

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-266/92019(DRSS); 50-301/92019(DRSS)

Docket Nos. 50-266; 50-301

License Nos. DPR-24; DPR-27

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

Facility Name: Point Beach Nuclear Plant

Inspection At: Two Rivers, Wisconsin

Inspection Conducted: September 8 - 11, 1992

Inspector: T. J. Kozak *William Snell for*

9/30/92
Date

Approved By: *William Snell*
William Snell, Chief
Radiological Controls Section 201

9/30/92
Date

Inspection Summary

Inspection on September 8-11, 1992 (Report Nos. 50-266/92019(DRSS); 50-301/92019(DRSS))

Areas Inspected: Routine announced inspection of the radiation protection program (Inspection Procedure (IP) 83750) with a special emphasis on 10 CFR Parts 20 and 61 requirements (IP 84850) for transportation and disposal of low level radioactive wastes, including: organization and management controls, quality control, solid radwaste shipping, and implementation of waste classification and characterization requirements (IP 84850), and maintaining occupational exposures as low as reasonably achievable (ALARA) (IP 83750).

Results: The licensee's radiation protection program appears to be very effective in controlling radiological work and in protecting the public health and safety. The radwaste processing, shipping and disposal programs were good with an experienced staff effectively implementing the requirements of 10 CFR Parts 20 and 61. An open item was identified concerning quality control of radwaste operations. Significant effort was expended to process and dispose of mixed waste. No violations or deviations were identified.

DETAILS

1. Persons Contacted

- * M. Baumann, Project Engineer, Radiological Engineering
 - * J. Becka, Manager - Regulatory and Support Services
 - J. Bevelacqua, Manager - Health Physics
 - W. Doolittle, Health Physics Specialist
 - * F. Flentje, Administrative Specialist - Regulatory Services
 - T. Guay, Health Physics Supervisor
 - * G. Maxfield, Manager - Point Beach Nuclear Plant
 - * M. Moseman, Health Physics Specialist
 - * P. Scheffel, Supervisor, Health Physics Technician
 - * S. Thomas, Health Physics Specialist
- J. Gadzala, Resident Inspector
 K. Jury, Senior Resident Inspector

The inspector also interviewed other licensee and contractor personnel during the course of the inspection.

* Denotes those present at the exit meeting on September 11, 1992.

2. General

This inspection was conducted to review aspects of the licensee's radioactive waste (radwaste) transportation and disposal program to ensure compliance with applicable regulations. The inspection included tours of radiologically controlled areas including the auxiliary building and radwaste facilities, observations of work in progress, reviews of representative records and discussions with licensee personnel. During performance of the tours, no significant access control, posting, or procedural adherence problems were noted.

3. Organization and Management Controls (IP 84850)

The inspector reviewed the licensee's organization and procedures for radwaste processing to ensure that the responsible individuals have been clearly designated, that there has been clear delineation of the authorities and responsibilities of those individuals, and that written management-approved instructions have been established to carry out the various radwaste processing and packaging activities.

Investigations revealed that assignments and responsibilities for the radwaste processing program were clearly delineated. Responsibility for ensuring that the solid waste transportation and disposal programs were in compliance with the applicable regulations was shared between two individuals who report directly to the Manager - Radiation Protection. Their responsibilities include planning waste disposal activities as well as day-to-day implementation of the program including paperwork preparation, survey requirements, and job preparation and execution.

The licensee has developed detailed management approved procedures covering most aspects of the radwaste program. Most procedures are

contained in the Radioactive Materials Handling Manual and are numbered RDW 11.0 through RDW 18.4. The licensee also utilizes vendor procedures for other aspects of radwaste processing. The inspector verified that the licensee's procedures contained provisions for all aspects of radioactive waste processing, shipping and disposal.

No violations or deviations were identified.

4. Quality Control (IP 84850)

The inspector reviewed the results of Quality Assurance audits and surveillances conducted by the licensee since the last inspection and quality control of radioactive waste operations to ensure the requirements of 10 CFR 20.311 were met.

There has been one audit performed in the radioactive waste area program in the past two years. The audit consisted of two segments; an administrative review and field observations of work activities. The audit appeared to address all applicable procedures in the administrative segment although no significant findings were identified. The second segment of the audit involved observation of in progress waste activities, but was not very comprehensive as only stock drum compacting was observed. No significant findings were identified in this segment either.

The quality control requirements of 10 CFR 20.311 were implemented through the use of peer review of specified work activities. While this appears to meet the intent of the regulations, it was not documented that the licensee was using this form of quality control nor was there a written requirement for it to take place. Thus, it was possible for radwaste activities to occur without any quality control review of them. The licensee indicated that they would investigate ways to formally require review of radwaste activities. Progress in this area will be reviewed during a future inspection (Inspector Followup Item 50-266/92019-01; 50-301/92019-01).

No violations or deviations were identified. One inspector followup item was identified.

5. Solid Radwaste Shipping (IP 84850)

The inspector reviewed licensee records for radwaste shipments in 1991 and through August 1992. The total burial volume in 1991 was approximately 3,400 cubic feet. Through August 1992, total burial volume was approximately 2,400 cubic feet. These totals include waste sent from vendors after processing to achieve a much greater volume reduction than can be attained onsite.

A review of selected radwaste shipment records verified the licensee's compliance with the manifest requirements of 10 CFR 20.311(b), (c), and (d) (5)-(7), and the shipping paper requirements of 49 CFR 172.200-204. Procedure and record reviews indicated that shipments of radwaste were marked and labeled in accordance with applicable regulations. Vehicle placarding requirements also appeared to have been properly met. Licensee procedures and records indicated that the system for tracking

checklist documenting shipment departure and arrival dates was maintained by the responsible personnel. The licensee stated that there have been no problems with missing shipments, late arrival of shipments, or delayed acknowledgement of receipt of shipments. In addition, adequate procedures to ensure that the applicable disposal site and waste processor license conditions were met. Finally, the licensee had current copies of the disposal site licenses on hand and readily available.

No violations or deviations were identified.

6. Waste Classification and Characterization (IP 84850)

The inspector verified that the licensee was appropriately classifying and characterizing their radioactive waste. The licensee has identified four different waste streams; dry active waste (DAW), primary resin, blowdown evaporator bottoms, and radioactive filters. The licensee sends samples from these waste streams to a vendor for analysis to identify those isotopes which are not readily quantifiable using gamma spectroscopy and to develop specific scaling factors relating the difficult to measure isotopes to common gamma-emitters such as Cs-137 and Co-60. DAW samples were sent at least every other year. Primary resin samples were sent for each shipment. The results of the resin samples are used for the next shipment as results are generally not available in time for the shipment from which they are obtained. Blowdown evaporator bottom samples were also sent one a year for analysis. The bottoms are normally solidified. A review of records indicated that in each case the bottoms met Class A unstable limits so archiving of samples was not required.

The computer program RADMAN, which has an approved topical report with the NRC, was recently purchased for use in classifying waste shipments. These calculations were previously performed by hand. The inspector verified that the licensee's scaling factors were properly applied and that the appropriate limits corresponding to those in the tables for waste classification in 10 CFR 61.55 were accurate.

A review of procedures and discussions with licensee personnel indicated that the waste form and characterization requirements of 10 CFR 61.56 were met. The licensee's solid radioactive waste processing program was verified to be as described in the process control program and the USAR. The licensee processed compactable dry active waste (DAW) using two different methods. Most of the time, DAW was loaded into seawans and sent to a vendor for processing by either incineration or supercompaction. In other cases, the licensee utilizes an onsite compactor and then sends the drums to a vendor for further processing. Through 1990, the licensee solidified all resin. However, the licensee recently adopted an NRC approved vendor supplied dewatering procedure for resin processing. Files of disposal liners and shipping casks were maintained by the responsible personnel. The 10 CFR Part 61 waste stabilization requirements were met through variances and Certificates of Compliance granted by the burial site's host state which allows approved liners to be placed in an approved concrete overpack container to provide waste stabilization.

The licensee previously had approximately 35 drums containing mixed waste in the Unit 1 facade area. Radwaste personnel spent a considerable amount of time and effort in locating a vendor to process and dispose of this waste. This successful endeavor is commendable.

No violations or deviations were identified.

7. Maintaining Occupational Exposures ALARA (83750)

The inspector reviewed the licensee's program for maintaining occupational exposures ALARA, including: changes in ALARA policy and procedures, and their implementation; ALARA considerations for planned maintenance and refueling outages; worker awareness and involvement in the ALARA program; establishment of goals and objectives, and effectiveness in meeting them.

There did not appear to be any changes in the licensee's ALARA policy. The inspector conducted interviews with licensee personnel to discuss their ALARA plans for the remainder of the year especially with regards to the upcoming fall outage. The outage schedule was in the process of being developed and all potential high dose jobs have been identified. Specific ALARA considerations for the outage will be reviewed during a future inspection.

The licensee's goal for total dose in 1992 is approximately 250 person-rem. Personnel dose to date was approximately 130 person-rem, 114 of which was expended during the spring refueling outage. The dose during the refueling outage was just under the goal of 125 person-rem as the licensee continued to perform well by maintaining tight control over outage tasks.

No violations or deviations were identified.

8. Exit Interview

The inspectors met with licensee representatives (denoted in Section 1) at the conclusion of the inspection on September 11, 1992, to discuss the scope and findings of the inspection.

During the exit interview, the inspector discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. Licensee representatives did not identify any such documents or processes as proprietary. The inspector specifically discussed the following items:

- * The inspector followup item concerning quality control of radwaste activities.
- * The initiative shown to dispose of mixed waste which had been onsite for many years.