

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

Report No. 50-298/78-15

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 Condu : August 28-30, 1978

Principal Inspector: E. H. Johnson
E. H. Johnson, Reactor Inspector

9/12/78
Date

Fol E. H. Johnson
G. H. Verduzco, Reactor Inspector (Training)

9/12/78
Date

Approved By: G. L. Madsen
G. L. Madsen, Chief, Reactor Operations and
Nuclear Support Branch

9/12/78
Date

Inspection Summary

Inspection on August 28-30, 1978 (Report No. 50-298/78-15)

Areas Inspected: Routine, Unannounced inspection of plant operations; and safety related maintenance activities. The inspection involved twenty-five (25) inspector-hours on-site by one inspector.

Results: Of the two areas inspected no items of noncompliance or deviations were noted in one area. One deviation (failure to maintain a fire door in an operable status as required by National Fire Code - Details, paragraph 2) was noted in one area.

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DETAILS

Persons Contacted

P. Borer, Technical Assistant to the Station Superintendent
B. Brungardt, Shift Supervisor
R. Creason, Shift Supervisor
*L. Lessor, Station Superintendent
R. Peterson, Reactor Engineer
P. Thomason, Assistant to the Station Superintendent
M. Williams, Operations Supervisor
V. Wolstenholm, Quality Assurance Specialist

*Present at the exit interview.

In addition to the above technical and supervisory personnel, the inspector held discussions with various maintenance, operations, technical support and administrative members of the plant staff.

1. Plant Status

During the period of this inspection, the plant was conducting routine power operations at approximately 95% power.

2. Review of Plant Operations

The inspector reviewed the below listed plant logs and records, held discussions with shift personnel, observed control room and plant process instrumentation, toured accessible areas of the plant and observed routine operations, including routine radiological controls to determine that no abnormal conditions were in existence and that operations were being conducted in accordance with license conditions and other NRC requirements.

Night Order Book, May 23, 1978 through August 28, 1978
Shift Supervisor's Log, May 23, 1978 through August 28, 1978
Control Room Operator's Log, July 24, 1978 through August 5, 1978
Jumper Log - all outstanding entries
Clearance Log - all outstanding clearances
Control Room Log Sheets, July 11, 1978 through July 31, 1978
Auxiliary Patrol Log Sheets, July 11, 1978 through July 31, 1978
Special Instruction Log and Special Order Log - all outstanding entries
Nonconformance Reports, May 14, 1978 through August 20, 1978

On August 28, 1978, following the end of normal working hours, the inspector conducted a tour of accessible areas of the station. It was noted that one fire door in the reactor building 903 foot level leading to the southwest quadrant was blocked open by a water hose. The inspector noted that the hose was connected to an instrument tap at one end but disconnected at the other end. No work was in progress in the vicinity of the hose, nor was a watchstander present at the fire door.

The National Fire Code NFPA 80-1977, "Fire Doors and Windows," Section 14-.12, requires in part that doors shall be operable at all times and they shall be kept closed and latched or arranged for automatic closing.

Contrary to this Code requirement, the blocking open of the southwest quadrant reactor building fire door rendered this fire door inoperable. This constitutes a deviation from an industry approved code.

No other items of noncompliance or deviations were noted in this area.

During the tour of the facility, the following minor discrepancies were noted and brought to the attention of the licensee for review and correction. The air start piping for number 1 diesel generator was noted to be vibrating while the air start flasks were recharging. Although this vibration was not excessive, it might be indicative of a loose piping hanger or support. The inspector noted that the grout sealer in one pipe chase in the vicinity of the CRD pressure control station had spalled, indicative of deterioration of the grout or possible piping vibration in this area. These items were discussed with the Station Superintendent during the exit interview who indicated that they would be reviewed and appropriate corrective action initiated.

3. Safety Related Maintenance Activities

The objective of this inspection effort was to determine that maintenance activities on safety related equipment were scheduled and controlled in the manner required by the licensee's Quality Assurance Program. This effort also verified that maintenance activities were properly performed and inspected and that Technical Specification Limiting Conditions for Operation were met while the equipment was out of service.

The inspector reviewed the below listed maintenance activities:

<u>MWR #</u>	<u>Subject</u>
78-6-177	Source Range D Reading Erratic
78-6-135	Reactor Recirculation Pump Seal Pressure Instrument
78-4-89	Drywell to Torus Vacuum Breakers

<u>MWR #</u>	<u>Subject</u>
78-4-219	Control Rod Drive 30-35 - Align and Renew Gaskets and O-Rings
78-4-173	HPCI-MO-15 Seal Ring Leak
78-4-205	Overhaul Control Rod Drive #1620
78-7-11	250 VDC Battery Charger Fails to Charge
78-169	Instrument Sensing Line Plugged
78-8-75	Diesel Generator #2A Air Receiver Relief Valve

Within the area of this inspection, no items of noncompliance or deviations were noted; however, the following additional findings were made.

For six of the nine maintenance activities reviewed, the inspector noted that block 4 of the Malfunction/Work Request forms (MWR) a quality control inspection was required. However, the type of inspection specified was indicated to be "Job Completion" or "Review Completion." The inspector was unable to determine what constituted this type of QC inspection. The licensee had no quality control procedures which specify what is to constitute a job completion QC inspection. Section 4.1.1 of the licensee's Quality Assurance Manual describes Quality Control Inspections and requires that safety related maintenance shall include appropriate quality control checkpoints, where applicable. Quality Assurance Manual states, "The QC checkpoint shall identify specific work which is to be subjected to inspection or verification and shall provide, in detail, the elements of work to be inspected which include: . . . 2. Type of Inspection or Observation"

During inspection 78-13, the inspector reviewed the licensee's quality control activities for safety related maintenance (Reference IE Inspection Report 50-298/78-13, Details, paragraph 4) and noted that the licensee had failed to record the type of observations and the results of quality control inspections for several safety related maintenance activities. This item was identified as an item of noncompliance. In the corrective action for this item of noncompliance, it will be necessary for the licensee to establish definitive requirements for quality control inspection of maintenance activities. This corrective action will adequately resolve the questions raised above regarding the "type of inspection or observation." This item is designated as an unresolved item pending completion of licensee's corrective action on the item of noncompliance described in Inspection Report 78-13 (Unresolved Item 7815-1).

In reviewing the overhaul of control rod drive #1620 (MWR 78-4-205) the inspector noted that upon disassembly of the drive, the licensee determined that a serial number was not present on the rod and tube.

Maintenance on this drive was conducted in accordance with Maintenance Procedure 7.2.39, "Control Rod Drive Inspection." Attachment B to this procedure governs the reassembly of the drive and provides checkpoints and signoff blocks for recording specific data regarding the drive. Step 6A of attachment B to the maintenance procedure requires a dimensional check of the rod and tube be performed unless:

- a. The serial number on the coupling rod is identical with the serial number on the CRD flange;
- b. If no CRD parts have been replaced, other than seals, bushings and O-Rings; and
- c. If no difficulty has been reported in uncoupling the CRD during service in the reactor.

The inspector noted that these dimensions were not verified for the rod and tube in control drive #1620 when the serial number on the coupling rod could not be verified. The inspector discussed this item with the licensee representative who indicated that the leak test of this drive had not yet been conducted and that it was normal practice to perform the dimensional checks on the rod and tube at the time the leak test is performed. This item will remain unresolved pending completion of the leak test and dimensional checks on this rod (Unresolved Item 7815-2).

In reviewing MWR #78-4-173, covering the repair of a seal ring leak on valve HPCI-MO-15, the inspector noted that the repair was accomplished by tightening down the cap screws on the seal ring. The inspector reviewed the instruction manual and manufacturer's drawing for this valve and determined that the allowable torque for the seal ring retainer cap screws was not specified. The inspector discussed this with a licensee representative and expressed his concern that this apparent deficiency in the manufacturer's instruction manual had not been identified during the performance of maintenance on this valve. The adequacy of the licensee's maintenance procedures and the manufacturer's instruction manuals will receive continued followup during future inspections.

4. In-Office Review of Licensee Event Reports

Licensee event reports are issued in accordance with the requirements of Technical Specification 6.7.2.A and 6.7.2.B to report certain events to the NRC. When received at the regional office these reports are reviewed for their safety significance and completeness by the inspector. Certain reports are selected for a detailed review at the site. The status of these reports is indicated in the report for the inspection during which on-site followup was conducted.

The below listed reports have been reviewed by the inspector in-office. Based on the 100 percent review by the inspector of all licensee internal nonconformance reports, discussions with licensee personnel during the course of inspections, and periodic review of station logs, these reports were closed with no further on-site followup.

<u>LER #</u>	<u>Subject</u>
78-8	HPCI Isolation on Hi Indicated Steam Flow From Air in Sensing Line
78-21	Crud Buildup in Excess From Check Valve
*78-23	Recirculation Riser/CS Piping Indications
+78-27	REC System Weld Leak

5. Unresolved Items

Unresolved Items are matters about which more information is required to ascertain whether they are acceptable items, items of noncompliance or deviations. The following unresolved items were identified during this inspection.

7815-1 - Type of Quality Control Inspection Performed (paragraph 3)

7815-2 - Dimensional Check of Uncoupling Rod on CRD #1620 (paragraph 3)

6. Exit Interview

The inspector met with the Station Superintendent at the conclusion of the inspection. The scope of the inspection and the findings above were discussed. The Station Superintendent acknowledged the findings relative to the deviation detailed in paragraph 2 above, and indicated the item would be reviewed and corrected.

*Followed up on in IE Report 50-298/78-06, Details, paragraphs 7 and 8.
+Followed up on in IE Report 50-298/78-10, Details, paragraph 3.