

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-266/82-18(DPRP); 50-301/82-18(DPRP)

Docket Nos. 50-266; 50-301

Licenses No. DPR-24; DPR-27

Licensee: Wisconsin Electric Power Company  
231 West Michigan  
Milwaukee, WI 53201

Facility Name: Point Beach Nuclear Power Plant, Units 1 and 2

Inspection At: Point Beach Site

Inspection Conducted: August 1 through September 30, 1982

Inspectors: R. L. Hague

B. E. Fitzpatrick

Approved By: L. A. Reyes, Chief  
Projects Section 2B

10/1/82  
11/1/82  
11/1/82

Inspection Summary

Inspection on August 1 through September 30, 1982 (Reports No. 50-266/82-18(DPRP); 50-301/82-18)(DPRP))

Areas Inspected: Routine resident inspection of Operational Safety Verification; Monthly Maintenance Observation; Monthly Surveillance Observation; Licensee Event Reports Followup; Followup on Previous Inspection Findings; Receipt of New Fuel; Review of Periodic and Special Reports; and Independent Inspection. The inspection involved a total of 441 inspector hours onsite by two inspectors including 79 inspector-hours on off-shifts.

Results: No items of noncompliance or deviations were identified.

## DETAILS

### 1. Persons Contacted

- \*J. J. Zach, Manager, Point Beach Nuclear Plant
- T. J. Koehler, General Superintendent
- G. J. Maxfield, Operations Superintendent
- J. C. Reisenbuechler, I&C Superintendent
- W. J. Herrman, Maintenance and Construction Superintendent
- R. S. Bredvad, Health Physicist
- R. Krukowski, Security Supervisor
- \*R. E. Link, EQR Superintendent
- \*F. A. Zeman, Staff Services Supervisor

The inspectors also talked with and interviewed members of the Operations, Maintenance, Health Physics, and Instrument and Control Sections.

\*Denotes personnel attending exit interviews.

### 2. Followup on Previous Inspection Findings

(Closed) Noncompliance (266/82-01-01): Failure to perform 50.59 review of steam pressure sensing modifications. The licensee reviewed the commitments of 10 CFR 50.59, as outlined in PBNP 3.17, with the members of the Manager's Supervisory Staff and the Duty and Call Superintendents.

(Closed) Noncompliance (301/81-21-01): Safety injection pump discharge valve shut during operation. The licensee has installed switch locking devices that prohibit inadvertant valve operation.

(Closed) Open Item (266/81-19-07): Broken fuel assembly grid strap. The licensee received confirmation from the vendor that the fuel assembly could be reinstalled in the core.

(Closed) Open Item (301/82-0103): Derivative junction on PORV controller. In response to Westinghouse Bulletin TB-81-12, "Inadvertant PORV Opening," the licensee performed the recommended test on Unit 2, during the Spring 1982 refueling outage, and verified that the derivative junction was defeated with the derivative control in off.

### 3. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the months of August and September 1982. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the auxiliary building the Unit 2 containment and both turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical

security plan was being implemented in accordance with the station security plan. On September 13, 1982 the licensee made a 24 hour report in accordance with 10 CFR 73.71(b). The resident inspector followed the event and compensatory actions closely.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the months of August and September 1982, the inspector walked down the accessible portions of the Charging and Volume Control, Safety Injection, and Cold Leg Accumulator systems to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

On June 27, 1982, while performing a verification between as-built drawings and field installation of the control room instrumentation a technician discovered an apparent wiring discrepancy in analog rack 2C129 in panel 2RCS-2. The initial indications were that one terminal strip was being powered from two different power supplies; the yellow instrument bus and inverter 2MQ-400. Further investigation revealed that the leads from the inverter 2MQ-400 were disconnected and taped in a junction box at the inverter; therefore, the terminal strip was being supplied only from the yellow instrument bus. This, however, was in variance with the as-built wiring diagram. The terminal strip should have been receiving power from inverter 2MQ-400.

This particular terminal strip supplied power to 2LI-172, one of three level instruments for the "C" boric acid storage tank (BAST). The other two level instruments, 2LI-106 and 2LI-190, are powered from the red instrument bus and the yellow instrument bus, respectively. Therefore, the as-found condition was that two of the three level instruments were powered from the same instrument bus.

The safety function of these level instruments is to transfer the safety injection suction from the BAST to the refueling water storage tank (RWST) on two out of three low level indications. With the wiring as found, a loss of the yellow instrument bus in conjunction with a safety injection on Unit 2 would have prevented the injection of the "C" BAST contents due to an "indicated" two out of three low level. The false low level indication would have resulted in a transfer of the suction for the safety injection system to the RWST.

The BAST's contain approximately 20,000 ppm boric acid solution which is pumped into the RCS by the safety injection pumps following a design-basis Steam Line Break Accident (SLBA). This is done to reduce the peak core power level following a return to criticality resulting from the rapid plant cooldown. The RWST contains approximately 2,000 ppm boric solution. If the RWST content was pumped to the RCS following a design-basis SLBA instead of the BAST content, a higher peak core power would occur following a return to criticality. The precise power level would depend on actual plant conditions at the time. Analysis conducted by Westinghouse of similar situations at other plants indicate that the peak core power could be approximately 10% higher.

Upon discovery, the licensee verified proper wiring of the "B" BAST, and immediately shifted service, from the "C" BAST to the "B" BAST, and subsequently corrected the wiring error. After a lengthy, and involved, records search it could not be determined when or why the wiring change was originally made. The best assumption at this point is that "temporary" wiring change was made while awaiting spare parts to repair a malfunction of the 2MQ-400 inverter in the early 1970s.

The licensee submitted LER 82-005 to document the event. This item is unresolved pending further review by Region III. (301/82-18-01)

No items of noncompliance or deviations were identified.

#### 4. Monthly Maintenance Observation

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 and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for 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; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

Annual Maintenance of 4D Emergency Diesel Generator  
Replace Number 2 Seal on B Reactor Coolant Pump Unit 2

Following completion of maintenance on the 4D Emergency Diesel Generator, the inspector verified that it had been returned to service properly.

At 5:30 a.m. on August 27, 1982, Unit 2 R-11, containment air particulate detector, started increasing to about 10 times normal levels. At 7:30 a.m. R-12 containment gaseous detector started a similar increase. A containment entry disclosed a packing leak on 2RC 560A RTL bypass isolation valve. The leak was estimated at .03 GPM. The decision was made to shutdown the unit and repair the leak. At 2:02 a.m. on August 28, 1982, Unit 2 was off line. At 6:15 a.m., in an attempt to backseat the valve, the RTD bypass low flow alarm was received, indicating that the disc had separated from the stem. At this time it was decided to replace the valve. The valve was replaced, a satisfactory hydrostatic test was

performed, and the reactor was taken critical at 4:24 a.m. on August 29, 1982. Unit 2 was synchronized to the grid at 11:37 a.m. on August 29, 1982. No further problems were encountered.

At 1:28 a.m. on September 25, 1982, Unit 2 was shutdown to inspect the No. 2 seal on the "B" reactor coolant pump. Intermittent indications of excessive leakage past the No. 2 seal were low seal return flow from the No. 1 seal and high standpipe level alarms. Upon inspection, it was verified that the No. 2 seal exhibited abnormal wear characteristics and the seal was replaced. Other maintenance performed during the outage included replacement of body to bonnet gasket on MOV RC-1299, tube plugging in the main steam reheaters and the No. 5 feedwater heaters, and continuing TMI electrical work in containment. The Unit was taken critical at 3:35 a.m. on October 1, 1982, and the generator was put on line at 7:37 a.m. October 1, 1982, no major problems were encountered during the recovery.

No items of noncompliance or deviations were identified.

5. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the Smoke Detector system, Unit 1 Safeguards Logic, Unit 2 Power Range Calibration, Quarterly Axial Offset and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, 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 properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the following test activities:

Unit 1	Flux Mapping
Unit 2	Periodic Test Reactor Protection and Safeguards Channels

No items of noncompliance or deviations were identified.

6. Licensee Event Reports Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

50-266, 82-012; 3D Emergency Diesel Output Breaker failed to close.  
50-266, 82-013; Blown fuse on Containment Spray Valve 1-860D.  
50-301, 82-006; Pinhole leak in CVCS Divert Piping.

No items of noncompliance or deviations were identified.

7. Receipt of New Fuel

The inspector verified prior to receipt of new fuel that technically adequate, approved procedures were available covering the receipt, inspection, and storage of new fuel; observed receipt inspections and storage of new fuel elements and verified these activities were performed in accordance with the licensee's procedures; and, followed up resolutions of deficiencies as found during new fuel inspections.

No items of noncompliance or deviations were identified.

8. Review of Periodic and Special Reports

The inspector reviewed the "Semiannual Monitoring Report Point Beach Nuclear Plant, Units 1 and 2," submitted in accordance with Technical Specification 15.6.9.3.C and the monthly operating reports for the calendar months of July and August. Based on the reviews the inspector determined the reports to be complete and accurate.

No items of noncompliance or deviations were identified.

9. Independent Inspection

Between 6:30 p.m. and 7:00 p.m. on September 14, 1982, while attempting to put the Unit 2 gas stripper into operation a flange at the inlet to a relief valve failed and caused an unplanned gas release. The event was properly reported via the emergency notification system. The maximum 15 minute average release rate was determined to be  $1.64 \text{ E-4}$  curies/second which is .0082% of the technical specification limit. Contamination levels, in the gas stripper room after the incident, were found to be 3-4000 DPM/100 sq. cm. which was easily decontaminated.

The initial cause was thought to be a failed gasket. However, after removing the insulation it was found that the inlet flange to the relief valve had experienced a mechanical failure most probably due to excessive vibration caused by intermittent opening of the relief valve. The leak was repaired by welding a new flange to the inlet piping. This valve and its associated piping will be reviewed to determine if further restraints or valve replacement are necessary.

No items of noncompliance or deviations were identified.

10. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 3.

11. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection period and summarized the scope and findings of the inspection activities. The licensee acknowledged these findings.