater Sparger Replacement
MDC 80-43	Reactor Manual Control System Rod Control Power OV Protection
MDC 80-53	Installation of Test Tap to Perform ADS Surveillance
MDC 80-65	Modification to Head Vent Solenoid Valve Vents

MDC 80-75 Relocate Core Spray Loop "B" Vent

MDC 80-90 Addition of Redundant Check Valves on Scram Discharge Volume Header Vent

MDC 80-09 required that Procedure 7.2.22, "Main Steam Relief Valve Performance Testing, Inspection, Removal, and Installation," be revised to reflect the implementation of the MDC which involved the replacement of the relief valves with valves of a new design.

The required valve replacement had been completed, but Procedure 7.2.22 had not yet been modified. A licensee representative said that the procedure revision was not completed because they had not received the vendor's technical manual. This is an unresolved item (8101-02) pending the licensee's completion of the procedure revision.

The inspector expressed concern that certain documents (such as weld checklists) which document activities associated with design changes are not always filed with the MDC package, but are filed with the Maintenance Work Requests (MWR) used to implement the MDC. A licensee representative said that he was aware of this fact and had initiated action to assure that MDC files are complete.

The inspector noted that all MDC's receive a safety evaluation even if they are not subject to the provision of 10 CFR Part 50.59. No violations or deviations were identified in this area.

6. Review of Annual Report

As an extension to the inspection effort in design changes, the inspector reviewed the licensee's Annual Operating Report for 1979 to verify that it satisfied the requirements of 10 CFR Part 50.59. The report documented six MDCs which had been completed in 1979 and satisfied the reporting requirements of 10 CFR Part 50.59. The report described the design changes, but it did not include a summary of the safety evaluation for the design change which correlated in all cases to that included in the corresponding MDC's. This is considered an unresolved item (8101-03).

7. Follow up of IE Bulletins and IE Circulars

A. IE Bulletins

80-24 (Closed) Prevention of Damage Due to Water Leakage Inside Containment. (Reference TI 2515/47)

CNS utilizes a closed cooling water system for containment cooling. Because of this and a BWR containment configuration which limits water

accumulation in the drywell to approximately 2 feet damage due to water leakage at CNS inside the drywell is minimal. The licensee's response and actions for this bulletin appear adequate.

B. IE Circulars

80-12 (Closed) Valve Shaft to Actuator Key May Fall Out Of Place When Mounted Below Horizontal Axis.

The Plant Superintendent and the Plant Maintenance Supervisor have received this circular and determined that the lack of this type of problem during the operating history of the plant (6 years) is sufficient grounds for no further action. The inspector concurred with this.

80-18 (Closed) 10 CFR Part 50.59 Safety Evaluations for Changes to Radioactive Waste Treatment Systems.

This circular was routed to all members of the CNS Engineering Department. From discussion with the Engineering Supervisor it appears that the requirements of 10 CFR Part 50.59 are well understood and applied to all design changes at the station.

80-21 (Closed) Regulation of Refueling Crews.

The composition of the refueling crew at CNS conforms to the guidance of this circular.

8. Follow up on LERs

The following LERs are closed based on the inspector's in-office review, a review of the licensee's associated nonconformance reports and brief discussions with the licensee's management staff:

80-34 80-40

80-38 80-46

80-39 80-48

9. BWR Core Loading and Verification Procedures (Reference TI 2515/40)

The inspector reviewed the licensee's procedures 3.1, Special Nuclear Materials and Control and Accountability Instruction, and 3.5, Refueling, and determined that these procedures require core verification for bundle location and orientation by several individuals. In addition, the procedures require a video tape to be made of the core verification. This

tape is utilized for additional core verification. The inspector viewed portions of the 1980 core verification video tape. The licensee's methods produced a high quality tape. No discrepancies were noted.

10. Exit Meetings

Exit meetings were conducted at the conclusion of each portion of this inspection. The findings noted above were identified and explained to the Plant Superintendent.