

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-266/82-21(DPRP); 50-301/82-21(DPRP)

Docket No. 50-266; 50-301

License No. DPR-24; DPR-27

Licensee: Wisconsin Electric Power Company  
231 West Michigan  
Milwaukee, WI 53203

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

Inspection At: Point Beach Site

Inspection Conducted: October 1 - November 30, 1982

Inspectors: *James A. Reyes for*  
R. L. Hague

1/3/83

*James A. Reyes for*  
B. E. Fitzpatrick

1/3/83

Approved By: *James A. Reyes*  
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Projects Section 2B

1/3/83

Inspection Summary

Inspection on October 1 - November 30, 1982 (Report No. 50-266/82-21(DPRP); 50-301/82-21(DPRP))

Areas Inspected: Routine resident inspection of Operational Safety Verification, Monthly Maintenance Observation, Monthly Surveillance Observation, Review of Plant Operations, Independent Inspection, Preparation for Refueling, Refueling Activities and Review of Periodic and Special Reports. The inspection involved a total of 382 inspector-hours onsite by two NRC inspectors including 65 inspector-hours on offshifts.

Results: Of the eight areas inspected, no items of noncompliance were identified in six areas. Two items of noncompliance were identified in the remaining areas, (Two Instances of Failure to Follow Procedures - Paragraph 2 and Paragraph 9).

## DETAILS

### 1. Persons Contacted

- \*J. J. Zach, Manager, PBNP
- T. J. Koehler, General Superintendent
- G. J. Maxfield, Operations Superintendent
- J. C. Reisenbuechler, I & C Superintendent
- W. J. Herrman, Maintenance & 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. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the months of October and November. 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, Unit 1 containment building 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.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the months of October and November, the inspector walked down the accessible portions of the emergency diesel, auxiliary feedwater, and containment spray systems to verify operability.

During a control room walkdown on October 25, 1982, the inspector noted that the licensee was performing procedure OP-3C, "Hot Shutdown to Cold Shutdown," on Unit 1. The licensee was in the process of performing the special 2000 psid primary-to-secondary integrity test which is Addendum A to that procedure. Step 4.6.1.a of the addendum calls for performance of ICP 10.7, "Bypass of Low-Low Steam Pressure Safety Injection Signal." The prerequisite for performing ICP 10.7 as listed on the procedure is plant to be in cold shutdown. At the time the inspector made his walkdown, the first half of procedure ICP 10.7 had been completed and initialed off by an I&C technician and primary coolant temperature was greater than

400°F. Although Addendum A to OP-3C calls for performing this integrity test at 395 (+5,-0) °F, neither the I&C technician nor the shift supervisor had noted or requested a variance from the prerequisite of cold shutdown prior to performing ICP 10.7. This is an item of noncompliance. (266/82-21-C1a)

On November 4, 1982, during Unit 1 refueling operations the inspector noted, while touring the control room, the absence of the audio source range count rate. On questioning control room personnel, the inspector learned that they remembered hearing the audio signals earlier in the shift but admitted having not heard them recently after it was brought to their attention. The inspector and the shift supervisor inspected the audio equipment and found that the range selector was set on 10,000 CPM. An audio signal was produced approximately every 4 seconds after changing the selector switch to 1,000 CPM. At first it was thought that there was a malfunction in the 10,000 CPM selector switch position, however, further investigation revealed that the timer unit for the system was set at 16 seconds. It would require approximately 40 seconds to accumulate the 10,000 counts which could not be achieved with the timer set at 16 seconds thus no audio signal was produced. The timer was reset to 60 seconds and the normal audio signal was restored. Further questioning of control room and reactor engineering personnel did not disclose how or why the timer had been reset. This is an item of noncompliance. (256/82-21-01b)

No other items of noncompliance or deviations were identified.

### 3. 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:

Unit 1 Steam Generator Tube Plugging  
Unit 1 Reactor Coolant Pump Maintenance  
Unit 1 Flux Thimble Cleaning  
Reactor vent and level systems installation valve 1-860C maintenance

Following completion of maintenance on the steam generators and valve 1-860C, the inspector verified that these systems had been returned to service properly.

No items of noncompliance or deviations were identified.

4. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the Unit 1 steam generators, Unit 1 safety injection system, emergency diesel generators 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:

IT-50, Post Maintenance Stroke Test of Valve 1-860C,  
IT-540, Leakage Reduction and Preventive Maintenance Program of the Containment Spray System.

At 1:45 p.m., October 15, 1982, while in the process of calibrating the air ejector activity monitor, a leak developed in a fitting and the contents of the calibration gas bottle were released to the turbine building atmosphere. The total release was 0.167 curies of primarily Xenon -133 and Xenon -135 which was exhausted to the environment by the turbine building ventilation system. The maximum release rate was 0.05% of the Technical Specification limit. No measurable exposures resulted and the licensee made an emergency notification system report at 2:36 p.m., October 15, 1982.

No items of noncompliance or deviations were identified.

5. Review of Plant Operations

During the months of October and November, 1982, the inspector reviewed the following activity.

Training

The inspector attended two of the licensee's operator requalification lecture series and verified that lesson plan objectives were met and

that training was in accordance with the approved operator requalification program schedule and objectives.

The inspector verified by direct questioning of one new, one existing, and one temporary employee that administrative controls and procedures, radiological health and safety, industrial safety, controlled access and security procedures, emergency plan, and quality assurance training were provided as required by the licensee's technical specifications; verified by direct questioning of one craftsman and one technician that on-the-job training, formal technical training commensurate with job classification, and fire fighting training were provided.

No items of noncompliance or deviations were identified.

6. Preparation for Refueling

The inspector verified that technically adequate procedures were approved for the Point Beach Unit 1 Cycle 10 refueling. The inspector verified that the licensee had submitted a proposed core reload technical specification change to NRR (or that the licensee's 10 CFR 50.59 safety evaluation of the reload core showed that prior NRR review is not required). The inspector also reviewed the licensee's program for overall outage control.

No items of noncompliance or deviations were identified.

7. Refueling Activities

Point Beach Unit 1 entered the Cycle 10 refueling outage on October 22, 1982, which continued throughout the inspection period.

The inspector verified that prior to the handling of fuel in the core, all surveillance testing required by the technical specifications and licensee's procedures had been completed; verified that during the outage the periodic testing of refueling related equipment was performed as required by technical specifications; observed both shifts of the fuel handling operations (removal, inspection and insertion) and verified the activities were performed in accordance with the technical specifications and approved procedures; verified that containment integrity was maintained as required by technical specifications; verified that good housekeeping was maintained on the refueling area; and, verified that staffing during refueling was in accordance with technical specifications and approved procedures.

No items of noncompliance or deviations were identified.

8. Steam Generator Debris

On November 5, 1982, the licensee reported that a steam generator (S/G) annular search had disclosed the following debris inside the S/G's. "A" S/G contained one 6 inch "C" clamp, one 3 inch hose clamp, the pivot plate from the "C" clamp and several pieces of lock wire. "B" S/G contained two vertical wrapper support bars, one piece of bar stock 5 feet

long by 1/4 inch by 3/8 inch, one piece of welding slag 1 inch by 1/2 inch by 1/4 inch, several welding rods, and several pieces of lockwire.

Due to visual tube damage in the vicinity of the "C" clamp the licensee performed an eddy current inspection in both S/G's. This eddy current inspection revealed two tubes with pluggable defects which were apparently caused by the "C" clamp. Two tubes adjacent to the "C" clamp had previously required forced outages in February and May of 1978 to plug them due to primary to secondary leakage in excess of 100 gallons-per-day. Three tubes indicated minor denting at the top of the tubesheet in the area of the "C" clamp. No other debris related damage was noted.

All of the objects were removed from the "B" steam generator on November 16, 1982, except for several pieces of lightweight lockwire which extended between tube columns and appeared to be fixed in the sludge. The 1/4 inch x 3/8 inch x 58 inch rod which was removed was carbon steel and showed no signs of wearing against the tubes. The rod is estimated to have been in the steam generator for at least five years and could possibly have been in the steam generator since before the unit was placed in service in 1970. The two metal blocks (carbon steel) were identified as items used in the wrapper support structure (Item 14 on Westinghouse assembly drawing No. 679J446). The blocks did not show any signs of ever being installed, and a remote visual inspection verified that there were no support blocks missing. Thus, the blocks were extraneous and appear to have been in the steam generator annulus since fabrication.

All of the items were removed from the "A" steam generator on November 24, 1982. The "C" clamp handle had to be cut before the clamp could be maneuvered out of the steam generator. It is believed that the "C" clamp could have fallen into the steam generator in October 1977 when the downcomer flow resistor plate modification was performed. The origin of the hose clamp is unknown. During the retrieval efforts, a pin 1/4 inch in diameter by 1-1/2 inches long was lost from one of the retrieval tools. Attempts to locate the pin were unsuccessful.

The licensee performed an evaluation and concluded that the missing part poses no threat to the steam generator tube integrity. NRR has accepted the licensee's evaluation for the startup and subsequent operation. On November 30, 1982, reactor coolant system filling and venting was in progress in the process of returning the unit to operation.

As a result of this event the licensee is reviewing the procedures for housekeeping and accountability for maintenance performed on open systems. The licensee has submitted LERs 82-17 and 82-22 to satisfy the reporting requirements for this event.

The inspector's review of this matter indicated that the matter was properly reported, that there were no identified deficiencies in management controls and that there were no indications of breakdowns in the QA/QC programs.

No areas of noncompliance or deviations were identified.

9. Independent Inspection

On October 5, 1982, while placing the Unit 2 gas stripper in operation, water was observed to be spraying out of several valves. The leak was isolated within 9 minutes of its discovery and the auxiliary building was evacuated. The release was monitored by the auxiliary building stack monitor from 12:50 p.m. until termination, at 3:00 p.m. Seven persons received minor skin contamination and were subsequently whole body counted with no abnormalities noted. The maximum 15 minute average release rate was 0.632% of the Technical Specification limit. The licensee made an ENS notification at 1:21 p.m.

Investigation revealed that the release was caused by pressurizing the gas stripper and purification portions of the chemical and volume control system to the relief set point of 200 psig. This portion of the system uses 3 inch Grinnel diaphragm valves, which leaked water out through the body to bonnet joint, at a pressure below the relief set point. The licensee has issued a design change review to lower the relief set point below the point at which the diaphragm valves start to leak.

The cause of the pressure increase was that manual isolation valve 2GS-3 was closed when the system had been secured. This condition was not noted on the watch turnover logs for the auxiliary building watch, the Unit 2 reactor operator, or the operating supervisor. This is an item of noncompliance. (301/82-21-01)

At 6:33 p.m., on October 15, 1982, Unit 1 experienced a runback from 78% to 65% power, while securing an instrument power supply. An auxiliary building watchstander was investigating the source of the odor of hot wiring, and determined it to be the 1GY04 MG set, which was supplying power for the yellow instrument bus, 1Y04. The watchstander informed the control room, and the shift supervisor went to the scene. The shift supervisor called the control room and told the operator to shift bus 1Y04 to it's alternate power supply. The operator followed the procedure 0I-37. However, he misunderstood the communication, and shifted the white instrument bus, 1Y03, to it's alternate power supply. Upon getting word that the instrument bus had been shifted to it's alternate power supply, the shift supervisor directed the auxiliary building watchstander to trip the MG set, which was still carrying the yellow instrument bus. Upon receiving indications that the yellow instrument bus had been lost, the operator in the control room immediately shifted it to it's alternate power supply. However, the momentary loss of one power range detector was interpreted by the protective system as a dropped rod, and the automatic runback was initiated.

Timely diagnosis and response by control room personnel prevented a reactor trip in that feedwater control was being supplied from the yellow instrument bus steam generator levels. As a result of a followup investigation to this incident, the inspectors recommended that the licensee change procedure 0I-37, to include a step requiring verification of no load on the local ammeter prior to deenergizing the power supply.

No items of noncompliance other than the one noted above or deviations were identified.

10. Review of Periodic and Special Reports

During the inspection period the inspector reviewed the monthly operating reports for the calendar months of September and October. Based on the reviews the inspector determined the reports to be complete and accurate. The inspector also reviewed the "Point Beach Nuclear Plant Unit Number 1 Steam Generator Repair Report" and will continue to follow the ongoing correspondence between the licensee and NRR on this topic.

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.