



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

July 17, 2013

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 EVALUATION OF
CHANGES, TESTS, AND EXPERIMENTS AND PERMANENT
MODIFICATIONS TEAM INSPECTION REPORT 05000277/2013010 AND
05000278/2013010

Dear Mr. Pacilio:

On June 7, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The enclosed inspection report documents the inspection results, which were discussed on June 7, 2013, with Mr. Michael Massaro, Peach Bottom Site Vice President, 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. In conducting the inspection, the team reviewed selected procedures, calculations and records, observed activities, and interviewed station 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, 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, Agencywide Documents Access and Management 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,

/RA/

Paul G. Krohn, Chief
Engineering Branch 2
Division of Reactor Safety

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 EVALUATION OF
CHANGES, TESTS, AND EXPERIMENTS AND PERMANENT
MODIFICATIONS TEAM INSPECTION REPORT 05000277/2013010 AND
05000278/2013010

Dear Mr. Pacilio:

On June 7, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The enclosed inspection report documents the inspection results, which were discussed on June 7, 2013, with Mr. Michael Massaro, Peach Bottom Site Vice President, 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. In conducting the inspection, the team reviewed selected procedures, calculations and records, observed activities, and interviewed station 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, 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, Agencywide Documents Access and Management 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,

/RA/

Paul G. Krohn, Chief
Engineering Branch 2
Division of Reactor Safety

Distribution: See Next Page

DOCUMENT NAME: \DRS\Engineering Branch 2\Arner\2013 Peach Bottom mods\Peach Bottom Modification Inspection Report 2013010.docx
ADAMS ACCESSION NUMBER: [ML13199A295](#)

☒ SUNSI Review		☒ Non-Sensitive ☐ Sensitive		☒ Publicly Available ☐ Non-Publicly Available	
OFFICE	RI/DRS	RI/DRP	RI/DRS		
NAME	FArner	MGray	PKrohn		
DATE	07/08/13	7/12/13	7/17/13		

OFFICIAL RECORD COPY

M. Pacilio

2

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

Enclosure:

Inspection Report 05000277/2013010 and 05000278/2013010
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

Distribution w/encl: (via email)

W. Dean, RA (R1ORAMAIL Resource)
D. Lew, DRA (R1ORAMAIL Resource)
D. Roberts, DRP (R1DRPMAIL Resource)
A. Burritt, DRP (R1DRPMail Resource)
R. Lorson, DRS (R1DRSMail Resource)
J. Rogge, DRS (R1DRSMail Resource)
M. Gray, DRP
S. Barber, DRP
A. Turilin, DRP
B. Lin, DRP
S. Hansell, DRP, SRI
A. Ziedonis, DRP, RI
S. Schmitt, DRP, AA
V. Campbell, RI, OEDO
RidsNrrPMPeachBottom Resource
RidsNrrDorLpl1-2 Resource
[ROPreports Resource](#)

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.: 50-277, 50-278

License Nos.: DPR-44, DPR-56

Report Nos.: 05000277/2013010 and 05000278/2013010

Licensee: Exelon Generation Company, LLC

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

Location: Delta, Pennsylvania

Inspection Period: May 20 through June 7, 2013

Inspectors: F. Arner, Senior Reactor Inspector, Division of Reactor Safety (DRS),
Team Leader
D. Orr, Senior Reactor Inspector, DRS
J. Brand, Reactor Inspector, DRS

Approved By: Paul G. Krohn, Chief
Engineering Branch 2
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000277/2013010 and 05000278/2013010; 05/20/13 - 06/07/13; Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3; Engineering Specialist Plant Modifications Inspection.

This report covers a 2 week inspection of the evaluations of changes, tests, or experiments and permanent plant modifications. The inspection was conducted by three region based engineering 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.

No findings were identified.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R17 Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications (IP 71111.17)

.1 Evaluations of Changes, Tests, or Experiments (27 samples)

a. Inspection Scope

The team reviewed eight safety evaluations to determine whether the changes to the facility or procedures, as described in the Updated Final Safety Analysis Report (UFSAR), had been reviewed and documented in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50.59 requirements. In addition, the team evaluated whether Exelon had been required to obtain U.S. Nuclear Regulatory Commission (NRC) approval prior to implementing the changes. The team interviewed plant staff and reviewed supporting information including calculations, analyses, design change documentation, procedures, the UFSAR, the Technical Specifications (TS), and plant drawings to assess the adequacy of the safety evaluations. The team compared the safety evaluations and supporting documents to the guidance and methods provided in Nuclear Energy Institute (NEI) 96-07, "Guidelines for 10 CFR 50.59 Evaluations," as endorsed by NRC Regulatory Guide 1.187, "Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments," to determine the adequacy of the safety evaluations.

The team also reviewed a sample of nineteen 10 CFR 50.59 screenings for which Exelon had concluded that a safety evaluation was not required to be performed. These reviews were performed to assess whether Exelon's threshold for performing safety evaluations was consistent with the requirements of 10 CFR 50.59. The sample included design changes, calculations, and procedure changes.

The team reviewed the safety evaluations that Exelon had performed and approved during the time period covered by this inspection (i.e., since the last plant modifications inspection) not previously reviewed by NRC inspectors. The screenings and applicability determinations were selected based on the safety significance, risk significance, and complexity of the change to the facility.

In addition, the team compared Exelon's administrative procedures used to control the screening, preparation, review, and approval of safety evaluations to the guidance in NEI 96-07 to determine whether those procedures adequately implemented the requirements of 10 CFR 50.59. The reviewed safety evaluations and screenings are listed in the Attachment.

Enclosure

b. Findings

No findings were identified.

.2 Permanent Plant Modifications (10 samples)

.2.1 Repair of 'A' Emergency Service Water Header Piping

a. Inspection Scope

The team reviewed an Engineering Change Request (ECR) 10-00293 that implemented a repair for a flaw in the 20-inch diameter 'A' Emergency Service Water (ESW) header discharge piping in the Unit 2 high pressure service water (HPSW) room. The piping repair was required to address locations of low minimum pipe wall thickness identified during non-destructive testing of the HPSW piping. The repair consisted of a hot tap branch connection (metal plate with an isolation valve) welded over the flaw area. Exelon evaluated the modification to ensure the design and licensing bases of the plant were not adversely affected by the engineering change.

The team reviewed the modification to verify that the design and licensing bases and performance capability of the HPSW system function had not been degraded. The team interviewed design engineers and reviewed post modification test results and associated maintenance work orders to confirm that the modification was appropriately implemented. The team also reviewed applicable corrective action issue reports (IRs) and performed a partial walkdown of the HPSW system to visually inspect the pipe repair. The 10 CFR 50.59 screening determination associated with the modification was also reviewed as described in Section 1R17.1 of this report. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.2 Emergency Diesel Generator Fuel Oil Day Tank Level Switch Settings

a. Inspection Scope

The team reviewed ECR 10-00337 that re-evaluated fuel oil day tank level switch setting values to determine the margin between the Emergency Diesel Generator (EDG) fuel oil day tank level switch setpoints and the TS requirements. Exelon's evaluation was also performed in part to ensure proper setpoint values were implemented to minimize fuel oil transfer pump cycling. The evaluation was applicable for both Units 2 and 3. The ECR and associated calculation incorporated the use of ultra-low-sulfur-diesel (ULSD) fuel oil.

The team reviewed the modification and associated level instrumentation calculations and calibration procedures to confirm that the design and licensing bases and performance capability of the EDG fuel oil day tanks had not been degraded by the modification. The team interviewed Exelon design and system engineers, reviewed the

Enclosure

modification package and reviewed vendor documents associated with the use of Ultra Low Sulfur Fuel (ULSF) oil to determine if the newly established level switch settings met the design and licensing bases requirements. The team reviewed Exelon's initial evaluation and justification for the use of ULSD fuel oil performed in ECR PB 07-00073. The team reviewed NRC Information Notice 2006-22, "New Ultra Low Sulfur Diesel Fuel Oil could Adversely Impact Diesel Engine Performance," to evaluate whether Exelon had properly considered the impact of the ULSD fuel oil. The team reviewed post modification testing results and associated work orders for the modification to verify proper EDG operation. Additionally, the team walked down the EDGs and associated fuel oil day tanks to verify proper material condition. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.3 Reactor Water Cleanup High Energy Line Break Analysis

a. Inspection Scope

The team reviewed ECR 12-00263 that performed a re-analysis of a High Energy Line Break (HELB) postulated in four areas of the reactor water cleanup (RWCU) system. The analysis performed an evaluation for both the current licensed thermal power and the proposed extended power uprate (EPU) conditions. The four plant areas evaluated included:

- Isolation Valve Compartment
- RWCU Pump Rooms
- RWCU Regenerative Heat Exchanger Room
- RWCU Non-Regenerative Heat Exchanger Room

The team reviewed the modification to verify that the design and licensing bases and performance capability of the RWCU isolation system would not be impacted by the new HELB mass and energy release values for the postulated breaks. The team interviewed Exelon design and system engineers and reviewed the modification package to verify that the RWCU system isolation function would still meet the design and licensing bases requirements. The team reviewed documentation associated with applicable RWCU containment isolation motor-operated valves (MO-2/3-12-015 and MO-2/3-12-018) including design calculations and weak link analyses to verify the motor operators were qualified for the environmental conditions. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.4 Residual Heat Removal Injection Valve, MO-3-10-154A(B), Valve Control Logic Modification

a. Inspection Scope

The team reviewed ECR 10-00363 that changed the closing logic for the Unit 3 residual heat removal (RHR) Loops 'A' and 'B' recirculation outer injection valves, MO-3-10-154A and MO-3-10-154B. These normally open motor-operated valves (MOVs) are located in the discharge lines from the 'A' and 'B' loop low pressure coolant injection (LPCI) pump to the reactor coolant system recirculation line and serve as the outboard isolation valves. The valves perform an active safety function in the open position and also perform an active safety function in the closed position during post-accident conditions to allow manual alignment for containment cooling. The modification replaced the 2-rotor switch with a 4-rotor switch and bypassed the torque switch stop signal until actuation of the closed limit switch. The modification was implemented to allow the use of the full capability of the valve motor to close the valve rather than be limited by the torque switch setting.

The team reviewed selected design inputs and attributes to ensure that they were consistent with the design and licensing bases. The team verified that the safety-related component qualification for the new switch was adequate. Additionally, the team evaluated the new design to ensure that it did not introduce any new failure modes for the valve which could impact the RHR system containment cooling design basis response. The team reviewed the post modification test plan and results to ensure the valve performance met the established acceptance criteria. Finally, the team interviewed the motor-operated valve engineer and design engineer to discuss the implementation of the modification. The 10 CFR 50.59 screening determination associated with the modification was reviewed as described in Section 1R17.1 of this report. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.5 High Pressure Coolant Injection Pump Suction Valve, MO-2-23-058, Actuator and Control Logic Modifications

a. Inspection Scope

The team reviewed ECRs 09-00175 and 09-00275 that revised the control logic for the normally closed Unit 2 MOV located in the supply line from the suppression pool to the high pressure coolant injection (HPCI) pump suction. The valve performs an active safety function in the closed position and is a containment isolation valve. The modifications were implemented to increase the motor operator overall gear ratio and improve the limit switch design to utilize rotors 3 and 4 in order to set up the MOV for limit switch control. These changes were installed to improve the motor capability through gearing, and allowed flexibility in valve setup such that the required

thrust window is achievable without challenging the motor performance capability and structural margin of the MOV. The available operator torque for MO-2-23-058 was increased by changing its gear set and gear ratio.

The team assessed selected design inputs and attributes to ensure that they were consistent with the design and licensing bases. The team verified that the safety-related component qualification for the actuator modification was adequate. Additionally, the team evaluated the new design to ensure that it did not introduce any new failure modes for the valve which could impact the HPCI system design basis response. The team reviewed the post modification test plan and results to ensure valve performance met the established acceptance criteria for the new design. Finally, the team interviewed the MOV engineer and design engineer to discuss the implementation of the modification. The 10 CFR 50.59 screening determination associated with the modification was reviewed as described in Section 1R17.1 of this report. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.6 Design Power Feed to Station Blackout Control Power Transformer

a. Inspection Scope

The team reviewed ECR 10-00328 that modified the control power transformer (CPT) to the station blackout (SBO) alternate AC (AAC) power source. The previous CPT had a history of failures because its configuration was vulnerable to transient system conditions including ferroresonance. The replacement CPT was a grounded wye/grounded wye connection and the original CPT was a delta connection on the primary side, susceptible to ferroresonance. The modification evaluated, designed, and installed the new CPT which was powered from the 33kV SBO line.

The team reviewed the modification to verify that the design and licensing bases and performance capability of the SBO AAC source was not degraded by the modification. The team assessed Exelon's technical evaluations and design details, including installation specifications, and interviewed engineering personnel to determine whether the AAC would function in accordance with the modification's assumptions, and with design and licensing requirements. Drawings and procedures were reviewed to determine whether they were properly updated to reflect the post modification design and operation. The team also reviewed completed work orders to assess whether installation activities were performed as specified by the modification's design. The post modification results were reviewed to determine that the acceptance criteria had been met. In addition, the team walked down the AAC control power transformer and associated cable and hardware modifications to independently evaluate material conditions and configuration control with the approved design. Additionally, the 10 CFR 50.59 screening determination associated with this modification was reviewed as described in Section 1R17.1 of this report. Documents reviewed are listed in the Attachment.

Enclosure

b. Findings

No findings were identified.

.2.7 Item Equivalency Change for 4kV and 13kV Breaker Control Switches

a. Inspection Scope

The team reviewed ECR 11-00168 that evaluated new control switches as a replacement for existing control switches within safety-related 4kV breakers. The control switch replacement is also available for 13kV breakers but this voltage level has no safety-related application. Existing control switches were identified by the vendor to be under-rated for ampacity, were unserviceable, and had several industry related failures as documented in NRC Information Notice 97-08, "Potential Failures of General Electric Magne-Blast Circuit Breaker Subcomponents," dated March 12, 1997. However, the team noted that Exelon had not experienced the failures described in the Information Notice. The control switch provides important control functions necessary for breaker operability. The vendor has recently provided a replacement control switch that was appropriately rated for the design current conditions.

The team reviewed the modification to verify that the design and licensing bases of the AC electrical system was not degraded by the breaker control switch replacements. The team interviewed engineering staff and reviewed technical evaluations associated with the modification to determine whether the control switches would perform as required. The team reviewed electrical design evaluations to verify the electrical characteristics of the control switches were appropriately evaluated and justified. The team reviewed planned work orders and maintenance procedures to verify Exelon was timely in replacing the aging control switches with new switches as available, and that existing maintenance practices maintained the breaker operable with the old style control switch. The documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.8 Offsite Power Transformer Load Tap Changer Contingency Voltage Drop Limits

a. Inspection Scope

The team reviewed ECR 11-00168 that revised abnormal operating procedures to ensure the operability of the offsite power sources during post trip conditions. The post trip contingency values were revised as a result of an operating experience review (OER) conducted by Exelon. The OER identified a weakness in electrical studies that did not consider the minimum voltage necessary to operate load tap changer (LTC) motors. Additionally, Exelon verified the availability of electric power to the LTC motors was not compromised by procedure steps that secured non-vital loads during grid emergency conditions.

Enclosure

The team reviewed the modification to verify that the design and licensing bases of the AC electrical system was not degraded by the operating procedure changes. The team interviewed engineering staff and reviewed technical evaluations associated with the abnormal operating procedure changes. The team verified that the procedure changes and design and license basis changes were accurately reflected in recent revisions. Finally, the 10 CFR 50.59 applicability determination associated with this modification was reviewed as described in Section 1R17.1 of this report. The documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.9 Residual Heat Removal Containment Spray Isolation Valve Motor Replacement

a. Inspection Scope

The team reviewed ECR 12-00415 that replaced an RHR containment spray isolation valve motor. The actuator motor was replaced as a corrective action after overheating symptoms were visually observed during an internal inspection of the magnesium rotor. The internal inspection was a routine preventive maintenance activity for magnesium rotor valve actuator motors. The replacement motor had an aluminum rotor and additional physical and electrical differences that required evaluation and justification. The motor control center bucket was also reworked with a replacement breaker, thermal overload heaters, and revised trip settings.

The team reviewed the modification to verify that the design and licensing bases and performance capability of RHR valve MO-2-10-031B was not degraded by the modification. The team interviewed engineering staff and reviewed technical evaluations associated with the modification to determine whether the motor operated valve would perform as required. The team reviewed electrical design evaluations to verify the electrical characteristics of the motor did not adversely impact the AC distribution system. The team reviewed work orders and the post modification testing to ensure MO-2-10-031B was properly returned to service and tested appropriately. Finally, the team reviewed design calculations, evaluations, and drawings to verify they were properly updated after the design modification. The documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2.10 Evaluation of Low Pressure Coolant Injection Capability during Residual Heat Removal Suppression Pool Cooling Mode Alignment

a. Inspection Scope

The team reviewed ECR 08-00438 that revised the Units 2 and 3 Technical Specification Bases (TSB) to optimize when a subsystem of Low Pressure Coolant Injection (LPCI) is declared inoperable while a loop of the RHR system is aligned in the suppression pool cooling mode. The evaluation resulted in procedure changes which incorporated specific guidance on the effect on LPCI operability when suppression pool cooling valves are open during times when an EDG is out of service. This was performed because under certain conditions, a failure of an EDG to operate, while RHR is in the suppression pool cooling mode, could result in the LPCI mode of RHR not being capable of meeting its design bases requirements. The evaluation considered various configurations including the limiting loss-of-coolant/loss-of-offsite-power (LOCA/LOOP) licensing bases condition.

The team reviewed the ECR to verify that the design and licensing bases of the RHR system was not degraded by the procedure revisions. The team interviewed engineering staff and reviewed the associated technical evaluation for the procedure changes. The team verified that the procedure changes and design and licensing bases changes were accurately reflected in recent revisions. Finally, the 10 CFR 50.59 applicability determination associated with this change was reviewed as described in Section 1R17.1 of this report. The documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems (IP 71152)

a. Inspection Scope

The team reviewed a sample of corrective action documents associated with 10 CFR 50.59 and plant modification issues to determine whether Exelon was appropriately identifying, characterizing, and correcting problems associated with these areas, and whether the planned or completed corrective actions were appropriate. In addition, the team reviewed Condition Reports (CRs) written on issues identified during the inspection to verify adequate problem identification and incorporation of the issues into the corrective action system. The CRs reviewed are listed in the Attachment.

b. Findings

No findings were identified.

4OA6 Meetings, including Exit

The team presented the preliminary inspection results to Mr. M. Massaro, Site Vice President, and other members of Exelon's staff at a meeting on June 7, 2013. The team returned proprietary information reviewed during the inspection and verified that this report does not contain proprietary information.

Enclosure

ATTACHMENT
SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT

Licensee Personnel

J. Chizever, Mechanical Design Supervisor
J. Coyle, Electrical Design Engineer
K. Cutler, Senior Electrical/I&C Design Engineer
W. Ford, System Engineer
K. Forney, Procurement Engineer
J. Futcher, Electrical Design Engineer
M. Hoffman, Electrical Design Engineer
J. Laverde, Mechanical Design Engineer
T. Moore, Site Engineering Director

NRC Personnel

S. Hansell, Senior Resident Inspector

ITEMS OPENED, CLOSED AND DISCUSSED

None.

LIST OF DOCUMENTS REVIEWED

10 CFR 50.59 Evaluations

PB-2011-291, HPCI Check Valve 3-23C-65 Replacement, Revision 0
PB-2012-001-E, Unit 3 Drywell Equipment Drain Sump TCP, Revision 0
PB-2012-002-E, Peach Bottom Unit 2 P2R19 New Fuel Receipt Strategy, Revision 0
PB-2012-003-E, Application of TRACG04P for OPRM Setpoint Determination Thermal Hydraulic Transient Code, Revision 0
PB-2012-004-E, Frequency Change to TR 3.1.5 for Alternate Rod Insertion Instrumentation, Revision 0
PB-2012-005-E, Correction of Error Identified in PM-1057 during Transition to PB2C20 Core Inventory, Revision 1
PB-2012-006-E, Main Steam Line Pipe Support Upgrade Inside Containment, Revision 0
PB-2013-001-E, Replacement of the Peach Bottom Unit 3 Auto Voltage Regulator (AVR), Revision 0

10 CFR 50.59 Screened-out Evaluations

PB-2009-34-S, Optimizing When to Declare a Subsystem of LPCI Inoperable While RHR is Aligned in SPC Mode, Revision 0
PB-2009-00275, ECR for Modification to MO-2-23-058, Revision 0
PB-2010-72-S, Install Closed Torque Switch Bypass for MO-3-10-154A(B), Revision 0

Attachment

A-2

PB-2010-80-S, ECR 10-00457 3A MPT Cooling Modification, Revision 0
PB-2011-04-S, ECR 10-00293, Units 2 & 3, Repair of 'A' ESW Discharge Header Piping
Revision 2
PB-2011-27-S, Revise Short Circuit and Voltage Regulation Studies, Revision 0
PB-2011-28-S, UFSAR, TS Bases and DBD Revision to Delete "Hardening Actions," Revision 0
PB-2011-67-S, Change Analytical Limit for APRM Neutron Flux Upscale (Setdown) Scram,
Revision 0
PB-2011-73-S, Station Blackout Control Power Transformer Replacement, Revision 0
PB-2011-00475, Setpoint Changes Required for CST Low Temperature Alarm, Revision 0
PB-2011-00291, HPCI Check Valve 3-23C-65 Replacement, Revision 0
PB-2012-01-S, Interposing Relay Modification for MO-3-10-031B/-034B, Revision 0
PB-2012-029-S, ECR 11-360, Spurious Opening of HPSW Loops 2A & 2B Cross-Tie Valve
Unit 2, Revision 0
PB-2012-066-S, ECR PB 11-00369, Unit 3 Main Steam Pipe Support Upgrade (Inside
Containment), Revision 0
PB-2012-103-S, Unit 2 Multiple Spurious Operation (MSO) 5k – MCC AC and DC Bucket
Modification, Revision 0
PB-2013-002-S, Installation of Control Logic Design Change for MO-2-13-030, Revision 0
PB-2013-004-S, ECR PB 11-00370, Cross-Around Relief Valves (CARVs) Replacement and
Setpoint Changes for New EPU conditions, Revision 0
PB-2013-007, ECR PB 12-00179, Unit 2 Main Steam Pipe Support Upgrade
(Outside Containment), Revision 0
PB-2013-13-S, Remove the Limitation that Cask Transport Would Not be Conducted during a
Condition in Which the SBO Line is Being Credited to Extend an EDG Allowed
Out-of-Service Time Beyond 7 Days, Revision 0

Modification Packages

ECR PB 08-00438, Optimize Declaring LPCI Inop During SPC, Revision 0
ECR PB 09-00175 and ECR PB 09-00275, Modifications of MO-2-23-058 for Margin
Improvement, Revision 0
ECR PB 10-00293, Units 2 & 3, Repair of 'A' ESW Discharge Header Piping Revision 2
ECR PB 10-00328, Design Power Feed to SBO Control Power Transformer, Revision 0
ECR PB 10-00337, Calculation PM-0956, Determine EDG Fuel Oil Day Tank Level
Switch Settings, Revision 0
ECR PB 10-00363, Modification of MO-3-10-154A(B) Valve Control Logic, Revision 0
ECR PB 11-00509, 116-36858, IEC for New 13/4kV Breaker Switches, Revision 0
ECR PB 11-00168, Contingency Voltage Drop Limits for Offsite Source Transformer Load Tap
Changer, Revision 0
ECR PB 12-00263, PM-1094, Reactor Water Cleanup HELB Analysis, Revision 0
ECR PB 12-00415, Replace MO-2-10-031B, RHR Containment Spray Valve Motor, Revision 0

Calculations, Analysis, and Evaluations

LIS-0401A, Loop Manual Calculation for LIS-0401A-D, Revision 0
ME-0527, Heat Capacity Temperature Limit, Revision 3
MIDAS Calculation MO-2-12-015 (PBAPS-2) AC Motor Operated GL 96-05 Gate Valve,
Revision 4
MIDAS Calculation MO-2-12-018 (PBAPS-2) DC Motor Operated GL 96-05 Gate Valve,
Revision 7

Attachment

A-3

Seismic Weak Link Report SR-120, Revision 1
Seismic Weak Link Report SR-122, Revision 1
1206317 A07-02, Engineering Evaluation per ER-PB-450-102 on ST-I-03B-105-2(3), "ARI RPT Logic System Functional Test with SCRAM Air Header Venting and Recirc Breaker Trips," to Determine Acceptability of Revising the Surveillance Test Interval from 1R to 2R, Revision 0
PB-11-00461, Interposing Relays Required to Restore Margin to RHR Valves, Revision 0
PE-006, Multiple High Impedance Faults Due to an Appendix R Fire, Revision 27
PE-0154, Station Blackout Voltage Regulation, Revision 5
PE-0205, Load Study for the Station Auxiliary Power System PBAPS, Revision 6
PE-0251, PRNMS Setpoint Calculation, Revision 1
PE-0254, Determine Power Cable Ampacities for RHR Room Cooler Fan Motors, Revision 0
PE-0291, ETAP – AC System Analysis Configuration Control, Revision 0
PS-0963, Evaluation of Access Road and Underground Utilities Nearby Unit No. 1 Along Access Road for Moving Loads, Revision 0

Corrective Action Reports

00534749	01145752	01350135	01516658*
00547835	01145831	01380305	01517194*
00675053	01151642	01447912	01517314*
00678255	01162612	01465332	01520100*
00679640	01181587	01469635	01521365*
00920204	01198508	01473889	01521722*
00984032	01221366	01473894	01522160*
01077857	01245567	01473921	01522239*
01099140	01300306	01491061	01522269*

(* denotes NRC identified during this inspection)

Drawings

6280-M-365, P&ID High Pressure Coolant Injection System, Sht. 1, Revision 65
6280-M-366, P&ID High Pressure Coolant Injection Pump Turbine Details, Sht. 1, Revision 57
6280-M-356, Sht. 1, P&ID, Control Rod Drive Hydraulic System – Part A, Revision 74
E-1617, Sht. 1, Single Line Meter and Relay Diagram E324 & E424 Emerg. L.C. and E324-R-B, E424-W-A, E324-R-D, & E424-R-D Reactor MCC 440V Unit 2, Revision 69
E-5343, Sht. 1, Station Blackout Substation Single Line, Revision 20
M-1-S-65, Sht. 59, Electrical Schematic Diagram for Residual Heat Removal System, Revision 99

Procedures

CC-AA-102, Design Input and Configuration Change Impact Screen, Revision 26
CC-AA-103, Configuration Change Control for Permanent Physical Plant Changes, Revision 24
CC-AA-103-2001, Setpoint Change Control, Revision 3
CC-AA-112, Temporary Configuration Changes, Revision 18
CC-MA-308-1002, Protective Device Sizing, Revision 1
CC-MA-308-1003, Electrical Load Change Control, Revision 0

ER-AA-425, Implementation of the Technical Specification Surveillance Frequency Control Program, Revision 0
LS-AA-104, Exelon 50.59 Review Process, Revision 7
LS-AA-1000, Exelon 50.59 Resource Manual, Revision 7
MA-AA-723-300, Diagnostic Testing of Motor Operated Valves, Revision 6
M-05-00I, 480 Volt Motor Control Center Circuit Breaker Assembly and Cubicle Terminal Maintenance, Revision 30
M-054-001, Magne-Blast Circuit Breaker Maintenance (4 & 13kV) Complete Overhaul, Revision 20
M-C-700-201, Meggering of Motors, Revision 7
M-C-700-240, Limitorque Motor Operator Removal, Revision 3
OP-AA-102-102, Operator Work-Around Program, Revision 3
OP-AA-108-115, Operability Determinations (CM-1), Revision 11
RT-O-040-610-2, Outbuilding HVAC and Equipment Inspection for Summer Operation, Revision 19
SE-16, Grid Emergency, Revision 11
SE-16, Attachment A, PTGD/PSD Communications to Peach Bottom, Revision 3
SE-16, Attachment D, Contingency Issues, Revision 2
SO-10.1.D-2, Residual Heat Removal System Torus Cooling, Revision 20
SO-54.7.C, 4kV Breaker Rack-Out/Rack-In, Revision 24
ST-I-03B-100-2, ARI/RPT Channel 'A' Logic System Functional Test, Revision 7
ST-I-03B-105-3, ARI/RPT Logic System Functional Test with SCRAM Air Header Venting and Recirc Breaker Trips, Revision 14
ST-O-010-306-2, 'B' RHR Loop Pump, Valve, Flow, and Unit Cooler Functional and Inservice Test, Revision 36
ST-O-51H-200-2, Station Blackout Line Operability Verification, Revision 14

Work Orders

C0240180
C0245137
R0661285
C0234267-03

Miscellaneous

Fairbanks Morse Owners Group Guidance Paper Potential Affects of Use of Ultra Low Sulfur Diesel Fuel Oil on Engine Fuel Oil Consumption, Revision 2
DBD-P-S-07, Design Basis Document for Diesel Generator and Auxiliary Systems, Revision 17
General Electric SAL 361.1, 5kV and 15kV Control Switches, 01/17/07
NRC Information Notice 97-08, Potential Failures of General Electric Magne-Blast Circuit Breaker Subcomponents, 03/12/97
NRC Information Notice 2006-22, New Ultra-Low-Sulfur Diesel Fuel Oil Could Adversely Impact Diesel Engine Performance, Revision 0
RR-11-04, Required Reading Package
PLORT-1007A, Licensed Operator Requalification Lesson Plan "Seasonal Readiness," Revision 0
TODI 11-00381-08, Power System Stabilizer Tuning Peach Bottom 3 Transmittal of Design Information, Revision 0

Surveillance and Modification Acceptance Tests

R1008903-01, 30.23.04, LLRT HPCI Turbine Exhaust, performed 9/24/07, 9/17/09,
and 9/6/11
ST-O-51H-200-2, Station Blackout Line Operability Verification, performed 12/15/11
ST-O-052-203-2, E3 EDG Slow Start Full Load and IST Test, performed 6/13/13
ST-O-052-212-2, E2 EDG Slow Start Full Load and IST Test, performed 5/25/13
ST-O-052-214-2, E4 EDG Slow Start Full Load and IST Test, performed 6/8/13
ST-O-052-311-2, E1 EDG Slow Start Full Load and IST Test, performed 6/2/13
ST-O-033-310-2, ESW Pump and Valve Functional IST, performed
12/23/12
ST-O-033-636-2, ESW Piping Pressure Test Inspection, performed 5/25/11

LIST OF ACRONYMS

AAC	Alternate AC
ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
CPT	Control Power Transformer
CR	Condition Report
DBD	Design Basis Document
DRS	Division of Reactor Safety
ECR	Engineering Change Request
EDG	Emergency Diesel Generator
EPU	Extended Power Uprate
ESW	Emergency Service Water
HELB	High Energy Line Break
HPCI	High Pressure Coolant Injection
HPSW	High Pressure Service Water
IMC	Inspection Manual Chapter
IR	Issue Report
LOCA/LOOP	Loss-of-Coolant Loss-of-offsite-power
LPCI	Low Pressure Coolant Injection
LTC	Load Tap Changer
MOV	Motor Operated Valve
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OER	Operating Experience Review
PARS	Publicly Available Records
RHR	Residual Heat Removal
RWCU	Reactor Water Cleanup
SBO	Station Blackout
TS	Technical Specifications
TSB	Technical specifications Bases
UFSAR	Updated Final Safety Analysis Report
ULSD	Ultra-Low-Sulfur-Diesel
ULSF	Ultra-Low-Sulfur-Fuel