



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

SEP 16 1977

Docket No. 50-305

Wisconsin Public Service
Corporation
ATTN: Mr. E. W. James
Senior Vice President
Power Generation and
Engineering
P. O. Box 1200
Green Bay, WI 54305

Gentlemen:

This refers to the inspection conducted by Mr. D. R. Hunter of this office of August 15-19, 1977, of activities at Kewaunee Nuclear Power Plant authorized by NRC Operating License No. DPR-43 and to the discussion of our findings with Mr. R. Lange and others at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

No items of noncompliance with NRC requirements were identified during the course of this inspection.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter, the enclosures, and your response to this letter will be placed in the NRC's Public Document Room, except as follows. If the enclosures contain information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this letter, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

Wisconsin Public Service
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We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Gaston Fiorelli, Chief
Reactor Operations and
Nuclear Support Branch

Enclosure: IE Inspection
Report No. 50-305/77-12

cc w/encl:
Mr. C. Luoma, Plant
Superintendent
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC

OFFICE →	RIII <i>DL</i>	RIII <i>RFW</i>	RIII			
SURNAME →	Hunter/ls	Warnick	Fiorelli			
DATE →	9/9/77	9/15/77	<i>8</i>			

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

REGION III

Report No. 50-305/77-12

Docket No. 50-305

License No. DPR-43

Licensee: Wisconsin Public Service Corporation
P. O. Box 1200
Green Bay, WI 54305

Facility Name: Kewaunee Nuclear Power Plant

Inspection At: Kewaunee Site, Kewaunee, WI

Inspection Conducted: August 15-19, 1977

Inspector:

D. R. Hunter
D. R. Hunter

9/15/77

Approved By:

R. F. Warnick
R. F. Warnick, Chief
Reactor Projects Section 2

9-15-77

Inspection Summary

Inspection on August 15-19, 1977 (Report No. 50-305/77-12)

Areas Inspected: Routine, unannounced inspection of plant operations, reportable occurrences, calibration, outstanding inspection items, and unresolved items. The inspection involved 35 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

*R. W. Lange, Assistant Superintendent, Maintenance
J. S. Richmond, Technical Supervisor
M. E. Stern, Nuclear Licensing and Systems Supervisor
*M. L. Marchi, Nuclear Licensing and Systems Engineer
A. J. Ruege, Plant Performance Engineer
W. Winoski, Radiochemistry Supervisor
D. M. MacSwain, Instrument and Control Supervisor
L. C. Arno, Assistant Instrument and Control Supervisor
*W. J. Truttman, Operations Supervisor
J. J. Wallace, Operations Engineer
R. F. Zube, Shift Supervisor
D. T. Braun, Shift Supervisor
W. R. Wagner, Shift Supervisor

The inspector also talked with and interviewed several other licensee employees, including members of the engineering staff, maintenance group, and reactor and equipment operators.

*Denotes those attending the exit interview.

2. Review of Operations

The inspector reviewed the general plant operations, including selected logs, operating orders, jumper controls, routine plant chemistry, control room manning, equipment tagout status, plant system status, selected incident reports, and plant annunciators.

During the review and subsequent discussion with licensee representatives, it was noted that during preventative maintenance activities performed on the 1B component cooling water pump on August 17, 1977, the pump motor breaker had apparently failed to operate satisfactorily. The licensee had identified the event and pursued the failure through the maintenance program. This item was discussed at the management exit.

No items of noncompliance or deviations were identified.

3. Review of Nonroutine Events Reported by the Licensee

The inspector reviewed licensee actions with respect to the following nonroutine event reports to verify that the events were reviewed

and evaluated, the corrective actions indicated were taken, and the plant limits were not exceeded. The inspector reviewed selected licensee records and interviewed selected plant personnel. The corrective actions taken by the licensee appeared acceptable.

- a. RO 77-17 - One of two reactor coolant system leak detection systems were discovered to be inoperable due to an inadequate procedure.
- b. RO 77-18 - Exceeded the 3-day maximum limit between reactor coolant system samples due to misinterpretation of the requirements.
- c. RO 77-19 - Failure to test the fuel pool sweep system filters due to inadequate procedures.

No items of noncompliance or deviations were identified.

4. Calibration

The inspector reviewed selected calibration records of components and equipment associated with safety related systems and functions to ascertain the activities to be within the requirements of the Technical Specifications.

During the review of Procedure ICP-23.3, Caustic Additive Level Loop (July 20, 1977), the inspector noted that instrument loop data (as found) was not within the instrument channel specifications. The review of the data with the licensee representatives revealed that the data was approximately 0.25-0.50 percent low, and with the low level alarm and acceptance criteria being conservatively set, no apparent violation of the Technical Specifications occurred. The inspector noted that the level loop was returned to within the instrument channel acceptance criteria with no further corrective action deemed necessary. This item was discussed at the management exit.

The inspector noted that authorized temporary and permanent changes had been made to certain instrument calibration procedures. During the review of the Administrative Control Directives for changes to procedures in the field, the requirements of Technical Specification 6.8 did not appear to be adequately addressed for temporary changes to safety related procedures to assure compliance with the specification. This item was discussed at the management exit.

No items of noncompliance or deviations were identified.

5. Plant Tour

The inspector toured the plant to observe selected operations, plant cleanliness and housekeeping, installed plant tags, monitoring instrumentation, radiation controls, general systems conditions (fluid leaks, vibrations, etc.), pipe hangers, and selected valve and electrical breaker positions.

No items of noncompliance or deviations were identified.

6. Outstanding Items

The inspector reviewed selected outstanding inspection items to verify adequate corrective actions by the licensee.

- a. The normal operating procedure for the safety injection accumulators (N-SI-33, Revision A, July 19, 1977)^{1/} was revised to include venting of the accumulators. No further questions are required of this matter at this time and this item is considered closed.
- b. The radiation monitoring system recorders^{2/} (one 24-point and one continuous 2-pen) and the licensee instructions for use of the recorders for monitoring effluent discharges continuously, including liquid waste effluents, gaseous waste effluents, and steam generator blowdown and steam jet air ejector effluents appeared acceptable. During a release evolution, the associated monitor is recorded on the continuous recorder (2-pen) and during routine blowdown operations the steam generator blowdown activity is recorded on the multipoint recorder and the air ejector offgas activity is recorded on the continuous recorder. The use of the two recorders allows the licensee to meet the Technical Specification requirements during nonroutine operations and maintenance activities. Additionally, the licensee has the capability to record radiation monitor levels on the computer analog trend recorders. No further questions are required of this matter at this time and this item is considered closed.
- c. The service water flow through the radiation monitors^{3/} (RM-16, Containment Fan-Coil Service Water Effluent, and RM-20, Spent Fuel Pool and Component Cooling Service Water Effluent)

^{1/} IE Inspection Rpt No. 50-305/77-10.

^{2/} IE Inspection Rpt No. 50-305/76-14.

^{3/} IE Inspection Rpt No. 50-305/77-10.

continues to be inadequate. Due to sand in the service water system, these radiation monitors have apparently been continuous^{4/} problems due to flow blockage to the monitors. The hi-lo flow alarms, for the monitors have been tagged out of service since May 25, 1976, (TCR 76-31). The failure to maintain the process flow through the radiation monitors (RM-16 and RM-20), maintaining the monitors in the operable condition as required, was discussed at the management exit interview.

- d. During the review of a reportable occurrence^{5/6/} concerning the violation of containment integrity (the plant temperature requirements for performing a maintenance activity which requires the breaking of containment integrity) the definition of cold shutdown, as required by the Technical Specifications, was specifically reviewed and evaluated. The definition of cold shutdown at the Kewaunee plant is Tavg equal to or less than 200°F, at least 1% shutdown, and fission power of approximately zero (Technical Specification 1.0.j).

The conclusion of the evaluation was that to be in cold shutdown, the above conditions must be met; but the fact that the temperature is expressed as "Tavg", allowed for a bubble to be maintained in the pressurizer during certain cold shutdown conditions to minimize solid plant operations; e.g., Tavg equal to or less than 200°F and RCS pressure at 400 psig with a bubble established in the pressurizer.

No further questions are required of this matter at this time and this item is considered closed.

- e. The primary and secondary power operated relief valves^{7/} as required for the steam generator tube rupture accident at the plant are considered acceptable.

No further questions are required of this matter at this time and this item is considered closed.

7. Licensee Action on Previous Inspection Findings

- a. (Closed) Unresolved Item (50-305/77-10): Operation of the auxiliary feedwater system pump motor control switches in the "Pullout" position and the discharge header flow control

4/ IE Inspection Rpt No. 50-305/76-14.

5/ RO 50-305/77-22.

6/ IE Inspection Rpt No. 50-305/77-10.

7/ IE Inspection Rpt No. 50-305/77-04.

valves in the "throttled" position during startup, low power, and shutdown operations. Based on the safety analysis requirement that the auxiliary feedwater system is designed to automatically actuate during power operations to prevent a loss of heat sink incident, ample time is considered available to allow operator actions to provide auxiliary feedwater flow during startup, low power, and shutdown operations to maintain an established steam generator water level. This practice is considered acceptable.

- b. (Open) Unresolved Item (50-305/77-10): Operation of the auxiliary feedwater system with the redundant feedwater header cross connect valves normally open. This item will remain unresolved pending retrieval of the design change/safety evaluation by the licensee and review by the inspector.

8. Management Exit

The inspector conducted a management interview with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection at the plant site on August 19, 1977. The inspector summarized the scope and findings of the inspection. The licensee made the following remarks in response to items discussed by the inspector.

The licensee acknowledged the statement by the inspector concerning the operability of the radiation monitoring channels, RM-16 and RM-20 (Paragraph 6.c).

The licensee stated that the apparent failure of the 1B component cooling water pump to close during a preventative maintenance activity would be further evaluated. The licensee stated that the failure had not been fully evaluated due to the enormous workload at the plant during the week of August 15-19, 1977 (Paragraph 2).

The licensee stated that the corrective action system associated with the calibration program and the method of performing and controlling temporary procedure changes would be reviewed. The licensee also stated that all the procedure changes made after the revision to the ACD was issued would be reviewed by the PORC and approved by the Plant Superintendent (Paragraph 4).

The licensee stated that the retrieval of the design data/safety evaluation for changing the auxiliary feedwater header cross connect valves from normally closed to normally open would be pursued (Paragraph 7.b).

The licensee stated that auxiliary feedwater system had been operated and was being operated within the stated guidelines (Paragraph 7.a).