January 17, 2001

Mr. Oliver D. Kingsley Chief Nuclear Officer Exelon Generation Company 1400 Opus Place Downers Grove, IL 60515-5701

# SUBJECT: PEACH BOTTOM ATOMIC POWER STATION - NRC INSPECTION REPORT 05000277/2000-015, 05000278/2000-015

Dear Mr. Kingsley:

On December 31, 2000, the NRC completed an inspection at the Peach Bottom Atomic Power Station. The enclosed report documents the inspection results which were discussed on January 9, 2001, 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. The inspectors reviewed selected procedures and records, observed activities, and interviewed 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 <a href="http://www.nrc.gov/NRC/ADAMS/index.html">http://www.nrc.gov/NRC/ADAMS/index.html</a> (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, License Nos.: DPR-44, DPR-56

Enclosure: Inspection Report No. 05000277/2000-015, 05000278/2000-015

Mr. Oliver D. Kingsley

cc w/encls:

- J. Hagan, Senior Vice President, Nuclear Operations
- J. Skolds, Chief Operating Officer
- J. Doering, Vice President, Peach Bottom Atomic Power Station
- G. Johnston, Plant Manager, Peach Bottom Atomic Power Station

J.A. Benjamin, Vice President - Licensing

J.A. Hutton, Director, Licensing, PECO Energy Company

- G. Hunger, Chairman, Nuclear Review Board
- P. Chabot, Director, Nuclear Oversight
- A. F. Kirby, III, External Operations Delmarva Power & Light Co.
- A. A. Winter, Manager, Experience Assessment
- J. W. Durham, Sr., Senior Vice President and General Counsel
- H. C. Kresge, Manager, External Operations, Connectiv
- N. J. Sproul, Manager, Financial Control & Co-owner Affairs, Connectiv
- R. McLean, Power Plant Siting, Nuclear Evaluations
- D. Levin, Acting Secretary of Hartford County Council
- R. Ochs, Maryland Safe Energy Coalition
- J. H. Walter, Chief Engineer, Public Service Commission of Maryland
- Mr. & Mrs. Dennis Hiebert, Peach Bottom Alliance

Mr. & Mrs. Kip Adams

Commonwealth of Pennsylvania

State of Maryland

TMI - Alert (TMIA)

Mr. Oliver D. Kingsley

Distribution w/encls: Region I Docket Room (with concurrences) A. McMurtray - NRC Resident Inspector H. Miller, RA J. Wiggins, DRA C. Cowgill, DRP D. Florek, DRP C. O'Daniell, DRP J. Shea, OEDO E. Adensam, NRR

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# U. S. NUCLEAR REGULATORY COMMISSION REGION I

Docket Nos.	05000277 05000278				
License Nos.	DPR-44 DPR-56				
Report Nos.	05000277/2000-015 05000278/2000-015				
Licensee:	Exelon Generation Company Correspondence Control Desk P.O. Box 160 Kennett Square, PA 19348				
Facility:	Peach Bottom Atomic Power Station Units 2 and 3				
Inspection Period:	November 19, 2000 through December 31, 2000				
Inspectors:	A. McMurtray, Senior Resident Inspector B. Welling, Acting Senior Resident Inspector M. Buckley, Resident Inspector				
Approved by:	Curtis J. Cowgill, Chief Projects Branch 4 Division of Reactor Projects				

## SUMMARY OF FINDINGS

#### Peach Bottom Nuclear Power Plant NRC Inspection Report 05000277/2000-015, 05000278/2000-015

IR 05000277/2000-015, 05000278/2000-015, on 11/19/00-12/31/00; PECO Energy Company; Peach Bottom Atomic Power Station; Units 2&3. Resident inspector report.

The inspection was conducted by resident inspectors. The significance of all findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP).

There were no findings identified in this report.

# **Report Details**

# SUMMARY OF PLANT STATUS

# <u>UNIT 2</u>

Unit 2 operated at approximately 100% power throughout this inspection period.

# <u>UNIT 3</u>

Unit 3 began this inspection period at approximately 100% power

- December 16 Operators commenced power reduction to approximately 18% to support installation of a temporary lower bearing oil reservoir to the 3'B' Recirc pump motor. Following the installation of the modification operators began power increase.
- December 18 The unit reached 100% power.

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

- 1R04 Equipment Alignment
- a. Inspection Scope

The inspectors performed partial walkdowns of the following systems to verify that they were properly aligned for operation. The inspectors reviewed valve positions, electrical power availability, and the general condition of major system components.

- E1 through E4 emergency diesel generators and emergency buses for E-23 bus modification work
- b. Issues and Findings

No findings of significance were 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 and Unit 3 emergency switchgear rooms
- Unit 2 condensate pump room
- Units 2 & 3 common standby gas treatment train and fan room

- Units 2 & 3 reactor building closed cooling water and recirculation pump motor/generator oil pump rooms
- b. <u>Issues and Findings</u>

No findings of significance were identified.

#### 1R12 Maintenance Rule Implementation

a. <u>Inspection Scope</u>

The inspectors interviewed appropriate facility personnel and reviewed documentation to determine whether the selected systems met maintenance rule requirements with respect to: scoping, risk significance, performance criteria, goals, characterization of failures, and corrective action programs. The following system was reviewed.

- E3 fuel oil transfer system pump failure (AR A1293726)
- b. Issues and Findings

No findings of significance were identified.

#### 1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed PECO's risk evaluation and contingency plans for selected planned and emergent work activities to verify that appropriate risk evaluations were performed and to assess PECO's management of overall plant risk. The inspectors attended planning meetings and discussed the risk management aspect of the activities with operators, maintenance personnel, system engineers, and work coordinators for the following issues:

- Unit 3 startup source inoperable
- Unit 3 high pressure coolant injection motor-operated steam inlet valve (MO-3-23-014) testing
- Unit 3 Rosemount drywell high pressure trip units replacement
- b. <u>Issues and Findings</u>

No findings of significance were identified.

#### 1R14 Personnel Performance During Non-Routine Plant Evolutions

a. <u>Inspection Scope</u>

The inspectors reviewed the performance of operations personnel in response to the following non-routine evolution:

- Unit 3 power reduction to resolve 3B recirc pump low oil level
- b. Issues and Findings

No findings of significance were identified.

- 1R15 Operability Evaluations
- a. Inspection Scope

The inspectors reviewed two operability evaluations to ensure that the required Technical Specification actions were satisfied and the component or system remained available so that no unrecognized increase in risk occurred. The inspectors discussed the evaluations with cognizant engineering personnel and control room supervisors. The following evaluations were reviewed:

- E3 fuel oil transfer pump failure (AR A1293726)
- 3B CAD/CAC oxygen and hydrogen Analyzer (AR A1298323)
- b. Issues and Findings

No findings of significance were identified.

#### 1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors reviewed and observed portions of the following post-maintenance testing:

- Unit 2 startup source inoperable for planned maintenance
- Emergency core cooling system drywell high pressure switch (PSH-100A and PISHH-100A) replacement
- Standby gas treatment 'C' fan damper solenoid replacement
- b. <u>Issues and Findings</u>

No findings of significance were identified.

#### 1R22 Surveillance Testing

#### a. Inspection Scope

The inspectors reviewed and observed portions of the following surveillance tests, 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.

- Functional Test of E33 Undervoltage Relays (SI3K-54-E33-XXFM, Rev. 20)
- Emergency Service Water, Valve, Unit Cooler, and Emergency Cooling Tower Fans Functional Inservice Test (ST-O-033-300-2, Rev. 25)
- High Pressure Coolant Injection (HPCI) Pump, Valve, Flow and Unit Cooler Functional and In-Service Test (ST-O-023-301-2, Rev 26) and HPCI Valves Remote Position Indication Verification (ST-O-023-501-2, Rev 7)
- b. <u>Issues and Findings</u>

No findings of significance were identified.

#### 1R23 Temporary Plant Modification

a. Inspection Scope

The inspectors reviewed the following temporary modification:

- 3'B' recirculation pump motor lower bearing oil reservoir installation
- b. Issues and Findings

No findings of significance were identified.

#### 4. OTHER ACTIVITIES

#### 4OA1 Performance Indicator Verification

a. <u>Inspection Scope</u>

The inspectors reviewed the accuracy and completeness of the supporting data for the following Peach Bottom Performance Indicator:

- Safety system functional failures for Unit 2 and Unit 3
- b. Issues and Findings

No findings of significance were identified.

#### 4OA3 Event Follow-up

.1 (Closed) LER 2-00-006: Primary Containment Inoperable due to a Suppression Chamber-to-Drywell Vacuum Breaker Valve Disk not being properly seated

This event was discussed in NRC Inspection Report 05000277;05000278/2000-012, Section 1R15b.2. No new issues were revealed during the on-site review of this LER.

- 40A6 Meetings
- .1 Exit Meeting Summary

The inspectors presented the results of the inspection to Mr. J. Doering and members of PECO's management on January 9, 2001. PECO management acknowledged the findings presented. No proprietary information was identified.

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened		
None		
Opened/Closed		
None		
<u>Closed</u>		
2-00-006	LER	Primary Containment Inoperable Due to a Suppression Chamber-to-Drywell Vacuum Breaker Valve Disk Not Being Properly Seated.

# PARTIAL LIST OF PERSONS CONTACTED

# Exelon Generation Company

- J. Doering, Site Vice President
- G. Johnston, Plant Manager
- P. Davison, Engineering DirectorI. Seddon, Peach Bottom Nuclear Oversight Manager
- J. Bouck, Senior Manager, Operations
- C. Mudrick, Senior Manager, Plant Engineering
- A. Winter, Manager, Experience Assessment
- H. Trimble, Radiation Protection Manager

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# 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
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness
- Occupational
  - Public

Physical Protection

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.