



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
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July 27, 2010

Mr. Charles G. Pardee
Senior Vice President, Exelon Generation Company, LLC
President and Chief Nuclear Officer, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION – NRC EVALUATED
EMERGENCY PREPAREDNESS EXERCISE – INSPECTION REPORT NO.
05000277/2010502 AND 05000278/2010502

Dear Mr. Pardee:

On June 25, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the June 22, 2010, evaluated emergency preparedness exercise at your Peach Bottom Atomic Power Station. The enclosed inspection report documents the inspection results, which were discussed on June 25, 2010, with Mr. Tony Wasong and other members of your staff.

The inspection examined 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.

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

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

A handwritten signature in black ink, appearing to read "Jm Trapp".

James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-277, 50-278
License Nos. DPR-44, DPR 56

Enclosure: NRC Inspection Report Nos. 05000277/2010502 and 05000278/2010502

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Sincerely,
 /RA/

James M. Trapp, Chief
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SUNSI Review Complete: JMT (Reviewer's Initials)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos: 50-277, 50-278

License Nos: DPR-44, DPR-56

Report Nos: 05000277/2010502, 05000278/2010502

Licensee: Exelon Generation Company, LLC

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

Location: Delta, Pennsylvania

Dates: June 21 – June 25, 2010

Inspectors: S. Barr, Sr. Emergency Preparedness Inspector, DRS, Region I (Lead)
A. Ziedonis, Resident Inspector – Peach Bottom, DRP, Region I
J. D'Antonio, Senior Operations Engineer, DRS, Region I
P. Elkman, Sr. Emergency Preparedness Inspector, DRS, Region IV
R. Montgomery, Reactor Engineer, DRP, Region I

Approved By: James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000277/2010502, 05000278/2010502; 06/21/2010-06/25/2010; Peach Bottom Atomic Power Station; Exercise Evaluation; Emergency Action Level and Emergency Plan Changes; Emergency Preparedness Performance Indicators.

This was an announced inspection conducted by four region-based inspectors and one resident inspector. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Emergency Preparedness

A. NRC-Identified and Self-Revealing Findings

No findings were identified.

B. Licensee-Identified Findings

None.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01–1 Sample)

a. Inspection Scope

Prior to the June 22, 2010, emergency preparedness exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which Exelon had submitted to the NRC, to determine if the exercise would test major elements of the Peach Bottom Emergency Plan as required by 10 CFR 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of Exelon's performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and protective action recommendations, respectively.
- The overall adequacy of Exelon's Peach Bottom emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Technical Support Center (TSC), Emergency Operations Facility (EOF), and Joint Information Center (JIC).
- A review of other performance areas, such as: the Peach Bottom emergency response organization's (ERO's) recognition of abnormal plant conditions; command and control; intra- and inter-facility communications; prioritization of mitigating activities; utilization of repair and field monitoring teams; interface with offsite agencies; staffing and procedure adequacy; and the overall implementation of the emergency plan and its implementing procedures.
- A review of past performance issues from the last NRC Peach Bottom exercise inspection report and Exelon's Peach Bottom EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the June 22, 2010, exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate Exelon's self-assessment of its ERO performance during the June 22, 2010, exercise and to ensure compliance with 10 CFR 50, Appendix E, Section IV.F.2.g.

The inspectors reviewed the documents listed in the attachment to this report.

b. Findings

No findings were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes (71114.04 – 1 Sample)

a. Inspection Scope

Since the last NRC inspection of this program area, in July 2009, Exelon implemented various revisions of the different sections of the Peach Bottom Emergency Plan. Exelon had determined that, in accordance with 10 CFR 50.54(q), any change made to the Plan, and its lower-tier implementing procedures, had not resulted in any decrease in effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. The inspectors reviewed all Peach Bottom EAL changes made since July 2009, and conducted a sampling review of other Emergency Plan changes, including the changes to lower-tier emergency plan implementing procedures, to evaluate for any potential decreases in effectiveness of the Emergency Plan. However, this review was not documented in an NRC Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator (PI) Verification (71151 – 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Peach Bottom EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last NRC EP inspection at Peach Bottom was conducted in the third calendar quarter of 2009, so the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the third calendar quarter of 2009 through the first quarter of 2010, to verify the accuracy of the reported PI data. The review of these PIs was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 6.

This inspection activity represented the completion of three samples.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On June 25, 2010, the inspectors presented the results of this inspection to Mr. Tony Wasong, Site Training Manager, and other members of the Exelon staff. No proprietary information was provided to the inspectors during this inspection.

ATTACHMENT
SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT

Licensee Personnel

T. Wasong, Site Training Manager
G. Jardel, Emergency Planning Manager
D. Striebig, Emergency Preparedness Coordinator

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

LIST OF DOCUMENTS REVIEWED

Section 1EP1: Exercise Evaluation

EP-AA-1000, Exelon Nuclear Standardized Emergency Plan (Revision 20)
EP-AA-1007, Peach Bottom Atomic Power Station Emergency Plan Annex (Revision 19)
Peach Bottom Emergency Plan Implementing Procedures
Peach Bottom June 22, 2010, Emergency Exercise Scenario Package
Peach Bottom Emergency Preparedness Drill Reports, January 2009–June 2010
Condition Reports generated as a result of the June 22, 2010, exercise (As documented in
PBAPS 2010 Graded Exercise Evaluation Report, dated July 22, 2010)

Section 1EP4: Emergency Action Level and Emergency Plan Changes

EP-AA-1000, Exelon Nuclear Standardized Emergency Plan (Revision 20)
EP-AA-1008, Limerick Generating Station Emergency Plan Annex (Revision 19)
EP-AA-120, Emergency Plan Administration (Revision 10)
10CFR50.54(q) Reviews 09-19; 09-95; 10-01; 10-02; 10-04; 10-05; 10-06; 10-17; 10-25; 10-38;
10-40; 10-48

Section 40A1: Performance Indicator Verification

LS-AA-2110, Monthly Data Elements for NRC Emergency Response Organization Drill
Participation (Revision 6)
LS-AA-2120, Monthly Data Elements for NRC Drill/Exercise Performance (Revision 4)
LS-AA-2130, Monthly Data Elements for NRC Alert and Notification System Reliability
(Revision 5)
ERO Drill Participation PI data, July 2009–March 2010
Alert Notification System PI data, July 2009–March 2010
DEP PI data, July 2009–March 2010

LIST OF ACRONYMS

ANS	Alert Notification System
CR	Condition Report
DEP	Drill and Exercise Performance
EAL	Emergency Action Level
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
JIC	Joint Information Center
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PBAPS	Peach Bottom Atomic Power Station
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center