

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket/Report No. 50-277/87-29
50-278/87-29

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: November 28 - December 31, 1987

Inspectors: T. P. Johnson, Senior Resident Inspector
R. J. Urban, Resident Inspector
L. E. Myers, Resident Inspector

Reviewed By: *J. H. Williams*
for J. H. Williams, Project Engineer

1/14/88
date

Approved By: *J. C. Linville*
J. C. Linville, Chief,
Reactor Projects Section 2A,
Division of Reactor Projects

1/14/88
date

Summary

Areas Inspected: Routine, on site regular and backshift resident inspection (107 hours Unit 2; 109 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: Four unresolved items were identified: (1) the seismic adequacy of the control room panels (section 4.1.15); (2) failures with GE-AM-4.16-250 General Electric breakers (section 4.2.5); (3) diesel generator lube oil fires in the exhaust manifold (section 4.4); and, (4) copper contamination of the Exide 125 VDC batteries (section 8.2). The implementation of the QC shift monitors was reviewed (section 4.1.1). Operator and shift manager response and followup critique of a partial loss of off site power was good (section 4.2.7). Numerous security events occurred including security force member post abandonment and inattentiveness (section 10.0).

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DETAILS

1.0 Persons Contacted

- *J. B. Cotton, Superintendent, Operations
- *G. F. Daebeler, Superintendent Technical
- *J. F. Franz, Peach Bottom Plant Manager
- J. C. Oddo, Security Supervisor
- F. W. Polaski, Assistant Superintendent, Operations
- K. P. Powers, Peach Bottom Project Manager
- G. R. Rainey, Superintendent, Services
- *D. M. Smith, Vice President, Peach Bottom Atomic Power Station
- J. E. Winzenried, Staff Engineer

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. Refueling outage recovery efforts and reactor vessel hydrostatic testing preparations continued during the period.

2.2 Unit 3

The unit remained in a cold condition during the period. The pipe replacement outage, which began on October 1, 1987, continued. By the end of the inspection period, the core offload was complete and pipe decontamination activities were underway.

2.3 Common

The annual Peach Bottom emergency exercise was satisfactorily conducted on December 8, 1987. NRC Commissioner Kenneth Carr and the Regional Administrator visited the facility on December 15, 1987.

3.0 Previous Inspection Item Update

3.1 (Closed) Inspector Follow Item (278/85-44-03). Safety evaluation for Unit 3 jet pump line damage. The inspector had questions associated with the safety evaluation (modification request #1869). The licensee revised the safety evaluation and the inspector reviewed revision 1 in NRC Inspection 278/86-03. However, this revision did not address single loop operation. The licensee subsequently issued revision 2 to the safety evaluation dated March 7, 1986. The inspector reviewed revision 2 and

discussed it with the system engineer. The inspector concluded that the open issues were addressed, and had no further questions at this time. The damaged #1 jet pump is scheduled for repair during the current Unit 3 refueling outage. Based on the above, the inspector follow item is closed.

- 3.2 (Closed) Unresolved Item (277/83-11-01 & 278/83-11-01);
 (Closed) Unresolved Item (277/83-11-02 & 278/83-11-02);
 (Closed) Unresolved Item (277/83-11-03 & 278/83-11-03).

The above three unresolved items are related to the licensee's Inservice Testing (IST) program implementation. The issues of concern involved the first ten year IST interval. The licensee is now implementing their second ten year interval IST program that has recently been reviewed by NRC and will be discussed with the licensee at a forthcoming meeting. Additionally, a comprehensive IST team inspection (277/87-32 & 278/87-32) was recently performed and current IST issues are addressed within this latest report. Based on the above, these items are closed.

4.0 Operations Review

4.1 Station Tours

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. Presence of a senior licensed operator in the control room was verified frequently. Operator attentiveness to plant operations was determined to be adequate.

The licensee's April 6, 1987, response to the March 31, 1987, NRC Order established a continuous control room Nuclear Operations Monitoring Team (NOMT). In a letter dated November 24, 1987, the licensee proposed to suspend the NOMT. The basis for this action was (1) the Shift Manager position has been in place since October 26, 1987; and, (2) a formal shift operations QC monitoring team was established on December 21, 1987. The QC shift monitor is not a continuous inspector in the control room. However, this QC monitor would spend a portion of their time making random control room inspections. The NRC acknowledged these changes in a letter dated December 16, 1987.

The inspector reviewed five resumes of the individuals designated to be QC shift monitors. The following information was noted:

- 3 have Navy nuclear experience,
- 3 have previous RO licenses,
- 5 have commercial nuclear experience,
- 4 have BWR experience, and
- each individual has a minimum of 12 years related experience.

The inspector also interviewed selected QC shift monitors and verified they were randomly checking control room activities. QC procedure QCI-26, "Shift Operations Monitoring Program," Rev. 0 was reviewed. The inspector will continue to follow this area.

- 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 safety 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. No inadequacies were identified.

- 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.
- 4.1.9 The inspector observed the shutdown nuclear instrumentation subsystems (source range and intermediate 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 on site diesel generators were operable (see section 4.4).
- 4.1.11 The inspector monitored the frequency of in-plant and control room tours by plant and corporate management. The tours were generally adequate.
- 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 to licensee procedures. No inadequacies were identified.
- 4.1.13 The inspectors performed backshift tours of the facility on the following days:
- Wednesday December 30, 1987, 12:00 a.m. - 6:00 a.m.
 - Thursday December 31, 1987, 4:00 a.m. - 6:00 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."
- 4.1.15 During a routine daily control room tour, the inspector noted that front and rear covers were removed from numerous control room panels for painting. The inspector noted that panel interiors were fairly clean with no loose debris observable.

Upon inspection inside the reactor control console, the inspector noted that no observable fasteners were seen holding the C channel to the floor. The inspector did see several fasteners attaching the bottom of the reactor control console to the tops of the C channel. However, several holes in the top of the C channel did not have fasteners. Further, some of these fasteners had nuts while others did not. The C channel should be fastened to both the floor and the control room console. The inspector observed several other panels and saw similar indications.

The inspector questioned the licensee's technical engineer concerning the seismic adequacy of control room panels. In response, the licensee initiated MOD 2376 to investigate control room panel anchorage. Preliminary indications are that nineteen control room panels may not comply with the original design. This item will remain unresolved pending further licensee investigation and NRC review (277/87-29-01; 278/87-29-01).

4.2 Followup On Events Occurring During the Inspection

4.2.1 Unit 3 Reactor Water Cleanup Isolation on November 29, 1987

At 5:55 p.m., on November 29, 1987, a group II A reactor water cleanup (RWCU) isolation occurred on high temperature of 200 degrees F. No valve movement occurred as the RWCU system was isolated for a piping decontamination (decon) flush. However, since the isolation logic de-energized, the licensee made an ENS call at 8:09 p.m. The cause of the high temperature RWCU isolation was an actual decon solution of 190 degrees F during the solution circulation phase. Special Procedures (SP) 1050 and 1051 were being implemented for this RWCU decon. However, neither SP provided a step to bypass the high temperature isolation signal. The licensee revised the SPs and performed the decon flush. At the time of the isolation, the Unit 3 core was offloaded and vessel draining was in progress. Reactor water level was approximately -350 inches or at the recirculation pump suction nozzle.

The inspector reviewed this event by checking control room logs, reviewing the suspected LER, and discussed it with control room personnel. SP-1050 and SP-1051 were also reviewed. The licensee intends to submit an LER for this event. The LER will be reviewed in a future inspection. No violations were identified.

4.2.2 Unit 2 Group III Isolation on December 2, 1987

At 9:45 a.m., on December 2, 1987, an outboard Group III isolation occurred on Unit 2. Various ventilation valves closed, various ventilation fans tripped, and the "B" standby gas treatment system (SGTS) fan started. The "B" SGTS train inlet and outlet valves did not open because the train was tagged out of service. All systems functioned as designed for the one-half isolation signal. The cause of the isolation was a blown fuse (16A-F7B) to isolation logic relay 16A-K24. Initial licensee investigation determined that the cause of the blown fuse was due to a modification acceptance test on MOD 633 (revise logic of automatic depressurization system). The fuse was replaced, the isolation was reset at 10:45 a.m., and an ENS call was made at 12:25 p.m.

The inspector reviewed this event by examining the Unit 2 control room log, and the suspected LER, and by discussing the event with control room personnel. The licensee plans to submit an LER; it will be reviewed in a future inspection. No violations were identified.

4.2.3 Unit 2 Scram Signal on December 6, 1987

At 9:24 p.m. on December 6, 1987, with Unit 2 in cold shutdown, a reactor automatic scram signal and group II/III containment isolations occurred during surveillance testing. I&C technicians were performing a calibration check of a pressure switch that shares a common reference leg with the reactor level transmitters that provide the zero inch (low level) scram and isolation signals. The licensee's initial investigation has determined that a leaky instrument isolation valve for the pressure switch was the probable cause. The licensee reset the scram and isolation signals, and returned affected systems to normal. An ENS call was made at 11:00 p.m., and the inspector was notified.

The licensee plans to submit an LER for this occurrence; it will be reviewed in a future inspection. No violations were noted.

4.2.4 Unit 2 Group III Isolation on December 21, 1987

At 11:35 a.m. on December 21, 1987, a partial group III primary containment isolation occurred on Unit 2. This caused a closure of the inboard ventilation valves, a trip of the normal reactor building ventilation and a start of the standby gas treatment system. The cause of

the isolation was a personnel error by a non-licensed operator. The operator pulled the wrong fuse which caused a de-energization of the relay logic. The fuse was pulled per a blocking permit for a plant modification. The fuse was replaced, the isolation was reset, and all systems were returned to normal. An ENS call was made at 2:00 p.m. and the resident inspectors were notified.

An LER will be submitted and it will be reviewed in a future inspection. No violations were noted.

4.2.5 Diesel Generator Breaker Failure

At 5:05 a.m. on December 22, 1987, during the weekly E-1 diesel generator (DG) surveillance, the E-12 DG breaker failed to close from the control room switch. (The E-12 breaker supplies the Unit 2 E-12 4KV emergency bus from the E-1 DG.) The licensee racked the breaker out and in twice, and attempted to close the breaker again. However, the E-12 breaker again failed to close. The control room operators were able to close the E-13 breaker. (The E-13 breaker supplies the Unit 3 E-13 4KV emergency bus from the E-1 DG.) The licensee made an ENS call at 6:30 a.m. and notified the senior resident inspector. An LER will be submitted and it will be reviewed in a future inspection.

The licensee's evaluation determined that breaker mounted micro switch 52/IS (Interlock Switch) was not reset. The licensee identified similar failures in 1986 and 1987 for 4KV breakers. The breaker is a GE Magne-Blast 4160 volt AC circuit breaker rated at 2000 amps. The model number is GE-AM-4.16-250. The 52/IS switch sets up the breaker for normal operation when the breaker is fully up in the cubicle (i.e., not in a test position). The E-12 breaker that failed had been reconditioned by GE in December 1985. The licensee believes that the micro switch may undergo excessive wear due to its orientation. The licensee replaced the E-12 breaker with a replacement breaker and tested it satisfactorily. The licensee is pursuing lifetime expectancy, orientation and reportability for these micro switch failures.

The inspector discussed this item with licensee operators and engineers. The inspector reviewed a letter to PECO Engineering discussing these recent failures. This item is unresolved pending licensee evaluation and NRC review (UNR 277/87-29-02; 278/87-29-02).

4.2.6 Lube Oil Spill

On December 16, 1987, 250 gallons of lube oil from the E-2 diesel generator leaked into the discharge canal where it was contained by an oil boom. The lube oil leaked through a partially opened lube oil filter drain valve into a storm drain. Normally, any oil that inadvertently enters this storm drain is removed by a Zinn separator prior to reaching the discharge canal. However, when the diesel generator started, system operating pressure increased lube oil flow through the partially opened drain valve. The separator could not effectively handle the increased lube oil flow and subsequently passed it down to the discharge canal. The licensee implemented Special Event procedure SE-6, "Pollution Incident Protection Procedure," Rev. 1, dated 12/20/87. Various notifications were made and Underwater Techniques, Inc., a contractor, was called in to clean up the spill. Lube oil in the discharge canal was removed within a day, and the storm drain was flushed and clean several days later.

For this review, the inspector examined control room log books, procedure SE-6, and drawing C-52, "Underground Piping Details," Rev. 14; also, discussions were held with licensee engineers. The inspector questioned the engineers as to how the lube oil filter drain valve became open. The performance engineer explained that the valve is about a foot above the floor grating where it may have been stepped on during painting in the E-2 diesel generator building. With the valve cracked off its seat combined with a loose packing nut, the valve could have vibrated open during diesel generator operation. The inspector physically verified the valve's location and agreed that the licensee's explanation was feasible.

The licensee is currently writing a report concerning the event, and the inspector will review it in a future inspection. No violations were noted, and the inspector had no further concerns at this time.

4.2.7 Partial Loss of Off Site Power

At 9:20 a.m. on December 30, 1987, a crane operating at the Graceton Substation contacted a power line and caused a bus fault trip. The 220 kilovolt (KV) line momentarily de-energized and caused Peach Bottom to lose its #2 startup source (220-08). As a result, the #1 and #4 13 KV non-vital auxiliary buses de-energized and a fast transfer to the #3 startup source occurred by the

Unit 2 E-12 and E-32 and Unit 3 E-23 and E-43 4 KV emergency buses. The fast transfers occurred as designed and no diesel generator starts occurred. Due to the temporary de-energization of four emergency buses, the following occurred on Unit 2: "A" standby gas treatment system (SGTS) fan start; group II/III inboard isolation (loss of shutdown cooling); half scram; and half group I isolation. On Unit 3 the following occurred: group II outboard isolation.

Operators responded to the event using system procedure S.8.3.D.2, "Unscheduled Tripping of 2 Off Site Startup Source," Rev. 8, 10/24/86. The #1 and #4 13 KV auxiliary buses were aligned to the #3 startup source. The 220-08 line was re-energized by the Nottingham Substation, but operators did not reclose in on the line until they determined plant status, alarm status, and cause of the fault. Operators secured the SGTS fan, reset the Unit 3 group II isolation at 9:30 a.m., restored Unit 2 shutdown cooling at 10:25 a.m., and reset remaining isolations and the half scram on Unit 2 at 12:50 p.m. The licensee made a four hour ENS phone call at 11:55 a.m. Normal electrical lineup for the emergency buses was restored at 9:05 p.m.

For review of the event, the inspector observed licensee recovery actions; spoke with operations personnel; reviewed log books, system procedures, the suspected LER, and electrical prints; and attended the licensee's post event critique. The inspector determined that control room personnel responded well using procedures, and equipment response was as expected. The post event critique held by the shift manager was good. The inspector noted that the licensee did not have a procedure for restoring the 13 KV buses to their normal configuration, and did not have a procedure for restoring the 4 KV emergency buses to their normal configuration without the E-2 diesel generator running. The licensee identified these items and wrote a temporary procedure change (TPC) to procedure S.8.3.D.5 to address emergency bus restoration without the E-2 diesel generator running and began writing a procedure for 13 KV bus restoration. Normally, the E-2 diesel generator would have been running, but due to recent awareness of exhaust manifold fires on the diesel generators (see section 4.4), operators were hesitant to run the E-2 diesel generator. For the same reason, operators preferred to normalize emergency buses without using the other diesel generators, so a TPC was pursued to accomplish this task. When this TPC was not approved later that day, operators used the TPC to S.8.3.D.5 and

the diesel generators to normalize the 4 KV emergency buses. As a result the emergency bus restoration was not accomplished until 9:05 p.m.

The licensee will submit an LER for this occurrence and it will be reviewed in a future inspection. The inspector had no questions or concerns except the diesel generator fire issue discussed in detail 4.4 and no violations were noted.

4.3 Logs and Records

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 to Limiting Conditions for Operations, and proper reporting. The following logs and records were reviewed: Shift Supervision Log, Reactor Engineering Logs, Unit 2 Reactor Operator's Log, Unit 3 Reactor Operator's Log, Control Operator Log Book and STA Log Book, QC Shift Logs, Radiation Work Permits, Locked Valve Log, Maintenance Request Forms, Temporary Circuit Modification Log, and Ignition Source Control Checklists. 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 unacceptable conditions were identified.

4.4 Emergency Diesel Generator (DG) Fires

In followup to the partial loss of off site power on December 30, 1987, the inspector became aware of a concern with the E-2 DG (section 4.2.7). The licensee was reluctant to normalize the emergency buses which requires starting and paralleling the DGs. Apparently a small fire occurred in the exhaust manifold on the E-2 DG during weekly surveillance testing (ST) on December 29, 1987. The fire was apparently caused by lube oil in the exhaust manifold (upstream of the DG turbocharger) that reached flash temperature and ignited when it leaked out into the DG room atmosphere. The fire was quickly extinguished by the operator in the room with an Ansul portable extinguisher. The DG remained operable and successfully passed the ST. A similar small fire occurred in the E-2 DG exhaust manifold on October 7, 1987 (see NRC Inspection 277/87-25; 278/87-25). However, the apparent root cause of the October 7, 1987, fire was an external lube oil leak from an instrument sensing line. The four DGs are Colt Industries Fairbanks-Morse 3800 TD 8-1/8 models, opposed piston with a double crankshaft.

The inspector reviewed this recent event and learned that a smoking problem (and sometimes a small fire) exists in the DGs some time after loading the machine. Operators and maintenance personnel stated that this has been a recurring and potentially

generic problem. The licensee's system engineer for the DGs also stated that this problem has been occurring. The engineer had never seen an actual fire, but has seen smoking problems.

The inspector confirmed that the fire problem exists by performing the following:

- A review of nuclear plant reliability data (NPRD) system for similar events.
- A review of NSAC-79, "A Limited Performance Review of Fairbanks-Morse and General Motors Diesel Generators at Nuclear Plants," April 1984.
- Surveying other plant experiences.
- Discussing it with NRC specialists.
- Observing the E-3 DG test in the DG room on December 30, 1987. (The room became smoke filled.)

The licensee stated the problem is apparently caused by the following condition: Oil from the normal lubricating system or the three minute pre-lube remains on the upper crankshaft. The oil will then run down the connecting rods and fill up the area above the upper pistons. The oil may then leak past the piston rings and enter the combustion area. On DG start, this lube oil would then enter the exhaust system and manifold. As the DG is loaded and the internal temperatures rise, this lube oil reaches flash point temperature. Any oil that leaks from the manifold could then ignite when the oil reaches the DG room atmosphere.

The licensee has contacted the vendor in order to address this problem. Corrective actions include:

- Have a test engineer present in the DG room on all starts.
- Pursue the generic nature of the problem with the Fairbanks-Morse (Colt) DG owners group.
- Pursue changes to operating procedures that would include hand cranking ("barring") the engine over after DG run to remove oil from the upper pistons.
- Pursue changes to the materials used in the engine manifold and gaskets.
- Review for reportability under 10 CFR 21.

The inspector will continue to follow this area. This DG fire concern is unresolved pending licensee determination of root cause, implementation of corrective actions and determination of reportability (277/87-29-03; 278/87-29-03).

4.5 Engineered Safeguards Features (ESF) System Walkdown

The inspector performed a detailed walkdown of portions of the core spray systems in order to independently verify the operability of the Unit 2 and 3 systems. The core spray system 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.
- Verification that surveillance test procedures properly implement the Technical Specifications surveillance requirements.

No unacceptable conditions were identified.

5.0 NRC IE Bulletin 87-02 Followup

5.1 Introduction

NRC Bulletin 87-02 was issued due to a concern raised by the Industrial Fastener Institute over the potential use of inferior fasteners at nuclear power plants. NRC testing of fasteners at several nuclear power plants confirmed the use of substandard fasteners. In a separate effort, a nuclear plant licensee tested numerous fasteners that were also found to contain a large percentage of substandard fasteners. The results of this limited testing demonstrates the need to obtain additional information on the adequacy of fasteners used in nuclear power plants.

5.2 Requirements

Licensees were required by NRC Bulletin 87-02 to perform the following items summarized below:

- 1) Describe the characteristics currently examined during receipt inspection of fasteners, and internal controls utilized during storage and issuance from stock;
- 2) Select a minimum sample of ten safety related and ten non-safety related fasteners (studs, bolts, and/or capscrews) from current in use stock, with the participation of the NRC resident inspector;

- 3) Select a sample of typical nuts that would be used with the above fasteners (20 nuts) with the participation of the NRC resident inspector;
- 4) Perform mechanical testing on each safety related fastener, hardness testing on each nut and non-safety related fastener, and chemical testing on all samples;
- 5) Report test results to the NRC; and
- 6) Describe further actions taken to ensure fasteners meet requisite specifications and requirements.

5.3 Actions

Temporary Instruction (TI) 2500/26 was issued on November 20, 1987. Its purpose is to provide guidance to NRC inspectors for conducting an inspection of licensee actions in response to NRC Bulletin 87-02. Specifically, inspection requirement 5.03 (participation w/ NRC inspection in selection of fasteners) is to be done as soon as practical so that licensees can meet the 60 day reporting requirement.

On December 9 and 10, 1987, the inspector accompanied a licensee individual to the Peach Bottom warehouse to aid in selecting the fastener and nut sample. The fasteners and nuts were selected roughly in proportion to in-plant use. During the selection process, the inspector looked for fasteners and nuts that were not properly marked in accordance with applicable specifications or that contained manufacturer's marks from the list stated in the NRC Bulletin and TI. Attachment 1 lists 43 fasteners and nuts that were selected for Bulletin 87-02 and also lists ones that were unmarked and ones that were stamped by manufacturers of interest. The sample included: ten safety related nuts; ten non-safety related nuts; eight safety related bolts; two non-safety related bolts; one safety related capscrew; five non-safety related capscrews; three safety related studs; and four non-safety related studs. This sample conforms to the sample requested by the NRC Bulletin and TI. The inspector also witnessed fastener and nut sample marking by the licensee individual (engraving) and confirmed that paperwork enclosed with each fastener and nut described its specification, grade and class.

The samples were shipped from Peach Bottom during the third and fourth weeks in December 1987, and were sent to Lab Testing, Inc., of Dublin, PA. The inspector was advised that this lab was performing analyses for numerous other utilities for NRC Bulletin 87-02. The inspector had no further questions at this time. This Bulletin will remain open pending completion of TI 2500/26.

6.0 Review of Licensee Event Reports (LERs)

6.1 LER Review

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 followup. The following LERs were reviewed:

<u>LER No.</u> <u>LER Date</u> <u>Event Date</u>	<u>Subject</u>
*2-87-07, Rev. 2 November 23, 1987 June 19, 1987	Unit 2 IRM Scram While Shutdown
2-87-23 November 24, 1987 October 14, 1987	Unit 2 HPCI Inoperability While Shutdown
2-87-24 December 17, 1987 November 12, 1987	Unit 2 RWCU Group II Isolation
*3-87-10 November 25, 1987 October 26, 1987	Unit 3 Spurious Low Level Signal Resulting In ESF Actuations
*87-S05 December 23, 1987 November 30, 1987	Safeguards Event Report (see section 10.2)
*87-S06 December 02, 1987 December 23, 1987	Safeguards Event Report (see section 10.3)

6.2 LER Followup

For LERs selected for followup and review (denoted by asterisks above), the inspector verified that appropriate corrective action was taken or responsibility 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 LER 2-87-7 (Revision 2) concerns a shutdown scram during surveillance testing on June 19, 1987. The event and LER were previously reviewed in NRC Inspections 277/87-17 and 277/87-22. The licensee revised the LER to address additional corrective actions to prevent recurrence. No deficiencies were noted relative to this LER.
- 6.2.2 LER 3-87-20 concerns a Unit 3 spurious low level signal and ESF actuations caused by a maintenance craftsman draining a variable leg. As noted in NRC Inspection 277/87-24; 278/87-24, section 4.2.1, the inspector identified a secondary cause of the event to be a weakness in the blocking permit. The level indicating switch was not isolated at the rack isolation valves (RIVs), which is typically standard practice. The instrument drain valve could then have been safely opened (as part of the blocking permit) to drain the level indicating switch. This LER did not address this concern.

No violations were identified.

7.0 Surveillance Testing

The inspector observed surveillance tests to verify that testing had been properly scheduled, testing was 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. Part of the following test was observed:

- ST 8.1, "DG Full Load Test," on the E-1 DG on December 30, 1987.

In addition, a review of the following completed surveillance tests was performed:

- ST 8.2, Station Battery Weekly Check, Rev. 10, performed on Unit 2 on 10/20/87, 10/29/87, 11/04/87,
- ST 8.3, Station Battery Quarterly Check, Rev. 14, performed on Unit 2 on 06/03/87, 06/10/87, 07/02/87, 07/08/87, 07/14/87,
- ST 8.4, Unit 2 Battery Discharge Performance Test, Rev. 3, performed on Unit 2 on 04/01/87, 04/06/87,
- ST 8.5, Unit 2 Battery Service Test, Rev. 4, performed on Unit 2 on 03/21/87, 03/24/87,
- ST 8.8, Unit 2 Battery Test Yearly Inspection, Rev. 0, performed on Unit 2 on 04/16/87.

No inadequacies were identified.

8.0 Maintenance

8.1 Routine Observations

For the following maintenance activities the inspector checked administrative controls, reviewed documentation, and observed portions of the actual maintenance:

<u>Maintenance Procedure/ Document</u>	<u>Equipment</u>	<u>Date(s) Observed</u>
SP-1072	HPSW Slimicide (Units 2 and 3)	Various
SP-1048	Decontamination of Recirculation Piping (Unit 3)	Various

Administrative controls checked included maintenance request forms (MRFs), blocking permits, fire watches and ignition source controls, item handling reports, QA/QC involvement, plant conditions, TS LCOs, equipment alignment and turnover information, post maintenance testing, and reportability. Documents reviewed included procedures, RWPs, and MRFs.

No inadequacies were identified.

8.2 Unit 2 125 Volt DC Battery Potential Degradation

On November 21, 1987, during routine battery cleaning by the PECO mobile battery group, the licensee identified a condition of reddish color of the negative plates on several cells of the Unit 2 125 VDC batteries. Unit 2 has four 125 VDC batteries. (2A and 2C for division I; 2B and 2D for division II.) The batteries are 58 cell, 1800 Amp-hr, Exide, lead-calcium, 2 GN-23, Cat. No. 90927.

The licensee contacted the Exide company and a vendor representative performed a detailed inspection of the Unit 2 and 3 batteries on November 25, 1987. The vendor inspection determined that three cells of the 2A battery (31, 38 and 47) had a "dark red moss like" layer of deposits at the top of each cell (negative side). The voltage for these three cells was lower than average (2.15-2.16 volts); however they were greater than the 2.13 volts minimum value. The average cell voltage is about 2.20 volts. The 2A battery also had ten total cells with a reddish color on the negative plates. The 2B and 2C battery also had six total cells with this reddish color. The 2D battery and all Unit 3 batteries (3A, 3B, 3C, 3D) did not have this condition. (The normal color for the negative plate is grey.)

The vendor stated that the reddish discoloration condition could be attributed to copper contamination. The copper is from the insert in the positive post. This copper penetrates the lead section (which surrounds the copper post) through small perforations that resulted from gases in the metal during the manufacturing processes of casting and freezing. When the battery electrolyte penetrates to the copper insert, copper goes into solution and electroplates on the negative terminal causing a pink or reddish discoloration. This process progresses to a dark orange condition. A similar condition occurred at WPPSS-II earlier in 1987.

The vendor recommended replacement of the three worst cells on the 2A battery (31, 38 and 47). The remaining cells should be inspected under routine surveillance activities. In addition, the vendor also stated that this condition would not affect battery operability nor cause catastrophic failure.

The inspector learned of this potential battery degradation at the 8:30 a.m. morning meeting on November 30, 1987. The inspector examined the Unit 2 and Unit 3 125 VDC batteries and confirmed the as reported conditions. The inspector also reviewed Exide letters dated November 18 to WPPSS and December 14, 1987 to PECO. The inspector reviewed Technical Specification 3.4.9.A.2 and related surveillance tests (ST). The STs require the following periodic testing:

- weekly - pilot cell's specific gravity, voltage, and temperature (performed by operations)
- quarterly - each cell's specific gravity, voltage (performed by operations)
- refueling outage - either a performance or service test (performed by maintenance battery group).

In addition, an annual inspection is performed by the maintenance battery group.

The inspector reviewed recently completed STs (see section 7) on the batteries in an attempt to link potential battery performance degradation with the discolored cells. No link was found except that the three worst cells on the 2A battery (31, 38, and 47) had a lower (2.15-2.16 volts) than average cell voltage (2.20 volts). These voltage readings were all greater than the minimum acceptable of 2.13 volts. The inspector also reviewed the battery instruction manual (6280-E-13-123-2) and discussed these findings with licensee engineers and maintenance personnel.

The inspector determined that the Unit 2 batteries were replaced during the 1984-5 refueling outage, and the Unit 3 batteries were replaced during the 1985-6 refueling outage. The licensee is reviewing long term corrective actions including the following:

- having the quarterly ST done by maintenance,
- replacing the other degraded cells, and
- identifying specific inspection criteria and individual training for this discoloration condition.

In addition, the licensee is evaluating the reportability for this condition. The inspector had no further questions at this time. The battery potential degradation is unresolved pending completion of licensee actions and reportability, and subsequent NRC review (UNR 277/87-29-04; 278-87-29-04).

9.0 Radiological Controls

9.1 Routine Observations

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 instruments use, and handling of potentially contaminated equipment and materials.

The inspector observed individuals frisking in accordance with HP procedures. A sampling of high radiation 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.

9.2 Receipt of Radiography Source

The inspector reviewed the circumstances surrounding the receipt of a radiography source package in the warehouse on September 23, 1987. The inspector reviewed related procedures, Health Physics Deficiency Report (HPDR) No. 87P0003, and interviewed personnel.

The radiography source (28 curies of Iridium-192) was ordered by the radiographer associated with the Unit 3 pipe replacement. The radiographer did not comply with procedure HP-108, "Performance of Radiography" because he did not request permission from the Senior Health Physicist to bring the source on site which led to other procedural violations. The radioactive material package was surveyed within three hours after receipt at the warehouse; however, no instructions were given to warehouse personnel in regards to storage, nor was any notice given to the radiographer that the source was on site.

The unopened radioactive material package remained in the warehouse for 18 hours primarily due to a breakdown in communication. The source was not posted, nor was a RWP written to specify the handling and storage of the package. The HPDR examined these aspects of the incident and specified appropriate corrective actions. The package was properly labelled with a Department of Transportation shipping label (DOT yellow-II) specifying that the package contained 28 curies of Iridium-192. The package had a contact radiation level of 6 mR/hr, with levels less than 2 mR/hr at one meter.

The inspector determined that the warehouse had not been included in the restricted area. Warehouse personnel were not given radiation worker general employee training in spite of having the task of receiving radioactive material packages from common carriers. 10 CFR 19.12, "Instruction to Workers", requires that workers in or frequenting any portion of a restricted area shall be kept informed of the storage, transfer or use of radioactive materials, and shall be instructed in the health protection problems associated with exposure to such radioactive materials. As stated in the HPDR, the licensee immediately responded to these concerns. Immediate corrective actions included training the storekeepers and rewriting procedures. Under the criteria in 10 CFR 2, Appendix C, the licensee will not be cited for the violation since it was licensee identified, with adequate corrective actions. (50-277/87-29-05; 50-278/87-29-05)

Also identified in the HPDR, HPO/CO-16, "Receipt of Radioactive Material" was inadequate. The procedure provides little or no guidance for security and warehouse personnel for receipt of radioactive material packages. There is no responsibility section that clearly delineates responsibilities among the various departments involved. There is guidance in the procedure that indicates that packages arriving after normal working hours can be surveyed within 18 hours rather than three hours after receipt. Security, health physics, and warehouse personnel are available 24 hours for the receipt of a shipment; therefore, the limit is three hours from receipt to survey. The licensee is rewriting the procedure. The procedure will be reviewed in a later inspection.

The inspector will review other corrective actions when completed. Within the scope of this review, there were no further questions.

10.0 Physical Security

10.1 Routine Observations

The inspectors monitored security activities for compliance with the accepted Security Plan and associated implementing procedures, including: security 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 physically 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 Security Watchman Abandoning Post on November 30, 1987

At approximately 5:06 p.m. on November 30, 1987, the Unit 3 drywell equipment access hatch watchman left her post without permission or a proper relief. She had been at this post since 2:07 p.m. and had requested a relief using profanity on the radio at 5:05 p.m. At 5:25 p.m. the relief watchman arrived at the drywell equipment access hatch and discovered the post unattended. The post orders and radio were there, however. A check of the security computer determined that the watchman left the protected area about 5:10 p.m., and her security badge was found at the egress station. Her access was placed in a hold status pending an investigation. She subsequently resigned. A corporal of the guard had checked this post at 4:06 p.m. with no abnormalities noted. A search of the drywell was delayed due to high radiation levels caused by reactor vessel draindown. The licensee made an ENS call at 6:50 p.m.

The inspector reviewed the licensee's investigation; reviewed LER-87-S05 (section 6.1); and, attended a meeting on December 1, 1987, to discuss this event and to review the licensee's corrective actions. The inspector had no further questions at this time.

10.3 Loss of Security History Data

At 4:20 p.m. on December 2, 1987, it was determined that the new security computer had lost trace history on access cards. The licensee had replaced the security computer with an improved system with a larger storage capacity on November 22, 1987. During the changeover, a command to increase the memory block was omitted that lead to the computer defaulting to a smaller memory size. From the switchover of computers on November 22, 1987, until 4:20 p.m. on December 2, 1987, a large block of trace history was lost. The licensee took immediate corrective action by expanding the memory block to the required configuration and made an ENS call at 5:20 p.m.

The inspector reviewed the licensee's investigation and LER-87-S06 (section 6.1). The licensee concluded that the root cause was a programming error. The inspector reviewed licensee corrective actions and discussed the event with security personnel. No violations were noted.

10.4 Cocaine Found in Protected Area

At approximately 1:20 p.m., on November 21, 1987, two contractor security guards found a very small plastic bag containing a minute amount of white powder in the protected area. The plastic bag was found on the floor in the north-west stairwell of the administration building. This stairwell leads from the yard area to the only vending machine area on site; therefore, many people use these stairs. Since the plastic bag was found lying on the center of the floor, this suggests that it was dropped from a pocket. The contractor guards turned the plastic bag over to their supervisors who, in turn, turned it over to PECO Claims Security. The licensee did not perform a field test, because there would not have been enough substance remaining for laboratory verification (field tests are only 75% accurate). Therefore, NRC inspectors were not notified. The unknown substance was sent to a lab for analysis and the licensee informed the resident at approximately 3:00 p.m. on December 4, 1987, that the substance tested positive as 10 mg of cocaine. At this time the inspector discussed with security personnel the importance of immediately notifying the resident inspectors of suspicious substances found on site. The licensee will continue to implement their fitness for duty program. No violations were noted.

10.5 Security Watchman Inattentive on December 9, 1987

At 10:30 a.m. on December 9, 1987, the PECO security supervisor observed an inattentive compensatory guard (watchman) on a building roof in the protected area. The watchman was observed with her eyes closed. She had been on duty since 2:00 a.m. and had been on this post since 10:20 a.m. The watchman was relieved and suspended pending the licensee's investigation. The watchman stated that she was not asleep and was apparently cognizant of the security radio traffic and surrounding noise (jack hammer). A search of the protected area was conducted and no abnormalities were noted. The licensee informed the NRC at 11:20 a.m. and the resident office at 11:55 a.m.

The inspector reviewed the licensee's investigation and corrective actions. The event was discussed with security management. The inspector had no further questions and no violations were noted.

10.6 Worker Convicted of Arson

The Security Force discovered that a contract worker had been convicted of arson on December 16, 1987. Subsequent interview with the worker on December 23, 1987, revealed that the worker was convicted of arson caused by a fire when the worker was freebasing cocaine near a stove. The resulting fire destroyed the house. The worker had access to some vital areas in the protected area,

but did not work on safety related systems, nor had access to the control and cable spreading rooms. He was primarily utilized in decontamination and housekeeping jobs. The worker was denied access to the Peach Bottom and Limerick Plants, and was reported to the nuclear employee data system (NEDS).

10.7 Update on Drugs Found in Parking Lot

In section 10.5 of combined inspection report 50-277/87-25; 50-278/87-25, the inspector reported that white powder in a small plastic bag found in the parking lot on October 4, 1987, was cocaine. This information was based on a positive field test by PECO Claims Security. However, confirmatory testing by a laboratory did not reveal the presence of any controlled substances. The lab reported the substance to be "consistent with a starch or flour-like compound."

After this testing discrepancy incident, PECO Claims Security personnel found out that field tests are only 75% accurate. Due to the importance of obtaining a confirmatory lab test quickly and to reduce the length of time before receiving confirmatory test results (see section 10.4), the licensee is trying to locate a suitable local laboratory for future tests. The inspector will continue to follow the licensee's fitness for duty program.

11.0 Assurance of Quality

As discussed in section 10.0, two additional instances of inadequate security force member performance were noted and reported by the licensee. A history of recent inadequate security performance is listed below:

<u>Date</u>	<u>Event</u>	<u>NRC Inspection Report</u>
May 29, 1987	U/3 Drywell Watchman Asleep	87-15/15
June 21, 1987	U/2 Drywell Watchman Asleep	87-17/17
July 27, 1987	Off Site Drug Use by Guard Sergeant	87-22/22
September 6, 1987	U/2 Drywell Watchman Asleep	87-25/25
November 30, 1987	U/3 Drywell Post Abandoned	87-29/29
December 9, 1987	Security Watchman Inattentive	87-29/29

These events when combined with recent allegations associated with excessive security force overtime, inadequate manning and lack of breaks when on post, are of concern. Improvements are needed in security force performance and oversight to ensure adequate security plan implementation.

12.0 General Employee Training (GET)

On December 2, 1987, the inspector attended the annual GET requalification training course. Although the course was professionally taught and conducted, the inspector identified several deficiencies. These deficiencies include the following:

- Some of the slides are outdated with respect to revised exposure limits and the new access control system.
- The "Commitment to Excellence (CTE)" program was not covered.
- The "Tell It To the Manager" program was not covered.
- Recent organizational and personnel changes were not mentioned.

A representative of the licensee's plant management was also in attendance during this December 2, 1987 GET class. The inspector discussed these deficiencies with this representative and with training personnel. The licensee stated that recent reviews of GET done by INPO and an outside consultant had also identified similar deficiencies.

The licensee issued an internal letter on December 3, 1987, addressing these GET deficiencies and plans for an upgrade. The inspector will continue to follow the conduct of GET and the planned improvements.

13.0 Allegation Followup

13.1 Allegation Concerning Respirator Fit Qualification Inadequacies

The NRC received an allegation that an operator of the respirator qualitative fit test equipment (mask fit booth) qualified individuals for respiratory protective devices with improper fit. A specific example was given for an individual whose mask fit was not properly sealed and who had expressed concerns of the fit to the operator. The inspector interviewed the individual named in the allegation, the operator of the mask fit booth who qualified the individual, the technical support health physicist, and other licensee personnel. In addition, the inspector reviewed the licensee's investigation of the allegation. (The licensee received the same allegation concurrent with the NRC.)

The individual had lost about 20 pounds of weight in the past several months and had requested refit to a MSA mask. On October 2, 1987, the individual failed the mask fit test so the operator tightened the head straps of the mask. The individual passed the test but expressed concern about the tightness of the straps. She explained that the straps were too uncomfortable to be worn for long work periods. The operator did not respond to these concerns of the individual.

The individual expressed her concern to her supervisor who assured her that she would not have to wear a mask until she obtained a fit to her satisfaction. The licensee received the allegation at the same time as the NRC, and immediately investigated the allegation. Although mask fit records of the fit test indicated the individual had a satisfactory fit test, the licensee retested the individual on October 23, 1987. The individual was refit for the MSA mask by another mask fit booth operator who instructed her on how to properly wear and tighten the straps to obtain a satisfactory seal.

The mask fit booth operator that performed the first test was counselled about over tightening the mask straps and taking more time to complete the fit by working with the individual. She was also retrained on the mask fit booth procedure. The licensee has taken corrective action to assure that individuals fitted with respiratory devices are fitted properly; are qualified to wear the device by results of the mask fit booth; and, are trained to properly adjust the mask for proper seal. A related health physics deficiency report will be reviewed in a future inspection.

13.2 Firewatch Overcome by Paint Fumes

On December 8, 1987, a contract worker was overcome by paint fumes while performing firewatch duties in the E-2 emergency diesel generator (DG) room. The worker was transported off site to York Hospital by ambulance at about 2:45 a.m. The worker was examined and remained at the hospital until released later that morning.

An allegation was made that the control room was unresponsive to the firewatch's request to be relieved from the firewatch duty while posted in a closed unventilated space filled with paint fumes.

The inspector reviewed the circumstances that lead to this incident by interviewing licensee and contract personnel, and by reviewing logs and written statements made to safety groups.

13.2.1 Description of the Incident

The DG rooms were being painted, including all equipment, walls, floors, and ceilings. The paint used was an amido-amine epoxy primer, and aliphatic acrylic urethane top coat. High temperature silicone copolymer was used as primer and top coat on the DG manifolds. A petroleum based solvent was used to clean all surfaces prior to paint application. Paint application was by spray. The painting of the rooms and equipment was being done on a "money ticket". Thus, a MRF had not been prepared evaluating the activity. The responsible contractor groups involved with the painting found that

the ventilation in the rooms was causing the paint to skim in the bucket so they turned it off. They left the door open to provide ventilation while painting and security posted a guard at the door. While working in the room the cardox automatic fire extinguishing system was secured and a firewatch was posted.

Painting had stopped at 11:00 p.m. on December 7, 1987. The door that was open for ventilation was closed and the security guard was secured. The control room was not aware of the door being closed. The contract foreman in charge of the painting requested the shift supervisor to return the cardox to normal.

The firewatch, isolated in the space without any ventilation, made two calls to the control room requesting the cardox to be turned on so he could be relieved. He attempted to call his foreman but found the pager inoperable, and due to changes in the phone system, did not know the correct way to dial the vendor building where the foreman's office is located.

Finally, the firewatch called the control room shift supervisor at about 12:30 a.m. and told him of the fumes. The shift supervisor advised him to open the door to get relief from the fumes after calling security to inform them he would be opening the door. A security guard was sent to post the open door. The firewatch had remained in the fumes for approximately 1-1/2 hours until he had opened the door and he stood in the open door to get some fresh air. The security guard and the worker's foreman arrived at about the same time. The foreman assumed the firewatch duties until the operator arrived to turn on the cardox. The worker was taken to the vendor building where he was examined by the first aid team. The worker was ill, nauseated, and complained of chest pains. An ambulance was called at 2:00 a.m. to take the worker to York Hospital for examination and treatment. The ambulance arrived at about 2:30 a.m., and left the site with the worker at 2:45 a.m.

13.2.2 Findings

The following findings and concerns were identified by the inspector:

- The firewatch had not been instructed on his responsibilities to his personal safety while performing firewatch duties. He had not been instructed on the use of the phone system, and therefore could not communicate with his

foreman. The worker did not tell the control room of the fumes or his breathing problems in the first two calls to the control room.

- The shift supervisor in the control room responded appropriately when the firewatch told him of the fumes and of the breathing problem.
- The plant operator took 2-1/2 hours to restore the cardox in the E-2 DG room.
- Security should inform the control room when a security door is closed. Without this knowledge the control room did not know there was a ventilation problem.
- The contractor foreman should have explained to the shift supervisor why he wanted the cardox system to be turned on (e.g., his concern for the firewatch in the fumes in an unventilated room).
- Petroleum solvent fumes could build to explosive levels up in a closed unventilated space. Material safety data sheets in section IX - special protection information, states that "all application areas should be ventilated in accordance with OSHA Regulation 29 CFR 1910 during use and until area is free of vapors."

13.2.3 Conclusions

The control room operators were responsive to the firewatch's request for relief immediately when it was understood that the individual was having a breathing problem from paint fumes. Previous requests were for an operator to restore the cardox system in order for the firewatch to be relieved.

To prevent a recurrence of similar conditions in a closed unventilated space where painting is being done, an evaluation of the activity should be done considering all aspects of safety for personnel and explosion hazards. The control room should be informed by security when an opened security door is being closed. Training should sensitize the worker towards personal safety in carrying out assigned duties.

14.0 Unresolved Items

Unresolved items are items about which more information is required to ascertain whether they are acceptable violations or deviations.
Unresolved items are discussed in sections 4.1.15, 4.2.5, 4.4 and 3.2.

15.0 Management Meetings

15.1 Preliminary Inspection Findings

A verbal summary of preliminary findings was provided to the Vice President, Peach Bottom Atomic Power 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.

15.2 Attendance at Management Meetings Conducted by Regional Personnel

<u>Date</u>	<u>Subject</u>	<u>Inspection Report No.</u>	<u>Reporting Inspector</u>
December 7-9, 1987	Emergency Exercise	87-36/36	Gordon
December 14- 18, 1987	Health Physics	87-38/38	Dragoun
December 18, 1987	Shift Team Training	87-35/35	Howe
December 22, 1987	Response to Shutdown Order	NA	Kane

ATTACHMENT 1

FASTENER SUMMARY (SAFETY RELATED)

<u>SAMPLE</u>	<u>ITEM</u>	<u>MATL.</u>	<u>COMMENT</u>
2	5/8" Bolt	A307 GrA	Manuf. J
3	5/8" Nut	A307 GrA	Unmarked
6	3/4" Bolt	A193 B7	Manuf. J
7	3/4" Nut	A194 Gr2H	Manuf. H
8	5/8" Stud Stock	A193 B7	
9	1/2" Nut	A194 Gr2H	
10	.875" Nut	A194 GrB6	
11	1/2" Bolt	A193 B7	
12	1/2" Nut	A194 Gr2H	
13	1" Stud Stock	A193 B7	
14	7/8" Nut	A194 Gr2H	
15	1/2" Bolt	A325	
16	7/8" Bolt	A307 GrA	Unmarked
17	7/8" Nut	A307 GrA	Unmarked
20	3/4" Capscrew	A325	
22	7/8" Bolt	A307 GrA	
23	7/8" Nut	A307 GrA	Unmarked
28	1-1/8" Bolt	A307 GrA	Unmarked
34	Stud Stock	A193 B7	
35	5/8" Bolt	A307 GrA	Manuf. J
36	5/8" Nut	A563 GrA	Unmarked
37	3/4" Nut	A194 Gr2H	

FASTENER SUMMARY (NON-SAFETY RELATED)

SAMPLE	ITEM	MATL.	COMMENT
1	1/2" Capscrew	J429 Gr5	Manuf. KS
4	5/8" Bolt	A325	Manuf. KS
5	5/8" Nut	A325	
18	5/8" Capscrew	J429 Gr5	Manuf. A
19	3/4" Nut	A194 Gr4	Manuf. J
21	1-1/2" Stud	A193 B7	
24	3/8" Capscrew	J429 Gr5	Manuf. A
25	7/8" Stud Stock	A193 B16	Unmarked
26	5/8" Stud Stock	A193 B16	Unmarked
27	3/4" Stud Stock	A193 B7	Unmarked
29	Nut	A194 Gr2	
30	7/8" Nut	A194 Gr2H	Manuf. H
31	7/8" Nut	A194 Gr2H	
32	3/4" Bolt	A325	
33	3/4" Nut	A325	Manuf. H
38	9/16" Capscrew	A193 B8	Unmarked
39	9/16" Capscrew	A193 B8	Unmarked
40	Nut	A194 Gr2	Unmarked
41	Nut	A194 Gr2	Unmarked
42	3/4" Nut	A194 Gr4	Manuf. J
43	5/8" Nut	A194 Gr2H	