

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-155/82-11(DETP)

Docket No. 50-155

License No. DPR-6

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Big Rock Point Nuclear Plant

Inspection At: Big Rock Point Site, Charlevoix, MI

Inspection Conducted: June 28-July 1, 1982

PC Lovendale
Inspector: P. C. Lovendale

7/19/82

D. E. Miller / for
Approved By: L. R. Greger, Chief
Facilities Radiation
Protection Section

7/19/82

Inspection Summary

Inspection on June 28-July 1, 1982 (Report No. 50-155/82-11(DETP))

Areas Inspected: Routine, unannounced inspection of operational radiation protection activities including: effluent control instrumentation; testing of air cleaning systems; reactor coolant water quality; licensee audits; radiation protection procedures; radiological qualification and training; exposure control; transportation activities; and in-plant radiation protection program. The inspector also reviewed the licensee's actions taken in response to previous inspection findings. The inspection involved 28 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

- *D. P. Hoffman, Plant Superintendent*
- *J. Epperson, Associate Health Physicist
- *M. Dickson, General Health Physicist
- *G. Fox, Chemistry and Radiation Protection Supervisor
- *J. Werner, Radiation Protection and Chemistry Supervisor
- *T. Loudenslager, Chemistry and Health Physics Instructor

The inspector also contacted other licensee employees, including chemistry and radiation protection technicians and members of the quality assurance staff.

*Denotes those present at the exit meeting.

2. General

This inspection, which began with a plant tour and visual observation of posting, labeling, and access controls at 8:00 a.m. on June 28, 1982, was conducted to examine routine aspects of the radiation protection program during normal operations. During this and other tours, the inspector used an NRC survey instrument (Xetex 305-B) to monitor selected areas throughout the plant. Measurements made were in agreement with posted survey data. Area postings, and access controls were good.

3. Licensee Action on Previous Inspection Findings

(Closed) Open Item (155/81-11-04): Review the progress of chemistry and radiation protection technician training program. The licensee continues to send junior and senior technicians to 12-week basic and advanced chemistry and health physics courses at the Midland plant as time permits. No further problems were noted.

(Closed) Open Item (155/81-11-05; 155/81-11-03): Significant weaknesses exist in the RWP-exempt program. As noted in Inspection Report No. 50-155/82-04(DETP), the licensee has committed to implementation of a new radiation work permit (RWP) program which conforms to the corporate standards by September 30, 1982. This new program will eliminate the present RWP-exempt program.

(Closed) Open Item (155/81-11-06): Improvements needed in the personal contamination monitoring program. The licensee is continuing to relocate or shield friskers that are located in high background areas. Also, more sensitive friskers have been purchased to replace old and less sensitive ones. No further problems were noted.

(Closed) Bulletin (155/80-10-BB): "Contamination of Nonradioactive Systems and Resulting Potential for Unmonitored Uncontrolled Release

of Radioactivity to Environment." During a previous inspection¹, it was noted that additional information was needed to assess the licensee's actions taken in response to this bulletin. That information was provided in a letter dated December 19, 1980. No further problems were noted.

4. Effluent Controls Instrumentation

The inspector reviewed records of effluent monitoring system calibrations and functional tests conducted to meet technical specification requirements. Records for 1981 and 1982 to date were reviewed; no problems were noted.

A review of effluent monitor trip and alarm setpoints indicated compliance with technical specification requirements.

No items of noncompliance or deviations were identified.

5. Testing of Air Cleaning Systems

As noted in a previous inspection², the stack and laboratory ventilation HEPA filters are not tested in-place in accordance with the recommendations of Regulatory Guide 1.140, "Design, Testing, and Maintenance Criteria for Normal Ventilation Exhaust System Air Filtration and Adsorption Units of Light-Water-Cooled-Nuclear Power Plants." This matter was discussed during the exit meeting and will be reviewed during a future inspection. (155/82-11-01)

No items of noncompliance or deviations were identified.

6. Reactor Coolant Water Quality

The inspector reviewed selected licensee records to determine compliance with technical specification requirements for reactor coolant periodic tests, chemical control, and radioactivity control. Records from CY 1981 to date were reviewed; no problems were noted.

No items of noncompliance or deviations were identified.

7. Licensee Audits

The inspector reviewed licensee audits of the radiation protection program and corrective measures for identified problems. The audits reviewed included: an audit of packaging and shipping greater than Type A quantities of radioactive material; an audit of radioactive material control; and an audit of the radiation protection program. All of the above audits were conducted by the Quality Assurance Group on site during 1981.

¹ Inspection Report No. 50-155/80-16.

² Inspection Report No. 50-155/80-04.

The licensee was responsive to identified problems and corrective actions appeared effective.

8. Radiation Protection Procedures

The inspector reviewed changes to radiation protection procedures issued in 1981 and 1982 to date. The changes appear to be consistent with regulatory requirements and good health physics practices. No problems were noted.

9. Radiological Qualifications

The inspector reviewed recent changes to the Chemistry and Health Physics Group. A health physicist was added to the staff in early 1982. He previously worked for the corporate office. The current staff qualifications are listed below. No problems were noted.

Position	Degree	Plant Experience	Related Experience
Plant Health Physicist	None	20 yrs.	
Associate Health Physicist	BS	0.5 yrs.	2 yrs.
General Health Physicist	AS	1.5 yrs.	4.5 yrs.
Chemistry and Radiation Protection Supervisor	BS	20 yrs.	5 yrs.
Radiation Protection and Chemistry Supervisor	None	7 yrs.	

The licensee currently has 14 chemistry and radiation protection technicians. Of these, 6 hold BS degrees, 4 hold AS degrees, and 4 are not degreed. Although the technicians' average education is high, the experience level is low. Only 3 technicians have greater than 2 years of operating plant experience.

No items of noncompliance or deviations were identified.

10. External Exposure Control

The licensee's personal monitoring program remains as previously described³. The inspector selectively reviewed exposure records for 1981 and 1982 to date. No problems were noted.

Pocket dosimeter/TLD comparisons were reviewed. No problems were noted.

³ Inspection Report No. 50-155/80-04.

No items of noncompliance or deviations were identified.

11. Internal Exposure Control

The licensee's program for control of internal exposures includes reduction of surface contamination levels and use of engineering controls, protective clothing and equipment, survey information, and stay-time calculations. Whole body counting is used to supplement the routine monitoring program to ensure its effectiveness.

Whole body counting data, respiratory protection training records, MPC-hour determinations, and air activity surveys from January 1981 to date were reviewed. No exposures greater than the 40 MPC-hour control measure were indicated.

No items of noncompliance or deviations were identified.

12. In-Plant Radiation Protection Program

a. Surveys

The inspector selectively reviewed radiation, contamination, and airborne radioactivity surveys conducted to meet surveillance requirements and determine radiation work permit requirements. No problems were noted.

b. Posting and Access Controls

The inspector reviewed radiation, high radiation, and contamination area postings within the plant controlled area. All postings appeared to meet the requirements of 10 CFR 20.203.

c. Release of Materials for Unrestricted Use

The licensee's procedures for release of materials for unrestricted use were reviewed. The licensee does not release materials for unrestricted use if any detectable activity is found using current state-of-the-art equipment and methods. Equipment sensitivities are greater than or equal to the minimum sensitivities noted in IE Circular No. 81-07.

No items of noncompliance or deviations were identified.

13. Transportation Activities

The inspector reviewed the licensee's program for receipt, packaging, and transport of radioactive materials. Procedure RM-53, Revision 7, "Radioactive Materials Shipments," was found to be consistent with the requirements of 49 CFR 170-189, 10 CFR 71 and burial site criteria; no problems were noted.

The inspector monitored the final preparations for a shipment of segmented fuel rods on June 28, 1982. No problems were noted.

Records of shipments from January 1981 to date were reviewed. No problems were noted.

No items of noncompliance or deviations were identified.

14. Exit Meeting

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

- a. Stated that the recommendations of Regulatory Guide 1.140 concerning in-place testing of HEPA filters would be reviewed.