September 12, 2000

Mr. G. Rainey, President
PECO Energy Company
Nuclear Group Headquarters
Correspondence Control Desk
P. O. Box 160
Kennett Square, PA 19348

SUBJECT: NRC-EVALUATED EMERGENCY PREPAREDNESS EXERCISE - PEACH BOTTOM INSPECTION REPORT NOS. 05000277/2000-009 AND 05000278/2000-009

Dear Mr. Rainey:

The enclosed report documents an inspection at the Peach Bottom Atomic Power Station evaluated the performance of your emergency response organization during the August 15, 2000, full-participation exercise, the post-exercise critique, and the emergency preparedness performance indicators as specified in the reactor oversight program. The inspectors discussed the findings of this inspection with Mr. J. Doering and other members of your staff on August 17, 2000.

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.

Based on the results of this inspection, there were no findings.

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).

Should you have any questions regarding this report, please contact Mr. Richard J. Conte at (610) 337-5183.

Sincerely,

/RA/

Wayne D. Lanning, Director
Division of Reactor Safety

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

Enclosures:
1. Inspection Report Nos. 05000277/2000-009 and 05000278/2000-009
2. NRC's Revised Reactor Oversight Process

cc w/encls:
J. Hagan, Senior Vice President, Nuclear Operations
J. Doering, Vice President, Peach Bottom Atomic Power Station
M. Warner, Plant Manager, Peach Bottom Atomic Power Station
J. A. Hutton, Director, Licensing, AmerGen Energy Company
G. D. Edwards, Chairman, Nuclear Review Board
R. Boyce, Director, Nuclear Quality Assurance
A. F. Kirby, III, External Operations - Delmarva Power & Light Co.
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J. W. Durham, Sr., Senior Vice President and General Counsel
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R. McLean, Power Plant Siting, Nuclear Evaluations
D. Levin, Acting Secretary of Harford 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
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DATE	08/29/00		09/1/00		09/12/00		09/12/00		09/11/00	

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REGION I

Docket Nos:	05000277, 05000278
License Nos:	DPR-44, NPF-56
Report Nos:	05000277/2000-009, 05000278/2000-009
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
Dates:	August 14 - 17, 2000
Inspectors:	D. Silk, Senior Emergency Preparedness Inspector, DRS (Lead) N. McNamara, Emergency Preparedness Inspector, DRS M. Buckley, Resident Inspector, Peach Bottom, DRP H. Williams, Senior Operations Engineer L. Mitchell, Summer Intern, DRS F. Salaam, Summer Intern, DRS R. Bores, State Liaison Officer (FEMA RAC Member)
Approved by:	Richard J. Conte, Chief Operational Safety Branch Division of Reactor Safety

SUMMARY OF FINDINGS

Peach Bottom Power Station
August 14 - 17, 2000
Inspection Report Numbers 05000277/2000-009 and 05000278/2000-009

IR 05000277-00-09, IR 05000278-00-09, on 08/14-08/17/2000; PECO Energy Co.; Peach Bottom Atomic Power Station; Units 2 & 3. Emergency Preparedness exercise.

This inspection was conducted by region based inspectors and the resident inspector. The significance of issues is indicated by their color (green, white, yellow, red) and was determined by the Significance Determination Process (Enclosure 2).

Cornerstone: Emergency Preparedness

- No significant inspection findings were identified.

Report Details

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Drill, Exercise, and Actual Events

a. Inspection Scope

The inspectors reviewed:

- Exercise objectives and scenario to determine if the exercise would test major elements of the licensee's emergency plan.
- The licensee's biennial full-participation exercise performance by focusing on risk-significant activities in the control room simulator, the technical support center, and the emergency operations facility.
- The licensee's exercise performance in the operations support center and the emergency news center.
- The emergency response organization's (ERO) recognition of abnormal plant conditions, classification of emergency conditions, notification of offsite agencies, development of protective action recommendations (PAR), command and control, communications, utilization of repair and field monitoring teams, and the overall implementation of the emergency plan.
- The post-exercise critique to evaluate the licensee's self-assessment of the exercise.

b. Issues and Findings

The team made the following observations:

The licensee made an error while performing dose projection calculations for PAR recommendations. An incorrect parameter was input to the dose projection model. The input was that the reactor had been shut down for 15 minutes, but the scenario condition was that the reactor was still at power (due to the failure to shutdown the reactor). This resulted in a PAR to evacuate the entire 10 mile emergency planning zone instead of recommending the evacuation of a five mile radius and 10 miles downwind. Also, dose assessment personnel did not identify that there were two release paths present during the exercise (the plant vent and the main stack). These problems were identified by facility evaluators and entered into the licensee's performance enhancement program (PEP) #I0011608 (incorrect PAR) and PEP #I0011609 (dual release pathways not evaluated).

Also, while reviewing the radiological data prior to the exercise, the inspectors noted that the PECO dose assessment model, MESOREM, may be overly conservative. Based upon the simulated release concentrations provided in the scenario, licensee projections exceeded the projections of the NRC's model (RASCAL) by a factor of 20. The difference in the projections stemmed from the assumptions used by the licensee (i.e., holdup times, isotopic mixes). Overly conservative dose projections could result in an unnecessary PAR. The licensee stated that they will review MESOREM operating assumptions in Action Request A1280194.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed the licensee's process for identifying the data that is utilized to determine the values for the three EP performance indicators (PI):

- Drill and Exercise Performance (DEP)
- ERO Drill Participation, and
- Alert and Notification System Reliability.

The review also included a review of compiled data and records for 1999 and 2000 related to the three PIs.

b. Issues and Findings

No significant findings were identified.

4OA2 Identification and Resolution of Problems

a. Inspection Scope

The inspectors reviewed licensee findings (audits and critiques) pertaining to the recent drills, and the last licensee biennial exercise critique to determine if significant performance trends exist and to determine the effectiveness of licensee corrective actions based upon ERO performance during the exercise.

b. Issues and Findings

No significant findings were identified.

40A6 Exit Meeting

The inspectors presented the inspection results to Mr. J. Doering, Vice President, Peach Bottom, and other members of your staff at the conclusion of the inspection on August 17, 2000. The licensee had no objections to the NRC findings.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Grisewood, Manager, Emergency Preparedness
R. Kinard, Emergency Preparedness Analyst
D. Lerch, Emergency Preparedness Analyst
H. Langley, Emergency Preparedness Analyst
R. Mandik, Emergency Preparedness Engineer
M. Shuler, Emergency Preparedness Physicist

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

DEP	Drill and Exercise Performance
ERO	Emergency Response Organization
PAR	Protective Action Recommendation
PI	Performance Indicator

ENCLOSURE 2

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.