



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

August 3, 2012

Docket No. 05000171

License No. DPR-12

Michael J. Pacilio
Senior Vice President, Exelon Generation Company, LLC
President and Chief Nuclear Officer, Exelon Nuclear
4300 Winfield Rd.
Warrenville, IL 60555

SUBJECT: EXELON GENERATION COMPANY, LLC, PEACH BOTTOM ATOMIC POWER
STATION UNIT 1 – NRC INSPECTION REPORT NO. 05000171/2012008

Dear Mr. Pacilio:

On July 24 - 25, 2012, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at the Peach Bottom Atomic Power Station Unit 1. The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and the conditions of your license. The inspection consisted of observations by the inspector, interviews with personnel, and a review of procedures and records. The results of the inspection were discussed with Gary Stathes, Site Vice President, and other members of your organization on July 25, 2012, at the conclusion of the inspection. The enclosed report presents the results of this inspection. No findings of safety significance were identified.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Regulations, Guidance and Communications**. The current Enforcement Policy is included on the NRC's website at www.nrc.gov; select **About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents**; then **Enforcement Policy (Under 'Related Information')**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

Please contact Laurie Kauffman at (610) 337-5323 if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Marc S. Ferdas", with a long horizontal line extending to the right.

Marc S. Ferdas, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 05000171/2012008

cc: Distribution via ListServ

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Sincerely,
/RA/

Marc S. Ferdas, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 05000171/2012008

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 05000171/2012008
Docket No. 05000171
License No. DPR-12
Licensee: Exelon Generation Company, LLC (Exelon)
Facility: Peach Bottom Atomic Power Station Unit 1 (PB-1)
Address: 1848 Lay Road
Delta, Pennsylvania 17314-9032
Inspection Dates: July 24 - 25, 2012
Inspector: Laurie A. Kauffman
Health Physicist
Decommissioning Branch
Division of Nuclear Materials Safety
Approved By: Marc S. Ferdas, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Exelon Generation Company, LLC
Peach Bottom Atomic Power Station Unit 1
NRC Inspection Report No. 05000171/2012008

A routine announced safety inspection was conducted on July 24 and 25, 2012, by a Region I inspector at PB-1. The inspection included a review of operations, management oversight, maintenance, corrective action program implementation, and plant support activities while in safe storage (SAFSTOR) status. The inspection consisted of observations by the inspector, interviews with Exelon personnel, and a review of procedures and records. The NRC's program for overseeing the safe operation of a shut-down nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program."

There are currently no ongoing decommissioning activities being conducted at PB-1. Based on the results of this inspection, no findings of safety significance were identified.

REPORT DETAILS

1.0 Background

PB-1 is a high temperature gas-cooled demonstration power reactor that operated from February 1966 until October 31, 1974, and has been permanently shut down and in SAFSTOR since that time. All fuel has been removed from the reactor and shipped to an offsite facility. The spent fuel pool has been drained and decontaminated, and all radioactive liquids have been removed.

The NRC's program for overseeing the safe operation of a shut-down nuclear power reactor is described in IMC 2561. The inspection consisted of observations by the inspector, interviews with Exelon personnel, and a review of procedures and records.

2.0 SAFSTOR Performance and Status Review

a. Inspection Scope (Inspection Procedures (IPs) 36801, 37801, 40801, 71801, 62801, 83750, 84750, 86750)

A routine announced safety inspection was conducted on July 24 and 25, 2012, at PB-1. The inspector reviewed the SAFSTOR program as outlined in the Updated Final Safety Analysis Report (UFSAR), Technical Specifications (TS), and procedure LS-PB-800, "Unit 1 Process Control Program," to assess the adequacy of management oversight of SAFSTOR responsibilities for the PB-1 facility. Specifically, the inspector reviewed the decommissioning management and staff organization and Exelon's implementation of SAFSTOR activities related to safe storage of radioactive material. The inspector discussed any design changes or modifications since the previous inspection, reviewed the fire protection program, and conducted a tour to assess the material condition of the accessible areas of the PB-1 facility.

The inspector verified that Exelon completed semi-annual surveillance test (ST), ST-H-099-960-2, "Unit 1 Exclusion Area Semi-Annual Inspection." The inspector reviewed the results of surveillance testing conducted on November 18, 2011 and May 17, 2012 to ensure exclusion area barriers and personnel access doors to the containment building, the radioactive waste building, and the spent fuel pool building were being maintained in accordance with TS 2.19.b.1; and that water accumulation in the containment sump was less than TS 2.1.b.9 limits.

The inspector reviewed activities and documentation associated with the following SAFSTOR programs: occupational exposure, radioactive effluent control, and site radiological environmental monitoring program (REMP). The inspector reviewed radioactive gaseous effluent release permits, the annual REMP report, and the annual effluent report, which included a summary of the radioactive waste management and transportation programs.

The inspector reviewed the annual Decommissioning Status Report for 2011 (dated March 23, 2012) and the PB-1 Nuclear Oversight Audit Report (dated November 22, 2011). The inspector also reviewed corrective action program (CAP) issue reports (IRs) and assignment reports (ARs) associated with PB-1 to determine if issues were being

properly identified and evaluated, and if corrective actions were appropriately prioritized in the CAP.

b. Observations and Findings

The inspector noted that there were no personnel changes within the Exelon organization related to the SAFSTOR activities and confirmed that the staff effectively implemented SAFSTOR activities. The inspector confirmed that no design changes, or plant modifications were made since the previous inspection and PB-1 required reporting submittals were completed in accordance with TS requirements. The inspector verified that the maintenance and surveillance program for systems and components had been conducted in accordance with the TS requirements and established procedures. The inspector also confirmed that no dismantlement or decommissioning activities were performed since the previous inspection. The annual radiological effluent and radiological environmental monitoring reports demonstrated that all calculated doses were below regulatory dose criteria of 10 CFR 50, Appendix I.

The inspector determined that issues were entered into the CAP, prioritized and evaluated commensurate with their safety significance. Corrective actions were implemented to address identified issues, and were being tracked to closure using the CAP.

c. Conclusions

There are currently no ongoing decommissioning activities being conducted at PB-1. Based on the results of this inspection, no findings of safety significance were identified.

3.0 Exit Meeting Summary

On July 25 2012, the inspector presented the inspection results to Gary Stathes, Site Vice President and other members of Exelon's staff. The inspector confirmed that proprietary information was not provided or examined during the inspection.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Armstrong, Regulatory Affairs Manager
D. Dullum, Regulatory Affairs Engineer
J. Dunlap, Radiation Protection
M. Herr, Operations Director
S. Hess, Nuclear Oversight Manager
D. Hines, Radiation Protection Supervisor
D. Hornberger, Chemistry/Radwaste Technician
M. Kaminski, Nuclear Oversight
J. Koester, Fire Marshal
T. Moore, Engineering Director
P. Navim, Plant Manager
R. Reiner, Chemistry/Environmental/Radioactive Waste Manager
E. Schwarz, Radiochemist
R. Shortes, Radiation Engineering Manager
G. Stathes, Site Vice President
J. Stenclik, Chemistry Manager
G. Swayne, Enercon Project Manager Chemistry contractor

ITEMS OPEN, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

UFSAR, Revision 7.0, April 2012
TS, Amendment 11, dated August 27, 2003
PBAPS Unit 1 Decommissioning Status Report - 2011, dated March 23, 2012
Nuclear Oversight Audit Report, NOSA-PEA-11-16 (AR01280941), dated November 22, 2011
LS-PB-800, Rev. 1, "Unit 1 Process Control Program"
CY-PB-200-100, Rev. 0, "Entry into Unit 1 During SAFSTOR Decommissioning Status"
ST-H-099-960-2, "Unit 1 Exclusion Area Semi-Annual Inspection," Revision 18
ST-C-095-805-2, "Liquid Radwaste Discharge"
SE-5 Earthquake – Procedure, Rev. 18 (PB Units 2 and 3)
Fireline - Contractor Report, June 3, 2011
RT-0-037-325-2, Rev. 14, "Monthly Inspection of Outside Area Fire Extinguishers," July 10, 2012
RT-0-037-335-2, Rev. 13, "Annual Inspection of Outside Area Fire Extinguishers," May 26, 2012
RT-M-37B-320-2, Rev 2, "Verification of Fire Hose Hydrostatic Testing," January 30, 2012
Radiation Work Permits: PB 1-11-10002, Rev 1, 2011; PB-1-12-10002, Rev 0, 2012

Assignment Reports (ARs): 1172342; 1274137; 1280941; 1291466; 1291575; 1291589;
1291591; 1291594; 1291596; 1291602; 1300137; 1303777; 1307487; 1349573; 1350412;
1353392; 1362745; 1385686; 1291624; 1254563; 1385686; 1300137; 1362745

LIST OF ACRONYMS USED

AR	Assignment Report
CAP	Corrective Action Program
Exelon	Exelon Generation Company, LLC
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Issue Report
NRC	Nuclear Regulatory Commission
PB-1	Peach Bottom Atomic Power Station Unit 1
REMP	Radiological Environmental Monitoring Program
SAFSTOR	Safe Storage
ST	Surveillance Test
TS	Technical Specification
UFSAR	Update Final Safety Analysis Report