July 27, 2000

Mr. G. Rainey, President
PECO Nuclear
Nuclear Group Headquarters
Correspondence Control Desk
P.O. Box 195
Wayne, Pennsylvania 19087-0195

SUBJECT: NRC PEACH BOTTOM INSPECTION REPORT 05000277/2000-006, 05000278/2000-006 AND 07201027/2000-006

Dear Mr. Rainey:

On June 30, 2000, the NRC completed an inspection at the Peach Bottom Atomic Power Station. The enclosed report presents the results of that inspection. The results of this inspection were discussed during an exit meeting on July 7, 2000, with Mr. Jay Doering and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room).

If you have any questions, please contact me at 610-337-5233.

Sincerely,

/RA/

Curtis J. Cowgill, Chief
Projects Branch 4
Division of Reactor Projects

Docket Nos.: 05000277, 05000278, 07201027
License Nos.: DPR-44, DPR-56

Enclosure: NRC Inspection Report No. 05000277/2000-006, 05000278/2000-006 and 07201027/2000-006

cc w/encls:
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J. Doering, Vice President, Peach Bottom Atomic Power Station
G. Johnston, Plant Manager, Peach Bottom Atomic Power Station
J.A. Hutton, Director, Licensing, PECO Nuclear
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TMI - Alert (TMIA)

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U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket Nos.	05000277 05000278 07201027
License Nos.	DPR-44 DPR-56
Report Nos.	05000277/2000-006 05000278/2000-006 07201027/2000-006
Licensee:	PECO Energy Company Correspondence Control Desk P.O. Box 195 Wayne, PA 19087-0195
Facility:	Peach Bottom Atomic Power Station Units 2 and 3
Inspection Period:	May 21, 2000 through June 30, 2000
Inspectors:	A. McMurtray, Senior Resident Inspector M. Buckley, Resident Inspector C. Sisco, Operations Engineer J. McFadden, Health Physics Specialist
Approved by:	Curtis J. Cowgill, Chief Projects Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

Peach Bottom Nuclear Power Plant
NRC Inspection Report 05000277/2000-006, 05000278/2000-006

The report covered a six-week period of resident inspection and announced inspections by an operations engineer and health physics specialist. The significance of issues is indicated by their color (GREEN, WHITE, YELLOW, or RED) and was determined by the Significance Determination Process in Inspection Manual Chapter 0609 (See Attachment 1).

There were no findings identified in this report.

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Report Details

SUMMARY OF PLANT STATUS

Unit 2

Unit 2 began this inspection period critical in startup (Mode 2). After synchronizing the turbine/generator to the grid on May 21, 2000, a steam leak was discovered in the piping from the 'F' moisture separator to the 'B' low pressure turbine. The turbine was removed from service on May 22 and the leak was repaired. Unit 2 returned to 100% power on May 23. On June 19, 2000, Unit 2 began the coastdown phase of the operating cycle. On June 23, operators removed the fifth stage feedwater heaters from service to restore the capability to operate at 100% power. At the end of the inspection period, Unit 2 was at 100%.

Unit 3

Unit 3 operated at approximately 100% power throughout this inspection period.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather

a. Inspection Scope

The inspectors reviewed the station's preparations for summer hot weather conditions and walked down selected systems that could be affected by high temperatures to verify the selected systems will remain functional during hot weather conditions. The inspectors used RT-O-040-610-2, Rev. 6, "Outbuilding Heating, Ventilation, and Air Conditioning and Equipment Inspection for Summer Operation" during this inspection.

b. Issues and Findings

There were no findings identified.

1R04 Equipment Alignments

a. Inspection Scope

The inspectors performed partial walkdowns of the Unit 2 core spray and 'A' and 'C' residual heat removal subsystems while the 2 'B' and 'D' subsystems were inoperable for scheduled maintenance and testing. The inspectors performed partial walkdowns of the 2 'B' and 'D' subsystems after they were returned to service. The inspectors performed these walkdowns in the control room and out in the plant. The inspectors used the following drawings to verify required equipment alignments during these walkdowns:

Plant Drawing No.	Title
6280-M-361, Rev. 73	Residual Heat Removal System
6280-M-362, Rev. 60	Core Spray Cooling System

During the E2 emergency diesel generator maintenance outage, the inspectors walked down parts of the E1, E3, E4 emergency diesel generators and 4kV emergency buses systems to verify breaker alignment and system availability. The following plant drawings were used as references during the walkdowns:

Plant Drawing No.	Title
E-8, Rev 29	Single Line Meter & Relay Diagram Standby Diesel Generators & 4160 V. Emergency. Power System, Unit No. 2
E-12, Rev 11	Single Line Meter & Relay Diagram Standby Diesel Generators & 4160 V. Emergency Power System, Unit No. 3
E-47, Rev 24	Schematic Meter & Relay Diagram 4160 Emergency Auxiliary Power System Unit 2
E-49, Rev 15	4160 Emergency Auxiliary Power System Unit 3

b. Issues and Findings

There were no findings identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors performed walkdowns of the following plant areas to assess control of transient combustible material and ignition sources, fire detection and suppression capabilities, fire barriers, and any related compensatory measures:

- Unit 2 Recirculation Pumps Motor/Generator room
- Unit 2 High Pressure Coolant Injection room
- Unit 2 Reactor Core Isolation Cooling room
- Unit 3 High Pressure Coolant Injection room
- Unit 3 Recirculation Pumps Motor/Generator room

- Unit 3 Reactor Core Isolation Cooling room

b. Issues and Findings

There were no findings identified.

1R11 Licensed Operator Requalification

.1 Licensed Operator Requalification Training Program for Senior Reactor Operators Restricted to Fuel Handling

a. Inspection Scope

The inspector reviewed records and observed training activities to determine the effectiveness of the licensed operator requalification training program for those limited senior reactor operators licensed only to conduct fuel handling activities.

Based on discussions with the resident staff, the inspectors determined that human performance was acceptable during fuel handling activities for the last refueling outage at Limerick. Accordingly, no review of events was needed.

The inspector reviewed a sample of the written and in-plant job performance measures for the limited senior reactor operators. The inspector observed annual operating examinations administered by the training staff. The inspector reviewed a sample of the medical records, training attendance records, completed training feedback from the licensed operators, and documentation on maintaining an active license.

b. Issues and Findings

There were no findings identified.

.2 Residents' Quarterly Review of Testing/Training Activities

a. Inspection Scope

The inspectors observed the following to identify deficiencies and discrepancies in training, and to evaluate licenced operator performance and evaluator's critiques:

– Licensed operator classroom training
– A simulator walkdown for the new station procedure, SE-16, Revision 0, "Grid Emergency." This procedure addressed recent industry and NRC concerns with grid stability issues.
– A crew simulator exercise and observed the post-simulator evaluator's and crew critiques.

b. Issues and Findings

There were no findings identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed system health reports, actions requests, and maintenance rule basis information of the following systems to determined whether the systems were within the scope of the maintenance rule, and the appropriateness of system classification, performance criteria, goals, and corrective actions:

- Emergency Diesel Generators/Diesel Generator ventilation system
- 3B Reactor Feed system
- Fuel Pool and Fuel Pool Cooling system
- Unit 2 Area, Drywell and Main Stack Radiation Monitor system
- Unit 2 High Pressure Coolant Injection system
- Unit 2 Instrument Nitrogen system

b. Issues and Findings

There were no findings identified.

1R13 Maintenance Risk Assessments and Emergent Work

a. Inspection Scope

The inspectors evaluated the effectiveness of risk assessments performed during planning of work activities and how risk was controlled during the following activities:

- E2 Emergency Diesel Generator maintenance outage
- 3B Residual Heat Removal system heat exchanger repair

b. Issues and Findings

There were no findings identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following operability evaluations to ensure operability was properly justified and the component or system remained available, such that no recognized increase in risk has occurred. The inspectors discussed the reviewed evaluations with cognizant engineering personnel:

- Unit 2B Residual Heat Removal heat exchanger cracked welds and weld repairs (Action Request (A/R) A1271480)

- Mispositioned standby circulating pump control switch on the E2 Emergency Diesel Generator (PEP I0011344)

- 2C Residual Heat Removal pump discharge line snubber (10-GB-S-12) inoperable (PEP I0011295 and A/R A1268396)

b. Issues and Findings

There were no findings identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors observed portions of the following post-maintenance testing and reviewed the applicable test data to verify that the test procedures and test activities were adequate to verify system operability and functional capability:

E2 Emergency Diesel Generator after maintenance overhaul (ST-I-052-252-2, Revision 3, “E2 Diesel Generator Inspection Post Maintenance Instrumentation and Logic Test” and ST-O-052-412-2, Revision 12, “E2 Diesel Generator Fast Start and Full Load Test”)

2B Residual Heat Removal heat exchanger after weld repair (ST-O-010-306-2, Revision 16, “”B” Residual Heat Removal Loop Pump, Valve, Flow, and Unit Cooler Functional and Inservice Test”

b. Issues and Findings

There were no findings identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed and observed portions of RT-O-032-300-2, Revision 8, "High Pressure Service Water Pump, Valve and Flow Functional Test", and compared test data with established acceptance criteria to verify the system demonstrated the capability of performing its intended safety functions and its operational readiness.

The inspectors compared actual test data with established acceptance criteria to ensure that the various systems and components met licensing basis requirements.

b. Issues and Findings

There were no findings identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed an emergency preparedness drill conducted by the licensee on May 24, 2000. The inspectors evaluated the licensee's conduct of the drill, the adequacy of the critique, and compared the licensee's identified weaknesses and deficiencies to those identified by the inspectors. This included determining whether the licensee was identifying any failures to properly make classification declarations for existing conditions, to make appropriate notifications, and to develop appropriate protective action recommendations during the drill.

b. Issues and Findings

There were no findings identified.

4. OTHER ACTIVITIES

40A1 Identification and Resolution of Problems

a. Inspection Scope

While performing the inspection procedures during this report period, the inspectors determined whether station personnel placed the problems identified into their corrective action systems.

b. Issues and Findings

There were no findings identified.

4OA4 Other - Independent Spent Fuel Storage Installation

a. Inspection Scope (60855)

The inspectors observed the following portions of the loading evolutions of spent irradiated fuel into a dry fuel storage cask in June 2000:

- Installation of the cask lid onto the loaded cask while the cask was submerged in the Unit 2 spent fuel pool
- Raising of the cask to the surface of the spent fuel pool
- Draining of the loaded cask while suspended over the spent fuel pool
- Performance of radiation and contamination surveys and of decontamination of the suspended cask
- Movement and placement of the loaded cask on the refuel floor where vacuum drying, helium backfill, and helium leak testing took place

The inspectors reviewed the implementation of applicable radiological controls, the conduct of pre-job briefings, and the implementation of applicable requirements contained in the cask license documents during the observed activities. Requirements and commitments in the following regulations and documents were reviewed:

- 10 CFR 20 Standards for Protection Against Radiation
- 10 CFR Part 72 Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste
- Certificate of Compliance (Certificate No.1072, TN-68 Dry Storage Cask)
- Radiation Work Permit 100 (Revision 00) and an associated As Low As Reasonably Achievable pre-job review
- Procedure SF-420, “Health Physics Requirements During Spent Fuel Cask Loading and Transport Operations, Rev. 1, 05/31/00."
- ST-H-071-801-2, “Independent Spent Fuel Storage Installation Cask Surface Dose Rate and Contamination, Revision 1, 03/14/00.”

The inspectors observed selected loading activities during the first three casks loads including transport of the loaded casks to the Independent spent fuel storage installation. The inspectors verified that the activities were conducted in a safe manner and in accordance with SF-220, Revision 3, “Spent Fuel Cask Loading and Transport Operations.”

b. Issues and Findings

There were no findings identified.

4OA5 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the results of the inspection to Mr. J. Doering and members of PECO's management on July 7, 2000. PECO management acknowledged the findings presented.

LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
NRC	Nuclear Regulatory Commission

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened/Closed

None

Discussed

None

ATTACHMENT 1

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.