

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket/Report No. 50-277/88-24
50-278/88-24

License No. DPR-44
DPR-56

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

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

Inspection At: Delta, Pennsylvania

Dates: July 16 - September 2, 1988

Inspectors: T. P. Johnson, Senior Resident Inspector
R. J. Urban, Resident Inspector
L. E. Myers, Resident Inspector
J. Gadzala, Reactor Engineer
H. Kaplan, Senior Reactor Engineer

Reviewed By: J. H. Williams
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9/15/88
date

Approved By: J. C. Linville
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Division of Reactor Projects

9/16/88
date

Summary

Areas Inspected: Routine, on site regular and backshift resident inspection (107 hours Unit 2; 101 hours Unit 3) of accessible portions of Unit 2 and 3, operational safety, radiation protection, physical security, control room activities, licensee events, surveillance testing, refueling and outage activities, maintenance, and outstanding items.

Results: Two small fires occurred in the Unit 3 drywell in part due to poor housekeeping (section 4.1.7). Corporate management was observed in the control room (section 4.1.11). Licensed operator overtime was noted as decreasing in the first half of 1988 (section 4.1.14). Two additional cases of poor review of blocking sequences resulted in reportable events (sections 4.2.1 and 2). Unit 3 reactor pressure vessel manway covers are apparently cracked (section 4.4.3). Unit 3 pipe replacement project welding allegations were either unsubstantiated or substantiated but acceptable (section 4.4.4.) PORC activities were noted as being effective (section 4.5). The licensee identified a technical specification violation of drywell high range radiation monitors (section 6.2.4). Numerous security safeguard events were reviewed (section 10.0).

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DETAILS

1.0 Persons Contacted

J. B. Cotton, Superintendent, Operations
*T. E. Cribbe, Regulatory Engineer
G. F. Daebeler, Superintendent, Technical
*J. F. Franz, Plant Manager
F. Larkin, Nuclear Security Specialist
D. P. LeQuia, Superintendent Services
F. W. Polaski, Assistant Superintendent, Operations
K. P. Powers, Peach Bottom Project Manager
J. M. Pratt, Manager, Peach Bottom QA
G. R. Rainey, Superintendent, Maintenance
D. M. Smith, Vice President, Peach Bottom Atomic Power Station

Other licensee and contractor employees were also contacted.

*Present at exit interview on site and for summation of preliminary findings.

2.0 Facility and Unit Status

2.1 Unit 2

The unit remained in cold shutdown during the inspection period. System maintenance outages continued during the period. Plant modifications, corrective and preventive maintenance, and system testing were performed. Preparations for the hydrostatic test were underway at the end of the period.

2.2 Unit 3

The unit remained defueled during the inspection period. The reactor cavity was filled to the refuel floor level.

3.0 Previous Inspection Item Update (92701, 92702)

3.1 (Closed) Unresolved Item (277/86-12-07). Unit 2 main steam drain valve MO-74 environmental qualification (EQ) concerns. MO-74 failed due to apparent packing leakage from the Reactor Core Isolation Cooling (RCIC) MO-15 valve, located directly above in the drywell. The MO-74 valve failure was caused by leakage into the limit switch compartment and direct steam spray onto the MO-74 motor. The licensee determined that the MO-15 packing leak occurred during the period 11/24/85 - 6/18/86. MO-74 was successfully surveillance tested on 2/5/86. The licensee concluded that the 72 days (11/24/85 - 2/5/86)

of steam impingement exceeds the six days of EQ design. The inspector reviewed the licensee's evaluation, and the EQ report and data sheets, and discussed this with licensee engineering personnel. Based on the above, the unresolved item is closed.

- 3.2 (Closed) Inspector Follow Item (277/86-03-02). Torus-reactor building vacuum breaker isolation valves long term corrective actions. The licensee issued a 10 CFR Part 21 report regarding valve failure on these Clow 18" butterfly valves (AO-2502B and AO-3501B) on March 13, 1986. The cause of failure was the result of galvanic corrosion between the carbon steel bearings and stainless steel shaft. This corrosion was by chloride stress corrosion, on the shaft by the bearing material. Licensee corrective action was to replace the carbon steel bearings with bearings made from ASTM B505 alloy 932 bronze. Modification (MOD) 1935 installed the new bronze bearings. The Unit 2 MOD was completed and the MOD package was closed out on April 15, 1988. The Unit 3 MOD is scheduled to be completed during the current refueling outage.

The inspector reviewed MOD package 1935 including the safety evaluation and the modification acceptance test (MAT-1935). Based on this review and licensee's actions, the inspector follow item is closed.

- 3.3 (Closed) Unresolved Item (278/85-41-02). Snubber functional testing, evaluations and analysis. The licensee resolved the grease issue for mechanical snubbers as documented in a letter from Pacific-Scientific (mechanical snubbers) on February 21, 1986. The licensee resolved the excessive test load problem as documented in an internal letter dated October 11, 1985. The licensee's engineering evaluation and analysis for the subject snubber failures was documented in a letter dated February 19, 1986. The licensee concluded that the snubber failures did not adversely affect system piping.

The inspector reviewed these referenced letters; subsequent safety evaluations as required by Technical Specifications; QA audit AP87-S2 MEM dated June 26, 1987; administrative procedure A-101, "Peach Bottom Snubber Program"; and, maintenance procedures M-65.5, "Mechanical Snubber Testing on Wyle Machine" and M-65.14, "Hydraulic Snubber Testing on Wyle Test Machine". The inspector examined the newly constructed snubber testing facility and observed snubber testing on the Wyle machine (see section 8.0). No unacceptable conditions were noted. The unresolved item is closed.

- 3.4 (Closed) Inspector Follow Item (277/87-07-01). Insulation degradation due to steam leak on RCIC motor operated valves (MO-15 and 16). The licensee performed an evaluation of these failures. Their conclusion was that damage to the motors and conduit wiring resulted from a steam packing leak. The valves have been inspected, refurbished and MOVATS tested. This is in response to these failures, an allegation and NRC Bulletin 85-03. In addition, the licensee is modifying the packing with a graphite and live-loading chamber type design. The inspector reviewed a special report dated June 15, 1988, miscellaneous failure reports and internal correspondence and discussed this item with licensee personnel. The inspector follow item is closed; however, the related allegation and Bulletin 85-03 remain open.
- 3.5 (Closed) Unresolved Item (277/88-10-03; 278/88-10-03). Use of Beacon-325 grease in motor operated valve geared limit switches. The inspector observed a limit switch gear box with incorrect grease for valve MO-2-10-25A. The grease appeared to be BEACON 325 as it was green in color. The valve has a four rotor limit switch setup. The top limit switch gear box is the one that is used, and it contained MOBIL 28 grease. The licensee stated that it is their practice to use MOBIL 28 grease in all limit switch gear boxes, and procedures are written to reflect this.

The inspector reviewed the following procedures: PFE-13, "Inspection of EQ Limitorque Operators"; SP-1118, "MOV Rebuild Program Project Standards"; and Modifications 2231, 1915 and 2533. The inspector concluded that the licensee has controls in place to ensure the use of the correct grease. Based on this, the unresolved item is closed.

- 3.6 (Closed) Unresolved Item (277/86-25-07). Maintenance on the diesel generator (DG) room and battery room fans. Since the concern was raised, the licensee has implemented a preventive maintenance (PM) program on DG fans OA(B,C,D)V64 and OA(B,C,D)V91, battery room fans OA(B) V36, and associated dampers and controls. The licensee revised the PM program and performed the following:

- inspected and performed PMs on the motor breakers,
- inspected dampers,
- meggered motors,
- tested differential pressure control switches,
- lubricated fan/motor coupling,
- inspected/overhauled fan, and
- balanced and checked alignment of fan/motor.

The inspector verified these actions by reviewing completed maintenance request forms, by reviewing the PM task data base, and by inspecting the components in the field. No unacceptable conditions were noted, and the unresolved item is closed.

- 3.7 (Closed) Unresolved Item (277/87-29-04, 278/87-29-04). 125 Volt DC Exide battery copper contamination. During November 1987, the licensee identified a condition of reddish color of the negative plates on several cells of the Unit 2 125 Volt DC batteries. On July 28, 1988, the licensee reported by telephone that this condition was reportable under 10 CFR 21. On July 29, 1988, the licensee issued a letter confirming this reportable condition. The licensee determined that this copper contamination represents a potential common mode failure which could render the batteries incapable of performing their intended safety function. The three worst cells will be shipped to Exide for further review, and all discolored cells will be replaced prior to Unit 2 startup. Periodic surveillance tests (ST) were revised to include checks for this discoloration. The licensee has also conducted training for non-licensed operators for operation and routine inspections for the batteries. The licensee notified the industry of this condition via INPO's nuclear network on July 19, 1988.

The inspector reviewed the 10 CFR 21 report, the training lesson plan, revised STs 8.2 and 8.3, and discussed this item with licensee engineers. The unresolved item is closed. The inspector will continue to review 125 VDC battery operability.

- 3.8 (Closed) Violation (277/87-24-01; 278/87-24-01). Emergency Cooling Tower Repairs. The violation was issued for performing a field initiated change to a PORC approved repair procedure without document approval. The licensee responded to this violation in a letter dated February 17, 1988. The licensee determined the root cause to be personnel error caused by failing to adhere to Engineering and Research Department procedures. For corrective actions, the licensee wrote a Nonconformance Report (CO-P-937) dated November 5, 1987, for proper repair of the support, issued a Quality Assurance Finding Report (5587-16-1), and issued a December 28, 1987, memorandum to all Mechanical Construction Engineers identifying the deficiency and reminding them to follow procedures. Based upon the licensee's response, inspector verification of corrective actions and inspection of actual support repair, this violation is closed. However, the inspector will continue to follow the transient analysis and repair for the emergency cooling water system (see section 4.4.1).

- 3.9 (Closed) Unresolved Items (277/87-10-01, 02, 03; 278/87-10-01, 02, 03). Operator attentiveness, alertness, and associated administrative controls. The NRC issued enforcement action 88-04 to the licensee, and enforcement actions to 36 licensed operators dated August 10 and 9, respectively. The licensee issued an Operations Management Manual (OMM) on August 15, 1988, to each licensed operator. Specific alertness/attention to duty requirements are addressed in section 2, "Conduct and Accountability". In addition, reading material is addressed in section 7, "Operations", paragraph K.

The inspector reviewed the above section of the OMM, and discussed these items with selected licensed operators and shift management personnel. Based on the issuance of the enforcement actions, the OMM, operator interviews, the unresolved items are considered closed. This item will be reviewed on a continuing basis in future inspections.

- 3.10 (Closed) Unresolved Item (277/88-02-02; 278/88-02-02). Drywell purge fans and dampers potential design discrepancy. The licensee reviewed this potential discrepancy as documented in an engineering letter dated April 13, 1988, and in a safety evaluation for modification #2459, Rev. 0 dated May 20, 1988. The licensee concluded that FSAR and electrical schematics were correct, and that the P&ID was incorrect. The licensee also determined that this discrepancy was not reportable. Corrective actions included correction of the P&ID. The inspector reviewed the above documents and discussed them with licensee engineers. Based on the above, the unresolved item is closed.
- 3.11 (Closed) Unresolved Item (277/87-32-09; 278/87-32-09). High pressure service water (HPSW) pump packing repair and HPSW cross tie valve leak. The licensee is replacing the Chesterton packing with a design from "Rains Flo". This is being performed under modification (MOD) #2399. The 2A and 2B HPSW pumps are complete. The remaining Unit 2 pumps (2C, 2D) and the four Unit 3 pumps are scheduled to be complete prior to unit restart. The Unit 2 HPSW cross tie valve was repaired. The inspector reviewed associated HPSW pump correspondence, maintenance request forms, MOD package #2399 including the safety evaluation, MOD acceptance test results, and operating procedures. In addition, the HPSW pumps were inspected in the field. The 2A pump was in service providing shutdown cooling Residual Heat Removal (RHR) heat exchanger cooling. The unresolved item is considered resolved and closed. The inspector will continue to follow the performance of these HPSW pumps.

- 3.12 (Closed) Unresolved Item (277/88-02-03; 278/88-02-03). Loss of control room alarms and associated procedures. The licensee reviewed this issue and concluded that the design differs from the one referenced in Information Notice (IN) 88-05. The licensee included guidance regarding loss of alarms in section 7 paragraph 4 of the Operations Management Manual (OMM). The inspector reviewed the OMM, and the IN, memo regarding loss of alarms. Based on the licensee's evaluation, and the OMM, the open item is closed.

4.0 Operations Review

4.1 Station Tours (71707)

The inspector observed plant operations during daily facility tours. Most accessible areas of the station were inspected.

- 4.1.1 Control Room and facility shift staffing was frequently checked for compliance with 10 CFR 50.54 and Technical Specifications. The presence of a senior licensed operator in the control room was verified frequently. Operator attentiveness to plant operations was determined to be adequate.
- 4.1.2 The inspector frequently observed that selected control room instrumentation and recorder traces confirmed that instruments were operable and indicated values were within Technical Specification requirements and normal operating limits. Engineered safeguards features system switch positioning and valve lineups were verified daily based on control room indicators and plant observations.
- 4.1.3 Selected control room off-normal alarms (annunciators) were discussed with control room operators and shift supervision to assure they were knowledgeable of alarm status, plant conditions, and that corrective action, if required, was being taken. In addition, the applicable alarm cards were checked for accuracy. The operators were knowledgeable of alarm status and plant conditions.
- 4.1.4 The inspector checked for fluid leaks by observing sump status, alarms, and pump-out rates; and discussed reactor coolant system leakage with licensee personnel.
- 4.1.5 Shift relief and turnover activities were monitored daily, including periodic backshift observations, to ensure compliance with administrative procedures and regulatory guidance. No inadequacies were identified.
- 4.1.6 The inspector observed the main stack and both reactor

building ventilation stack radiation monitors and recorders, and periodically reviewed traces from backshift periods to verify that radioactive gas release rates were within limits and that unplanned releases had not occurred. No inadequacies were identified.

- 4.1.7 The inspector observed control room indications of fire detection instrumentation and fire suppression systems, monitored use of fire watches and ignition source controls, checked a sampling of fire barriers for integrity, and observed fire-fighting equipment stations (see section 4.2.4).

On July 16 and again on July 19, 1988, small fires occurred in the Unit 3 drywell during pipe replacement project work activities. The first fire was in rags and debris in a downcomer on the 116 foot elevation. The dedicated and roving firewatch workers put out the smoldering fire utilizing local fire extinguishing equipment. The firewatch determined that the fire had been started by a grinding activity on the 135 foot elevation where there was improper use of fire blankets. The control room shift supervisor was notified of the incident 15 minutes after the fire had been extinguished. The firewatch foreman determined that the downcomers and the 116 foot elevation was in need of a thorough clean up of debris and rags to prevent a recurrence of a fire. The corrective actions suggested by the firewatch foreman were reviewed by the contract safety supervisor responsible for the project work. Due to reorganization and procedure changes between corporate and site organizations, the site fire marshal was not initially informed of the event. Therefore, the event was not immediately reviewed by the fire marshal.

On July 19, 1988, the second small fire occurred in the Unit 3 drywell. The inspector, a shift manager and the fire marshal made an inspection of conditions in the drywell on July 20, 1988. Among the conditions noted were poor housekeeping practices; an accumulation of trash, rags and other debris on every level; and much confusion about equipment being staged out of the drywell as the project work comes to an end. Many of the downcomers had an accumulation of debris in the openings. As a result of the inspection, project work was stopped, workers cleaned up the drywell, and all the firewatches were retrained. A reinspection performed on July 26, 1988, indicated a major improvement in housekeeping and fire control (see section 4.4.2).

A procedure to report all fires to the fire marshall is being developed. In the interim, the Shift Manager will report all fires to the Fire Marshall. The inspector will review the procedure and implementation in a future inspection. No violations were noted.

- 4.1.8 The inspector observed overall facility housekeeping conditions, including control of combustibles, loose trash and debris. Cleanup was checked during and after maintenance. Plant housekeeping was generally acceptable except as noted in the preceding section.
- 4.1.9 The inspector observed the nuclear instrumentation subsystems (source range, intermediate range and power range monitors) and the reactor protection system to verify that the required channels were operable.
- 4.1.10 The inspector frequently verified that the required off site electrical power startup sources and emergency diesel generators were operable.
- 4.1.11 The inspector monitored the frequency of plant and control room tours by plant and corporate management.

During a routine morning control room tour at 6:45 a.m., on August 16, 1988, the inspector noted that the PECO Chairman of the Board and Chief Executive Officer was present. He spoke individually with shift personnel and operators, toured the control room, observed shift turnover and spoke with the inspector. Overall, this appeared to have a positive affect.

- 4.1.12 The inspector verified on a weekly basis, the operability of selected safety related equipment and systems by in-plant checks of valve positioning, control of locked valves, power supply availability, operating procedures, plant drawings, instrumentation and breaker positioning. Selected major components were visually inspected for leakage, proper lubrication, cooling water supply, operating air supply, and general conditions. No significant piping vibration was detected. The inspector reviewed selected blocking permits (tagouts) for conformance with licensee procedures. No inadequacies were identified.
- 4.1.13 The inspectors performed backshift and weekend tours of the facility on the following days:

-- July 18, 1988: 5:00 a.m. - 6:00 a.m.

- July 30, 1988: 3:45 p.m. - 12:00 a.m.
- July 31, 1988: 6:00 a.m. - Noon
- August 1, 1988: 5:15 a.m. - 6:00 a.m.
- August 4, 1988: 5:10 a.m. - 6:00 a.m.
- August 12, 1988: 4:00 a.m. - 6:00 a.m.
- August 28, 1988: 6:15 a.m. - 10:15 a.m.

4.1.14 The inspectors verified that the licensee's use of overtime was consistent with regulatory requirements and administrative procedure A-40, "Working Hour Restrictions."

The licensee documents and approves overtime deviations using Exhibit 1 to procedure A-40 ("Peach Bottom Station Personnel Staffing Deviation Form"). The inspector reviewed the deviations that occurred during the period January - June 1988. There were four approved deviations as follows:

<u>Date</u>	<u>Position</u>	<u>Deviation</u>	<u>Reason</u>
2/9/88	Aux Plant Operator	18 hrs in 24 hour period	Sickness
2/9/88	Licensed Reactor Operator	18 hrs in 24 hour period	Sickness
4/8/88	Plant Operator	26 hours in 48 hour period	Sickness
5/24/88	Floor Foreman	28 hours in 48 hour period	Sickness

The inspector verified that these deviations were properly documented and approved, and that the reason was justified.

The licensee's shift clerk tracks overtime continually. Plant and corporate management review monthly overtime reports. Licensed operator average overtime hours for September 1987 to June 1988 are as follows:

<u>Period</u>	<u>Average Hours Per Week</u>
Sep 87	5.66
Oct 87	6.17
Nov 87	6.93
Dec 87	5.65
Jan 88	7.7

Feb 88	7.74
Mar 88	7.4
Apr 88	6.4
May 88	6.7
Jun 88	5.9

The inspector noted a decreasing trend in average hours of worked overtime since the beginning of 1988. At PORC Meeting #88-126 on August 18, 1988 (section 4.5), the licensee approved a Technical Specification amendment for overtime rules. This will be reviewed in a future inspection.

4.1.15 The inspector verified that the QC shift monitors were performing periodic control room tours.

4.2 Follow-up On Events Occurring During the Inspection (93702)

4.2.1 Control Room Ventilation Trip On July 27, 1988

At 5:42 a.m. on July 27, the control room ventilation system tripped while operators were applying a blocking permit on the Unit 2 torus temperature monitoring system. When a Y panel (120 volt AC) feed was de-energized, the operators noted that the control room ventilation radiation monitor (CRVRM) channel B was unexpectedly also de-energized. The blocking permit application was stopped and the Y panel power was restored. When this action occurred, CRVRM channel B spiked high and this resulted in a control room ventilation trip. The logic only requires a trip of one of two monitors to place the control room ventilation system in an emergency mode. The licensee reset the isolation, restored control room ventilation to normal, revised the blocking permit and made an ENS call at 8:40 a.m. During subsequent event review, the licensee determined that actuation of the CRVRM was not reportable. The basis for this was that the Updated Final Safety Analysis Report (UFSAR) does not list the CRVRM system as an engineered safeguards system.

The inspector reviewed the licensee's suspected LER and subsequent evaluation. The inspector reviewed UFSAR sections 1.4 and 1.6.2, 10 CFR 50.72 and 50.73, and NUREG 1022. The inspector did not disagree with the licensee's conclusion that this event was not reportable. However, this event is another example where an inadequate technical review of a blocking

permit occurred. The inspector discussed this with licensee management. Current and planned corrective actions for this issue are documented in section 4.6 of NRC Inspection 277/88-18, 278/88-18. No violations were noted.

4.2.2 Unit Shutdown Cooling Isolation on July 29, 1988

At 9:50 a.m. on July 29, 1988, Unit 2 received a partial group II and III primary containment isolation system (PCIS) actuator. The shutdown cooling isolation valves closed and the running 2C RHR pump tripped. The isolation resulted when a maintenance electrician lifted leads during relay replacement. The leads were restored, the isolation was reset and shutdown cooling was returned to service. The cause of the isolation was an inadequate blocking sequence to perform the work. When the relay leads were lifted several PCIS relays de-energized, resulting in the isolations. The licensee made an ENS call at 12:36 p.m. The blocking sequence was corrected and the work resumed.

The inspector reviewed the suspected LER, upset report P-2-88-17, and control room logs; and discussed the event with operators and management. No violations were noted.

4.2.3 North Substation Fire and Engineered Safeguards Features (ESF) Actuations on July 29, 1988

At 6:50 p.m. on July 29, 1988, a potential transformer in the north substation (about 1/2 mile from the plant) caught fire and burned. The Control Room received a substation trouble alarm and an apparent surge occurred on both the off site and on site electrical systems. The potential transformer was associated with the number one 500 KV tie bus which connects the north and south substations. The electrical surge tripped the four 500 KV breakers at both substations to isolate the affected potential transformer. The effect on the plant was that the number 3 startup emergency (SUE) off site power source apparently sensed an under voltage condition. The number 2 SUE off site power source was out of service for maintenance with number 2 startup in service supplying the non-vital buses. Although 3 SUE did not trip, the 4 KV emergency buses sensed an under voltage condition.

This resulted in a start of the E-1 and E-3 emergency diesel generators (DG). The E-2 and E-4 DGs were out of service for their annual maintenance inspections. Of the eight 4 KV emergency buses, two (E-33 and E-42) were previously out of service for maintenance; three (E-12, E-13 and E-32) were re-energized by their respective DGs; two (E-23 and E-43) remained de-energized due to DG unavailability; and, one (E-22) did not trip from the 3 SUE source. The effect on the units was as follows: Unit 2 experienced a shutdown cooling isolation, a half scram signal and other containment isolations; and, Unit 3 experienced containment isolations and a full scram signal. Unit 2 was in cold shutdown with the core loaded, and Unit 3 was in the refuel mode with the core offloaded. As a precaution, health physics personnel evacuated portions of the plant due to alarming area radiation monitors. These monitors falsely alarmed during the electrical transient due to a loss of power. Once it was determined that conditions were normal, plant access was restored. In addition, while attempting to contact the Delta-Cardiff Fire Department on the emergency 911 number, it was discovered that the GTE phone system was not working. The off site fire company responded to the north substation and assisted in extinguishing the smoldering potential transformer. At 7:50 p.m. the licensee made an ENS call to report the communications problems and the ESF actuations. After it was determined that the 3 SUE was available, the licensee restored the 4 KV emergency buses to the electrical line up in place before the electrical surge. The E-1 and E-3 DGs were secured and returned to a standby condition. At 8:10 p.m. the licensee returned Unit 2 shutdown cooling to service, and reset the Unit 2 and 3 isolations. At 9:10 p.m. an additional ENS call was made to report that the phone system was partially restored. The Operations Superintendent and electrical systems engineers responded to the site. The licensee attempted to notify the resident inspector but he was not at home. A message was left, and the resident inspector contacted the site at about 12:00 midnight to assess plant conditions. In addition, resident inspectors were on site on July 30 and July 31, 1988, to follow up on the event. The licensee repaired the potential transformer.

The inspector reviewed the following documents for this event:

- control room operator logs,
- suspected LER,
- upset report P-22-88-17,
- electrical schematic E-1, and
- Peach Bottom substation single line diagram, Rev. 1, 1987.

The inspector interviewed the operations staff who were present in the control room during the event and associated plant and shift management. The inspector determined that their actions were appropriate and were in accordance with system operating, abnormal, emergency operating and emergency plan implementing procedures. The inspector examined the North Substation damage on July 31, 1988.

No violations were noted.

4.2.4 Loss of Both Fire Pumps on August 22, 1988

The licensee made a 24 hour notification as required by technical specifications (TS) to report loss of both fire pumps. The diesel driven fire pump (DDFP) was out of service for maintenance and the motor driven fire pump (MDFP) failed while in service. The MDFP started automatically on low header pressure at 10:25 a.m. on August 22, 1988. The pump ran until it failed at 2:00 p.m. Local indications were zero discharge pressure and an abnormal noise. The licensee cleared the permits on the DDFP, tested it and declared it operable at 6:55 p.m. An ENS call was made at 7:17 p.m. The licensee investigated the reasons for the MDFP auto start and subsequent failure, and made a written report required by TS 3.14.A.3.b, dated August 23, 1988. The licensee's initial determination concluded that the MDFP failure was caused by pump shaft failure.

The inspector reviewed TS 3.14.A.3.b, control room logs and the August 23, 1988 letter; and discussed the event with licensee operators and management. The inspector examined the MDFP damage and verified that the DDFP was tested for operability as required. No violations were noted.

4.2.5 Unit 3 Engineered Safeguards Feature (ESF) Actuations On August 29, 1988

Two unexpected ESF actuations occurred on Unit 3 at 5:12 a.m. and at 9:17 a.m. on August 29, 1988. The ESF actuation in both cases was a group III partial primary containment isolation (PCIS) that occurred when the 3A reactor protection system (RPS) alternate feed supply tripped on undervoltage. A Unit 2 condensate pump was started and apparently caused an undervoltage condition on the number 3 startup and emergency off site power source. The RPS alternate feed was restored, the PCIS logic was reset, and an ENS call was made.

The inspector reviewed control room logs, the suspected LERs, and discussed these events with control room shift personnel. The inspector expressed concern regarding the RPS alternate feed tripping on motor starts. The licensee stated that modification (MOD) #1359 has been completed on Unit 2 and is currently scheduled for Unit 3. This MOD replaces the RPS alternate feed with a static inverter and should minimize the voltage affects of motor starts. The inspector will review this in a future inspection.

No violations were noted.

4.2.6 Engineered Safeguards Feature (ESF) Actuation on August 31, 1988

At 9:45 p.m. on August 31, 1988, an ESF actuation occurred when the E-2 diesel generator (DG) automatically started. The cause of the E-2 DG start was loss of power to the Unit 3 E-23 4KV vital bus which occurred when the #3 startup emergency feeder breaker (E-323) tripped. The alternate power source (#2 startup) was unavailable due to maintenance. The E-2 DG reenergized the E-23 bus. Other breaker actuations occurred as expected. A group II/III outboard primary containment isolation system (PCIS) occurred on Unit 3 due to loss of power to the E-23 bus. The cause of the E-323 breaker trip was not due to electrical fault. The licensee restored power to the E-23 bus and reset the DG for auto initiation. The PCIS was reset and an ENS call was made at 12:45 a.m. on September 1, 1988. Follow up by the inspector revealed that maintenance work was in progress adjacent to the E-323 breaker at the time of the trip.

The inspector reviewed this event by checking control room logs and interviewing operators involved in the event. A tour of the E-23 bus room revealed that maintenance work was in progress adjacent to the E-323 breaker at the time of the trip. The inspector concluded that equipment operated as designed and that operator actions were adequate.

No violations were noted.

4.3 Logs and Records (71707)

The inspector reviewed logs and records for accuracy, completeness, abnormal conditions, significant operating changes and trends, required entries, correct equipment and lock-out status, jumper log validity, conformance with Limiting Conditions for Operations, and proper reporting. The following logs and records were reviewed: Control Room Shift Supervisor Log, Reactor Engineering Logs, Unit 2 Reactor Operator Log, Unit 3 Reactor Operator Log, Control Operator Log, STA Log, QC Shift Monitor Log, Radiation Work Permits, Locked Valve Log, Maintenance Request Forms, Temporary Plant Alteration Log, and Ignition Source Control Checklists. Control Room logs were compared with Administrative Procedure A-7, Shift Operations. Frequent initialing of entries by licensed operators, shift supervision, and licensee site management constituted evidence of licensee review. No unacceptable conditions were identified.

4.4 Refueling Outage Activities (60710)

4.4.1 Emergency Cooling Water System Damage

Since previous review of this item in NRC combined inspection report 50-277/87-24; 50-278/87-24, repairs to the emergency cooling water (ECW) pipe supports have been completed. Station Repair Request R-087 has been closed, and the licensee initiated modification (MOD) 2240, "Emergency Cooling Water System Pipe Hanger Repairs." The purpose of the MOD is to restore operability to the ECW system. This will be accomplished by successfully performing surveillance test (ST) 13.21, "Emergency Cooling Water Pump, Emergency Cooling Tower Fans, ESW Booster Pump Operability," and by performing a modification acceptance test (MAT) in which the entire system is operated in a closed loop (isolated from the river) mode. The licensee plans to complete both tests successfully prior to Unit 2 restart. In addition, MOD 2240 initiated a study to evaluate possible ECW modifications to prevent pipe support damage recurrence.

The inspector reviewed R-087 and MOD 2240. Contained within these packages were construction job memorandums, drawings, safety evaluations, and numerous nonconformance reports (NCRs) and engineering review request forms (ERRFs). No deficiencies or problems were identified. The inspector also examined repairs to remaining supports 47HB-H59, 48HB-60, 48HB-520, and the link seal; and noted no deficiencies.

In July 1988, after repairs to the ECW pipe supports were complete, ST 13.21 was performed. Pump discharge pressure was abnormally low, so the pump was removed for maintenance. However, no major problems were noted, and the licensee later determined that the low pressure was acceptable. In the past, pump discharge pressure was masked by the higher service water system pressure. When ST 13.21 was performed in July 1988, the service water system was isolated. Therefore, ECW pump discharge pressure was lower.

Currently, the ECW pump motor is removed awaiting a replacement part. When the motor is reinstalled, ST 13.21 will be performed and a new set of pump operating data and associated curves will be established. The inspector will continue to follow this problem pending successful completion of ST 13.21, the MAT, and long term corrective action to prevent recurrence of pipe support damage. The violation (section 3.8) associated with the ECW pipe support is closed.

4.4.2

Inspection of Unit 3 Drywell On July 26, 1988

The inspector conducted a reinspection and detailed tour of the drywell to check on general equipment conditions, status of work in progress, housekeeping, and radiation protection controls. This was, in part, in response to two drywell fires (section 4.1.7). Overall, the inspector determined that general conditions in the drywell were improving. Temporary equipment was neatly arranged with no excessive amounts of loose material. The inspector found one radiological barrier rope down and pointed this out to Health Physics personnel. The discrepancy was immediately corrected. A firewatch was questioned about his duties and provided a knowledgeable response. The inspector paid particular attention to pipe snubbers in the drywell. No deficiencies were noted.

Two items of concern to the inspector were a damaged restraining cable on the "B" recirculation pump and some temporary hoses being supported by a rope tied to a nozzle on the lower containment spray ring at the 300 degree location. The inspector informed the licensee of these concerns and will follow up on corrective actions in a future report.

4.4.3 Reactor Pressure Vessel (RPV) Access Hole Covers

The licensee completed an ultrasonic (UT) reinspection of the Unit 3 RPV manway access hole covers on August 6 - 7 and August 16 - 17, 1988. The licensee has confirmed the presence of intergranular stress corrosion cracking (IGSCC). The indications are located on the vertical fusion line on the shroud side of the weld. The 0 degree cover has indications intermittently around 360 degrees, with 40% average and 80% maximum of thru-wall. The 180 degree cover has indications intermittently around 25%, with 20% average and 40% maximum thru-wall. The inspections were performed with a GE device using a "smart" UT system. These Unit 3 results confirm the initial findings of January 1988. The Unit 2 covers were inspected in May 1988 with no indications found. The licensee considers the Unit 2 results valid. Repair and/or replacement for the Unit 3 covers is being planned.

The inspector reviewed the IIT test results and discussed them with licensee engineers. The repair activities will be reviewed in a future inspection.

4.4.4 Unit 3 Welding Allegation (RI-88A-58)

Background

On June 14-15, 1988, the inspector investigated several allegations received from a CBI welder after he had been fired for refusing to complete a carbon steel fillet weld on the residual heat removal (RHR) N12 flued head anchor. The allegations were received by the NRC Senior Resident Inspector on May 23, 1988. The allegations are discussed as follows:

Allegation

"Weld prep was not suitable for welding. The RHR N12 anchor consisted of a box like stanchion attached to an embed plate." The area in question was a corner where the previously deposited fillet welds (173-20 and

1/3-25) had not been tied in leaving an approximate 3/8" gap to be filled in. The allegor initially requested the cavity to be ground prior to welding for "ease of welding" even though the CBI welding superintendent directed him to do so without grinding. The allegor continued to refuse to make the weld even after he had directed a grinder to grind the area three times. The area was subsequently welded by another welder and magnetic particle inspected after depositing the root pass.

The inspector determined that the joint did not require a full penetration weld as indicated on Note 4 of Dwg 165 and thus would not require any special preparation other than to remove scale from the previously deposited weld beads. The sole objective of the weld sequencing at this point was to tie-in the preceding corner segments in order to provide a base for depositing the succeeding beads to complete the fillet weld. As with most fillet welds, the back side of the weld does not represent a critical zone. During an interview, the responsible CBI supervisor indicated that he had explained to the allegor that a full penetration weld was not a specified requirement for the subject joint. The inspector concluded that CBI's practice of tying weld segments in this instance without special grinding instructions, was acceptable and did not constitute a safety problem.

Allegation

"Poor welding was performed in the reactor water cleanup (RWCU) system due to poor fit up." The licensee reported that of 48 RWCU welds, 11 were rejected by radiography. Of these one may have been due to poor fit up, the remaining ten were due to poor welding technique, e.g., unconsumed insert. These welds were subsequently weld repaired and radiographed. To improve welding, on May 19, 1988, CBI began welding all root passes with an automatic welding process instead of using the manual process. The inspector determined that unacceptable welds which existed in the RWCU system were identified as part of the licensee's weld inspection program and that appropriate corrective action had been taken.

Allegation

"Undesirable welding practices were used in RWCU system. These included: (a) welding started in middle of pipe; (b) over stressing pipe due to heat shrink; (c) use of a "come-along"; and, (d) weld repair." At the inspector's request, the licensee reviewed 90 surveillance reports and found no cases where welding of horizontal pipe was started in the middle of the pipe (presumably at 3 and 9 o'clock positions. The specified practice for welding horizontal pipe is to start at 6 o'clock). Also, no use of come-alongs was reported. No detectable weld shrinkage was reported. Weld repair of stainless steel is common practice and is not prohibited by CBI specifications. It was performed as required with appropriate licensee review and approval.

Allegation

"Fillet welding a pipe support in RHR system with a 3/8" gap (3/16" maximum specified) without utilizing a backing bar." Although this allegation could not be substantiated because the specific location of the weld was not identified by the alleger, the inspector determined through interviews that the CBI welding supervisors were well aware of the wide gap requirements of CBI Welding Procedure GVPS-SMAWX which specified weld build up or the use of a backing bar. In conducting fifteen (15) surveillance activities involving structural welding, no infractions involving excessive root gaps were reported, nor were any joints identified for which use of a backing bar would have been necessary.

Allegation

"CBI used non-qualified welders." The licensee reported that as of June 16, 1988, CBI had qualified nine hundred welders. Of these, CBI reported that three welders were found welding when not qualified. In these instances, the welds were removed and the welders were subsequently qualified to conform to Section IX requirements. In addition, the licensee had performed a special process audit covering welder qualification, and periodic surveillances of various production welding activities and found no instances where gap requirements were violated.

Summary

The inspector concluded that no violation or safety issue exists based on the concerns expressed by the allegor. Although some conditions were substantiated by the inspector (e.g., weld rejections in the RWCU system and unqualified welders) these situations had been identified by the licensee's QA program and appropriate corrective action had been taken.

4.5 Plant Operations Review Committee (PORC) (40700)

The inspector attended portions of PORC meeting #88-126 on August 18, 1988. The inspector verified that a quorum was present, and that the meeting was conducted in accordance with Technical Specification (TS) 6.5.1 and procedure A-4, "PORC Procedure," Revision 22. The licensee discussed the following topics:

- temporary procedure changes,
- special procedures,
- modification safety evaluations,
- alarm response card revisions,
- proposed TS amendments,
- miscellaneous procedure changes.

Overall, the inspector determined that the meeting was effective and PORC members displayed a good nuclear safety perspective as demonstrated by their questioning.

4.6 Engineered Safeguards Features (ESF) System Walkdown (71711)

The inspector performed a detailed walkdown of portions of the core spray system in order to independently verify the operability of the Unit 2 A and B systems. The core spray walkdown included verification of the following items:

- Inspection of system equipment conditions.
- Confirmation that the system check-off-list (COL) and operating procedures are consistent with plant drawings.
- Verification that system valves, breakers, and switches are properly aligned.
- Verification that instrumentation is properly valved in and operable.
- Verification that valves required to be locked have appropriate locking devices

- Verification that control room switches, indications and controls are satisfactory.

The inspector observed balance testing on the Unit 2 B and D core spray pump motors. Test personnel were questioned and found knowledgeable on the conduct of the test procedure. The inspector noted a slight packing leak on loop B future fill valve (HV 2-13 29034B) when the system was pressurized during pump operation. Also noted was that the flow direction marking on the "COND TRANSFER TO CS PIPING" above B core spray pump room fan F is reversed. Both of these deficiencies were promptly corrected by the licensee when notified of them by the inspector.

An abandoned welding cable which penetrates secondary containment was found draped across a B core spray room instrument rack. The licensee subsequently tagged the cable for removal and to identify the containment penetration for repair.

The D core spray pump suction pressure gauge (PI 2-14 36D) was found to be improperly calibrated. The gauge was indicating a slight vacuum instead of the expected 5 psi from the torus water level head. The licensee promptly calibrated the gauge once notified.

Two vent valves (HV 2-14 29053 and 29054) in line with the automatic blowdown interlock pressure switch were not identified on any system check off lists or valve lineup procedures. In addition, isolation and root valves for local core spray line pressure instruments were also not listed on any valve lineup procedures. The system engineer and operators were advised of these deficiencies and the inspector will follow up in a future inspection.

No violations were noted.

5.0 Assurance of Quality

Licensee management continues to commit resources and manpower that are dedicated to the closure of NRC open items. The licensee provides adequate technical justification in the form of a "closure package".

Two additional reportable events occurred in part due to poor licensed operator review of blocking sequences. This continues to be a problem area. Previous corrective actions may be ineffective.

Numerous security event reports occurred during the report period. Recent changes to the security program and corrective actions to address licensee and NRC identified concerns appear to be ineffective.

6.0 Review of Licensee Event Reports (LERs) and Safeguards Event Reports (SERs) (92703)

6.1 LER Review (90712)

The inspector reviewed LERs submitted to the NRC to verify that the details were clearly reported, including the accuracy of the description and corrective action adequacy. The inspector determined whether further information was required, whether generic implications were indicated, and whether the event warranted on site follow-up. The following LERs were reviewed:

<u>LER No.</u> <u>LER Date</u> <u>Event Date</u>	<u>Subject</u>
88-S01 January 7, 1988 February 4, 1988	Alleged Drug Use by Two PECO Employees
88-S02 January 9, 1988 February 8, 1988	Inattentive Watchperson
88-S03 March 3, 1988 March 31, 1988	On Site Drug Use
*88-S05 May 21, 1988 June 20, 1988	Breach of Protected Area Barrier
88-S06 July 9, 1988 August 8, 1988	Failure To Establish Compensatory Measures
*2-88-05, Rev. 2 June 28, 1988 March 3, 1988	Control Panel Anchorage
*2-88-08, Rev. 1 June 28, 1988 March 28, 1988	Control Room Cardox
*2-88-12 June 23, 1988 May 24, 1988	Drywell High Range Monitors Being Out of Service
2-88-13 July 5, 1988 June 2, 1988	Cable Spreading Room Smoke Detectors Out of Service

*2-88-14 Primary Containment Isolation Due to
July 13, 1988 Inadequate Block
June 14, 1988

3-88-04 Fire Damper Out of Service
July 13, 1988
June 13, 1988

6.2 LER and SER Follow-up (92700)

For LERs and SERs selected for follow-up and review as denoted by asterisks above, the inspector verified that appropriate corrective action was taken or responsibility was assigned and that continued operation of the facility was conducted in accordance with Technical Specifications and did not constitute an unreviewed safety question as defined in 10 CFR 50.59. Report accuracy, compliance with current reporting requirements and applicability to other site systems and components were also reviewed.

- 6.2.1 SER 88-S05 concerned a breach in the protected area barrier that was not properly compensated. The event was fully discussed in NRC Combined Inspection Report 277/88-13; 278/88-13. In section 10.5 of that report, the inspector pointed out that the security plan had a weakness in that it did not discuss the particular barrier, and protected area barrier drawings were not available. This SER did not address either of the two concerns. However, both deficiencies are being tracked by unresolved item 277/88-13-06.
- 6.2.2 LER 2-88-05 (Rev. 2) concerns an NRC identified problem with the as-built anchorage configuration of Unit 2 and 3 bench and floor panels not meeting original installation requirements. Rev. 2 has concluded the investigation of this deficiency because all safety-related floor panels have been investigated and submitted for modification, if necessary. Review of the corrective actions for this LER will be followed under NRC item 88-10-01 for both units. No deficiencies were noted with this LER.
- 6.2.3 LER 2-88-08 (Rev. 1) concerns a licensee identified problem with the control room Cardox system. The event was reviewed in NRC inspection 277/88-13 and 278/88-13. This revised LER addresses additional corrective actions and a habitability study that was performed. The licensee intends to permanently remove the Cardox hose reels from the control room after obtaining the Technical Specification amendment. No inadequacies were noted relative to this LER.

6.2.4 LER 2-88-12 concerns an event where the licensee noted that both Unit 2 and 3 drywell high range radiation monitors were out of service without this condition being reported in a special report to the NRC as required by technical specification (TS) 3.2.F. This is a licensee identified violation (277/88-24-01; 278/88-24-01). The condition was noted during a control room walkdown by the shift technical advisor. These radiation monitors are required by NUREG-0737 for monitoring radiation levels during design accidents. The monitors are not required during cold shutdown; however, Peach Bottom TS do not reflect this. The licensee determined that the cause of this event was personnel error by licensed operators and inadequate procedural controls for tracking TS limiting conditions for operations. Corrective actions include returning the monitors to service prior to startup, enhanced procedural control of entry into TS action statements in an "Operations Management Manual, and pursuing a TS change to delete their requirements during cold shutdown. No inadequacies were noted relative to this LER.

6.2.5 LER 2-88-14 concerns a primary containment isolation caused by an inadequate blocking permit. This event was reviewed in NRC Inspection 277/88-18, 278/88-18. No inadequacies were noted relative to this LER.

7.0 Surveillance Testing (61726)

The inspector observed surveillance tests to verify that testing had been properly scheduled and approved by shift supervision, control room operators were knowledgeable regarding testing in progress, approved procedures were being used, redundant systems or components were available for service as required, test instrumentation was calibrated, work was performed by qualified personnel, and test acceptance criteria were met. Parts of the following tests were observed:

- ST 9.32-2,3; Reactor Cold Shutdown Data Log, performed hourly on both Unit 2 and 3 during the inspection period.

No inadequacies were identified.

8.0 Maintenance Activities (62703)

The inspectors reviewed administrative controls and associated documentation, and observed portions of work on the following maintenance activities:

<u>Document</u>	<u>Equipment</u>	<u>Date Observed</u>
M-65.5, 65.14	Unit 2 Snubbers	August 12, 1988
Misc Procedures	Unit 3 Shroud Access Cover	August 17, 1988
MRF 88-3743	Unit 2 Fuel Pump A	August 17, 1988
MRF 88-62497	E43 Bus Cleaning	August 17, 1988

Administrative controls checked, if appropriate, included blocking permits, fire watches and ignition source controls, QA/QC involvement, radiological controls, plant conditions, Technical Specification LCOs, equipment alignment and turnover information, post maintenance testing and reportability. Documents reviewed, if appropriate, included maintenance procedures (M), maintenance request forms (MRF), item handling reports, radiation work permits (RWP), material certifications, and receipt inspections.

No inadequacies were identified.

9.0 Radiological Controls (71707, 71709)

During the report period, the inspector examined work in progress in both units, including health physics procedures and controls, ALARA implementation, dosimetry and badging, protective clothing use, adherence to radiation work permit (RWP) requirements, radiation surveys, radiation protection instrument use, and handling of potentially contaminated equipment and materials.

The inspector observed individuals frisking in accordance with HP procedures. A sampling of high radiation area doors was verified to be locked as required. Compliance with RWP requirements was verified during each tour. RWP line entries were reviewed to verify that personnel had provided the required information and people working in RWP areas were observed to be meeting the applicable requirements. No unacceptable conditions were identified.

10.0 Physical Security (71707, 71881)

10.1 Routine Observations

The inspector monitored security activities for compliance with the accepted Security Plan and associated implementing procedures, including: staffing, operations of the CAS and SAS, checks of vehicles to verify proper control, observation of protected area access control and badging procedures on each shift, inspection of protected and vital area barriers, checks on control of vital area access, escort procedures, checks of detection and assessment aids, and compensatory measures. No inadequacies were identified.

10.2 Vital Area Key Loss

On July 14, 1988, at 11:41 p.m., the licensee discovered that a vital area key, issued at 10:50 a.m. to a worker inspecting fire dampers, had not been returned as required. The key loss was not discovered by the periodic key inventory until 11:41 p.m. After it was determined a degraded condition existed, the vital area was compensated for at 12:00 midnight. The vital area was searched for unauthorized persons and no unusual conditions were found. The licensee made an Emergency Notification Service call at 12:48 a.m., July 15, 1988, for a one hour reportable security event. The site security supervisor (contractor) was relieved of his duties due to the following circumstances associated with this event: the long duration required to discover the key loss, (i.e., after several inventories); the length of time to determine the requirements for compensation; and, the length of time required to make a one hour report.

The inspector reviewed this event by discussing it with licensee management and by reviewing the licensee's reports. A regional security inspector also reviewed the event and the licensee's corrective actions in NRC inspection 277/88-26; 278/88-26. The SER will be reviewed in a future inspection.

10.3 Anonymous Threat by Telephone

At 11:57 a.m. on July 24, 1988, a telephone threat was received by the Pennsylvania State Police, Lancaster Barracks, over the emergency 911 telephone number. The caller stated, "the Philadelphia Electric plant has one hour to close or we will close it down. This is not an idle threat, you have until 1:00 p.m." The caller further stated, "just sit there and listen, we will execute this. Check the first chapter of Proverbs". The police contacted the Peach Bottom Shift Manager regarding this threat. The Shift Manager contacted Peach Bottom security. The Peach Bottom Shift Security Assistant contacted Limerick security, corporate security, and the PECO load dispatcher. The senior resident inspector was notified at home. Security threat procedures were implemented at both plants. The licensee determined the threat to be nonspecific and not credible. In addition, the licensee determined the event to be recordable. The Pennsylvania State Police have a tape recording of the threat and have made it available to PECO. In addition, the 911 call has been traced to a pay phone outside Sam's Pizza in Quarryville, PA. The Quarryville Police Chief interviewed an employee from Sam's Pizza and neighbors in the area with negative results.

The inspector reviewed the licensee's investigation and actions associated with this telephone threat. No unacceptable conditions were identified.

10.4 Inattentive Security Guard

On August 3, 1988, the Central Alarm Station (CAS) attendant was performing closed circuit TV (CCTV) camera checks. At approximately 1:52 a.m., the CAS attendant noticed a watchperson via CCTV that appeared inattentive. The watchperson was performing compensatory duties. The CAS attendant radioed the watchperson three times and received no reply and saw no movement. At 1:53 a.m., the CAS attendant radioed a corporal, who was performing post checks, to respond to the post. In addition, the sergeant of the guards was notified and also responded to the post. At 1:55 a.m., the corporal walked up to the watchperson unnoticed and shook his arm, startling him. When the sergeant arrived at the post, the watchperson was immediately relieved. At 2:00 a.m., the Shift Security Assistant (SSA) was notified.

The licensee performed a search of the affected area and also performed an alarm history search. These activities were completed at approximately 2:50 a.m., and no abnormalities were noted. A one hour ENS phone call was made to the NRC at 2:53 a.m. The licensee performed an investigation of the incident and terminated the watchperson's employment. A safeguards event report will be submitted to the NRC within thirty days.

To follow-up the event, the inspector spoke with security management personnel and the SSA, and also reviewed the SLER and statements by involved security personnel. No deficiencies were noted concerning the licensee's response to the incident. The safeguards event report will be reviewed in a future report.

10.5 Improper Compensation of Security Post

A vital area door lock mechanism failed on August 6, 1988, at 4:00 p.m. A security guard was posted promptly by the guard corporal to compensate for the locking mechanism of the door. Due to high ambient temperature outside of the door, the corporal made a decision to post the guard inside the door where the temperature was cooler without consulting supervision. The guard posted inside the vital area could not properly compensate for the loss of the locking mechanism of the door. A shift security assistant on his rounds discovered the improper posting at 5:45 p.m.; correctly posted the guard; and had a search conducted of the vital area. The search discovered no unauthorized persons in the area or abnormal conditions. The licensee made an Emergency Notification System call at 6:44 p.m., for a one hour reportable Safeguards event under the criteria in 10 CFR 73.71 (an uncompensated loss of degraded equipment). The corporal responsible for improperly posting the guard was counselled about the proper posting of guards, reduced in rank, suspended for five days, and retrained. The event was discussed in a guard mount and incorporated into lessons learned in guard on-going training.

The inspector discussed this event with licensee security management and had no further questions at this time. The safeguards event report will be reviewed in a future inspection.

10.6 Off Site Use of Marijuana

On August 12, 1988, at 5:17 p.m., the licensee made a one hour safeguards event report per 10 CFR 73.71 concerning an individual that was observed by another employee off site using marijuana. The employee recognized the individual on site on August 9, 1988. Upon investigation, the individual admitted to off site use of marijuana. The individual was a contract quality control (QC) inspector. The individual was immediately escorted off site and on August 10, 1988, denied access to the site as specified in the corporate "Fitness for Duty" policy. The individual was interviewed again on August 10, 1988, and submitted to drug testing. The "Fitness for Duty" corporate policy specifies that contractor employees who admit to off site drug use are to have access denied. This was done on August 10, 1988.

The employee's access denial was determined to be a recordable event per 10 CFR 73.71. No further investigation of the potential reportability of the event was done until August 12, 1988, when the resident inspectors were informed of the event. The inspector asked if a review had been made concerning the reportability of the event. Guidance is given in Regulatory Guide 5.62, and NUREG 1304, "Reporting of Safeguards Events", concerning reportability of off site drug use. The licensee then investigated the work activities of the QC inspector to see if he had worked on safety related equipment, components or systems. Upon determining that the individual worked on safety related functions, the licensee determined that the event was reportable and made the report within one hour after the determination was made.

During follow-up of this event, the inspector noted several concerns. The security procedure (PP-34) for reporting events is highly matrixed, complicated and does not provide guidance for off site drug use. The administrative procedure for notification of the NRC (A-31, revision 8) was last revised in 1984. The guidance for reporting safeguards events in 10 CFR 73.71 was changed early in 1988 and thus the present revision of A-31 is incomplete. Also, the Shift Manager was not initially consulted when access was denied on August 10, 1988.

The Shift Manager who is responsible for the operation of the plant should have been informed of the event and consulted for a determination of reportability. The licensee is currently reviewing security procedures for inadequacies and recognizes these deficiencies in reportability. The inspector noted that two

log books are used for safeguards events. These are the nuclear security log and the claims security log. To prevent future miscommunication and event reporting confusion one log should be used for all events. The inspector will review corrective actions and the security event report in a future inspection.

10.7 Turbine Building Makeshift Beds

On December 18, 1987, the inspector found several makeshift beds in the turbine building on a mezzanine between elevations 165 and 195. The beds were generally constructed of personnel contamination clothing and were well hidden in a remote part of the plant.

After discussions with Region I management, the inspector informed the plant manager and operations superintendent of his finding. The licensee decided to monitor the bed area rather than remove them in an effort to catch the individuals involved. The bed area was monitored for several weeks and no one was found using them. The beds were subsequently removed but routine monitoring continued.

Several months later, another bed appeared and was removed. Two gates on the 195 foot level which lead to this area were chained, locked, and alarmed, and access from the lower level (165 foot) was blocked with grating. Monitoring continued for several months and no further incidents were encountered.

The inspector made a tour of the area on August 16, 1988. No beds were found and this item is considered resolved.

10.8 Safeguards Event Report On August 24, 1988

The licensee made a one hour Safeguards Event Report regarding an inattentive guard at 3:17 a.m. on August 24, 1988. During a routine tour at 2:29 a.m., the shift security assistant (SSA) found a watchman (unarmed guard) asleep while posted at the Unit 2 drywell personnel access control point. The licensee relieved the watchman, escorted him off site, and suspended him pending investigation. A review of computer history noted that this watchman had been observed attentive at 2:26 a.m. The drywell was open and no entries were in progress. A search of the drywell and the surrounding reactor building areas did not find any abnormalities.

The inspector reviewed this event and discussed it with SSA who found the inattentive guard.

10.9 Safeguards Event Report On Degraded Security Barrier On August 24, 1988

At 8:45 p.m. on August 27, 1988, a degraded security barrier was discovered during the conduct of a site evacuation drill. A worker when told to exit his work area expressed concern about this security barrier. PECO security investigated and determined that a degraded barrier condition had existed for about 30 minutes without security's knowledge. The licensee posted a guard at the barrier, searched the affected area, and made a one hour notification.

The inspector reviewed the event and discussed it with licensee personnel. Two security specialists were on site observing the security contractor turnover from Burns Security to Protection Technology, Inc. (PTI) and they also reviewed this Safeguards Event Report (see NRC Inspection 277/88-31 ; 278/88-31).

11.0 Management Meetings

11.1 Preliminary Inspection Findings (30703)

A verbal summary of preliminary findings was provided to the Manager, Peach Bottom Station at the conclusion of the inspection. During the inspection, licensee management was periodically notified verbally of the preliminary findings by the resident inspectors. No written inspection material was provided to the licensee during the inspection. No proprietary information is included in this report.

11.2 Attendance at Management Meetings Conducted by Region Based or Headquarters Inspectors (30703)

<u>Date</u>	<u>Subject</u>	<u>Inspection Report No.</u>	<u>Reporting Inspector</u>
7/25-29/88	Security	88-26/26	Lancaster
8/2-4/88	Emergency Planning	88-27/27	Conklin
8/8-12/88	Access Covers (U/3)	88-29/29	Kaplan
8/15-19/88	Block Walls	88-30/30	Chaudhary
8/27-29/88	Security	88-31/31	Lancaster
8/22-9/2/99	Emergency Procedures	88-200/200	Archtizel
8/30-31/88	Operator Training	88-32/32	Walker
8/29-9/2/88	Procedures, PORC, NRB, Training	88-28/28	Oliveria

11.3 Security Management Meeting on July 20, 1988

The inspector attended a meeting to discuss the current status of Peach Bottom security including turnover of the contractor, current concerns, licensee oversight of activities, and licensee staffing and corrective action plans. NRR letter dated August 8, 1988, further discusses this meeting.

11.4 NRC/PECo Restart Meeting August 5, 1988

On August 5, 1988, a management meeting was held at Peach Bottom. At this meeting, PECO discussed answers to specific questions regarding their restart plan. The NRC requested this meeting to assist in development of the Safety Evaluation Report. A list of attendees at this meeting is included in Attachment 1 to this inspection report.

ATTACHMENT 1

PEACH BOTTOM PANEL MEETING

August 5, 1988

NRC

J. Linville, Chief, Reactor Projects Section 2A, DRP
W. Regan, Chief, Human Factors Assessment Branch, NRR
R. Gallo, Chief, Operations Branch, Division of Reactor Safety, (DRS)
R. Martin, Project Manager, NRR
S. Ebnetter, Director, Division of Radiation Safety and Safeguards, (DRSS)
L. Myers, Resident Inspector
T. Walker, Senior Operations Engineer, DRS
J. Williams, Project Engineer, DRP
R. Urban, Resident Inspector
B. Boger, Assistant Director Region I Reactors, NRR
T. Johnson, Senior Resident Inspector
R. Bellamy, Chief, Facilities and Safety Branch, DRSS
W. Kane, Director, Division of Reactor Projects (DRP)

PECo

W. Alden, Director-Licensing
R. Kankas, Staff Engineer
W. Birely, Senior Licensing Engineer
N. McDermott, Manager, Public Information
E. Fogarty, Manager-Nuclear Support
C. McNeill, Executive Vice President, Nuclear
D. Smith, Vice President, PBAPS
D. Helwig, General Manager, Nuclear Quality Assurance
J. Pratt, Manager, Quality, PBAPS
B. Bilanich, Manager, Organizational Development/Human Resources

Others

M. Phillips, Public Service Electric and Gas
H. Abendroth, Atlantic City Electric
C. Schaefer, Delmarva Power and Light
J. Flude, NUS
R. Vollmer, TENERA
J. Martore, TENERA
J. Parrott, Harford County Council
S. Rieslamb, MAC
H. Lamb, MAC