U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-305/87018(DRP)

Docket No. 50-305 License No. DPR-43

Licensee: Wisconsin Public Service Corporation
P. O. Box 19002
Green Bay, WI 54307-9002

Facility Name: Kewaunee Nuclear Power Plant

Inspection At: Kewaunee Site, Kewaunee, Wisconsin

Inspection Conducted: October 1 through November 15, 1987

Inspector: R. L. Nelson

Approved By: R. DeFayette, Chief
Reactor Projects Section 2B

11/20/87
Date

Inspection Summary

Inspection from October 1, 1987 through November 15, 1987 (Report No. 50-305/87018(DRP))
Areas Inspected: Routine unannounced inspection by resident inspector of operational safety; surveillance; maintenance; licensee event reports and generic letter followup.
Results: No significant safety issues were identified.

DETAILS

1. Persons Contacted

*C. R. Steinhardt, Plant Manager
K. H. Weinhauer, Assistant Manager, Plant Maintenance
K. W. Evers, Assistant Manager, Plant Operations
R. E. Draheim, Assistant Manager, Plant Support
D. W. McSwain, Superintendent, Plant Instrument and Control
D. R. Berg, Superintendent, Plant Quality Control
D. T. Braun, Superintendent, Plant Operations
M. T. Reinhart, Superintendent, Plant Radiation Protection
R. P. Pulec, Superintendent, Plant Technical
*D. S. Nalepka, Plant Licensing Supervisor
G. J. Youngworth, Plant Electrical Maintenance Supervisor

The inspector also talked with and interviewed members of the Operation, Maintenance, Health Physics, Instrument and Control, Quality Control, and Security groups.

*Denotes personnel attending exit interviews.

2. Operational Safety Verification (71707 and 71710)

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators throughout the inspection period. The inspector verified the operability of selected safety-related systems, reviewed tagout records, and verified proper return to service of affected components. Tours of the auxiliary and turbine buildings were conducted. During these tours, observations were made relative to plant equipment conditions, fire hazards, fire protection, adherence to procedures, radiological control and conditions, housekeeping, security, tagging of equipment, ongoing maintenance and surveillance, containment integrity, and availability of safety-related equipment.

During the inspection period, the inspector walked down the accessible portions of the auxiliary feedwater, fire protection, service water and emergency diesel generator systems to verify operability.

No violations or deviations were identified.

3. Monthly Surveillance Observation (61726)

The inspector reviewed/observed the following Technical Specification required surveillance testing:

Surveillance Procedure	Test
05A-27	Steam Generator Level Channel Test

Surveillance Procedure	Test
54-059	Turbine First Stage Pressure Instrument Calibration
56C-094	Containment Hydrogen Monitor Annual Calibration
24-107	Shield Building Ventilation Monthly Test
87-125	Instrument Channel Checks

The following items were considered during the inspection: the testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were reviewed and resolved by appropriate management personnel.

No violations or deviations were identified.

4. Monthly Maintenance Observation (62703)

Station maintenance activities of safety related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides, industry codes or standards, and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions of operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; parts and materials used were properly certified; radiological controls were implemented; and fire prevention controls were implemented.

The following maintenance activities were observed/reviewed:

No.	Activity
38121	Adjusted Impeller Clearance on the A Boric Acid Transfer Pump
38571	1B Emergency Diesel Generator Cylinder Test Valve Nos. 9 & 10 Leak - Installed New Valves
38775	Grounded Motor for 1A Component Cooling Water Pump - Removed and Had Motor Rewound, Reinstalled, and Tested

35037 Performed Lift Test of Auxiliary Building Change in Preparation for Installation of Spent Fuel Racks

No violations or deviations were identified.

5. Onsite Followup of Written Reports of Nonroutine Events (92700)

The inspector, through observations, discussions with licensee personnel, and review of records, reviewed the following event reports to determine that reportability requirements were satisfied; that corrective action was implemented; that the response to the event was adequate and met regulatory requirements, license conditions, and commitments, as applicable.

86015 Degraded Operability of R-16 Due to Personnel Failure to Follow Procedures

At 1115 on December 29, 1986, with the plant at 100% power, an Instrument and Control (I&C) man discovered a service water inlet valve for Radiation Monitor R-16 closed. With the valve closed, R-16, the liquid effluent monitor on the service water return line for the Containment Fan Coil Units, was unavailable to monitor the service water discharge from Containment Fan Coil Units 1A and 1B. Immediate actions were taken by the I&C man to inform control room personnel of the event and return the valve to its normally open position.

On a weekly basis, the support lines for R-16 are flushed. During the flushing process, the two service water inlet valves, one from the 1A and 1B Fan Coil Units and the other from the 1C and 1D Fan Coil Units are closed, administratively removing R-16 from service. At approximately 1300 on December 28, following the flushing of the supply lines for R-16, the plant operator performing the procedure failed to reopen the service water inlet valve to R-16 for the 1A and 1B Containment Fan Coil Units. Due to a faulty flow indicator, which erroneously indicated flow to R-16, the closed position of the service water inlet valve went undetected. As a result, R-16 was unavailable for liquid effluent monitoring on the service water return line from Containment Fan Coil Units 1A and 1B for approximately 22 hours. With R-16 in a degraded condition, Radiological Effluent Technical Specifications requires that a grab sample be taken at least once per 12 hours. The required sampling was not performed.

This was an isolated event, that is, the flush procedure is a weekly task and had been performed over 100 times by various operators prior to the event and approximately 45 times since the event with no similar occurrences. The licensee evaluated the system design and reviewed the operating procedure relative to the flushing evolution. It was concluded that a design

change was unnecessary, but the operating procedure could be more clearly written. The Operating Procedure No. N-RM-45, "Radiation Monitoring System" has been revised and implemented. The NRC has evaluated this violation of the ACTION statement associated with Technical Specification Table 7.1, Item 2.b, and determined that the licensee has satisfactorily met the tests of 10 CFR 2, Appendix C, Section V.A.(3), therefore, a Notice of Violation will not be issued, and this matter is considered closed.

87009 Electrical Bus Bar Failure Causes Undervoltage on RXCP Buses and Reactor Trip

The faulted bus bars have been replaced and will be placed into service during the next plant shutdown. A description of the event is documented in Inspection Report No. 305/87015.

No violations or deviations were identified.

6. I.E. Bulletin, Confirmatory Action Letter, and Generic Letter Followup (92703)

Generic Letter

85-05 Inadvertent Boron Dilution Events

This generic letter was provided for information only, and did not involve any reporting requirements. The licensee's review determined that no changes to systems or procedures were necessary to prevent this type of an event.

No violations or deviations were identified.

7. Exit Interview (30703)

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the period and at the conclusion of the inspection on November 15, 1987, and summarized the scope and findings of the inspection activities.

The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents or processes as proprietary.