



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

August 5, 2010

Mr. Michael J. Pacilio
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 INTEGRATED
INSPECTION REPORT 05000277/2010003 AND 05000278/2010003

Dear Mr. Pacilio:

On June 30, 2010, the U. S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at your Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The enclosed integrated inspection report documents the inspection results, which were discussed on July 16, 2010, with Mr. Thomas Dougherty 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 of significance were identified. However, a licensee-identified violation which was determined to be of very low safety significance is listed in this report. Due to the very low safety significance of the finding, and because the finding has been entered into your corrective action program (CAP), the NRC is treating the finding as a non-cited violation (NCV), consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, U. S. NRC, Washington, DC 20555-0001; and the NRC Senior Resident Inspector at the PBAPS.

In accordance with Title 10 of the Code of Federal Regulations (CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter, 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 Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

A handwritten signature in black ink, appearing to read "Paul G. Krohn". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Paul G. Krohn, Chief
Projects Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 05000277/2010003 and 05000278/2010003
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

In accordance with Title 10 of the Code of Federal Regulations (CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter, 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 Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/
Paul G. Krohn, Chief
Projects Branch 4
Division of Reactor Projects

Distribution w/encl: (via E-mail)
M. Dapas, Acting RA (R1ORAMAIL Resource)
D. Lew, Acting DRA (R1ORAMAIL Resource)
J. Clifford, DRP (R1DRPAMAIL Resource)
D. Collins, DRP (R1DRPAMAIL Resource)
D. Roberts, DRS (R1DRSMail Resource)
P. Wilson, DRS (R1DRSMail Resource)
P. Krohn, DRP
A. Rosebrook, DRP
E. Torres, DRP
J. Bream, DRP
F. Bower, DRP, SRI
A. Ziedonis, DRP, RI
S. Schmitt, DRP, OA
L. Trocine, RI OEDO
RidsNrrPM PeachBottom Resource
RidsNrrDorLpl1-2 Resource
ROPreportsResource@nrc.gov

SUNSI Review Complete: AAR (Reviewer's Initials)

ML102170163

DOC NAME:G:\DRP\BRANCH4\Inspection Reports\Peach Bottom\2010\
2nd Qtr. Inspection\PBIR2010-003.docx

After declaring this document "An Official Agency Record" it **will** be released to the Public.

To receive a copy of this document, indicate in the box: 'C' = Copy without attachment/enclosure "E" = Copy w/attachment/enclosure "N" = No copy

OFFICE <i>mmt</i>	RI/DRP	RI/DRP	R1/DRP	
NAME	FBower/AAR for	ARosebrook/ AAR	PKrohn/ PGK	
DATE	07/ 30 /10	08/ 05 /10	08/ 05/10	

OFFICIAL USE ONLY

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket Nos.: 50-277, 50-278

License Nos.: DPR-44, DPR-56

Report No.: 05000277/2010003 and 05000278/2010003

Licensee: Exelon Generation Company, LLC

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

Location: Delta, Pennsylvania

Dates: April 1, 2010 through June 30, 2010

Inspectors: F. Bower, Senior Resident Inspector
A. Ziedonis, Resident Inspector
F. Arner, Senior Reactor Inspector
S. Pindale, Senior Reactor Inspector
L. Scholl, Senior Reactor Inspector
J. Schoppy, Senior Reactor Inspector
K. Young, Senior Reactor Inspector

Approved by: Paul G. Krohn, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY OF FINDINGS	3
REPORT DETAILS	4
1. REACTOR SAFETY	4
1R01 Adverse Weather Protection	4
1R04 Equipment Alignment	5
1R05 Fire Protection	6
1R06 Flood Protection Measures	6
1R07 Heat Sink Performance	7
1R11 Licensed Operator Requalification Program	8
1R12 Maintenance Effectiveness	9
1R13 Maintenance Risk Assessments and Emergent Work Control	9
1R15 Operability Evaluations	10
1R18 Plant Modifications	11
1R19 Post-Maintenance Testing	11
1R22 Surveillance Testing	12
1EP6 Drill Evaluation	12
4. OTHER ACTIVITIES (OA)	13
4OA1 Performance Indicator (PI) Verification	13
4OA2 Identification and Resolution of Problems (PI&R)	13
4OA6 Meetings, Including Exit	16
ATTACHMENT: SUPPLEMENTAL INFORMATION	16
SUPPLEMENTAL INFORMATION	A-1
KEY POINTS OF CONTACT	A-1
LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED	A-1
LIST OF DOCUMENTS REVIEWED	A-2
LIST OF ACRONYMS	A-15

SUMMARY OF FINDINGS

IR 05000277/2010003, 05000278/2010003; 04/01/2010 – 06/30/2010; Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3; Integrated Inspection.

The report covered a three-month period of inspection by resident inspectors and announced inspections by five senior regional reactor inspectors. 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.

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

None.

Other Findings

A violation of very low safety significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's CAP. This violation and the licensee's corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 2 began the inspection period at 100 percent rated thermal power (RTP) where it generally remained until May 21, 2010, when a planned power reduction to 40 percent was conducted to support summer readiness maintenance and testing that included control cell friction testing and single loop operations to replace the 2 'B' reactor recirculation pump breaker. On May 25, 2010, the unit was returned to 100 percent RTP where it remained until the end of the inspection period, except for brief periods to support planned testing and rod pattern adjustments.

Unit 3 began the inspection period at 100 percent RTP where it generally remained until May 14, 2010, when power was reduced to approximately 60 percent to support summer readiness maintenance and testing. On May 16, the unit was returned to 100 percent RTP where it remained until the end of the inspection period, except for brief periods to support planned testing, rod pattern adjustments, and planned hydraulic control unit (HCU) maintenance.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 - 3 Samples)

.1 Grid Reliability (1 Sample)

a. Inspection Scope

The inspectors reviewed plant features and procedures for operation and continued availability of offsite and backup power systems during adverse weather (summer conditions). The inspectors reviewed communication protocols between the control room personnel and electrical system operations, as well as measures prescribed and taken to maintain the availability and reliability of these alternating current systems. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.2 External Flooding (1 External Flooding Sample)

a. Inspection Scope

The inspectors reviewed selected risk-important plant design features intended to protect the plant and its safety-related equipment from external flooding events. On May 24, 2010, the inspectors reviewed the Unit 3 external flood barrier breach during planned chemical maintenance treatment (clamtrol) injection into the Unit 3 service water (SW) system. The inspectors walked down the pump structure during the barrier breach condition, reviewed the barrier breach permit, reviewed the station guidance in CC-PB-201, "Hazard Barrier Control Program," and discussed the field condition with operators to verify that the station had appropriate controls in place to mitigate an

external flood event during the barrier breach condition. The inspectors reviewed the external flood analyses in Design Bases Document (DBD) P-T-07, "External Hazards," selected sections of the Updated Final Safety Analysis Report (UFSAR), and Special Event Procedure, SE-4, "Flood Procedure," to verify that the barrier breach controls were maintained in accordance with the licensing basis. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

.3 Summer Seasonal Readiness Preparations (1 Seasonal Readiness Sample)

a. Inspection Scope

The inspectors conducted a review of PBAPS's preparations for the 2010 summer conditions to verify selected features of the plant's design were sufficient to protect mitigating systems from the effects of adverse weather. The inspectors reviewed PBAPS's implementation of procedure WC-AA-107, "Seasonal Readiness," in preparation for summer season readiness. Documentation for selected risk-significant systems was reviewed to ensure that these systems would remain functional when challenged by inclement weather. During the inspection, the inspectors focused on plant specific design features and the licensee's procedures used to mitigate or respond to adverse weather conditions. The inspectors reviewed the UFSAR and performance requirements for systems selected for inspection. The inspectors reviewed CAP records to verify that the licensee was identifying adverse weather issues at an appropriate threshold and entering them into their CAP. In addition, the inspectors reviewed the "Certification of 2010 Summer Readiness" memorandum dated May 14, 2010. Documents reviewed during this inspection are listed in the Attachment. The inspectors walked down the following systems and equipment:

- High Pressure Service Water (HPSW) Pump Room;
- Emergency Service Water (ESW) Pump Room;
- Emergency Booster Pump Room; and
- Emergency Diesel Generator (EDG) Rooms.

1R04 Equipment Alignment (71111.04Q - 3 Samples)

.1 Partial Walkdown

a. Inspection Scope

The inspectors performed a partial walkdown of three systems to verify the operability of redundant or diverse trains and components when safety-related equipment was inoperable. The inspectors performed walkdowns to identify any discrepancies that could impact the function of the system and potentially increase risk. The inspectors reviewed selected applicable operations procedures, walked down system components, and verified that selected breakers, valves, and support equipment were in the correct position to support system operation. Documents reviewed are listed in the Attachment. The three systems reviewed were:

- 'B' Standby Gas Treatment System (SGTS) Train during 'A' SGTS Maintenance Outage;
- 2 'A' Residual Heat Removal (RHR) Train during 2 'B' RHR Train Outage; and
- E-4 EDG while the E-2 EDG was Out-of-Service (OOS).

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q - 6 Samples)

.1 Fire Protection - Tours

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of firefighting equipment. The inspectors reviewed areas to assess whether PBAPS had implemented the Peach Bottom Fire Protection Plan (FPP) and adequately: controlled combustibles and ignition sources within the plant; maintained fire detection and suppression capability; and maintained the material condition of passive fire protection features. For the areas inspected, the inspectors also verified that PBAPS had followed the Technical Requirements Manual (TRM) and the FPP when compensatory measures were implemented for OOS, degraded or inoperable fire protection equipment, systems, or features. The inspectors verified: that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient combustible materials were managed in accordance with plant procedures; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. Documents reviewed during the inspection are listed in the Attachment. The inspectors toured the following areas:

- Unit 2 Turbine Building, Lubricating Oil Tank Room (Fire Zone 88);
- Unit 2 Reactor Building, Reactor Core Isolation Coolant (RCIC) Room (Fire Zone 60);
- Turbine Building Common, Radiation Chemical Area (Fire Area 78C);
- Unit 2 Turbine Building, Emergency Battery Switchgear Room (Fire Area 127);
- Unit 3 Turbine Building, Emergency Battery Switchgear Room (Fire Area 117); and
- Radwaste Building, Unit 3 Recirculation Pump Motor Generator (M/G) Set Room (Fire Area 12C).

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures (71111.06 - 1 Sample)

.1 Internal Flood Protection

a. Inspection Scope

The inspectors reviewed selected risk-important plant design features intended to protect the plant and its safety-related equipment from internal flooding events. The

inspectors reviewed the flood analysis and UFSAR. The inspectors walked down the Unit 3 High Pressure Coolant Injection (HPCI) pump room to evaluate the condition of penetration seals, watertight doors, and other internal design features to verify that they were as described in the Individual Plant Examination. The inspectors also reviewed Exelon's monitoring and control of HPCI pump mechanical seal leakage in this area to ensure the leakage would not adversely impact the operability of the system. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07T - 2 Samples)

a. Inspection Scope

Based on a plant specific risk assessment, previous inspections, recent operational experience, and resident inspector input, the inspectors selected the following heat sink samples:

- Operation and Performance Testing of the HPSW system; and
- Performance of the Ultimate Heat Sink, which Included HPSW Piping Integrity and Intake Structure Functionality.

The Conowingo Pond, supplied directly from the Susquehanna River, functions as the normal heat sink for both Peach Bottom units. The ESW and HPSW pumps take suction from the Conowingo Pond through the SW pump bays. The ESW pumps are common to both units and supply cooling to the EDG coolers. In addition, ESW also supplies cooling to the emergency core cooling system (ECCS) room coolers, core spray pump motor oil coolers, and RHR pump seal coolers. The HPSW system for each unit provides cooling water for the RHR heat exchangers (HXs) under post-accident conditions. The emergency cooling tower (ECT) provides the heat sink for the safety-related pump bays in the unlikely event that the Conowingo Dam fails or the Conowingo pond floods.

The inspectors reviewed the ESW, HPSW, and intake design to evaluate the adequacy of system monitoring and performance testing. The inspectors reviewed a sample of ESW and HPSW pump and valve performance tests, system health and Generic Letter (GL) 89-13 Program reports, and in-service test (IST) vibration monitoring results for adverse trends and to verify that the systems functioned as designed. The inspectors verified that Exelon performed the pump and valve ISTs in accordance with American Society of Mechanical Engineers Code requirements. In addition, the inspectors reviewed Exelon's monitoring, maintenance, and testing of interface valves between safety-related SW and non-safety related or non-seismic piping systems to ensure that adequate SW flow is available post-accident consistent with design basis assumptions.

The inspectors reviewed Exelon's buried pipe inspection and monitoring program to independently assess the condition and structural integrity of the HPSW piping. The inspectors reviewed a sample of HPSW pipe nondestructive examination records and intake structure inspections to ensure that Exelon appropriately identified and dispositioned any HPSW piping or intake structure degradation. The inspectors performed an above ground walkdown of accessible areas containing buried HPSW and

ESW piping to look for soil subsidence or other indications of piping leakage and/or degradation. The inspectors also directly observed the condition of HPSW and ESW piping in the accessible portions of the SW pump bays, valve pits, and EDG rooms.

The inspectors reviewed Exelon's procedures and processes to control macrofouling of the ESW and HPSW systems. The inspectors also observed the condition of several zebra mussel monitoring locations. The inspectors reviewed Exelon's procedures for ESW, HPSW, and intake structure operation; abnormal SW operations; intake flooding; and for a loss of the Conowingo Pond. The inspectors verified that Exelon maintained these procedures consistent with their design and licensing basis, and that plant operators could reasonably implement the procedures as written. The inspectors independently verified that the HPSW pump bay and intake level instrumentation, which operators rely upon for decision making, was available and functional. The inspectors also reviewed the most recent third party structural inspection of the Conowingo Dam to assess the integrity and availability of the Conowingo Pond heat sink.

The inspectors walked down control room instrument panels, accessible portions of HPSW piping in the turbine and reactor buildings (including the RHR HXs), the ECT, the ESW and HPSW pumps, and the intake area (including the trash racks, outer traveling water screen room, and SW traveling water screens) to assess the material condition and configuration control of these structures, systems and components (SSCs). The inspectors also reviewed a sample of corrective action issue reports (IRs) related to the HPSW and ESW isolation valves, pumps, and piping integrity to ensure that Exelon appropriately identified, characterized, and corrected problems related to these essential SSCs. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11Q - 1 Sample)

.1 Resident Inspector Quarterly Review

a. Inspection Scope

On May 3, 2010, the inspectors observed operators in PBAPS's simulator during licensed operator requalification training to verify that operator performance was adequate and that evaluators were identifying and documenting crew performance issues. The inspectors verified that performance issues were discussed in the crew's post-scenario critiques. The inspectors discussed the training, simulator scenarios, and critiques with the operators, shift supervision, and the training instructors. The inspectors observed the following scenario:

- PSEG-1109R: Evaluation Scenario.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12Q - 2 Samples)

a. Inspection Scope

The inspectors evaluated PBAPS's work practices and follow-up corrective actions for safety-related SSCs and identified issues to assess the effectiveness of PBAPS's maintenance activities. The inspectors reviewed the performance history of SSCs and assessed PBAPS's extent-of-condition (EOC) determinations for those issues with potential common cause or generic implications to evaluate the adequacy of the PBAPS's corrective actions. The inspectors assessed PBAPS's problem identification and resolution (PI&R) actions for these issues to evaluate whether PBAPS had appropriately monitored, evaluated, and dispositioned the issues in accordance with Exelon procedures, including ER-AA-310, "Implementation of the Maintenance Rule (MR)," and the requirements of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors reviewed selected SSC classifications, performance criteria and goals, and PBAPS's corrective actions that were taken or planned, to evaluate whether the actions were reasonable and appropriate. Documents reviewed are listed in the Attachment. The inspectors performed the following two samples:

- 2 'C' RHR (System 10) Exceeded MR (a)(1) Unavailability Limit (IR 1084973); and
- Maintenance Activities Associated with Failure Mode Causal Tree (FMCT) for Tritium Leakage Mitigation Efforts (IR 1046838, Activity 6).

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 - 6 Samples)

a. Inspection Scope

The inspectors evaluated PBAPS's implementation of the Maintenance Risk Program with respect to the effectiveness of risk assessments performed for maintenance activities that were conducted on SSCs. The inspectors also verified that the licensee managed the risk in accordance with 10 CFR Part 50.65(a)(4) and procedure WC-AA-101, "On-line Work Control Process." The inspectors evaluated whether PBAPS had taken the necessary steps to plan and control emergent work activities and to manage overall plant risk. The inspectors selectively reviewed PBAPS's use of the online risk monitoring software and daily work schedules. The activities selected were based on plant maintenance schedules and systems that contributed to risk. Documents reviewed are listed in the Attachment. The inspectors completed six evaluations of maintenance activities on the following:

- Control of Work and Management of Plant Risk, between April 6-7, 2010, during Partial Loss of 3 'A' Main Power Transformer Cooling (IR 1053261);
- Control of Work and Management of Plant Risk, between April 26-30, during Week 1 of 5 of the 11th Annual Independent Spent Fuel Storage Installation Campaign (SF-221);

- Control of Work and Management of Plant Risk, on May 20, 2010, during Troubleshooting and Repair of Backup Nitrogen Supply to the Automatic Depressurization System (ADS) valves (Action Request (AR) A1730354 and ST-M-016-400-3);
- Control of Work and Management of Plant Risk, between May 10–28, 2010, during Transfer of Reactor Protection System Power Supplies for Cooper Substation Tie-In to Off-Site Source 220-08 (Clearance 10000772);
- Control of Work and Management of Plant Risk, between April 4-5, 2010, during on-line steam leak injection repairs to CV-2-08-4018: Main Steam Supply to Recombiner System Control Valve (Operational Technical Decision Making (OTDM) associated with IR 1045319); and
- Control of Work and Management of Plant Risk during and following Identification of a Leak in the Unit 2 'C' RHR HX on June 16 (RT-O-010-630-2).

b. Findings

No findings of significance were identified.

1R15. Operability Evaluations (71111.15 - 6 Samples)

a. Inspection Scope

The inspectors reviewed six issues to assess the technical adequacy of the operability evaluations, the use and control of compensatory measures, and compliance with the licensing and design bases. Associated adverse condition monitoring plans (ACMPs), engineering technical evaluations, and OTDM documents were also reviewed. The inspectors verified these processes were performed in accordance with the applicable administrative procedures and were consistent with NRC guidance. Specifically, the inspectors referenced procedure OP-AA-108-115, "Operability Determinations," and NRC IMC Part 9900, "Operability Determinations & Functionality Assessments for Resolutions of Degraded or Nonconforming Conditions Adverse to Quality or Safety." The inspectors also used Technical Specifications (TSs), TRM, UFSAR, and associated DBDs as references during these reviews. Documents reviewed are listed in the Attachment. The following degraded equipment issues were reviewed:

- Operability Evaluation Number 10-002, Engineer Evaluation of Submerged Cable Issue (IR 1048012);
- Operability Evaluation Number 10-003, Unit 3 HPCI 30P038 Inboard and Outboard Seal Leak After Run (IR 1048641);
- Evaluate Utilization of the 2AE018 Reactor Building Closed Cooling Water (RBCCW) HX with River Water Temperature Greater than 60 Degrees Fahrenheit (AR A1552281 Evaluation 21);
- Unit 2 Control Rod Drive 38-15 Double Notch (IR 1072280);
- GNF-II Quality Update 2010-001: GNF Bent Spacer Flow Vanes; and
- ACMP for Monitoring of 3 'B' Phase Main Power Transformer Combustible Gases (IR 1082693).

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18 - 1 Sample).1 Permanent Modificationsa. Inspection Scope

The inspectors reviewed one permanent modification to verify that modification implementation did not place the plant in an unsafe condition. The review was also conducted to verify that the design bases, licensing bases, and performance capability of risk significant SSCs had not been degraded as a result of these modifications. The inspectors verified the modified equipment alignment through control room instrumentation observations; UFSAR, drawings, procedures, and work order (WO) reviews; staff interviews; and plant walkdowns of accessible equipment. Documents reviewed are listed in the Attachment. The following engineering change request (ECR) for a permanent modification was reviewed:

- ECR 07-00274, Addition of Vent Valves and Reroute of Unit 3 HPCI Main Pump Seal Water Line.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 - 5 Samples)a. Inspection Scope

The inspectors observed and reviewed completed test records for selected post-maintenance testing (PMT) activities. The inspectors observed whether the tests were performed in accordance with the approved procedures or instructions and assessed the adequacy of the test methodology based on the scope of maintenance work performed. In addition, the inspectors assessed the test acceptance criteria to evaluate whether the test demonstrated that components satisfied the applicable design and licensing bases and the TS requirements. The inspectors reviewed the recorded test data to verify that the acceptance criteria were satisfied. Documents reviewed are listed in the Attachment. The inspectors reviewed five PMTs performed in conjunction with the following maintenance activities:

- RBCCW 2AE018 HX Replacement (WO C0231717);
- E-2 EDG Engine Inspection (WO R1108074);
- Unit 2 End-of-Cycle Recirculation Pump 'B' Trip Breaker Replacement (WO C0299083-07);
- Unit 3 HPCI Turbine Trip Level Adjustment (IR 1060963); and
- Unit 3 'B' Core Spray Pump, Valve, Flow and Cooler Functional and IST following Planned 'B' Loop Maintenance Outage (ST-O-014-305-3 performed on May 19, 2010).

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 - 5 Samples)a. Inspection Scope (3 Routine Surveillances; 1 RCS; and 1 IST Sample)

The inspectors reviewed and observed selected portions of the following surveillance tests (STs), and compared test data with established acceptance criteria to verify the systems demonstrated the capability of performing the intended safety functions. The inspectors also verified that the systems and components maintained operational readiness, met applicable TS requirements, and were capable of performing design basis functions. Documents reviewed are listed in the Attachment. The five STs reviewed or observed included:

- ST-O-032-301-3, HPSW Pump, Valve and Flow Functional and IST [1 IST Sample];
- ST-O-020-560-2/3, Units 2 & 3 - Reactor Coolant Leakage Test [1 Reactor Coolant System (RCS) Leakage sample];
- ST-O-010-306-3, 'B' RHR Loop Pump, Valve, Flow, and Unit Cooler Functional and IST [1 IST sample];
- ST-M-071-602-2, Independent Spent Fuel Storage Installation (ISFSI) Casks TN-68-48 through TN-68-64 Drying, Backfilling, and Leak Tests; and
- RT-O-023-302-2, HPCI Turbine Overspeed Trip Reset Time Check / Adjustment and HPCI Auxiliary Oil Pump and Manual Trip Lever Tension Test, performed on May 22, 2010.

The inspectors noted that IR 1068090 was entered into the corrective action system to address a question related to the acceptance criteria contained in RT-O-023-302-2, and verified that appropriate corrective actions were taken by PBAPS.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06 - 1 Sample)a. Inspection Scope

The inspectors evaluated the conduct of a PBAPS emergency drill on May 10, 2010, to identify any weaknesses and deficiencies in classification and notification activities. The drill was conducted, in part, to provide drill and exercise performance (DEP) opportunities for the DEP performance indicator (PI). The inspectors observed operators respond to events in the simulator control room through the declaration and notification of an alert. The inspectors observed the operations shift manager transition emergency response command and control responsibilities to the site emergency director in the technical support center (TSC). The inspectors relocated to the TSC to observe command and control of the emergency response organization and dose assessment as the event escalated to the declaration and notification of a site area emergency, followed by further escalation to a general emergency. The inspectors verified that the event classification and notifications were done in accordance with EP-AA-1007, "Exelon Nuclear Radiological Emergency Plan Annex for PBAPS." The inspectors verified that the drill evaluators correctly counted the drill's contribution in the calculation of the DEP PI. The inspectors also verified that operations personnel in the

simulator control room identified weaknesses or deficiencies during the critique of the drill. The following simulated events were classified during this training exercise:

- FG1 - General Emergency, Fission Product Barrier Degradation: Fuel Cladding;
- FS1 - Site Area Emergency, Fission Product Barrier Degradation: Primary Containment; and
- FA1 - Alert, Fission Product Barrier Degradation: Reactor Coolant System (RCS).

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator (PI) Verification (71151 - 4 Samples)

Cornerstone: Barrier Integrity

.1 Barrier Integrity PIs (71151 - 4 Samples)

a. Inspection Scope

The inspectors reviewed a sample of PBAPS's submittals for the four Barrier Integrity PIs listed below to verify the accuracy of the data reported. The PI definitions and the guidance contained in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Indicator Guideline," Revision 6, and Exelon procedure LS-AA-2001, "Collecting and Reporting of NRC PI Data," were used to verify that the reporting requirements were met. The inspectors reviewed PI data collected from January 2009 to April 2010. The inspectors compared the graphical representations from the most recent PI report available from the NRC public website to the raw PI data to verify the data was properly included in the report. The PIs reviewed were:

- Unit 2 and Unit 3 RCS Specific Activity (BI01); and
- Unit 2 and Unit 3 RCS Leakage (BI02).

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (PI&R) (71152 - 1 Semi-annual Trend Sample; 1 OWA Sample)

.1 Review of Items Entered into the CAP

a. Inspection Scope

As required by Inspection Procedure (IP) 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed screening of all items entered into the licensee's CAP. This was accomplished by reviewing the description of each new AR / IR and attending daily management review committee meetings.

b. Findings

No findings of significance were identified.

.2 Semi-Annual Review to Identify Trends (1 Semi-annual Resident Inspector Sample)

a. Inspection Scope

The inspectors reviewed lists of CAP items to identify trends (either NRC or licensee identified) that might indicate the existence of a safety issue requiring more detailed inspection follow-up. The inspectors reviewed a list of approximately 6,700 IRs that PBAPS initiated and entered into the CAP action tracking system (Passport) from December 1, 2009 through June 1, 2010. The inspectors also reviewed a list of approximately 3,200 IRs for which corrective actions remained open. The lists were reviewed and screened to complete the required semi-annual PI&R trend review. A sample of 54 Passport IRs (listed in the Attachment) were selected from the list and reviewed in more detail to verify whether the issues were adequately identified and evaluated, and that corrective actions were either closed or planned appropriately. The inspectors evaluated the IRs against the requirements of Exelon procedure, LS-AA-125, and 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action."

b. Assessments and Observations

No findings of significance were identified.

The inspectors noted that during this trend review period, two significant unplanned transients occurred. One involved the trip of the 2 'A' reactor recirculation pump (IR 1026936) and the other involved a Unit 2 load reduction that was performed in response to a loss of isophase bus duct cooling (IR 1008530). The inspectors observed that the PBAPS appropriately performed root cause analyses for these two events. The inspectors also noted that PBAPS performed a root cause analysis of an event involving multiple control rods that had slow scram times during the initial portions of their insertion (IR 1023827). A common cause analysis was performed to review multiple equipment related reactivity events. The inspectors observed that the licensee appropriately used the CAP and associated analysis tools to evaluate reactivity management events.

The inspectors observed that PBAPS took appropriate action to perform common cause analyses of two additional areas. The first involved an adverse trend of problem identification and resolution cross-cutting aspects associated with NRC findings (IR 1060396). The second involved security department training and qualification failures that required remediation (IR 1061573). The inspectors also noted that maintenance personnel identified (IR 1059363) a list of historical deficiencies that supported their conclusion that poor operating reliability existed for the glycol chillers in the offgas system and contributed to adverse environmental impacts.

The inspectors noted additional trends related to the following subject areas: tritium (IR 1044318, IR 1024952, IR 1032576, IR 1030952), motor control center (MCC) voltages (IR 1002703, IR 1081198, IR 1081472, IR 1081490, IR 1081496), main turbine master trip solenoid valves (IR1042832, IR 1070301, IR 1076001), submerged cable issues (IR 1030481, IR 1081636, IR 1048012, IR 1022206) and fire induced multiple spurious operations (MSOs) related issues (IR 1053615, IR 985851, IR 106316, IR 1047196). The inspectors also observed a trend of aged issues that remained open

during the inspection period that included engineering issues identified during or in preparation for NRC inspections (IR 707459, IR 479833, IR 453385, IR 452577, IR 451634, and IR 762371). The inspectors had discussed these issues and trends with PBAPS personnel.

However, based on the overall review of the selected sample, the inspectors concluded that PBAPS was: appropriately identifying and entering issues into the CAP, adequately evaluating the identified issues, and acceptably identifying adverse trends before they became more safety significant problems.

.3 Review of Operator Work Arounds (1 OWA Sample)

a. Inspection Scope

As required by IP 71152, "Identification and Resolution of Problems," the inspectors conducted a review of the OWA program to verify that PBAPS was identifying OWAs problems at an appropriate threshold, have entered them in the CAP, and proposed or implemented appropriate corrective actions. The inspectors reviewed the list of OWAs and Operator Challenges (OCs) identified and managed in accordance with Exelon Procedure, OP-AA-102-103, "OWA Program." Specifically, the review was conducted to determine if any OWAs for mitigating systems affected the mitigating system's safety functions or affected the operators' ability to implement abnormal and emergency operating procedures. The inspectors reviewed the following open OWAs being tracked by PBAPS:

- Unit 3 - HPCI Pump Inboard and Outboard Seal Leakage (AR A1752639).

The inspectors also reviewed the lists of open OCs (deficiencies that are obstacles to normal plant operations), periodically walked down the panels in the main control room, and have reviewed control room deficiencies to identify and be cognizant of: (1) OWAs that have not been evaluated by PBAPS, and (2) OWAs that increase the potential for personnel error, including OWAs that:

- Require operations contrary to past training or require more detailed knowledge than routinely provided;
- Require a change from longstanding operational practices;
- Require operation of a system or component in a manner different from similar systems or components;
- Create the potential for the compensatory action to be performed on equipment or under conditions for which it is not appropriate;
- Impair access to required indications, increase dependence on oral communications, or require actions under adverse environmental conditions; and
- Require the use of equipment and interfaces that have not been designed with consideration of the task being performed.

The inspectors accompanied the Unit 2 turbine building equipment operator during dayshift rounds on June 3, 2010, and the Unit 3 reactor building nuclear equipment operator during day shift rounds on June 24, 2010, to observe any potential work around challenges. The inspectors also interviewed operators to determine if any compensatory actions they routinely take are (or should be) categorized as workarounds/challenges. Finally, the inspectors reviewed current operator turnover

documentation to determine if there are documented compensatory actions that should be categorized as workarounds/challenges.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

.1 Commissioner Site Visit and Meeting

On June 2, 2010, Commissioner W. Magwood and members of his staff visited PBAPS, toured the site and met with senior Exelon management. Commissioner Magwood was accompanied by Mr. S. Collins, Regional Administrator, Region I and Mr. P. Krohn, Branch Chief, Region I, Division of Reactor Projects.

.2 Quarterly Resident Exit Meeting Summary

On July 16, 2010, the resident inspectors presented the inspection results to Mr. Thomas Dougherty and other PBAPS staff, who acknowledged the findings. Mr. P. Krohn, Chief, USNRC, Region 1, Division of Reactor Projects, Branch 4, attended this quarterly inspection exit meeting. The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

.3 Triennial Heat Sink Performance Exit Meeting Summary

On May 21, 2010, the inspectors presented the inspection results to Mr. Thomas Dougherty, Site Vice President, and other members of the Exelon staff. The inspectors verified that no proprietary information was documented.

4OA7 Licensee-Identified Violations

The following violation of very low significance (Green) was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy for being dispositioned as a NCV:

- License Condition 2.C.(11).(b) requires, in part, that PBAPS shall develop and maintain strategies for addressing large fires and explosions. On May 11, 2010, the licensee discovered that equipment used for a single mitigation strategy, described in TSG-4.1, Attachment 15, had been removed from its designated location. The finding was assessed in accordance with IMC 0609, Appendix L, Table 2, and determined to be of very low (Green) safety significance because the finding only impacted an individual mitigation strategy. The licensee restored the equipment and entered the issue into their CAP as IR 01068128.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Exelon Generation Company Personnel

T. Dougherty, Site Vice President
G. Stathes, Plant Manager
J. Armstrong, Regulatory Assurance Manager
M. Weidman, Acting Engineering Director
R. Franssen, Work Management Director
J. Kovalchick, Security Manager
L. Lucas, Chemistry Manager
P. Navin, Operations Director
R. Holmes, Radiation Protection Manager
T. Wasong, Training Director
J. Donell, GL 89-13 Program Manager
C. Esham, System Engineer (Traveling Water Screens)
W. Ford, System Engineer (HPSW)

NRC Personnel

P. Krohn, Branch Chief
F. Bower, Senior Resident Inspector
A. Ziedonis, Resident Inspector
F. Arner, Senior Reactor Inspector
S. Pindale, Senior Reactor Inspector
L. Scholl, Senior Reactor Inspector
J. Schoppy, Senior Reactor Inspector
K. Young, Senior Reactor Inspector

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened/Closed

None

Closed

None

Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

SE-16, Revision 5, Grid Emergency
 SE-16, Attachment A, Revision 2, Power Team Generation Dispatcher/Power System Director (PTGD/PSD) Communications to Peach Bottom
 SE-16, Revision 2, Grid Emergency – Bases
 OP-AA-108-107, Revision 2, Switchyard Control
 OP-AA-108-107-1001, Revision 3, Station Response to Grid Capacity Conditions
 OP-AA-108-107-1002, Revision 4, Interface Agreement between Exelon Energy Delivery and Exelon Generation for Switchyard Operations
 WC-AA-107, Revision 8, Seasonal Readiness
 WC-AA-8003, Revision 1, Interface Procedure between Energy Delivery (COMED/PECO) and Exelon Generation (Nuclear/Power) for Design Engineering and Transmission Planning Activities
 McDonald, John E.; PECO Nuclear Station Switchyard Readiness Certification for Summer 2009, Memo to Michael Pacillio; May 15, 2009
 Single Line Diagram E1, Revision 45, Station
 System Health Report, DC Systems (Unit 2 and Unit 3), 10/1/2009 – 12/31/2009
 System Health Report, 4 kV (Unit 2 and Unit 3), 10/1/2009 – 12/31/2009
 System Health Report, Emergency Diesels, 10/1/2009 – 12/31/2009
 System Health Report, Station Blackout, 10/1/2009 – 12/31/2009
 System Health Report, Substations/Startup Sources, 10/1/2009 – 12/31/2009
 IR 891537, 2009 Summer Readiness Action Item Tracking
 IR 918739, Large Transformer Summer Readiness Assessment
 A/R A1714466, RT-O-031-910-3 Chemical Maintenance Treatment for SW Systems (Spring)
 CC-PB-201, Revision 0, Hazard Barrier Control Program
 Drawing A-490, Revision 4, Barrier Plans: Circulating Water Pump Structure, ECT and Diesel Generator Building
 P-T-07, Revision 2, External Hazards
 SE-4, Revision 24, Flood Procedure
 SE-4 Bases, Revision 14, Flood Procedure Bases
 WO R1134802, RT-O-031-910-3 Chemical Maintenance Treatment for SW Systems (Spring)
 Memorandum from Thomas Dougherty to Joseph Grimes, Jr., dated May 14, 2010: Certification for 2010 Summer Readiness
 RT-O-040-610-2, Revision 16, Outbuilding HVAC and Equipment Inspection for Summer Operation
 WC-AA-107, Revision 8, Seasonal Readiness
 IR 1048641, Unit 2 HPCI 30P038 Inboard and Outboard Seal Leak after Run
 IR 1053261, 3 'A' Main Transformer Cooling Control Power Breaker Tripped
 IR 1054217, Conflict between PBAPS and Energy Delivery HVAC Tagging
 IR 1057671, Summer Readiness Contingent WO for DPIS-3-02-116C
 IR 1059990, E4 EDG TSA Removed from WW 1026
 IR 1065139, Maintenance Plan Closed Summer Readiness Assignments with No Action
 IR 1072242, 2B EOC/RPT Breaker Inspection Results
 IR 1076476, 'B' Cooling Tower Lift Pump Failed to Start

Section 1R04: Equipment Alignment

TS Surveillance Requirement Section 3.6.4.3, SGTS
 Peach Bottom Protected Equipment Tracking Sheet for 2AE018 2 'A' RBCCW HX and 'B'
 SBTG Fan, 04/14/2010
 WC-AA-101-1004, Revision 4, Project Critique U2 'B' RHR Loop TSA

Section 1R05: Fire Protection

PF-60, Revision 2, Prefire Strategy Plan, Unit 2 Reactor Building, RCIC Room - Elevation 88'-0"
 Fire Zone 60
 PF-88, Revision 3, Prefire Strategy Plan, Unit 2 Turbine Building, Lube Oil Tank Room,
 Elevation 116'-0" Fire Zone 88
 PF-12C, Revision 5, Prefire Strategy Plan, Unit 3 Recirculation Pump MG Set Room, 135'
 Elevation, Fire Area 12C
 PF-78C, Revision 5, Prefire Strategy Plan, Turbine Building Common, Radiation Chemical
 Area, 116' Elevation, Fire Area 78C
 PF-117, Revision 6, Prefire Strategy Plan, Unit 3 Turbine Building, Emergency Battery
 Switchgear Rooms, 135' Elevation, Fire Area 117
 PF-127, Revision 6, Prefire Strategy Plan, Unit 2 Turbine Building, Emergency Battery
 Switchgear Rooms, 135' Elevation, Fire Area 127
 * IR 1065158, The Legend on Drawing A-484 is Incorrect
 * IR 1054609, PF-78C and PF-12C Need Door Identification Updated

* Indicates NRC-Identified

Section 1R06: Flood Protection Measures

AO 20A.1, Temporary Removal and Installation of Flood Barriers in the Reactor Building
 Drainage System, Revision 13
 CR 01048641, U3 HPCI 30P038 Inboard and Outboard Seal Leak After Run
 ECP 10-00151, U3 HPCI 30P038 Inboard and Outboard Seal Leak After Run
 ECP 09-00160, U3 HPCI Vent Valve Installation
 T-103, Secondary Containment Control, Revision 16

Section 1R07: Heat Sink Performance

Memo from Joseph G. Schoppy to Paul G. Krohn Thru Richard J. Conte dated June 1, 2010,
 regarding PBAPS Triennial Heat Sink Performance Inspection Feeder

Audits and Self-Assessments

565955, GL 89-13 Program Functional Area Self Assessment, dated 2/28/07
 703604-03, 89-13 Program Check-in Assessment, dated 6/28/09
 989394, Pre-NRC Heat Sink Inspection Check-in Assessment, dated 2/24/10

Completed Surveillances

ST-O-032-301-2, HPSW Pump, Valve and Flow Functional IST, performed 1/7/10
 ST-O-032-301-3, HPSW Pump, Valve and Flow Functional IST, performed 3/30/10
 ST-O-032-635-2, HPSW System Pressure Test Examination, performed 7/6/08, 8/11/08 &
 8/13/08
 ST-O-032-635-3, HPSW System Pressure Test Examination, performed 3/4/08 & 6/7/08

ST-O-033-300-2, ESW, Valve, Unit Cooler, and ECT Fans Functional IST,
 Performed 1/18/10
 ST-O-033-400-2, ESW Valve CHK-2-33-514 IST, performed 9/26/08
 ST-O-033-400-3, ESW Valve CHK-3-33-514 IST, performed 9/25/09

Design Basis

DBD P-S-02, Revision 12, ESW System Design Baseline Document
 DBD P-S-04, Revision 10, HPSW System Design Baseline Document
 DBD P-S-35, Revision 7, Intake Water System Design Baseline Document

 DBD P-T-07, Revision 2, External Hazards Design Baseline Document

Drawings

6280-M-315 Shts. 1, 2, 4, & 5, Revisions 68, 55, 53, & 57, ESW and HPSW Systems
 6280-M-330 Sh. 1, Revision 35, Emergency Cooling System
 A-490 Sh. 1, Revision 4, Barrier Plan C.W. Pump Structure

IRs

304543	794363
532363	798807
536910	805940
543926	822594
574158	823612
685077	824075
660310	824082
678567	846746
708222	849833
708248	896894
708255	899886
708261	920405
708284	933013
712457	942904
712465	1026915
758678	1026919
758690	1026921
766675	1058866
791321	1071180
793791	1071347
793803	

Miscellaneous

89-13 Program Improvement Plan, dated 6/28/09
 Equipment Operator Rounds (Unit 2 & 3 Intake Areas), dated 3/29/10 - 4/4/10
 G3 Wavemaker (G366) Certificate of Conformance, dated 8/8/08 & 11/25/08
 Inspection Report Susquehanna Electric Company Conowingo Hydroelectric Station,
 January 2007
 PD 145404, Zebra Mussel Recommendations, dated 12/16/09
 Risk-Informed Inspection Notebook for PBAPS Unit 2 and 3, Revision 2.1a
 Pump Room (Room 802) MR Walkdown Datasheet, performed 9/22/97,
 3/14/01, and 11/22/06
 SW (Room 806) MR Walkdown Datasheet, performed 12/16/97, 11/15/99, and

6/12/04
 Unit 2 Circulating Pump Room MR Walkdown Datasheet, performed 9/22/97, 1/25/02, and 6/28/06
 Unit 2 Circulating Water Screens MR Walkdown Datasheet, performed 12/16/97, 11/15/99, and 6/12/04
 Unit 2 Service Water Pump Room MR Walkdown Datasheet, performed 9/22/97, 1/25/02, and 6/28/06
 Unit 3 Circulating Pump Room MR Walkdown Datasheet, performed 9/22/97, 1/25/02, and 6/28/06
 Unit 3 Circulating Water Screens MR Walkdown Datasheet, performed 11/15/99 and 6/12/04
 Unit 3 Service Water Pump Room MR Walkdown Datasheet, performed 9/22/97, 1/25/02, and 6/28/06
 WC-PB-430-1001, ST-O-033-400-2 Test Results Evaluation (TRE), dated 9/29/08
 WO R0931744, Unit 2 & Unit 3 Intake Canal Silt Level Readings, performed 4/8/08
 * IR 1071837, ESW Bay Level Measurement Potentially Non-Conservative

* Indicates NRC-Identified

NDE Reports

ISO-2-32-4 E04 D/S, Raw Water Corrosion Ultrasonic Examination Report, dated 8/8/08
 ISO-2-32-4 E05 D/S, Raw Water Corrosion Ultrasonic Examination Report, dated 4/15/09
 ISO-2-32-4 E05 U/S, Raw Water Corrosion Ultrasonic Examination Report, dated 4/15/09
 ISO-2-32-4 R03 U/S, Raw Water Corrosion Ultrasonic Examination Report, dated 8/8/08
 ISO-2-32-4 T01 BR, Raw Water Corrosion Ultrasonic Examination Report, dated 8/8/08
 ISO-2-32-5 E03, Raw Water Corrosion Ultrasonic Examination Report, dated 7/9/08
 ISO-2-32-5 E03 U/S, Raw Water Corrosion Ultrasonic Examination Report, dated 1/2/09
 ISO-2-32-5 P01, Raw Water Corrosion Ultrasonic Examination Report, dated 7/9/08
 ISO-2-32-10 V01, Raw Water Corrosion Ultrasonic Examination Report, dated 12/8/08
 ISO-2-32-10 V02, Raw Water Corrosion Ultrasonic Examination Report, dated 12/14/08
 ISO-2-32-10 V04, Raw Water Corrosion Ultrasonic Examination Report, dated 12/14/08
 ISO-2-32-10 V05, Raw Water Corrosion Ultrasonic Examination Report, dated 12/9/08
 ISO-2-32-10 V06, Raw Water Corrosion Ultrasonic Examination Report, dated 12/14/08
 ISO-2-32-10 V07, Raw Water Corrosion Ultrasonic Examination Report, dated 12/10/08
 ISO-2-32-10 V08, Raw Water Corrosion Ultrasonic Examination Report, dated 12/10/08
 ISO-3-32-6 F02 D/S, Raw Water Corrosion Ultrasonic Examination Report, dated 4/27/09
 ISO-3-32-6 F02 U/S, Raw Water Corrosion Ultrasonic Examination Report, dated 4/27/09
 ISO-3-32-6 F04 U/S, Raw Water Corrosion Ultrasonic Examination Report, dated 4/27/09
 ISO-3-32-6 V03 D/S, Raw Water Corrosion Ultrasonic Examination Report, dated 4/28/09
 ISO-3-32-6 V03 U/S, Raw Water Corrosion Ultrasonic Examination Report, dated 3/4/09
 ISO-3-32-7 E02 U/S, Raw Water Corrosion Ultrasonic Examination Report, dated 3/4/09
 ISO-3-32-7 F01 D/S, Raw Water Corrosion Ultrasonic Examination Report, dated 11/24/08
 ISO-3-32-7 V03 D/S, Raw Water Corrosion Ultrasonic Examination Report, dated 4/28/09
 ISO-3-32-10 V01, Raw Water Corrosion Ultrasonic Examination Report, dated 12/14/08
 ISO-3-32-10 V02, Raw Water Corrosion Ultrasonic Examination Report, dated 11/18/08
 ISO-3-32-10 V04, Raw Water Corrosion Ultrasonic Examination Report, dated 11/19/08
 ISO-3-32-10 V05, Raw Water Corrosion Ultrasonic Examination Report, dated 11/25/08
 ISO-3-32-10 V06, Raw Water Corrosion Ultrasonic Examination Report, dated 11/18/08
 ISO-3-32-10 V07, Raw Water Corrosion Ultrasonic Examination Report, dated 12/16/08
 ISO-3-32-10 V09, Raw Water Corrosion Ultrasonic Examination Report, dated 11/18/08
 ISO-3-32-10 V10, Raw Water Corrosion Ultrasonic Examination Report, dated 12/16/08

Report No. 0800534.401.R0, G-Scan Assessment of Various Piping Lines, dated 12/31/08
 Report No. 0901287.401.R1, G-Scan Assessment of Various Safety Related Piping,
 December 2009

Operating Experience

Generic SW System Risk-Based Inspection Guide, NUREG/CR-5865 EGG-2674
 NRC Information Notice 2007-06: Potential Common Cause Vulnerabilities in Essential SW
 Systems, dated 2/9/07
 PBAPS Response to NRC Information Notice 2007-06, dated 5/15/07

Procedures

AO 32.2-2, Revision 2, HPSW Injection into the Reactor Vessel
 AO 33.1-3, Revision 0, ESW Bypass Valve Lineup during Shutdown of Chemical Injection
 System and Return to Normal
 AO 33.2, Revision 6, ESW System Manual Startup and Operations
 AO 33.4-2, Revision 2, ESW System Effluent High Radiation
 AO 33.5.A, Revision 1, RHR/Core Spray Room Cooler Flush
 AO 33.6-0, Revision 1, ESW Pump Discharge Cross-Tie Operation
 COL 33.1.A-2, Revision 22, ESW System (Unit 2 and Common)
 EP-AA-1007, Revision 19, Radiological Emergency Plan Annex for PBAPS
 ER-AA-340, Revision 6, GL 89-13 Program Implementing Procedure
 ER-AA-340-1001, Revision 7, GL 89-13 Program Implementation Instructional Guide
 ER-AA-5400, Revision 2, Buried Piping and Raw Water Corrosion Program Guide
 ER-AA-5400-1001, Revision 2, Raw Water Corrosion Program Guide
 ER-AA-5400-1002, Revision 1, Buried Piping Examination Guide
 RT-O-010-660-2, Revision 10, RHR HX Performance Test
 RT-O-031-910-2, Revision 17, Chemical Maintenance Treatment for Unit 2 SW Systems
 RT-O-033-600-2, Revision 18, Flow Test of ESW to ECCS Coolers and Diesel Generator
 Coolers
 SE-3, Revision 19, Loss of Conowingo Pond Procedure
 SE-4, Revision 24, Flood Procedure
 SO 32.1.A-2, Revision 14, HPSW System Startup and Normal Operations
 SO 32.2.A-2, Revision 7, HPSW System Shutdown
 SO 32.3.A-2, Revision 4, HPSW Filling and Venting the HPSW Side of the RHR HXs
 SO 32.7.A-2, Revision 11, Placing Unit 2 HPSW Loops in Service Using Unit 3 HPSW Pumps
 SO 32.8.A-2, Revision 6, HPSW System Routine Inspection
 SO 33.1.A, Revision 2, ESW System Setup for Normal Standby Operation
 SO 33.8.A, Revision 2, ESW System Routine Inspection While in Standby Condition
 SO 33.8.B, Revision 1, ESW System Routine Inspection While System is in Operation

System Health Reports, Maintenance History & Trending

ESW System Health Report, 4th Quarter 2009
 HPSW System Health Report (Unit 2 & Unit 3), 4th Quarter 2009
 Intake Silt Level Readings (In Front of Outer Screen Structure), performed 7/31/07
 PBAPS GL 89-13 Program Health Report, 4th Quarter 2009 & 1st Quarter 2010
 PBAPS Intake Canal Silt Measurements, performed 4/29/93 and 9/4/90
 RT-M-033-675-2, Unit 2 Pump Intake Structure Inspection and Cleaning, performed 9/28/08
 RT-M-033-675-3, Unit 2 Pump Intake Structure Inspection and Cleaning, performed 9/28/09
 RT-O-28B-800-2, River Temperature and Flow Monitoring, performed 4/4/10
 Waterbox Debris Collected Unit 2 (Trend Data), dated 9/13/02 - 1/30/10
 Waterbox Debris Collected Unit 3 (Trend Data), dated 5/18/02 - 3/15/09

WOs

C0223901
C0225314
C0225515
C0225614
C0229231
C0229556
C0230346
R0880510
R0916150

Section 1R11: Licensed Operator Requalification Program

PSEG-1109R: Evaluation Scenario, Revision 2, performed 05/03/10

Section 1R12: Maintenance Effectiveness

IR 1046838, Tritium High Impact Team Action Tracking
IR 1046838, Activity 6, FMCT
IR 1068999, Inspect / Repair / Coat Torus Drain Tank Line and Valve Pit as Required
IR 1085524, 2 'C' RHR Floating Head Leaking
IR 1080382, RHR DPI-2-10-130^a Indication Lowering with 2^a HPSW in Service
IR 882934, 2 'C' RHR HX Post-Maintenance Leakage Observed
IR 882467, Mis-measurement of 2C RHR HX Flange Pit Depth
IR 881590, 2CE024 RHR HX Tube Side Drain Plate Cover Washed Out
IR 882367, 2 'C' RHR Lower Outer Shell Gasket Change Learnings
WO C0233586, 2 'C' RHR HX Investigate/Repair/Replace
AR A1764159, RHR HX A Tube to Shell Differential Pressure
WO C0220077, 2CE024 (2 'C' RHR HX) Replace Lower (Floating) Head
AR A1546765, Testing for 2 'C' RHR HX Leak

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

AO 50F.3-3, Revision 5, Main Transformer High Temperature Operation
ARC-320 30C209R A-3, Revision 6, Unit 3 Generator Transformer Trouble
AR A1753947, Intermittent Main Transformer Alarm
AR A1754304, 3 'A' Main Power Transformer Cooling Control Power Breaker Tripped
WO C0233005, Install Temporary Power/TCCP and Replace Breakers
E-1-42-A, Sheet 3, Revision 0, Hyundai Transformer Power Control Circuit Diagram
E-1-42-A, Sheet 4, Revision 0, Hyundai Transformer Power Control Circuit Diagram
IR 988387, Indicated Winding Temperature Lower Than Actual
IR 1052265, Intermittent Main Transformer Alarm
IR 1053352, 3AX001 Lost All Cooling for Approximately 5 Minutes
IR 1053261, 3 'A' Main Transformer Cooling Control Power Breaker Tripped
Narrative Logs: April 6, 2010, Night Shift
SO 50F.7.A-3, Revision 0, Response to 3 'A' Main Power Transformer General Trouble Alarm
IR 1044591, Procurement of TN-68 Dry Casks
IR 1060406, Enhancement for Future ISFSI Evaluation Risk Analysis
IR 1059078, Remove Unirradiated Fuel Channels from Peach Bottom Unit 3 Spent Fuel Pool
IR 1064201, High Silica in Refuel Water Storage Tank

Narrative Logs: April 26, 2010, Night Shift; April 27, 2010, Night Shift; and April 28, 2010, Night Shift

NUREG-0612, Control of Heavy Loads at Nuclear Power Plants

SF-221, Revision 0, Spent Fuel Casks TN-68-48 through TN-68-64 Loading and Transport Operations

UFSAR Section 10.3, Spent Fuel Storage

AR A1730354, Back-up N2 Supply to Automatic Depressurization System Valves

IR 1067597, Backup ADS Nitrogen Regulators High OOS

ST-M-016-400-3, Revision 13, Instrument Nitrogen Check Valve In-Service Test

UFSAR Section 4.4, Nuclear System Pressure Relief

UFSAR Section 10.17, Instrument Air, Service Air, and Instrument Nitrogen Systems

Clearance 10000772, Tie-in of Cooper Substation to 220-08 Line

SO 60F.6.A-2, Revision 13, Transferring Reactor Protection System Power Supplies

Narrative Logs: May 27, 2010, Night Shift

P-S-06, Revision 14, Reactor Protection System

TS and Bases Section 3.3.1.1, Reactor Protection System Instrumentation

TS and Bases Section 3.3.8.2, Reactor Protection System Electric Power Monitoring

UFSAR Section 7.2, Reactor Protection System

OTDM associated with IR 10453119, Repair Decision for Steam Leak on CV-2-08-4018

IR 1058291, Steam Leak on CV-2-08-4018 has Returned

IR 1053162, U2 CV-4018 Leak Repair Exceeds Dose Estimate

TRM 3.19, Hydrogen Concentration

UFSAR Section 9.4, Gaseous Radwaste / Off-Gas System

Addendum 2 to Specification 6280-M-87, Revision 1, Off-Gas Recombiners for the PBAPS Units 2 and 3

RT-O-010-630-2, 2C RHR HX Leak Test, performed 06/16/10

M-010-002, Revision 12, RHR HX Maintenance, Section 5.8 (Bubble Test)

ACMP associated with the 2 'C' RHR HX Leak, dated 06/16/10

ACMP associated with the 3 'A' RHR HX Leak, dated 11/07/07

AO 10.9-2, Revision 4, Depressurization of the RHR System Discharge Piping

AR A1638094, RHR HX 3 'A' Leak

ARC-223 20C203A, E-4, Revision 3, A RHR HX Tube to Shell Lo Pressure

ARC-219 20C209L, D-2, Revision 3, HPSW Discharge Hi Radiation

CH-426, Revision 13, HPSW System Sampling and Isotopic Analysis

IR 1080382, DPI-2-10-130A Indication Lowering with 2 'A' HPSW in Service

IR 1080296, ECCS Leakage Tracking - Suggested Improvement Based on DIER

IR 1080798, RHR HX Leakage for 10 CFR 100 Compliance Based on Pre-AST

IR 1081522, NDO Page on System Status was Inaccurate

IR 1081844, Overview Sheet Contained Incomplete OLR Data

IR 1085385, Unexpected Alarm during 2 'C' RHR Clearance Activities

M-315, Sheet 1, Revision 68, ESW and HPSW P&ID

M-361, Sheet 1, Revision 81, RHR P&ID

Narrative Control Room Logs, 06/14/10 Nightshift, 06/15/10 Dayshift, and 06/17/10 Night Shift

OTDM associated with IR 1080382, 2 'C' HX Leak Inspection and Repair, dated 06/16/10

Regulatory Guide 1.183, Alternate Radiological Source Terms for Evaluating Design Basis

Accidents at Nuclear Power Reactors

SI2D-10-91-A2Cs, Calibration Check of RHR HX Differential Pressure Instruments

DPT 2-10-91A and C, DPI 2-10-130A and C, and DPS 2-10-92A and C, performed 08/18/09

SO 32.1.A-2, Revision 14, HPSW System Startup and Normal Operations

SO 32.3.A-2, Revision 4, HPSW Filling and Venting the HPSW Side of the RHR HXs

ST-O-032-301-2, HPSW Pump, Valve and Flow Functional and IST
 UFSAR Section 10.7, HPSW System
 UFSAR Section 14.9.2, Current Licensing Basis Dose Evaluation Using Alternate Source Term

Section 1R15: Operability Evaluations

Operability Evaluation Number 10-002, Revision 0, Engineering Evaluation of Submerged Cable Issue

Nuclear Event Report NC-10-008-Y, Peach Bottom NCV Related to Cable Condition Monitoring Program

IR 01048012, Engineering Evaluation of Submerged Cable Issue

IR 01030481, NRC NCV 2009005-01 – Submerged Cables Design Deficiency

IR 01054751, NOS ID: Operations Demand for Formal Evaluations for Operability Determinations

IR 01039017, WANO AFI: CM Long Term Reliability Management for Wetted Cables

OP-AA-108-115, Revision 9, Operability Determinations (CM-1)

ACMP for Unit 3 HPCI Seal Leakage, dated 03/27/10

IR 827889, Air Voids Identified in Various Unit 2 HPCI Lines – P2R17

IR 977203, Air Identified in Unit 3 HPCI Gland Seal Condenser Cooling Water Pipe

IR 1048641, Unit 3 HPCI 30P038 Inboard and Outboard Seal Leak After Run

Operability Evaluation Number 10-003, Revision 0, Unit 3 HPCI Seal Leakage

M-023-0002, HPCI DVMX Pump Maintenance

WO C0217821, 30P038: Replace HPCI Pump Mechanical Seals

WO C0232672, 30P038: Perform Seal Replacement

WO C2033235, Install New Vent Valves

A1611271, Unit 2 2AE018 RBCCW HX Suspected Tube Leaks

A1552281, Utilization of 2AE018 with River Temperature Greater than 60 Degrees F

GNF-II Quality Update 2010-001: GNF Bent Spacer Flow Vanes, dated 04/27/10

Part 21, GE Hitachi Nuclear Energy: Bent Fuel Spacer Flow Wing

GE Nuclear Energy Corrective Action Request 51275, Bent Flow Tab

GE Nuclear Energy Corrective Action Request 51317, Water Rod Tab to Tab Spacing

GE Nuclear Energy Corrective Action Request 51392, Bent Flow Tab

IR 1074153, Unit 2 Control Rod Drive 38-15 HCU Directional Control

Valve Requires Measurement of Adjustment Screw

AR 1761150, Unit 2 Control Rod Drive 38-15 Double Notch

AR A1762149, Unit 2 Control Rod Drive 38-15 HCU Directional Control

Valve Requires Measurement of Adjustment Screw

WO M1762149, Obtain 38-15 DCV Measurement for Engineering

IR 1086595, 3 'B' Main Power Transformer Serveron O₂ Gas Levels Rising

IR 1082693, 3 'B' Main Power Transformer Serveron Indicated Gas Levels Rising

AR A1765051, 3 'B' Main Power Transformer Serveron Indicated Gas Levels Rising

Section 1R18: Plant Modifications

ECR 07-00274, Revision 0, Addition of Vent Valves and Reroute of Unit 3 HPCI Main Pump Seal Water Line

50.59 Screening Number PB-2007-042-S, Revision 0, 50.59 Screening Associated with ECR 07-00274

Section 1R19: Post-Maintenance Testing

A1552281, Evaluate Max Re-Torque Value for RBCCW Inlet Flange
 A1754274, 2 'B' RBCCW HX Internal Tube Leak
 C0231717-99, Re-Torque 2AE018 HX Piping/Flanges
 C0232897, Investigate Repair as Required
 C0233136, Correct Deficiencies in OBG013 Lower Panel
 IR 1057147, Accelerated 2BE018 HX Degradation
 IR 1060270, Visual Exam of SW Piping Reveals Suspected Wall Thinning
 IR 1062815, Piping Class JB Gasket Selection Guidance Re: Blue-Gard Sht
 IR 1064826, Lube Oil Strainer Spool Pulled Apart During Reassembly
 IR 1065180, Bent Drive Pin on Tachometer Drive
 IR 1066002, Corroded Connection Discovered
 IR 1066427, Followup to E-2 Diesel Exciter Cabinet Cable Corroded
 IR 1066888, E23 Breaker UT Fuse Clip Female End Is Damaged
 IR 1067037, Incorporate Permanent Revision TCS to SO 52A Procedures
 M-052-002, Diesel Engine Maintenance, Revision 33
 RT-M-052-902-2, E2 Diesel Generator and Fuel Oil Storage Tank Inspection, Revision 6
 RT-O-052-252-2, E2 Diesel Generator Inspection Post-Maintenance Functional Test,
 Revision 26
 SO 35.6.B-2, Placing Standby RBCCW HX In-Service and Removing One from Service,
 Revision 3
 ST-I-052-252-2, E-2 Diesel Generator Inspection Post-Maintenance Instrumentation and Logic
 Test, Revision 9
 ST-I-052-262-2, E-2 Diesel Generator Inspection Post-Maintenance Handswitch Logic
 Test, Revision 4
 ST-O-052-412-2, E2 Diesel Generator Fast Start and Full Load Test, Revision 20
 ST-I-02A-406-2, Determination of 2 'B' System I End of Cycle-Recirculation Pump Trip Breaker
 Arc Suppression Response Time, performed 05/23/10
 ST-R-02A-400-2, End of Cycle-Recirculation Pump Trip Response Time Summation Test,
 Performed 05/23/10
 ACMP, Revision 1, Unit 2 'B' Recirculation Pump Trip Breaker
 Temperatures
 OTDM Issue: 2BA034 (3401) and (3402) Recirculation Pump Trip Breaker Heating (IR 867732),
 Dated May 3, 2010
 IR 1072366, PSO2 End of Shift Critique, May 21st to 23rd D Shift
 IR 1072242, 2 'B' EOC RPT Breaker Inspection Results
 IR 1072266, New EOC-RPT Needs CRL ID and Inspection Prior to Use
 RT-O-023-302-3, HPCI Turbine Overspeed Trip Reset Time Check/Adjustment and HPCI
 Auxiliary Oil Pump and Manual Trip Lever Tension Test, performed 05/22/10 and
 06/15/10
 IR 1060963, Unit 3 HPCI Turbine Trip Lever Tension in Alert Range
 ST-O-014-306-3, Core Spray Loop 'B' Pump, Valve, Flow, and Cooler Functional and Inservice
 Test, performed 05/19/2010
 ST-O-014-355-3, Core Spray Loop 'B' Valve Alignment and Filled and Vented Verification,
 Performed 05/19/2010
 IR 1069554, MO-3-14-026B-OP Boroscopic Inspection Removed from WW1021
 IR 1070414, CV-3-14-034B Needs Travel Stops in Actuator
 IR 1070483, Motor Connection Box Hardware Deficiencies
 IR 1070880, PCV-3-14-034B Check Valve Seated
 IR 1071092, Air Voids Found During NDE Exams of Unit 3 Core Spray Piping

Section 1R22: Surveillance Testing

M-315, Revision 52, P&ID - ESW and HPSW Systems

ST-O-032-301-3, Revision 24, HPSW Pump, Valve and Flow Functional and IST,

Performed 03/30/10

ST-O-020-560-2/3, Units 2 & 3 - Reactor Coolant Leakage Test

ST-O-010-306-3, Revision 30, 'B' RHR Loop Pump, Valve, Flow, and Unit Cooler Functional and IST

Exelon Submittal of Registration for IDFSI Casks #48 and #49, dated May 13, 2010

Exelon Submittal of Registration for IDFSI Casks #50, #51 and #52, dated June 3, 2010

IR 1063429, ISFSI Cask Vacuum Drying Duration Unexpectedly Exceeded

IR 1065100, PSO1 End of Shift Critique for Nightshift April 30th, 2010

IR 1065390, ISFSI Helium Leak Detector Instrument Failed

IR 1066320, ISFSI Calibration Data Sheet Discrepancy

IR 1067335, ISFI Vacuum Pump Float Stuck

IR 1067512, Editorial Corrections for ISFSI TN-68 IFSSAR and 212 Report

IR 1068443, Unusual Sheave Rotation Observed on Main Hoist Load Block

IR 1069313, ISFSI Cask Vacuum Drying Duration Unexpectedly Exceeded

IR 1069468, Maintenance Planning Process Bypassed for Repairs of the Reactor Building Crane

IR 1069549, Historical FME Found in the Base of the Unit 3 Fuel Prep Machine

SF-900, Revision 7, ISFSI Abnormal Condition Response

SF-910, Revision 0, Spent Fuel Cask Leakage Location Determination

SI2P-71-0748-XXC3, Revision 0, Channel Operational Test of ISFSI Low Pressure Test

Switches PS-70748A and PS-70748B, Performed 05/03/10

ST-H-071-804-2, Revision 0, ISFSI Casks TN-68-48 through TN-68-52 Surface Dose Rate and Contamination, Performed 04/30/10

ST-M-071-602-2, Revision 0, ISFSI Casks TN-68-48 through TN-68-64 Drying, Backfilling, and Leak Tests, Performed 04/30/10

TN-68 Generic TS, Amendment Number 1

RT-O-023-302-2, HPCI Turbine Overspeed Trip Reset Time Check / Adjustment and HPCI Auxiliary Oil Pump and Manual Trip Lever Tension Test, performed 04/24/10, 04/30/10, and 05/22/2010

*IR 1068090, HPCI Procedures RT-O-023-302-2(3) should be Revised

IR 1067843, RT-O-023-302-3

System Manager Data for past 3 years for RT-O-023-302-2(3)

GE SIL 392, Part 1, Revision 1, Improved HPCI Turbine Mechanical Hydraulic Trip Design

GE SIL 392, Part 2, Revision 1, Improved HPCI Turbine Mechanical Hydraulic Trip Design

GE RICSIL 37, HPCI and RCIS Turbine Overspeed Trip Tappet Assembly Binding

* Indicates NRC-Identified

Section 1EP6: Drill Evaluation

EP-AA-1007, Revision 19, Exelon Nuclear Radiological Emergency Plan Annex for PBAPS

IR 1063970, EP01 Performance Issues Identified in 4/12 EP Drill

IR 1063984, Drill Performance S/L Notification of Site Evacuation

IR 1074430, EP01 05/03/10 EP Pre-Exercise D.C. I.5.1 FMT Briefing

PBAPS 2010 Team 5 DEP Drill Evaluation Report
PBAPS May 10, 2010 Training Drill Controller Manual

Section 4OA1: Performance Indicator (PI) Verification

LS-AA-2001, Revision 13, Collecting and Reporting of NRC Performance Indicators Data
LS-AA-2090, Revision 4, Monthly Data Elements for NRC RCS Specific Activity
LS-AA-2100, Revision 5, Monthly Data Elements for NRC RCS Leakage
ST-O-020-560-2, Revision 12, Reactor Coolant Leakage Test (sample of completed test records)
ST-O-020-560-3, Revision 14, Reactor Coolant Leakage Test (sample of completed test records)
ST-C-095-864-2, Off Gas Monitor Response and Release Rate Verification by a Grab Sample
ST-C-095-864-3, Off Gas Monitor Response and Release Rate Verification by a Grab Sample
ST-C-095-820-2, Determination of Dose Equivalent $\mu\text{Ci/g}$ I-131 in Primary Coolant
ST-C-095-820-3, Determination of Dose Equivalent $\mu\text{Ci/g}$ I-131 in Primary Coolant
CH-407, Sampling of Reactor Water
CH-C-601, Determination of Dose Equivalent I-131

Section 4OA2: Identification and Resolution of Problems

* IR1062071, FSAR Change not Implemented per License Amendment
IR 1080647, 1Q10 Station Trend Review
IR 1023827, Unit 2 Control Rod (CR) Scram Times - CR Slow/Inoperable
IR 1008530, Isophase Bus Loss of Cooling Load Reduction
IR 1026936, Operations Lessons Learned from 2 'A' Recirc Pump Trip
IR 1020648, Common Cause Analysis for Equipment Related Reactivity Events
IR 1060396, Exelon R.1 Performance Indicator - Adverse Trend in PIR - Evaluation Area
IR 707459, EDG GL 89-13 Testing Issues
IR 479833, No Calculation for RCIC Oil Cooler Performance during SBO
IR 453385, Low Margin in HPCI NPSH Calculation 182470-M-001
IR 452577, Lack of Allowance for Frequency Variation in EDG Load Calc.
IR 451634, NPSH Margin for FSSD in Re-Rate Report
IR 705464, EQ Temperature Affects not Considered in MCC Control Circuit Voltage Drop
IR 1059363, Glycol Chiller Deficiencies Impacting Equipment Reliability
IR 1061573, Security Department Training/Qualification Failures – CCA
IR 1044318, Corrective Actions from IR 808183 Determined to be Ineffective
IR 1024952, Increased Trend in Tritium Levels in MW-PB-26
IR 1032576, Elevated Tritium in Pre-Developed New Well #27 Water
IR 1030952, Unit 3 CST Heating Coil Leak, Tritium Source in Aux Steam
IR 808191, Evaluation of Unit 1 Tritium – ACE
IR 808183, Evaluation for Well #4 Tritium Increase – ACE
IR 1086963, Torus Dewatering Tank (TDT) Drain valve Found Degraded
IR 1086966, Concrete Drain Valve Pit is Uncoated
IR 1087143, Coat/Seal the Unit 3 B and D RHR Sumps
IR 1087145, Pressure Test the 3D RHR Sump Discharge Line
IR 1087148, Perform Remote Inspection of the Recombiner Pipe Tunnel
IR 762371, URI for Load Tap Changer Licensing Basis
IR 1002703, Insufficient Post-Loss-of-Coolant Accident MCC Voltage for E234-T-B (6023)

IR 1081198, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081472, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081490, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081496, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081503, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081505, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081512, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081546, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081554, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081563, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081572, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081589, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081597, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081601, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081605, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1081611, Low Voltage at MCC Contactor Using LOCA Relay Setpoints
 IR 1030481, NRC NCV 2009005-01 – Submerged Cables Design Deficiency
 IR 1081636, CM ECR Needed for Modifications for Electrical Manholes
 IR 1048012, Engineering Evaluation of Submerged Cable Issue
 IR 1022206, 480V Safety Related Cable Identified Submerged in Manhole 35
 IR 1053615, MSOPS 2 'D' – Failure to Trip Rx Recirc Pump on Loss of RBC
 IR 985851, Parent IR – Coordinate Fleet Actions for RG 1.189/NEI 00-01
 IR 1063169, MSOPS – MSO Scenarios Not Applicable to Peach Bottom
 IR 1047196, Fire Protection – Multiple Spurious Operations
 IR1042832, 'B' Master Trip Solenoid Light Took 90 Seconds to Light
 IR 1070301, SV-2-01D-4896A Main Turbine MTSV A Slow to Trip
 IR 1076001, Unit 2 MTSV Harder to Reset than Normal
 IR 1086613, SV-2-01D-4896B Master Trip Solenoid Valve Not Energized
 IR 1086985, OCC Open Action Items

OP-AA-102-103, Revision 3, OWA Program
 OP-AA-102-103, OWA and Challenges - Official List, dated 06/03/10
 OP-AA-102-103, OWA and Challenges - Closed List, dated 06/03/10
 OP-AA-102-103-1001, Revision 2, Operator Burden and Operationally Significant Decisions
 Impact Assessment Program
 OP-PB-112-101-1007, Reactor Building Equipment Operator Shift Turnover Checklist, Unit 3,
 06/25/10 Night Shift
 OP-PB-112-101-1008, Turbine Building Equipment Operator Shift Turnover Checklist, Unit 2,
 06/03/10, Day Shift
 NER NC-10-028 (Yellow), Importance of Understanding Circuit Breaker Control Power
 Indications (IR 1061366)
 ST-O-098-01D-3, Revision 46, Daily Surveillance Log Mode 1, 2 or 3
 ST-O-02F-560-2, Revision 13, Daily Jet Pump Operability
 OWA Board Meeting Minutes, 03/30/10
 Unit 2 Turbine Building Rounds List from eSoms, 06/03/10 Dayshift
 Unit 3 Reactor Building Rounds List from eSoms, 06/24/10 Day Shift

* Indicates NRC-identified

Section 40A7: Licensee-Identified Violations

IMC 0609, Appendix L, B.5.b Significance Determination Process
IR 1068128, B.5.b P/S Inadvertently Discarded During Housekeeping
IR 1081188, B.5.b Recommended Procedural Improvements
IR 1080281, Elevation: Failure to Take Effective Corrective Actions for B.5.b
RT-O-100-580-2, Revision 14, B.5.b Tool and Material Inventory
TSG 4.1, Revision 12, Peach Bottom Station Operational Contingency Guidelines

LIST OF ACRONYMS

ACMPs	Adverse Condition Monitoring Plans
ADAMS	Agency-wide Documents Access and Management System
ADS	Automatic Depressurization System
AR	Action Request
CAP	Corrective Action Program
CFR	Code of Federal Regulations
DBD	Design Basis Document
DEP	Drill and Exercise Performance
ECCS	Emergency Core Cooling System
ECR	Engineering Change Request
ECT	Emergency Cooling Tower
EDG	Emergency Diesel Generator
EOC	Extent-of-Condition
ESW	Emergency Service Water
FMCT	Failure Mode Causal Tree
FPP	Fire Protection Plan
GL	Generic Letter
HCU	Hydraulic Control Unit
HPCI	High Pressure Coolant Injection
HPSW	High Pressure Service Water
HX	Heat Exchanger
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IR	Issue Report
ISFSI	Independent Spent Fuel Storage Installation
IST	In-Service Test
MCC	Motor Control Center
M/G	Motor Generator
MR	Maintenance Rule
MSO	Multiple Spurious Operations
NCV	Non-cited Violation
NDE	Non-Destructive Examination
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OCs	Operator Challenges
OOS	Out-of-Service
OTDM	Operational Technical Decision Making
OWA	Operator Work Around
PARS	Publicly Available Records
PBAPS	Peach Bottom Atomic Power Station
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PMT	Post-Maintenance Testing
RBCCW	Reactor Building Closed Cooling Water
RCIC	Reactor Core Isolation Coolant
RCS	Reactor Coolant System
RHR	Residual Heat Removal
RTP	Rated Thermal Power

SGTS	Standby Gas Treatment System
SSC	Structure, System, and Component
STs	Surveillance Tests
SW	Service Water
TRM	Technical Requirements Manual
TS	Technical Specifications
TSC	Technical Support Center
UFSAR	Updated Final Safety Analysis Report
WO	Work Order