

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-266/82-23(DETP)

Docket No. 50-266

License No. DPR-24

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

Facility Name: Point Beach Nuclear Power Plant, Unit 1

Inspection At: Point Beach Site, Two Creeks, WI

Inspection Conducted: November 15-17, 1982

Inspectors: *P.C. Lovendale*
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12/13/82
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Approved By: *L.R. Greger*
L. R. Greger, Chief
Facilities Radiation
Protection Section

Inspection Summary

Inspection on November 15-17, 1982 (Report No. 50-266⁶/82-23(DETP))
Areas Inspected: Routine, unannounced inspection of radiation protection activities associated with the refueling and maintenance outage including: radiation protection organization, radiation protection procedures, training, exposure control, posting, access control, and independent measurements. The inspection involved 38 inspector-hours onsite by two NRC inspectors.
Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

*R. S. Bredvad, Plant Health Physicist
*R. E. Link, Superintendent, Engineering, Quality and Regulatory Services
*J. C. Reisenbuchler, Superintendent, Technical Services
*P. J. Scramstad, Superintendent, Chemistry and Health Physics
*J. J. Zach, Manager, Point Beach Nuclear Plant
*F. A. Zeman, Supervisor, Staff Services

*R. L. Hague, Senior Resident Inspector, NRC

*Denotes those present at the exit meeting.

2. General

This inspection, which began at 12:00 p.m. on November 15, 1982, was conducted to examine routine aspects of the radiation protection program during refueling and major maintenance operations. During tours, the inspectors used NRC survey instruments (Xetex 305-B) to monitor selected areas throughout the plant. Measurements made were in agreement with posted survey data. Area posting and housekeeping were good.

3. Radiation Protection Organization

The licensee's organization remains as previously described.¹ One nuclear plant specialist position remains unfilled. The licensee is apparently experiencing some difficulty in filling this vacancy, partially because of the desire to hire an experienced individual with supervisory capabilities. It appears no current health physics staff member possesses supervisory qualities necessary to act as a replacement for the present Plant Health Physicist if he terminates or is absent for long period. This matter was discussed during the exit meeting.

The health physics group has been augmented with 32 contract health physics technicians for the current outage. No problems with contract technician training or qualifications were noted.

No items of noncompliance were identified.

4. Radiation Protection Procedures

The inspectors reviewed the following health physics procedures to determine if they are consistent with 10 CFR 20 and good health physics practices. No problems were noted.

¹ Inspection Report No. 50-266/82-06(DETP).

HP 2.7	Revision 5	Radiation Work Permits
HP 8.3	Revision 6	Posting of Radiological Hazard Areas
HP 3.1	Revision 3	Personnel Exposure Monitoring Devices
HP 10.1.2	Revision 6	SRD-TLD Comparison
HP 2.9	Revision 0	High Radiation Area Key Control
HP 10.6	Revision 6	HP Procedures for Security Guards
HP 10.8	Revision 2	Bioassay

No items of noncompliance were identified.

5. Orientation Training

The inspectors reviewed the radiation protection training program presented to contractor and new employees. This training utilizes video cassette tapes followed by a written examination. Also, participants are given handouts which cover subjects such as risk, health effects, and female radiation exposure. This training appears to meet the requirements of 10 CFR 19.12 "Instructions to Workers."

No items of noncompliance were identified.

6. External Exposure Control During Steam Generator Maintenance

During this inspection, the licensee was in the process of removing several foreign objects from the secondary side of both Unit 1 steam generators. The inspectors reviewed the licensee's program for external exposure control utilized during this work.

Access to the secondary side of the steam generators was being accomplished through handholes. Dose rates were approximately 2 R/hr at the opening of the hand holes, 3-4 R/hr one foot inside the steam generator, and 10 R/hr three feet inside the steam generator. Whole body personal dosimetry utilized for this work included a TLD, a low range self-reading dosimeter (0-500 mR), and a high range self-reading dosimeter (0-2000 mR). Extremity dosimetry included finger ring TLDs and self-reading dosimeters on each hand.

At the time of this inspection, total whole body exposure for all Unit 1 steam generator work (including eddy current testing, tube plugging, and foreign object retrieval efforts) was about 91 person-rems. Total extremity exposure could not be readily determined since it is not tracked in the same manner as whole body dose. Also, it was noted that individual worker extremity exposures were not being tracked to ensure 10 CFR 20.101 limits were not exceeded, however, for all workers reviewed whole body doses were limiting and were properly tracked. The highest extremity exposure noted was about 2.5 rems. This matter was discussed during the exit meeting.

No items of noncompliance were identified.

7. Internal Exposure Control

Whole body counting data for January 1982 to date were reviewed. No body burdens indicative of an exposure greater than the 40 MPC-hour control measure were noted. Plant personnel and other Company employees who work in controlled areas during refueling and other major outages are routinely whole body counted following the outage. Contract employees who are expected to use respirators or have previously worked at nuclear facilities are whole body counted both when they begin work at the site and upon termination.

No items of noncompliance were identified.

8. Posting and Access Control

a. Posting

The inspectors reviewed controlled area postings to determine compliance with 10 CFR 20.203, contaminated area, and Radiation Work Permit (RWP) posting requirements. Postings of radiation, high radiation, and contaminated areas were good and were supplemented with current survey information. Copies of RWPs were properly posted at access control and were also available at the job sites.

The licensee is in the process of implementing a revised technical specification for high radiation area control. The new specification requires areas with accessible radiation levels of greater than 1000 mrems/hr, which are located within large areas where no enclosures exist or could reasonably be constructed, to be roped off, conspicuously posted, and equipped with a flashing light as a warning device. The lights selected to meet the warning device requirement are red strobe lights which should be readily visible to persons entering these areas. Placement of the lights is still under consideration with regard to their distance from the actual area of concern. This matter was discussed during the exit meeting. No problems were noted.

b. Access Control

The licensee's program for controlling access to radiation, high radiation, and contaminated areas was reviewed. Generally, access to unposted controlled areas and radiation areas requires appropriate training, dosimetry, and minimal protective clothing. Entries into high radiation areas, contaminated areas, or areas where work is in progress that could cause radiological problems are controlled by issuance of radiation work permits unless specifically exempted. Individuals entering an area under an RWP are required to read and initial the RWP before entry. Observations and record review indicate that these requirements are being adhered to. All workers exiting access control are required to perform appropriate personal contamination monitoring using a "pancake" type frisker. Observa-

tions showed that adequate monitoring was being conducted. No workers were observed bypassing the friskers. No problems were noted.

Two incidents involving access control of high radiation areas, which occurred just prior to the inspection, were reviewed. The first incident involved the entrance hatch to the Unit 1 keyway (area under the reactor vessel). During a routine tour, a contract health physics technician was able to lift the hatch leading to the keyway high enough to make him believe the area was unlocked. This area contains very high radiation fields when the incore instrument thimbles are pulled. Since the technician was aware of the hazards associated with this area he immediately contacted the Health Physics Supervisor. Also, health physics personnel were immediately notified by security personnel that the hatch had been opened since it is equipped with an alarm which annunciates on the security alarm system. It was estimated that the health physics technician responding to the alarm arrived at the keyway hatch within about three minutes from the time the hatch was lifted by the contract health physics technician. Further investigation showed that that hatch was locked, but that excessive slack was left in the chain used to lock the hatch so that the hatch could be lifted about 30 degrees from its fully closed position before the chain prevented further opening. A review of security system alarms showed that no unauthorized entries to the keyway occurred. As corrective action, the licensee shortened the chain so the hatch could not be lifted significantly from its closed position. Additionally, the licensee stated that a procedure for double checking locks on certain areas which contain very high radiation fields would be considered. No further problems were noted.

The second incident involved an entry into the Unit 2 containment while the unit was operating. Two workers entered through the upper airlock and proceeded to the lower airlock to repair the door gasket. While the workers were in containment, the upper airlock door (outer) was unlocked and unguarded. The containment is considered a greater than 1000 mR/hr high radiation area while the unit is operating; therefore, the licensee requires that a guard be posted while the door is unlocked. A licensee investigation showed that the duty Health Physics Supervisor had neglected to ensure the containment door was guarded. The Supervisor was administratively disciplined. Review of security alarm system records showed that no unauthorized entries to the containment occurred during the period the door was unlocked and unguarded. The licensee's corrective actions appear adequate. No further problems were identified.

The licensee was recently cited² for failure to properly control access to high radiation areas. Although licensee corrective actions for the citation have not been completely implemented, these latest

² Inspection Report No. 50-266/82-12(DETP).

incidents indicate a need for increased management attentions in this area.

No items of noncompliance were identified.

9. Exit Meeting

The inspectors met with licensee representatives (denoted in Section 1) at the conclusion of the inspection on November 17, 1982. The inspectors summarized the scope and findings of the inspection. In response to certain items discussed by the inspectors, the licensee:

- a. Acknowledged the inspectors' comments concerning placement of flashing warning lights as close to the area that exceeds 1000 mR/hr as is practicable. (Section 8.a)
- b. Stated that increased attention would be given to tracking extremity exposures. (Section 6)
- c. Acknowledged inspector concerns related to the expeditious hiring of a nuclear plant specialist who possesses supervisory capabilities. (Section 3)
- d. Acknowledged inspector concerns in regard to recent high radiation area control problems, and stated that ongoing management attention to this area should improve performance.