

DCS Nos. 50-277/820105 50-278/820105
50-277/820122 50-278/820128
50-277/811127 50-278/811121
50-277/811125 50-278/811207
50-278/811211
50-278/811221

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-277/82-01
50-278/82-01
Docket No. 50-277
50-278
License No. DPR-44 Priority _____ Category C
DPR-56 _____ C

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania

Facility Name: Peach Bottom Atomic Power Station, Units 2 and 3

Inspection at: Delta, Pennsylvania

Inspection conducted: January 1 - February 2, 1982

Inspectors: Lewis Waller/Sr 2/12/82
C. J. Cowgill, III, Senior Resident Inspector date signed
Lewis Waller/Sr 2/12/82
A. R. Blough, Resident Inspector date signed

Approved by: De Ann Cole 2/12/82
E. C. McCabe, Jr., Chief, Reactor date signed
Projects Section No. 2B, DRPI

Inspection Summary:

January 1 - February 2, 1982 (Combined Inspection Report Nos. 50-277/82-01 and 50-278/82-01)

Routine, regular and backshift resident inspection (91 hours Unit 2; 87 hours Unit 3) of: accessible portions of Unit 2 and Unit 3; operational safety; event followup; radiation protection; physical security; control room observations; LER review; IE Bulletins; maintenance; fire protection/housekeeping; chemistry; reactor physics; outstanding items; and periodic reports.

Results: Violations: Three (breached LSA radioactive material shipping container, Detail 3; failure to post Notice of Violation per 10 CFR 19, Detail 8; failure to sign in on RWP, Detail 8).

DETAILS

1. Persons Contacted

W. H. Alden, Engineer-in-Charge, Nuclear Section
V. S. Boyer, Senior Vice President, Nuclear Power
M. J. Cooney, Superintendent, Generation Division (Nuclear)
J. K. Davenport, Maintenance Engineer
G. F. Dawson, I&C Engineer
*R. S. Fleischmann, Assistant Station Superintendent
J. W. Gallagher, Manager- Electric Production
N. Gazda, Health Physics, Radiation Protection Manager
A. Hilsmeier, Senior Health Physicist
K. W. Hunt, Reactor Engineer
S. R. Roberts, Operations Engineer
D. C. Smith, Outage Manager
S. A. Spitko, Site Q. A. Engineer
S. Q. Tharpe, Security Supervisor
W. E. Tilton, Refuel Floor Supervisor
*W. T. Ullrich, Station Superintendent
H. L. Watson, Engineer - Chemistry
J. E. Winzenried, Technical Engineer

Other licensee employees were also contacted.

*Present at exit interviews and for preliminary summation of findings.

2. Previous Inspection Item Update

(Closed) Inspector Follow Item (81-20-02 and 81-22-03), review training procedure when revised. The inspector reviewed administrative procedure A-50, revision 7, June 4, 1981, "Training Procedure," and verified that requalification training requirements had been updated. No violations were identified.

(Closed) Inspector Follow Item (77-39-05 and 77-39-05), liquid release potential. This issue is covered in the licensee's "Liquid Leakage Control Study," dated October 1, 1981. Modifications will be subject to inspector review (IAL 81-18 item).

(Closed) Infraction (278/77-40-04), failure of two individuals to frisk upon exit from controlled area. The licensee has revised procedures to allow frisking at a nearby station rather than on the step-off pad. The inspector has noted emphasis on frisking in licensee training programs and has observed numerous people observing the requirements (reference Detail 8).

3. Plant Operations Review

a. Logs and Records

A sampling review of logs and records was spot-checked for accuracy, completeness, abnormal conditions, significant operating changes and trends, required entries, operating and night order propriety, correct equipment and lock-out status, jumper log validity, conformance to Limiting Conditions for Operations, and proper reporting. The following logs and records were reviewed.

- (a) Shift Supervision Log - January 1 - February 2 1982.
- (b) Reactor Engineering Log, Unit 2 - January 1 - February 2
- (c) Reactor Engineering Log, Unit 3 - January 1 - February 2
- (d) Reactor Operators Log, Unit 2 - January 1 - February 2
- (e) Reactor Operators Log, Unit 3 - January 1 - February 2
- (f) CO Log Book - January 1 - February 2
- (g) STA Log Book - January 1 - February 2
- (h) Radiation Work Permits (RWP's) - Various in both Units 2 and 3, January - February 1982
- (i) Maintenance Request Forms (MRF's) - Units 2 and 3, (Sampling) January - February 1982
- (j) Ignition Source Control Checklists (Sampling) - January - February
- (k) Operation Work & Information Data - January - February
- (l) Unit 2 and Unit 3 Jumper Logs - Current Entries

Control room logs were compared against Administrative Procedure A-7, "Shift Operations." Frequent initialing of entries by licensed operators, shift supervision, and licensee on-site management constituted evidence of licensee review. No violations were identified.

b. Facility Tours

Daily tours and observations included:

- Control Room - (daily).
- Turbine Building - (all levels).

- Reactor Building - (accessible areas).
- Diesel Generator Building.
- Yard and perimeter exterior to the power block, including Emergency Cooling Tower and torus dewatering tank.
- Security Building, including CAS, Aux SAS, and control point monitoring.
- Lighting.
- Vehicular Control.
- The SAS and power block control points.
- Security Fencing.
- Portal Monitoring.
- Personnel and Badging.
- Control of Radiation and High Radiation areas including locked door checks.
- TV monitoring capabilities.
- Shift turnover.

Off-Shift Inspections during this inspection period and the areas examined were as follows:

<u>DATE</u>	<u>AREAS EXAMINED</u>
January 6	Protected area
January 8	Access controls, Control Room, Cable Spreading Room
January 11	Protected area, Control Room, Cable Spreading Room, Turbine Building, Unit 3 Reactor Building, Recombiner Building
January 17	Control Room, Cable Spreading Room, Turbine Building, Unit 2 Reactor Building
January 20	Control Room, Turbine Building, Unit 2 and Unit 3 Reactor Buildings
January 22	Protected Area, Control Room
January 27	Protected Area
January 29	Protected Area (HP controls), Control Room

- Off-Normal Alarms. Selected annunciators were discussed with control room operators and supervision to assure they were knowledgeable of plant conditions and that corrective action, if required, was being taken. The operators were knowledgeable of alarm status and plant conditions.
- Control Room Manning. Staffing frequently was checked against 10CFR 50.54(k), the Technical Specifications, and commitments to the NRR letter of July 31, 1980. Presence of a senior licensed operator in the control room complex was verified frequently. No unacceptable conditions were identified.
- Fluid Leaks. The inspector observed sump status, alarms, and pump-out rates, and discussed leakage with licensee personnel. No violations were identified.
- Piping Vibration. No significant or unusual piping vibration was identified.
- Monitoring Instrumentation. The inspector frequently confirmed that selected instruments were operating and indicated values were within Technical Specification requirements. Daily, when the inspector was on site, ECCS switch positioning and valve lineups, based on control room indicators and plant observations were verified. Observations included flow setpoints, breaker positioning, PCIS status, radiation monitoring instruments, and process computer outputs. No violations were identified.
- Equipment Conditions. The inspector verified operability of selected safety equipment by in-plant checks of valve positioning, control of locked valves, power supply availability and breaker positioning. Selected major components were visually inspected, as applicable, for leakage, proper lubrication, cooling water supply, operating air supply, and general conditions. Systems and sub-systems checked included Unit 3 Core Spray 'A', Unit 2 RHR 'A' and 'C', and Unit 2 Core Spray 'A' and 'C'. Selected Emergency Service water system valves and safety instrument root valves were also checked.

The inspector reviewed selected blocking permits (tagouts) for conformance to licensee procedures. Breaker, switch and valve positioning was verified. Included were:

<u>Permit No.</u>	<u>Equipment</u>
3-81-104	MO-3-14-26A (Core Spray Test Return to Suppression Pool)
3-8	Recirc Pump Crosstie Valves
3-38	Unit 3 Off-gas Recombiner By-pass Valve
2-741	Unit 2 Off-gas Recombiner By-pass Valve
2-13	Unit 2 Off-gas Recombiner By-pass Valve

Permit 2-741 included the control switch and feed switch as blocking points for the Off-gas Recombiner By-pass Valve. However, as of January 13, no tag numbered 2-741 was on the feed switch. When informed, shift supervision cleared this permit, dated August 3, 1973, since a later permit, 2-13, covered the same equipment. At the time of this inspection, the original of permit 2-13, which had been issued to a member of plant management, was not available for review. This matter is unresolved pending further licensee action and inspector review (277/82-01-01).

On January 7, the inspector noticed a defeated (taped over) limit switch on a Unit 2 RBCW Room door. The limit switch monitors door position for secondary containment status indication and alarm. When informed, shift supervision promptly restored the limit switch. Based on numerous other observations, the inspector considered this an isolated case. The inspector discussed the matter with station management.

-- Fire Protection/Housekeeping. On frequent occasions the inspector verified the licensee's measures for fire protection. The inspector observed control room indications of fire detection and fire suppression systems, spot-checked for proper use of fire watches and ignition source controls, checked a sampling of fire barriers for integrity, and observed fire-fighting equipment stations. Housekeeping and cleanliness conditions were assessed. The inspector noted improved housekeeping and cleanliness in some areas of the plant. However, areas where modifications and maintenance were in progress, and some areas that are not frequently entered were not clean. Further, fire stations were in some cases either partially obstructed or obscured from view by temporary material storage. Specific examples were provided to plant management. Areas with significant housekeeping deficiencies included: Unit 3 South Isolation Valve Room, Recombiner Building 135-foot elevation, Unit 2 RBCW Room, and Unit 2 'A' and 'C' RHR rooms. This issue is unresolved pending further review (277/82-01-04).

c. Followup on Events Occurring During the Inspection

- (1) Damaged Radioactive Waste Shipping Container - A LSA radioactive material shipping container was damaged in transit from Peach Bottom to Brunswick Nuclear Power Station (Southport, North Carolina) on January 6, but apparently no spread of radioactivity resulted. The shipment involved clad removal equipment owned by General Electric. About 20 miles from Brunswick, the truck driver noticed a 2-inch hole in one of eight wooden boxes; a blunt metal object protruded about 6-inches. The licensee was informed, instructed the driver to cover the object (believed at the time to be part of a "drill frame") and proceed, and notified both the destination and the resident inspector. Surveys at Brunswick showed no smearable contamination on the box or truck.

The inspector reviewed originator shipping documents, surveys and photographs; and discussed the event with cognizant licensee and vendor personnel. Photographs taken at the destination were also reviewed. The damaged box contained 0.44 millicuries, distributed among the following isotopes: Manganese-54, Cobalt-58, Cobalt-60, Zinc-65 and Niobium-95. Smearable contamination ranged up to 4,000 disintegrations per minute per one-square-foot smear when the box was packed (June, 1981). Surveys did not include data for the specific piece, a feed screw, that punctured the box. The box, which was specifically designed for the clad removal equipment and certified to DOT Specification 7A, was packed by vendor personnel; licensee checks involved only visual inspection of the exterior and controls on loading of the shipment. By completion of this inspection report period, the licensee had not determined the cause of the box failure, nor had the box been opened at the destination. Destination photographs indicated that the protrusion had been completely covered, using tape.

The shipment was appropriately classified as "low specific activity" (LSA) by the licensee, since it involved objects of non-radioactive material externally contaminated with radioactive material (10CFR71.4). 10CFR71.5 requires a licensee who delivers licensed material to a carrier for transport to comply with applicable DOT regulations in 49CFR170 through 189. 10CFR173.24 requires each package to be so designed and constructed, and its contents so limited, that under conditions normally incident to transportation, the effectiveness of the packaging will not be substantially reduced. Failure to meet these requirements is a violation (82-01-02 and 82-01-01). The inspector expressed concern that no licensee procedural controls or inspections were applied to the vendor's placement of the material into the package.

- (2) Unit 2 Reactor Scram - At 10:50 a.m., January 22, the reactor scrambled from 84 percent power due to low reactor water level caused by a trip of one of the two operating feed pumps. Groups I, II and III Primary Containment Isolations occurred (as expected), and HPCI and RCIC injected to restore reactor water level. Relief valves were manually operated to control pressure until Main Steam Isolation Valves could be reopened (about 25 minutes). The RHR system was used for torus cooling. The inspector observed the plant conditions and operator actions from the control room; no violations were identified.

The cause of the feed pump trip was found to be a technician bumping a vibration sensor probe. A Reactor Building ventilation stack release (about 5% Technical Specification limit peak) followed the scram and was caused by a packing leak on the 'A' Reactor Feed Pump high pressure steam valve. The licensee repaired this leak prior to startup. Adjustments were also made to HPCI system flow control to reduce oscillations. During the afternoon, the licensee discovered rising airborne radioactivity levels in the Reactor Building. No significant leaks were found and levels returned to normal after ventilation, which had been on the Standby Gas Treatment System at low flow since the scram, was restored to the normal lineup. The reactor was back on-line at 7:42 p.m., January 23.

The inspector reviewed Health Physics controls associated with work in the Unit 2 Torus Room and Reactor Building following the scram. About 2:15 p.m., the inspector noted that the Reactor Building 135-foot elevation and above was posted as an "Airborne Radioactivity Area," and a respirator was required for stay times exceeding 30 minutes per day. Some workers had been in the Reactor Building for up to an hour prior to the posting. The inspector reviewed airborne contamination survey results, which indicated stay times (for 2 MPC-hours) of over twelve hours in the work areas involved. Health Physics personnel stated that conservative postings were used in consideration of the rising trend in airborne activity.

Airborne surveys from the Torus Room indicated acceptable radioactivity levels (no respirator required). Health Physics personnel had also done radiation surveys after the scram to verify that levels had not changed.

No violations were identified.

- (3) Resin Injection - At 2:57 p.m., January 28, turbine and moisture separator area radiation monitors alarmed. Main steam line radiation monitors and off-gas monitors began rising. The licensee isolated a condensate filter-demineralizer that had been placed in service 12 minutes early. Power was reduced to about 50 percent. Radiation monitors returned to normal over about one and one-half hours. The inspector reviewed recorder traces and chemistry sample results and discussed the event with licensee personnel. Chemistry reached the following values: conductivity - 6.55 umho/cm, pH - 5.6, chlorides - .41 ppm; but returned to near normal in about 12 hours. The licensee was cognizant of Technical Specification limits and was documenting values above specified "two weeks per year" limits. The licensee analyzed the event as a resin injection from filter element breakdown. The faulty filter-demineralizer, which had been sampled prior to being placed in service, was kept isolated for inspection and repair. No violations were identified.

4. I. E. Bulletin Response

The inspector reviewed licensee action in response to IE Bulletins to verify that he was meeting bulletin requirements.

- a. I. E. Bulletin 80-15, "Possible Loss of Emergency Notification System (ENS) with Loss of Offsite Power," June 18, 1980

This bulletin related cases of loss of direct communications to the NRC due to loss of off-site power. Licensees were to make modifications, as necessary, to put the ENS on a safeguards instrumentation bus (or equally reliable power supply). Also, licensees were to report to the NRC within one hour, any ENS inoperability. The Peach Bottom design called for supplying the ENS from a non-vital lighting panel with provisions for automatic transfer to an emergency bus. However, an installation error resulted in connection of the ENS to a different

non-vital supply (with no automatic transfer). Bulletin-specified testing, conducted on July 24, 1980, involved tripping the lighting panel, verifying operation of the transfer switch, and testing of each phone. This test did not identify the installation error, since the actual ENS power supply remained unaffected throughout the test. The licensee subsequently identified, corrected, and discussed the matter with the inspector. The inspector verified that administrative procedures require one hour notification of the NRC Operations Center Duty Officer if any extension of the ENS becomes inoperable. The inspector noted that the ENS system has recently been upgraded pursuant to NRC contracts. Power supply reliability for each ENS package was to be the same as for the facility served (control room, technical support center, etc.). The inspector verified through review of prints, discussions with licensee and telephone company personnel, and observation of equipment, that this criterion has been met. The inspector had no further questions regarding this bulletin.

- b. Many IE Bulletins require a licensee review to determine if certain models or series of components are used or planned for use in safety-related applications at the facility. Additional requirements apply only if the result is affirmative. For such bulletins, where the licensee reported no use or planned safety use of the components, the inspector checked, on a sampling basis, the licensee review documentation and PORC meeting minutes, and discussed the bulletin with licensee engineers. The inspector had no further questions regarding the following bulletins:

- (1) IE Bulletin 79-09, "Failure of GE Type AK-2 Circuit Breaker in Safety Related Systems," April 17, 1979

The bulletin related twelve failures of the breaker. The licensee's response, dated May 14, 1979, indicated that no such breakers were issued or planned for use in safety-related systems.

- (2) IE Bulletin 79-11, "Faulty Overcurrent Trip Device in Circuit Breakers for Engineered Safety Systems," May 27, 1979

The bulletin discussed time delay dashpot cracking in certain Westinghouse breaker over-current trip devices. The licensee's response, dated July 3, 1979, indicates that no such breakers are used in safety-related applications.

- (3) IE Bulletin 79-25, "Failure of Westinghouse BFD Relays in Safety-Related Systems," November 2, 1979

This bulletin listed relays that were susceptible to armature sticking or insufficient armature overtravel. The licensee's response, dated December 13, 1979, stated that none of the subject relays were in use or planned for use in safety-related systems.

- (4) IE Bulletin 79-28, "Possible Malfunction of NAMCO Model EA180 Limit Switches at Elevated Temperatures," December 7, 1979

Subject limit switches date-coded 02-79 through 08-79 were susceptible to malfunction because of top cover gasket deterioration. The licensee's review indicated that no such limit switches were in use or planned for use in safety-related equipment (response dated January 3, 1980).

- (5) IE Bulletin 80-09, "Hydramotor Actuator Deficiencies," April 17, 1980

Certain models from one vendor had incorrect spring material and were provided with misleading selection nomographs. The licensee reported on June 3, 1980, that no such hydramotor actuators were in use or planned for use in safety-related systems.

- (6) IE Bulletin 80-19, "Failures of Mercury-Wetted Relay in Reactor Protective Systems," July 31, 1980; and Revision I, dated August 15, 1980

The failure-prone mercury-wetted relays, used primarily in plants designed by Combustion Engineering, were found not to be used at this GE-designed facility (response dated August 27, 1980).

- (7) IE Bulletin 80-21, "Valve Yokes Supplied by Malcolm Foundry Company, Inc.," November 6, 1980

Cracking in RHR system valve yokes at one pre-operational facility was found to be covered by improper mechanical properties of the material. The licensee's review, which included contacting each of his sixteen valve suppliers, concluded that no safety-related valves have parts cast by the subject foundry (response dated December 5, 1980 and April 13, 1981).

- (8) IE Bulletin 80-23, "Failure of Solenoid Valves Manufactured by Valcor Engineering," November 14, 1980

Certain solenoid valves were found to be susceptible to turn-to-turn shorts within the coil. The licensee responded on December 10, 1980, that no such solenoid valves are used to perform any safety-related functions at this facility.

- (9) IE Bulletin 81-02, "Failure of Gate Valves to Close Against Differential Pressure," April 9, 1981, and Supplement I, August 18, 1981

Electric Power Research Institute (EPRI) testing indicated that certain gate valves may not close under the differential pressure conditions of their intended service. Vendor analysis indicates that additional valves may be susceptible to closure problems. Licensee responses, dated May 8 and September 15, 1981, indicated that none of the valves of interest are installed or stocked as spares for safety-related systems.

No violations were identified.

5. Review of Licensee Event Reports (LERs)

The inspector reviewed LERs submitted to NRC:RI office to verify that the details were clearly reported, including the accuracy of the description of cause and adequacy of corrective action. The inspector determined whether further information was required, whether generic implications were indicated, and whether the event warranted onsite followup. The following LERs were reviewed:

<u>LER No.</u>	<u>LER Date</u>	<u>Event Date</u>	<u>Subject</u>
3-81-19/3L	December 21, 1981	November 21, 1981	Drywell pressure recorder inoperable due to blown fuse in transmitter; printed circuit board was changed.
2-81-45/3L	December 24, 1981	November 27, 1981	CAD tank level dropped due to open relief valve. Valve setpoint was adjusted and tank refilled.
3-81-20/3L	January 6, 1982	December 7, 1981	RCIC torus suction valve failed during testing due to jammed position indication rod; rod was removed and valve re-tested.
3-81-21/3L	January 11, 1982	December 11, 1981	'D' Core Spray Pump failed to start during test; breaker was then replaced.

<u>LER No.</u>	<u>LER Date</u>	<u>Event Date</u>	<u>Subject</u>
3-81-22/3L	January 20, 1982	December 21, 1981	Torus High Water Level switch setpoints drifted above allowable and were recalibrated.
2-81-47/3L	January 22, 1982	December 25, 1981	PCIS Valve on Torus Cleanup Pump suction failed; redundant valve was shut, and a gear on the motor operator replaced.
3-82-01/3L	January 29, 1982	January 5, 1982	Main Steam Line Low Pressure switch setpoint drifted below allowable and was recalibrated.

6. Maintenance

The inspector observed aspects of maintenance in progress to verify that limiting conditions for operation were being satisfied, equipment control measures (e.g., Maintenance Request Forms and Blocking Permits) were proper, required administrative approvals preceded the work, maintenance personnel were knowledgeable and were using approved procedures when appropriate, Health Physics controls were being properly implemented, and proper testing was provided for. Portions of the following maintenance activity was observed:

<u>Maintenance Request/Date</u>	<u>Title</u>	<u>Date Observed</u>
3-64-L-2-3 (January 17, 1982)	PISH-3-5-12A, Drywell Pressure Switch	January 19, 1982

No violations were identified.

7. Reactor Water Chemistry

The inspector checked completed surveillance test documents to verify that Technical Specification Limits were satisfied.

a. Conductivity and Chloride Ion Content in Primary Coolant During Normal Operation and Time Conductivity and Chloride are Above Specified Limit

Surveillance Tests 7.2.3.A and 7.2.3.C and Peach Bottom Daily BWR Chemistry Analysis (November 30, 1981 - January 3, 1982) were reviewed.

Technical Specification 3.6.B requires prior to startup and when operating at rated pressure, reactor water conductivity at 25°C of less than or equal to 5.0 umho/cm and chloride concentration less than or equal to 0.2 ppm. Reactor water quality may exceed these limits for up to two weeks per year. Maximum limits are 10 umho/cm conductivity and 1.0 ppm chlorides.

At Unit 2 during the above period, the maximum conductivity and chloride concentrations were 0.52 umho/cm and less than 0.02 ppm, respectively. During 1981 the .2 ppm chlorides limit and the 5.0 umho/cm conductivity limit were not exceeded.

At Unit 3 for the same period, the maximum conductivity and chloride concentrations were 1.75 umho/cm and .08 ppm, respectively.

The 1981 total time above the specific "two weeks per year" limits for conductivity and chlorides were 12 hours and 12 hours, respectively. No violations were identified.

b. Determination of Dose Equivalent Microcuries/Gram ($\mu\text{Ci/gm}$) I-131 in the Primary Coolant

Surveillance Test 7.2.1.A was reviewed. The licensee analyzes the following nuclides: I-131, I-132, I-133, I-134, and I-135 and computes dose equivalent I-131 - that amount of I-131, which alone would produce the same dose as the quantity and isotopic mixture actually present. The Technical Specification Limit is 2.0 microcuries per gram. Increased sampling frequency is required if any analysis exceeds 0.02 microcuries per gram. The representative sample for Unit 2, analyzed on December 8, 1981 indicated a dose equivalent I-131 concentration of $2.77\text{E-}3$ microcuries per gram. At Unit 3, a sample on December 10, 1981 indicated a dose equivalence of $7.39\text{E-}4$ microcuries per gram. The inspector also confirmed that the required surveillance frequency was being satisfied.

At 11:30 on January 22, a sample taken following a reactor scram indicated $0.0252 \mu\text{Ci/gm}$ I-131 dose equivalent. The inspector reviewed ST 7.2.1.B, revision 2, May 9, 1978, "Determination of Dose Equivalent $\mu\text{Ci/gm}$ I-131 in the Primary Coolant During Transient Conditions." Samples had been taken, as required by Technical Specifications, each four hours until the value was below $0.02 \mu\text{Ci/gm}$ and dropping. At 12:45 a.m., January 23, the value was $0.0164 \mu\text{Ci/gm}$. The licensee attributed the transient chemistry conditions to the reactor scram; after startup, radiochemistry was normal. No violations were identified.

8. Radiation Protection

During this report period, the inspector examined work in progress in both units, including:

- a. Health Physics (HP) controls
- b. Badging
- c. Protective clothing use

- d. Adherence to RWP requirements
- e. Surveys
- f. Handling of potentially contaminated equipment and materials

Frisker and portal monitor use by persons exiting RWP areas, the power block, and the final exit point were observed. More than 30 people were found to meet frisking requirements. A sampling of high radiation doors was verified to be locked as required.

About 11:00 a.m., January 13, two workers entered the Recombiner Building, for which an RWP is required, without signing in or providing any entry data. Within a minute, the workers exited and began signing in on the RWP (2-08-0480, November 6, 1981). The workers, who were checking lighting, believed RWP coverage was required only for entries into contaminated or high radiation areas in the building. They had not gone into such areas before signing in. Health Physics personnel confirmed that an RWP is required for any entry (for dose control and a history of entries). This entry violated T.S. 6.11 and Procedure HPO/CO-4 requirements for first signing in and providing social security number, entry date and time, authorized exposure, and pocket dosimeter reading (277/82-01-04; 278/82-01-03). The licensee held a meeting on this event and designated a supervisor to reiterate RWP provisions to other laborers. Interviews with selected other individuals indicated adequate understanding of the Recombiner Building RWP. Licensee corrective actions were sufficient and timely.

On January 22, the inspector reviewed a licensee bulletin board containing information posted pursuant to 10 CFR 19.11. A Notice of Violation dated January 5, 1982, received by the licensee January 8, involving radiological working conditions had not been posted; this is a violation (82-01-03 and 82-01-02). Upon being informed, the licensee posted the document. The licensee attributed this occurrence to oversight on the part of the plant management during initial review of the report. To provide opportunity for worker review, the licensee agreed to leave the notice posted additional time to compensate for the late posting. The inspector later found that a notice describing other documents available for review, such as licenses and operating procedures, was out of date with respect to Unit 1 and Unit 3 licenses. The licensee promptly updated the listing. The inspector had no further questions regarding licensee corrective actions.

9. Physical Security

The inspector spot-checked compliance with the accepted Security Plan and implementing procedures, including: operations of the CAS and SAS, over 25 spot-checks of vehicles onsite to verify proper control, observation of protected area access control and badging procedures on each shift, inspection of physical barriers, checks on control of vital area access and escort procedures. Protected area lighting was qualitatively assessed on January 6 and 11. No violations were identified.

10. Reactor Physics -- Process Computer Data Bank Error

The inspector held discussions with licensee engineers and reviewed vendor correspondence relative to an error in process computer data bank constants at Unit 3. The CTEM coefficients, which are used in allocating power to fuel bundles around a power range monitor, had been calculated incorrectly by the vendor. Licensee engineers pointed out anomalous data, and an error was confirmed by the vendor on December 21, 1981. A determination was made at that time that the errors were probably conservative. Corrected data was entered into the computer on December 23, 1981. Detailed vendor analysis followed. Vendor correspondence dated January 19, 1982 indicated that the errors affected mainly 16 bundles in non-limiting locations. While not all the errors were conservative, they were small enough that thermal limits were not exceeded. The vendor also detailed quality assurance improvements designed to prevent recurrence: re-verification of all data banks, additional staff training, more thorough verification procedures, and a programmatic review of the data bank generation process. These measures were not evaluated within the scope of this inspection. The inspector had no further questions in this area.

11. In-Office Review of Monthly Operating Reports

The inspector reviewed the Peach Bottom Atomic Power Station Monthly Operating Report for December 1981, dated January 15, 1982, and verified that operating statistics had been accurately reported and that narrative summaries of the month's operating experience were contained therein. No violations were identified.

12. Unresolved Items

Unresolved items are items about which more information is required to ascertain whether they are acceptable, violations, or deviations. An unresolved item is discussed in Detail 3.

13. Management Meetings

a. Preliminary Inspection Findings

A summary of preliminary findings was provided to the Station Superintendent at the conclusion of the inspection. During the period of this inspection, licensee management was periodically notified of the preliminary findings by the resident inspectors. The dates involved, the senior licensee representative contacted, and subjects discussed were as follows:

<u>Date</u>	<u>Subject</u>	<u>Senior Licensee Representative Present</u>
January 6	Damaged LSA Shipment	Radiation Protection Manager
January 7	Damaged LSA Shipment, Routine Discussions	Station Superintendent
January 11	Housekeeping	Station Superintendent
January 18	Fire Protection/ Housekeeping	Maintenance Engineer
January 21	Routine Discussions	Station Superintendent
January 22	20CFR19-Required Postings	Site Q. A. Engineer
January 29	Routine Discussions, 10CFR19-Required Postings	Station Superintendent
February 5	Summary of Preliminary Findings	Assistant Station Superintendent

b. Attendance at Management Meetings Conducted by Region-Based Inspectors

The resident inspector attended an entrance interview by a region-based inspector as follows:

<u>Date</u>	<u>Subject</u>	<u>Inspection Report No.</u>	<u>Reporting Inspector</u>
February 2	Health Physics	50-277/82-02 50-278/82-02	K. Plumlee