

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 85-14

Docket No. 50-277

License No. DPR-44

Priority -

Category C

Licensee: Philadelphia Electric Company

2301 Market Street

Philadelphia, PA 19101

Facility Name: Peach Bottom Atomic Power Station, Unit 2

Inspection At: Delta, Pennsylvania

Inspection Conducted: March 11, 1985

Inspectors:

H. J. Dicehouse
H. J. Dicehouse, Radiation Specialist

3/27/85

date

L. E. Myers
L. E. Myers, Radiation Specialist

3/27/85

date

Approved by:

W. Pasciak
W. Pasciak, Chief
BWR Radiological Protection Section

3/27/85

date

Inspection Summary: Inspection on March 11, 1985 (Report No. 50-277/85-14)

Areas Inspected: Special unannounced inspection to review the licensee's assessments of external and internal exposures resulting from events described in Inspection Report 50-277/85-11 and the licensee's corrective actions as described in Meeting Report 50-277/85-13. The inspection involved 11 hours on site by two regionally based inspectors.

Results: No violations or deviations were noted in the areas reviewed.

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Details

1. Persons Contacted

During the course of this special radiation protection inspection, the following personnel were interviewed:

1.1 Licensee Personnel

- *R. S. Fleischmann, Station Superintendent, Peach Bottom Atomic Power Station
- *N. F. Gazda, Applied Health Physicist
- *A. E. Hilsmeir, Senior Health Physicist
- *C. S. Nelson, Support Health Physicist

Other licensee employees were also contacted or interviewed during this inspection.

1.2 Contractor Personnel

- L. Davis, ALARA Engineer, Bartlett Nuclear Corporation
- W. Smith, ALARA Engineer, Bartlett Nuclear Corporation
- T. Stafford, Supervisor Operational Health Physics - Unit 2 Drywell, Bartlett Nuclear Corporation

Other contractor personnel were also contacted or interviewed during this inspection.

1.3 NRC Personnel

- *T. Johnson, Senior Resident Inspector

*Attended the exit meeting on March 11, 1985

2. Purpose

The purpose of this special inspection was to review the licensee's assessment of external and internal exposures resulting from events described in Inspection Report 50-277/85-11 and the licensee's corrective actions as described in Meeting Report 50-277/85-13.

3. External Exposures

The estimated external exposures for the following workers were reviewed against criteria provided in 10 CFR 20.101:

- the contractor pipefitter who attempted to remove the purge bag on February 3, 1985;
- the contractor engineer who inspected weld joint 206 on February 3, 1985;

- the welding coordinator who examined weld joint 206 on February 10, 1985;
- the two pipefitters who ground weld joint 206 on February 10, 1985;
- the welder and his helper who repaired the weld joint on February 10, 1985; and
- the health physics technicians who made radiation/contamination measurements of the work area on February 10-11, 1985.

The licensee's external exposure calculations were reviewed and discussed with the Support Health Physicist and a member of his staff.

The licensee derived the estimates of time and work location from interviews of the workers and conservative assumptions concerning placement of the workers' bodies within the nonuniform radiation fields. Beta protection factors based on previous licensee measurements and confirmed on contamination samples taken from the work area were used in the calculations. The calculations estimated exposures to the whole body, lens of the eyes, skin and extremities of each of the workers. All calculated exposures were within 10 CFR 20.101 radiation dose standards.

Within the scope of this review, no violations were noted. The licensee's external exposure estimates appeared to be generally sound and thorough, timely and demonstrated a general understanding of the issues.

4. Internal Exposures

The licensee's assessments of the intake of radioactive materials by the workers identified in Detail 3 were reviewed against criteria provided in 10 CFR 20.103. Performance relative to these criteria was determined by review of internal exposure assessments and discussions with the Support Health Physicist and a member of his staff.

The licensee's assessments showed that one individual exceeded the 40-hour control measure in 10 CFR 20.103(b)(2) while the other workers' intakes were less than the 40-hour control measure. The licensee's assessments showed that no worker exceeded quarterly limits in 10 CFR 20.103(a)(1).

Within the scope of this review, no violations were noted. The licensee's internal exposure assessments appeared to be generally conservative, sound, thorough and timely.

5. Corrective Actions

The following corrective actions described by the licensee at the Enforcement Conference on March 4, 1985 were reviewed:

- improvements in communications to ensure that radiological controls personnel were aware of the daily planned work activities and the scope of those activities;
- increased visual surveillance and reporting of observations of ongoing Unit 2 drywell work activities by radiological controls personnel;
- increased attention to detail in ALARA Job reviews to ensure that each task was fully described and reviewed; and
- discussions with contracted health physics technicians to reiterate their duties and responsibilities and review the events described in Report No. 50-277/85-11.

The licensee's performance relative to these commitments was evaluated by review of documents, interviews of selected radiological controls personnel and observations of operations at the Unit 2 drywell control point.

Within the scope of this review, no deviations from commitments made during the Enforcement Conference were noted. The licensee appeared to be completing the corrective actions as described.

6. Exit Interview

The inspector met with the licensee's representative (denoted in Section 1.1) at the conclusion of the inspection on March 11, 1985. The inspector summarized the purpose and scope of the inspection and identified findings as described in this report.

At no time during the inspection was written material provided to the licensee by the inspector. No information exempt from disclosure under 10 CFR 2.790 was discussed in this report.