June 26, 2007

Mr. Christopher M. Crane
President and CNO
Exelon Nuclear
Exelon Generation Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION
PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION
REPORT NOS. 05000277/2007006 and 05000278/2007006

Dear Mr. Crane:

On May 18, 2007, the US Nuclear Regulatory Commission (NRC) completed a team inspection at your Peach Bottom Atomic Power Station. The enclosed inspection report documents the inspection results, which were discussed on May 18, 2007, with Mr. Michael Massaro, Peach Bottom Plant Manager, and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, the team concluded that implementation of the corrective action program at Peach Bottom was generally effective in that problems were properly identified, evaluated, and corrected. Two findings of very low safety significance (Green) were identified during this inspection, both related to untimely corrective actions for conditions adverse to quality, which were previously identified in Non-Cited Violations (NCVs). The first finding was related to a 2006 NCV, which identified less than adequate surveillance test acceptance criteria for the high pressure coolant injection (HPCI) pumps. The second finding was related to a 2005 NCV, which identified the failure to follow the appropriate site procedure that resulted in a delayed operability determination for the HPCI system. The findings were determined to be violations of NRC requirements. However, because each of the findings was of very low safety significance (Green) and because they were entered into your corrective action program, the NRC is treating these as NCVs, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny either of these NCVs, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the U.S. 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. Nuclear Regulatory Commission, Washington, DC, 20555-0001; and the NRC Resident Inspector at the Peach Bottom facility.

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

Sincerely,

/RA/

Mel Gray, Chief
Technical Support & Assessment Branch
Division of Reactor Projects

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

Enclosure: Inspection Report Nos. 05000277/2007006, 05000278/2007006
w/Attachment: Supplemental Information

cc w/encl:
Chief Operating Officer, Exelon Generation Company, LLC
Site Vice President, Peach Bottom Atomic Power Station
Plant Manager, Peach Bottom Atomic Power Station
Regulatory Assurance Manager - Peach Bottom
Manager, Financial Control & Co-Owner Affairs
Vice President, Licensing and Regulatory Affairs
Senior Vice President, Mid-Atlantic
Senior Vice President - Operations Support
Director, Licensing and Regulatory Affairs
J. Bradley Fewell, Assistant General Counsel, Exelon Nuclear
Manager Licensing, PBAPS
Director, Training
Correspondence Control Desk
Director, Bureau of Radiation Protection, Department of Environmental Protection
R. McLean, Power Plant and Environmental Review Division (MD)
G. Aburn, Maryland Department of Environment
T. Snyder, Director, Air and Radiation Management Administration,
Maryland Department of the Environment (SLO, MD)
Public Service Commission of Maryland, Engineering Division
Board of Supervisors, Peach Bottom Township
B. Ruth, Council Administrator of Harford County Council
Mr. & Mrs. Dennis Hiebert, Peach Bottom Alliance
TMI - Alert (TMIA)
J. Johnsrud, National Energy Committee, Sierra Club
Mr. & Mrs. Kip Adams
E. Epstein, TMI Alert
R. Fletcher, Department of Environment, Radiological Health Program

J. Johnsrud, National Energy Committee, Sierra Club
Mr. & Mrs. Kip Adams
E. Epstein, TMI Alert
R. Fletcher, Department of Environment, Radiological Health Program

J. Johnsrud, National Energy Committee, Sierra Club
Mr. & Mrs. Kip Adams
E. Epstein, TMI Alert
R. Fletcher, Department of Environment, Radiological Health Program

Distribution w/encl:
S. Collins, RA
M. Dapas, DRA
J. Lamb, RI OEDO
H. Chernoff, NRR
J. Hughey NRR, PM
P. Bamford, PM, Backup
J. Lubinski, NRR
P. Krohn, DRP
M. Gray, DRP
T. Walker, DRP
R. Fuhrmeister, DRP
F. Bower, DRP - Senior Resident Inspector
M. Brown, DRP - Resident Inspector
S. Schmitt - Resident OA
B. Norris, DRP
A. Rosebrook DRP
B. Fuller, DRS
Region I Docket Room (with concurrences)
ROPreports@nrc.gov

SUNSI Review Complete: BSN (Reviewer's Initials)

DOCUMENT NAME: C:\FileNet\ML071780097.wpd

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 with attachment/enclosure **"N"** = No copy

OFFICE	RI/DRP		RI/DRP		RI/DRS		RI/DRP	
NAME	BNorris		Pkrohn/BSN for		PBonnet / BSN for		MGray	
DATE	06/22/07		06/20/07		06/15/07		06/26/07	

OFFICIAL RECORD COPY

ML071780097

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	50-277, 50-278
License No:	DPR-44, DPR-56
Report No:	05000277/2007006, 05000278/2007006
Licensee:	Exelon Generation Company, LLC
Facility:	Peach Bottom Atomic Power Station
Location:	Delta, Pennsylvania
Dates:	April 23 - May 18, 2007
Team Leader:	Barry S. Norris, Senior Project Engineer Division of Reactor Projects (DRP)
Inspectors:	Andrew A. Rosebrook, Project Engineer, DRP Brian J. Fuller, Project Engineer, DRP Michael L. Brown, Resident Inspector, DRP
Approved by:	Mel Gray, Chief Technical Support & Assessment Branch Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000277/2007-006, 05000278/2007-006; 04/23/2007 - 05/18/2007; Peach Bottom Atomic Power Station; Biennial Baseline Inspection of the Identification and Resolution of Problems; two violations were identified in the timeliness of corrective actions.

This team inspection was performed by three regional inspectors and one resident inspector. Two findings of very low safety significance (Green) were identified during this inspection. Each of the findings was classified as a Non-Cited Violation (NCV). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). 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.

Identification and Resolution of Problems

The team concluded that the implementation of the corrective action program (CAP) at Peach Bottom was generally effective. Peach Bottom had a low threshold for identifying problems and entering them in the CAP. Once entered into the system, items were screened and prioritized in a timely manner using established criteria. Items entered into the CAP were properly evaluated commensurate with their safety significance; and corrective actions were normally implemented in a timely manner, commensurate with the safety significance. However, the team noted that corrective actions were not completed for two NCVs issued in the last two years. Also, corrective action tracking documentation for two other NCVs was less then thorough in documenting action completion. The team observed that Peach Bottom appropriately reviewed and applied lessons learned from industry operating experience. Audits were noted to be very good, and self-assessments were acceptable. On the basis of interviews conducted during the inspection, workers at the site expressed freedom to enter safety concerns into the CAP.

There were two Green NCVs identified by the team during this inspection, both related to untimely corrective actions for conditions adverse to quality that were previously identified in NCVs. The first was related to a March 2006 violation, which identified less than adequate surveillance test acceptance criteria for the high pressure coolant injection (HPCI) pumps. The violation identified that acceptance criteria were such that the surveillance test could be completed satisfactorily, but the pump could be inoperable due to not being able to meet design basis requirements. The licensee verified that the system had remained operable. The second was related to a July 2005 violation, which identified that the failure to follow the appropriate site procedure resulted in a delayed operability determination for the HPCI system. Specifically, the operators referenced the Technical Requirements Manual (which allowed 72 hours for an evaluation of operability) instead of the operability determination procedure (which required the system be declared inoperable immediately).

a. NRC Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green: The NRC identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, "Corrective Actions," related to the failure to correct the March 2006 deficiency identified in NCV 05000277,278/2006009-01, related to less than adequate acceptance criteria in

a quarterly surveillance test procedure for the HPCI pumps. The team identified that Exelon had not revised the procedure and had continued to conduct the surveillance test, thirteen times since the issue was discovered by the NRC. Exelon performed an evaluation of the recent HPCI pump surveillance test results and concluded that the pumps currently met the design basis requirements, and had remained operable. The performance deficiency has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon failed to take prompt corrective actions to address a safety issue in a timely manner, commensurate with safety significance and complexity. [P.1.(d)]

The finding is more than minor because it affects the procedure quality attribute associated with the Mitigating Systems Cornerstone objective to ensure the capability of HPCI, a mitigating system. The finding is of very low safety significance because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and was not risk significant due to external initiating events. (Section 4OA2.a(3)(a))

- Green: The NRC identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, "Corrective Action," for failure to correct a condition adverse to quality for approximately 22 months, associated with Class 1, 2, and 3 pressure boundary leakage. Specifically, NCV 05000277/2005003-02, issued in July 2005, documented a delayed operability determination due to the station not promptly evaluating a steam leak on a HPCI valve, in accordance with the site procedures. A contributing cause was the inconsistent guidance provided by the Technical Requirements Manual (TRM) and the Operability Determination procedure. The TRM allowed 72 hours to evaluate the structural integrity of the boundary, while the procedure required that the system be declared inoperable immediately. In July 2005, the licensee initiated a condition report to evaluate the difference, and determined that one of the corrective actions was to revise the TRM to be consistent with the procedure. During this inspection, the team determined the TRM had not been revised . The performance deficiency has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not take appropriate corrective actions to address a safety issue in a timely manner, commensurate with its safety significance and complexity. [P.1(d)]

  The finding is more than minor because it affects the procedure quality attribute associated with the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events; in that, operators were provided with conflicting guidance for response to Class 1, 2, and 3 component pressure boundary leaks. The finding is of very low safety significance because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and was not risk significant due to external initiating events. (Section 4OA2.a(3)(b))

b. Licensee-Identified Violations

None

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution (PI&R) (Biennial - IP 71152B)

a. Assessment of the Corrective Action Program

(1) Inspection Scope

The inspection team reviewed the procedures describing the corrective action program (CAP) at Exelon's Peach Bottom Atomic Power Station (PBAPS). Exelon identifies problems by initiating Issue Reports for conditions adverse to quality, plant equipment deficiencies, industrial or radiological safety concerns, and other significant issues. The Issue Reports are subsequently screened for operability, categorized by priority (1 to 5) and significance (A through D), and assigned for evaluation and resolution; after the Issue Reports are screened, they result in Action Requests and other assignments. The Issue Reports and Action Requests are collectively referred to as Condition Reports (CRs).

The team reviewed CRs selected across the seven cornerstones of safety in the NRC's Reactor Oversight Program (ROP) to determine if problems were being properly identified, characterized, and entered into the CAP for evaluation and resolution. The team selected items from the maintenance, operations, engineering, emergency preparedness, physical security, radiation safety, training, and oversight programs to ensure that Peach Bottom was appropriately considering problems identified in each functional area. The team used this information to select a risk-informed sample of CRs that had been issued since the last NRC PI&R inspection, which was conducted in July 2005.

The team selected items from other processes, to verify that Peach Bottom appropriately considered these items for entry into the CAP. Specifically, the team reviewed a sample of engineering requests, training work requests, maintenance work requests, operator log entries, control room deficiency and operator work-around lists, operability determinations, engineering system health reports, completed surveillance tests, and current temporary configuration change packages. In addition, the team interviewed plant staff and management to determine their understanding of and involvement with the CAP at Peach Bottom. The CRs and other documents reviewed, and a list of key personnel contacted, are listed in the Attachment to this report.

The team considered risk insights from the NRC's and Peach Bottom's risk analyses to focus the sample selection and plant tours on risk-significant components. The team determined that the highest risk-significant systems were the 4160 volt alternating current (vac) emergency buses, 125 volt direct current (vdc) electrical distribution system, the reactor core isolation cooling (RCIC) and high pressure coolant injection (HPCI) systems, the 13 kvac (kilo volt ac) system, and the emergency diesel generators (EDGs). For the selected risk-significant systems, the team reviewed the applicable system health reports, a sample of work requests and engineering documents, plant log entries, and results from surveillance tests and maintenance tasks.

The team reviewed the CRs to assess whether Peach Bottom adequately evaluated and prioritized the identified problems. The CRs reviewed encompassed the full range of Peach Bottom's evaluations, including root cause analyses (RCA), apparent cause evaluations (ACE), common cause analyses, and work group evaluations. The review included the appropriateness of the assigned significance, the scope and depth of the causal analysis, and the timeliness of the resolutions. For significant conditions adverse to quality, the team reviewed the effectiveness of the corrective actions to preclude recurrence. The team observed meetings of the Station Oversight Committee (SOC – in which Peach Bottom personnel reviewed new CRs for prioritization, and evaluated preliminary corrective action assignments, analyses, and plans) and the Management Review Committee (MRC – where senior managers reviewed new Significance Level 1-3 CRs, all completed RCAs, and selected ACEs). The team also reviewed equipment operability determinations, reportability assessments, and extent-of-condition reviews for selected problems. The team assessed the backlog of corrective actions in the maintenance, engineering, and operations departments, to determine, individually and collectively, if there was an increased risk due to delays in implementation of corrective actions. The team further reviewed equipment performance results and assessments documented in completed surveillance procedures, operator log entries, and trend data to determine whether the equipment performance evaluations were technically adequate to identify degrading or non-conforming equipment.

The team reviewed the corrective actions associated with selected CRs to determine whether the actions addressed the identified causes of the problems. The team reviewed CRs for significant repetitive problems to determine whether previous corrective actions were effective. The team also reviewed Peach Bottom's timeliness in implementing corrective actions. The team reviewed the CRs associated with selected non-cited violations (NCVs) and findings (FINs) to determine whether Peach Bottom properly evaluated and resolved these issues.

(2) Assessment

Identification of Issues

No findings of significance were identified in the area of identification of issues. The team considered the identification of equipment deficiencies at Peach Bottom to be adequate. There was a low threshold for the identification of individual issues, approximately 10,000 CRs were written per year. The housekeeping and cleanliness of the plant was generally good, although the team observed a few minor exceptions. For example, the team noted that the area under two of the EDGs had considerable accumulation of oil, making it difficult for personnel to trend an existing leak or determine if a new leak developed. The conditions did not affect the equipment of the surrounding area. Also, the team identified oily rags left on top of radioactive material barrels in a locked tool cage, a potential fire hazard. However, the general cleanliness enhanced the ability of personnel to easily identify equipment deficiencies and monitor equipment for worsening conditions.

The team noted that trending of individual deficiencies at Peach Bottom had resulted in the identification of negative performance trends in several area. Specifically, in the

area of foreign material exclusion (FME) control, configuration control, and the control of contractors.

Prioritization and Evaluation of Issues

No findings of significance were identified in the area of prioritization and evaluation of issues. The team determined that Peach Bottom's performance in this area was adequate. The station screened the CRs appropriately and properly classified them for significance. There were no items in the operations, engineering, or maintenance backlogs that were risk significant, individually or collectively. The team considered the contributions of the SOC and MRC to add value to the CAP process. The discussions about specific topics were detailed, and there were no classifications or immediate operability determinations with which the team disagreed.

The quality of the causal analyses reviewed was good, in that the technical depth to identify the cause and the extent of condition reviews supported the determination. Those performed in the latter part of the inspection period showing improved quality. For example, the RCA for the failure of a primary containment isolation valve in the Unit 3 HPCI turbine drain line was of a high quality (CR 475597).

However, the engineering technical evaluation documentation to support a temporary modification of a Unit 3 reactor recirculation pump did not adequately address safety questions identified by the team. An abnormal operating procedure (AO-2A.16-3, "Manual Adjustment of Recirculating Pump Seal Second Stage Pressure") had been revised to allow the continuos venting of the pump mechanical seals while at power. The team's specific questions included environmental qualification challenges created by the venting, offsite and occupational dose consequences, and the impact of the venting on the recirculation pump seal pressure indication in the main control room. In addition, the team questioned why a 10CFR50.59 evaluation/screening had not been performed for the procedure change. Exelon revised the technical evaluation, including revising the 10CFR50.59 evaluation that had been performed in the early 1990s to address the current conditions. The team reviewed the revised evaluation and the 50.59 screening and found them acceptable. In addition, the evaluation/screening conducted after the team's questions revealed that NRC prior approval was not required.

Effectiveness of Corrective Actions

There were two Green violations identified in the area of effectiveness of corrective actions, both involving the failure of Exelon to correct previous NRC-identified NCVs in a timely manner. Specifically, Exelon failed to revise a quarterly surveillance test procedure for the HPCI system after it was identified in March 2006 that the procedure contained non-conservative acceptance criteria; and Exelon failed to revise the Technical Requirements Manual (TRM) to be consistent with the operability determination procedure, after the inconsistent guidance contributed to a delayed evaluation in July 2005.

In general, the team concluded that corrective actions were adequate and completed in a timely manner. For significant conditions adverse to quality, corrective actions were

identified to prevent recurrence. Also, the team noted a decreasing (improving) trend in the number of backlogged items.

However, the team identified that corrective actions were not taken for two of the fourteen NCVs issued since the last PI&R inspection. Exelon has placed the specific issues in the CAP and has communicated the issue to the other Exelon plants. The two instances involved the following non-cited violations:

- NCV 2005003-02, “Delayed Inoperability Declaration When Activities Affecting Quality Were Not Accomplished in Accordance with Site Procedures” – The performance deficiency was a failure to follow the operability determination procedure; instead, the operators referenced the TRM which had a non-conservative time (as compared to the procedure) to declare the HPCI system inoperable. The corrective actions proposed by Exelon included revising the TRM to be consistent with the procedure. As of this PI&R inspection (2 years later) the TRM had not been changed. The failure to correct the condition is being characterized as a NCV in this report, refer to Section 4OA2.a(3)(b) for more details.

- NCV 2006009-01, “Non-Conservative HPCI and RCIC Pumps Test Acceptance Criteria” – The performance deficiency was that the licensee did not set the HPCI and RCIC pump test acceptance criteria so that they would be capable of providing design basis flow during all accident conditions. The inadequate test is a quarterly Technical Specification (TS) surveillance which has been performed thirteen time since the 2006 inspection and the acceptance criteria have not been revised. The failure to correct the condition is being characterized as an NCV in this report, refer to Section 4OA2.a(3)(a) for more details.

In addition, the team identified that the tracking documentation for two other previously identified NCVs were less than thorough in documenting action competition. Those two examples involved the following NCVs:

- NCV 2006003-02, “Inadequate Accomplishment of FME Integrity Recovery Procedures Following Identification of FME in the U3 HPCI Turbine Exhaust Drain Piping” – The performance deficiency was the failure of the FME evaluations to prevent reoccurrence, after similar instances had occurred at Unit 2 in 2004 and at Unit 3 during the 2005 outage. Exelon addressed the technical issue of how FME entered the system (CR 475597), and provided corrective actions to address the FME concerns. However, the CR provided by Exelon did not address the performance deficiency in the inspection report. After questioning by the team, Exelon determined that CRs 533369 and 534509 addressed station-wide FME program trends and concerns. Although the additional CRs were not a direct result of the NCV, the corrective actions addressed the performance deficiency identified in the 2006003 inspection report, and the team concluded that the performance deficiency had been corrected.

- NCV 2006005-01, "Failure to Follow Operability Determination Procedure" – The performance deficiency was a failure to follow procedures that resulted in a determination that did not provide a reasonable expectation of operability.

Engineering management had provided to their staff, via emails, corrective actions to improve the technical quality of operability determinations. The corrective actions had not been promulgated to the engineering or operations staffs in a procedure to ensure longer term implementation. After discussion with the team, Exelon formalized the additional requirements by incorporating them into a Peach Bottom specific Technical and Reference Manual (T&RM) procedure; the team concluded that the issue was minor and the deficiency was corrected.

(3) Findings

(a) Failure to Correct a 2006 NRC-Identified NCV in a Timely Manner – Surveillance Test with Non-Conservative Acceptance Criteria for the HPCI Pump

Introduction: The NRC identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, "Corrective Actions," related to the failure to correct the performance deficiency identified in NCV 05000277,278/2006009-01, "Non-Conservative HPCI and RCIC Pumps Test Acceptance Criteria." The team identified that the licensee had not revised the HPCI surveillance test and had continued to conduct the surveillance, thirteen additional times since the issue was discovered by the NRC in March 2006. The original violation was that the acceptance criteria in the surveillance test did not ensure that the system design basis requirements could be met under all accident conditions.

Description: In March 2006, an NRC engineering inspection determined that the surveillance test procedure met the TS Surveillance Requirement (TSSR) and the ASME Section XI requirements. However, the test did not demonstrate that the pump met certain design bases requirements. This generic issue was promulgated to the industry in NRC Information Notice 97-90, "Use of Non-Conservative Acceptance Criteria in Safety Related Pump Surveillance Tests," and in NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants." If the HPCI pump had degraded to the differential pressure acceptance limit, it would not have been able to reach the design basis discharge pressure and flow requirements. Thus, the pump could pass the surveillance test but actually be inoperable. This resulted in a violation of 10CFR50, Appendix B, Criterion XI, "Test Control." (NCV 05000277,278/2006009-01, "Non-Conservative HPCI and RCIC Pumps Test Acceptance Criteria")

The team reviewed the corrective actions listed in CR 478007 for the RCIC surveillance test. The licensee had evaluated the acceptance criteria for the RCIC pump and determined that they were sufficiently narrow and would not have allowed the RCIC pump to be inadvertently inoperable. With respect to the HPCI procedure, the team reviewed Surveillance Test ST-O-023-301-2, "HPCI Pump, Valve, Flow and Unit Cooler Functional and In-Service Test," Revisions 44 and 47. The team discovered that the HPCI pump pressure and flow acceptance criteria had not been revised, and that the test procedure had been run thirteen times since it was in March 2006. The original corrective action, to revise the surveillance procedures for both units, had been characterized in the CAP as an enhancement, and the action was deferred until February 2008, a period of 23 months after the issue was identified to the licensee. The team also noted that the procedures for both units had been revised three times during this period. Considering that this procedure is a TS quarterly surveillance test to

establish pump operability and the test has been performed repeatedly with identified less than inadequate acceptance criteria, the team concluded that Exelon's corrective actions were untimely.

Exelon performed an evaluation of the HPCI pump surveillance test results. The resulting calculation concluded that the pumps currently had adequate discharge pressure, flow, and speed to meet the design basis requirements. The team reviewed the calculation and concluded that the conclusion was supported.

The performance deficiency associated with this finding is that the licensee did not promptly correct a condition adverse to quality. Specifically, Exelon failed to revise an inadequate TS surveillance test procedure to ensure that the HPCI pump would be capable of providing the required design basis flow during all accident conditions. This deficiency was identified by the NRC in March 2006, during an engineering team inspection, and was documented as NCV 05000277,278/2006009-01.

Analysis: The finding is more than minor because it affects the procedure quality attribute (pre-event testing procedure) associated with the Mitigating Systems Cornerstone objective to ensure the capability of HPCI, a mitigating system. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," the inspectors conducted a Phase I SDP screening and determined that the finding was Green (very low safety significance) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and was not risk significant due to external initiating events.

The performance deficiency has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon did not take prompt corrective actions to address a safety issue in a timely manner, commensurate with safety significance and complexity. [P.1.(d)]

Enforcement: 10CFR50 Appendix B, Criterion XVI, "Corrective Actions," requires that conditions adverse to quality be promptly identified and corrected. Contrary to the above, between March 2006 and April 2007, Exelon failed to revise the acceptance criteria in surveillance test procedures ST-O-023-301-2/3, "HPCI Pump, Valve, Flow and Unit Cooler Functional and In-Service Test," for the HPCI systems at both units, such that they met design basis requirements. This was identified by the NRC in March 2006, and was documented as NCV 05000277,278/2006009-01. Exelon initiated CRs 630832 and 630385 to address this issue, and plans to revise the procedures for both units before the next performance of the quarterly surveillance test. Because this finding was of very low safety significance (Green), and was entered into Exelon's corrective action program, this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 05000277, 278/2007006-01, Failure to Correct a 2006 NRC-Identified NCV in a Timely Manner – Quarterly Surveillance Test with Non-Conservative Acceptance Criteria for the HPCI Pump)**

(b) Failure to Correct an 2005 NRC-Identified NCV in a Timely Manner – Failure to Follow a Site Procedure Results in a Delayed Operability Determination

Introduction: The NRC identified a Green NCV of 10CFR50, Appendix B, Criterion XVI, "Corrective Action," for failure to correct a condition adverse to quality for approximately two years, associated with Class 1, 2, and 3 pressure boundary leakage. Specifically, NCV 05000277/2005003-02, issued in July 2005, documented a delayed operability determination due to the station not promptly evaluating a steam leak on a HPCI valve, in accordance with the site procedures.

Description: In July 2005, the NRC issued a violation of 10CFR50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Peach Bottom did not appropriately evaluate operability, in accordance with the prescribed station procedure, LS-AA-105, "Operability Determinations," Revision 1, for a steam leak from the Unit 2 HPCI steam admission valve. Specifically, procedure LS-AA-105 stated that upon discovery of leakage from a Class 1, 2, or 3 component pressure boundary, the associated component was inoperable. (NCV 05000277/2005003-02, "Delayed Inoperability Declaration When Activities Affecting Quality Were Not Accomplished in Accordance with Site Procedures")

The steam leak was identified by an equipment operator (EO) on April 20, 2005, who assumed the steam was due to a packing leak. The leak was entered into the CAP, and the valve was considered to be operable since the packing leak did not appear to be affecting HPCI or any adjacent components. On April 21, 2005, the HPCI System Manager and the Motor Operated Valve (MOV) Program Manager inspected the valve, and identified that the leak was not a packing leak, but was through the leak-off plug. The actual location of the leak was discussed with operations shift personnel and engineering management; however, the original CR was not revised to correct the location of the leak, nor was a new CR initiated. A new operability determination was considered, but was determined to not be needed. On April 25, 2005, the ASME Code Program Manager determined that the leakage was through the Class 2 pressure boundary.

The Operations shift reviewed the TRM, Specification 3.10, "Structural Integrity," and determined that Peach Bottom had 72 hours to evaluate the structural integrity of this Class 2 boundary - and therefore the operability of the HPCI system. About four hours later, after engineering and regulatory affairs personnel informed Operations of the more limiting requirement in the procedure, the Unit 2 HPCI system was declared inoperable (Technical Specifications 3.5.1). The decision was based on a review of LS-AA-105, "Operability Determinations," Step 4.5.10.5, which stated that, upon discovery of leakage from a Class 1, 2, or 3 component pressure boundary declare the component inoperable. The licensee initiated CR 328880, "Evaluate Difference Between TRM 3.10 and LS-AA-105."

The July 2005 NRC inspection report identified the performance deficiency as a failure to accomplish activities affecting quality in accordance with station procedure LS-AA-105. The NCV cited 10CFR50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," as the requirement that was not met.

During this inspection, the team reviewed the applicable CRs (326706, 328735, 328880, 348745, 352391, and 430384), as provided by Exelon. CR 328880 was generated to revise the TRM to include the requirements of LS-AA-105, with an original due date of July 29, 2005. In addition, the ACE performed as a result of CR 352391, noted that the differences between the TRM and procedure contributed to the delay in declaring the system inoperable. The corrective action for this was an emphasis on the existing assignment in CR 328880, with a due date of February 3, 2006. The inspectors noticed that the original assignment was classified as an ACIT (administrative task) while the ACE recommended that the assignment be classified as a CA (corrective action). The due date was extended at least nine times between the initiation of the assignment and this inspection. In addition, Exelon conducted a self-assessment prior to the start of this inspection and identified that the assignment had been closed without the action being taken and without justification as to why it was closed. CR-590772 was written on February 13, 2007, and the original assignment was re-opened. At the beginning of the inspection, the due date was April 5, 2007. During this inspection, the due date was changed to April 15, 2007. As of the exit, the TRM had not been revised and the difference between the two documents continued to exist.

As an interim corrective action, Exelon had conducted limited training for some Engineering and Operations personnel relative to following the requirements of LS-AA-105. In addition, the Operability Determination procedure was changed from a Licensing document (LS-AA-105) to an Operations document (OP-AA-108-115).

The performance deficiency is a failure to correct a condition adverse to quality in a timely manner, associated with Class 1, 2, and 3 pressure boundary leakage. Specifically, Exelon failed to revise the TRM to be consistent with the requirements of LS-AA-105, “Operability Determinations.” The deficiency was originally identified in July 2005, in NRC Inspection Report 05000277/2005003, as a NCV; and it was reasonable to correct this deficiency, because it was likely that the procedure would be used in this time frame..

Analysis: The finding is more than minor because it affects the procedure quality attribute associated with the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences; in that, operators were provided with conflicting guidance for response to Class 1, 2, and 3 component pressure boundary leaks. The inspectors conducted a Phase I SDP screening in accordance with IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations,” and determined that the finding was Green (very low safety significance) because the finding was not a design or qualification deficiency, did not represent a loss of system safety function, and was not risk significant due to external initiating events.

The performance deficiency has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Exelon failed to take appropriate corrective actions to address a safety issue in a timely manner, commensurate with its safety significance and complexity. [P.1(d)]

Enforcement: 10CFR50, Appendix B, Criterion XVI, "Corrective Action," requires that conditions adverse to quality be promptly identified and corrected. Contrary to the above, between July 2005 and April 2007, Exelon failed to implement corrective actions in a timely manner for a contributing cause for NCV 05000277/2005003-02. Specifically, the July 2005 NCV noted that the operators were slow in making an operability determination, in part due to inconsistent information in the TRM and the Operability Determination procedure (LS-AA-105) concerning Class 1, 2, and 3 pressure boundary leakage. Approximately two years after the 2005 NCV was issued, Exelon had not revised the TRM to be consistent with the procedure. Exelon initiated CRs 622468, 630378, and 630385 to address this issue, and plans to revise the TRM to be consistent with the procedure. Because this finding was of very low safety significance (Green), and was entered into Exelon's correction action program, this violation is being treated as a NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy. **(NCV 05000277/2007006-02, Failure to Correct a 2005 NRC-Identified NCV in a Timely Manner – Failure to Follow a Site Procedure Resulted in a Delayed Operability Determination)**

b. Assessment of the Use of Operating Experience

(1) Inspection Scope

The team reviewed a sample of operating experience (OE) issues for applicability to Peach Bottom, and for the associated actions. The documents were reviewed to ensure that underlying problems associated with each issue were appropriately considered for resolution in accordance with the corrective action process. The team also reviewed a sample of action plans for Maintenance Rule 10CFR50.65(a)(1) systems, to see how operating experience was used. The team conducted a five year review of equipment issues associated with the EDGs, and reviewed the licensee's efforts to evaluate, trend, monitor, and correct issues with this equipment.

(2) Assessment

No findings of significance were identified in the area of prioritization and evaluation of issues. The use of OE at Peach Bottom was generally effective. The OE issues were reviewed for applicability to Peach Bottom and CRs were written, as needed, to request additional reviews and develop necessary corrective actions. The station has a daily OE moment at the Plan-of-the-Day meeting, and has incorporated the use of OE into pre-job briefs for maintenance work packages, and into training materials.

Examples of prompt and effective use of OE included CRs 628251 and 628341, which captured In-Service Inspection issues raised by the NRC at another Exelon station. These issues were reviewed for applicability and resolved at Peach Bottom well before industry OE or NRC Generic Communications were developed.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

The team reviewed a sample of Nuclear Oversight (NOS) audits, including the most recent audit of the CAP, the CAP trend reports, and departmental self-assessments. The team specifically reviewed the Exelon "Fleet Safety Culture Assessment Report." This review was performed to determine if problems identified through these evaluations were entered into the CAP system, and whether the corrective actions were properly completed to resolve the deficiencies. The effectiveness of the audits and self-assessments was evaluated by comparing audit and self-assessment results against self-revealing and NRC-identified findings, and observations during the inspection.

(2) Assessment

No findings of significance were identified in the area of audits and self-assessments. The team considered the quality of the NOS audits to be thorough and critical, CRs were initiated for all issues identified by NOS. In addition, the self-assessments were acceptable; but, they were not at the same level of quality as the audits.

The team reviewed the results of the Peach Bottom "Nuclear Safety Culture Survey Results" Report, conducted in December 2006. The survey consisted of a safety culture survey and interviews. The report identified some minor weaknesses at the station, which were entered into the CAP. The team did not identify any results that were inconsistent with Exelon's conclusions.

d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

During interviews with many of the station personnel, the team assessed the safety conscious work environment (SCWE) at Peach Bottom. Specifically, the team interviewed personnel to determine whether they were hesitant to raise safety concerns to their management and/or the NRC, due to a fear of retaliation. The team also interviewed the station ECP coordinator to determine if employees were aware of the program and had used it to raise concerns. The team reviewed a sample of the ECP files to ensure that issues were entered into the corrective action program, as appropriate.

(2) Assessment

No findings of significance were identified. The team determined that the plant staff were aware of the importance of having a strong SCWE and expressed a willingness to raise safety issues. No one interviewed indicated that they had experienced retaliation for rasing safety issues, or indicated that they knew of anyone who did not raise safety issues. All persons interviewed demonstrated had an adequate knowledge of the CAP

and ECP. Based on these interviews, the team concluded that there was not evidence of an unacceptable SCWE.

4OA6 Meetings, Including Exit:

On May 18, 2007, the team presented the inspection results to Mr. Michael Massaro, Peach Bottom Plant Manager, and to other members of the Peach Bottom staff, who acknowledged the findings. The team confirmed that no proprietary information reviewed during the inspection was retained.

ATTACHMENT: SUPPLEMENTAL INFORMATION

In addition to the documentation that the team reviewed (listed in the attachment), copies of information requests given to the licensee are in ADAMS, under accession number ML071420155.

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel:
C. Behrend - Director, Site Engineering
P. Breidenbagh - Operations Services Manager
S. Craig - Acting Security Manager
D. Foss - Senior Regulatory Engineer
J. Glunt - Nuclear Oversight Manager
J. Grimes - Site Vice President
D. Henry- Manager, Systems Engineering, NSSS
J. James - Maintenance Supervisor
J. Jordan - Design Engineering Manager, Mechanical
J. Kozakowski - Recirculation System Manager
D. Lewis - Director, Operations
M. Massaro - Plant Manager
D. McClellen - Station Corrective Action Program Coordinator (CAPCo)
S. Mokkapati - Recirculation System Manager
P. Navin - Senior Manager, System Engineering
J. Neff- Maintenance Supervisor
K. Pedersen - Employee Concerns Investigator
A. Piha - Manager, System Engineering, Balance of Plant
P. Rau - Senior Manager, Modification Design
A. Sherwood - Lead Assessor, NOS
S. Taylor - Radiation Protection Manager
W. Trump - Manager, Regulatory Assurance (acting)
T. VanWyen - Operations Training Manager
D. Wheeler - SHIP Program Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

050000277/2007006-01 050000278/2007006-01	NCV	Failure to Correct a 2006 NRC-Identified NCV in a Timely Manner – Quarterly Surveillance Test with Non-Conservative Acceptance Criteria for the HPCI Pump (Section 4OA2.a(3)(a))
050000277/2007006-02	NCV	Failure to Correct a 2005 NRC-Identified NCV in a Timely Manner – Failure to Follow a Site Procedure Resulted in a Delayed Operability Determination (Section 4OA2.a(3)(b))

Discussed

05000277/2005003-02	NCV	Delayed Inoperability Declaration When Activities Affecting Quality Were Not Accomplished in Accordance with Site Procedures (Sections 4OA2.a(2) and 4OA2.a(3)(b))

05000278/2006003-02	NCV	Inadequate Accomplishment of FME Integrity Recovery Procedures Following Identification of FME in the U3 HPCI Turbine Exhaust Drain Piping (Section 4OA2.a(2))
05000277/2006005-01	NCV	Failure to Follow Operability Determination Procedure (Section 4OA2.a(2))
05000277/2006009-01 05000278/2006009-01	NCV	Non-Conservative HPCI & RCIC Pumps Test Acceptance Criteria (Sections 4OA2.a(2) and 4OA2.a(3)(a))

LIST OF DOCUMENTS REVIEWED

Procedures:

AO-2A.16-3, Manual Adjustment of Recirculating Pump Seal Second Stage Pressure, Revisions 1 and 2
AO-2A.6-3, Venting Recirculation Pump Seal Following Maintenance, Revision 16
CC-AA-309-101, Engineering Technical Evaluations, Revision 8
EI-AA-1, Nuclear Policy - Employee Issues, Revision 1
EI-AA-101, Employee Concerns Program, Revision 6
EI-AA-101-1001, Employee Concerns Program Process, Revision 4
EI-AA-101-1002, Employee Concerns Program Trending Tool, Revision 4
ER-AA-2002, System Health Indicator Program, Revision 6
ER-AA-310, Implementation of the Maintenance Rule, Revision 6
ER-AA-600, Risk Management, Revision 5
GP-16, Breaching and Establishing Secondary Containment, Revision 28
HU-AA-101, Human Performance Tools and Verification Practices, Revision 3
HU-AA-104-101, Procedure Use and Adherence, Revision 1
HU-AA-1081, Fundamentals Tool Kit, Revision 1
HU-AA-1081-F-05, Functional Area and Cross-Functional Fundamentals, Operations Fundamentals, Revision 1
LS-AA-1003, NRC Inspection Preparation and Response, Revisions 2 and 9
LS-AA-1004, NRC Case Management Guidance, Revision 4
LS-AA-105, Operability Determinations, Revision 1
LS-AA-120, Issue Identification and Screening Process, Revision 6
LS-AA-125, Corrective Action Program (CAP) Procedure, Revision 11
LS-AA-125-1005, Coding and Analysis Manual, Revision 5
LS-AA-126, Self-Assessment Program, Revision 4
LS-AA-126-1001, Focused Area Self-Assessments, Revision 3
LS-PB-1003, NRC Inspection Finding Management Guidance, Revision 0
NO-AA-1018, Nuclear Oversight Quarterly Report, Revision 8
NO-AA-22, Nuclear Oversight Performance Assessment Process Description, Revision 2
OP-AA-102-103, Operator Work-Around Program, Revision 1
OP-AA-106-1006, Operational and Technical Decision Making Process, Revision 4
OP-AA-108-105, Equipment Deficiency Identification and Documentation, Revision 3
OP-AA-108-115, Operability Determinations, Revision 1
OP-PB-115-1001, Operability Determination Management Guidance, Revision 0
RP-AA-502, Catch Containment Program, Revision 0
RP-PB-460-1003, Drywell Initial Entry, Revision 0
RP-PB-460-1006, Torus Initial Entry, Revision 0

RP-PB-700-1002, Radiation Protection Instrumentation Operations Guidelines, Revision 0
RRC-23.1-3, HPCI System Operation During a Plant Event, Revisions 2 and 5
RT-O-032-300-3, HPSW Pump, Valve and Flow Functional Test, Revision 16
SO-23.1.A-3, High Pressure Coolant Injection System Setup for Automatic or Manual Operation, Revision 13
SO-23.1.B-3, HPCI System Manual Operation, Revision 17
SO-23.7.B-3, Transfer of HPCI Pump Suction from CST to Torus, Revision 8
ST-O-023-301-2, HPCI Pump, Valve, Flow, and Unit Cooler Functional and In-Service Test, Revisions 44, 45, 46, and 47
ST-O-023-301-3, HPCI Pump, Valve, Flow, and Unit Cooler Functional and In-Service Test, Revisions 41, 43, and 44
ST-O-032-301-3, HPSW Pump, Valve and Flow Functional and Inservice Test, Revision 22
TQ-AA-131, Senior Reactor Operator - Limited Requalification Training, Revision 4
WC-AA-101, On-line Work Control Process, Revision 13
WC-AA-106, Work Screening and Processing, Revision 5

Audits:
NOSA-PEA-05-01, Corrective Action Program
NOSA-PEA-05-05, Engineering Design Control
NOSA-PEA-06-01, Maintenance Functional Area Audit Report
NOSA-PEA-06-05, Engineering Programs
NOSA-PEA-06-06, Training and Staffing
NOSA-PEA-06-07, Surveillance and Test Program
NOSA-PEA-06-08, Document Control and Quality Assurance Records
NOSA-PEA-06-09, Fire Protection Program
NOSA-PEA-07-01, Corrective Action Program
NOSA-PEA-07-02, Material Management and Procurement Engineering Audit Report
NOSA-PEA-07-11, M&TE Increased Frequency Audit

Self-Assessments:
Check-In - Effectiveness Review of Actions Taken as a Result of NOS Finding, February 2006
Check-In - KV Breaker Maintenance Assessment, January
Check-In - Training Assessment, March 2006
FASA - Craft Ownership, December 2006
FASA - Licensed Operator Requalification Training, February 2006
FASA - LORT 71111.11 Inspection Assessment, November 2006
FASA - Maintenance: FME Program Review, June 2006
FASA - PBAPS Maintenance Human Performance Effectiveness, January 2005
FASA - Pre-NRC Fire Protection Triennial Inspection, December 2005
FASA - Pre-NRC Inspection Heat Sink Performance, July 2006
FASA - Preparation for NRC 2006 CDBI, March 2006
FASA - Supplemental Personnel, July 2006
FASA - Warning Flags About Industry Operations Performance and Assessment of the Application of Operator Fundamentals, August 2006
NOSPA-PEA-05-2Q, Nuclear Oversight Quarterly Reports for April - June 2005
NOSPA-PEA-05-3Q, Nuclear Oversight Quarterly Reports for July - September 2005
NOSPA-PEA-05-4Q, Nuclear Oversight Quarterly Reports for October - December 2005
NOSPA-PEA-06-1Q, Nuclear Oversight Quarterly Reports for January - March 2006

NOSPA-PEA-06-2Q, Nuclear Oversight Quarterly Reports for April - June 2006
NOSPA-PEA-06-3Q, Nuclear Oversight Quarterly Reports for July - September 2006
NOSPA-PEA-06-4Q, Nuclear Oversight Quarterly Reports for October - December 2006
NOSPA-PEA-07-1Q, Nuclear Oversight Quarterly Reports for January - March 2007
Peach Bottom Nuclear Safety Culture Survey Results, December 2006
Station CAP Performance, Reports for January, February, and March 2007

Condition Reports **(* denotes a CR generated as a result of this inspection):**

110334	349624	386126	467500	526201	565212	591191	612596
254722	351609	386680	472870	526699	565945	593144	614449
308116	352391	387627	475323	530175	566011	593169	614478
326706	357197	388397	475597	530824	566782	593364	615413
328735	357309	388447	475909	532119	568038	593890	617872
328880	357325	389126	478007	532363	568954	594400	617898
331380	358684	389467	481763	533285	569168	594481	619076
331738	358813	389841	482452	533309	569841	594738	619337
331832	358815	391428	487007	533893	569879	595917	620382
331952	360056	394629	487942	534323	571207	596616	620551
331994	361307	394822	489490	534509	571410	596789	620785*
332074	361495	395946	490689	534622	571433	597260	620866
332095	361858	426094	492931	534732	571596	597475	620868
332223	365624	426665	495748	535459	573736	597477	620870
332351	370086	427452	496375	537316	576914	599578	621027
332355	373140	429221	496878	537720	577006	599598	621324
332406	373571	430384	496978	538234	577381	599935	621342
332980	375266	430384	497860	538543	577580	599971	621388
333020	375299	433760	502420	538669	577611	599974	622465*
333097	376267	436230	503023	539837	577931	599986	622468*
333469	376331	437007	503032	541265	579469	600036	623949
334384	377359	438617	504535	542366	582114	600446	624621*
334493	377756	441244	504684	542484	582151	600448	624625*
336207	378206	442864	507388	543054	584506	600451	628251
336743	378342	443237	507555	554800	584639	601715	628341
337326	379278	445669	507555	555091	584646	601757	628710
337446	380213	446504	507642	555209	584677	602785*	630114*
337453	381028	446597	509104	556066	587062	603412	630258*
337497	381030	449881	511789	556084	587253	603593	630265*
337825	381063	453559	512622	556395	587677	603615	630353*
337920	381079	461070	513000	556522	588335	604248	630378*
338798	381113	461078	514660	557074	589422	604266	630385*
341918	381485	461652	516101	557769	590249	604364	630438*
342876	381630	462654	516611	558354	590559	605060	630832*
343699	382490	463296	517065	560029	590626	605123	630867*
348745	383682	466868	518286	560785	590772	606891	630877*
349270	385454	467493	520322	564020	591039	609768*	

Operating Experience Reviews:
Barton Switch Advisory Contact Resistance (CR 389922)
Failure of Single Phase of Offsite Feed (CR 525440)
IN 2007-01 Recent Hydrostatic Barrier Operating Experience (CR 588565)
IN2006-13 Groundwater Contamination Due to Undetected Leaks (CR 516349)
IN2006-22 Ultra Low Sulfur Fuel (CR 547835)
NER BY-05-049 Yellow Missing Documentation for Surveillances (CR 351258)
NER CL-05-020 APRM Adjustment Based on Open Bypass Valve (CR 337087)
NER CL-05-028 Yellow SX Pump Start Two Handed Operations (CR 340713)
NER DR-05-043 Red Engineering Training Qualification Issues (CR 362939)
NER NC-06-006 Yellow Security Officer Attentiveness Aids (CR 495439)
Nine Mile Point Unit 2 Programmatic Control of Peeling (CR 332213)
NRC IN 2005-11 Flooding Due to Floor Plug/Hatches (CR 335812)
Palo Verde Shutdown Due to RWT Vortexing Design Issue (CR 385460)
Part 21 Fairbanks Morse Woodward DRU (CR 443591)
Unplanned Scrams Analysis (CR 490079)

Maintenance Work Requests:
A1536814 A1612541 A1613202 A14554066

Non-Cited Violations and Findings Reviewed:
NCV 2005003-01, U3 HPCI Inoperability Resulted from Inadequate Procurement of Commercial Grade Dedication
NCV 2005003-02, Delayed Inoperability Declaration When Activities Affecting Quality WereNot Accomplished in Accordance with Site Procedures
NCV 2005004-01, Inadequate Procedure Adherence During Surveillance Testing of U2 Main Turbine Mechanical Trip Valve
NCV 2005004-02, Failure to Maintain Respiratory Equipment Qualifications Current
NCV 2005004-03, Licensee Did Not Implement Certain Aspects of the Offsite Dose Calculation Manual
NCV 2005005-01, PMT Did Not Identify Restricted HPSW Flow on RHR HX
NCV 2005005-02, Failure to Implement RP Procedure for DW Initial Entry in Accordance with TS 5.4
NCV 2005005-Licensee Identified, EAL for Drywell High Radiation Entry
NCV 2006002-01, Inadequate PMT of the E-2 EDG Air Coolant Auxiliary Pump
NCV 2006002-Licensee Identified, Missed Surveillance on E-3 EDG
NCV 2006002-Licensee Identified, RHR Small Bore Pipe Leak
NCV 2006003-01, Inadequate Annual Operating Test at Limerick
NCV 2006003-02, Inadequate Accomplishment of FME Integrity Recovery Procedures Following Identification of FME in the U3 HPCI Turbine Exhaust Drain Piping
NCV 2006003-03, Exelon Did Not Maintain Respiratory Protective Equipment in Accordance with Manufacturer's Guidance & Regulatory Requirements
NCV 2006003-Licensee Identified, RHR Configuration Not Analyzed for Seismic Qualification
NCV 2006004-01, Failure to Implement Procedures by Performing Manipulations Without Instructions
NCV 2006005-01, Failure to Follow Operability Determination Procedure
NCV 2006009-01, Non-Conservative HPCI & RCIC Pumps Test Acceptance Criteria

System Health Reports:

Emergency Diesel Generators, December 2006
High Pressure Coolant Injection (Units 2 & 3), December 2006
Primary Containment (Unit 3), December 2006
Radiation Monitoring (Units 2 & 3), December 2006

Miscellaneous:

ACM Plan for 3A Recirculation Pump Seal, Unstable Second Stage Seal Temperature and Increasing Second Stage Seal Pressure, Revision 0, 1, 2, and 3
ACM Plan for 3B Recirculation Pump Seal, Increasing Second Stage Seal Pressure, Revisions 0, 1, 2, and 3
ACM Plan for PB2 Main Generator H_2 Usage Issue, Revision 2
ACM Plan for PB3 MVAR Fluctuations, Revision 0
ACM Plan for Unit 3 HPCI Pump Seal Leakage, Revision 0
ACM Plan for Unit 3 MO-3-14-12A Pressure Seal Leakage, Revision 1
Barrier Breach Permit #04-284, Create 3" Core Bore in Wall to Install New ½" Cardox Pilot Pipes and Associated Penetration Seals
Completed Surveillance Test Data for ST-O-023-301-3, performed on 03/21/06 (Revision 41), 06/16/06 (Revision 41), 06/16/06 (Revision 41), 12/28/06 (Revision 43), and 03/22/07 (Revision 44)
Completed Surveillance Test Data for ST-O-023-301-2, performed on 03/14/06 (Revision 44), 03/15/06 (Revision 44), 06/15/06 (Revision 44), 09/1/06 (Revision 45), 10/6/06 (Revision 45), 10/10/06 (Revision 45), 12/13/06 (Revision 46), and 03/14/07 (Revision 47)
EC#360901, Exelon Fleet Reactor Recirc Pump Seal Condition Monitoring Template, 06/05/06
Executive Review of Exelon Nuclear's Learning Programs, February 2007
Hand Calculation of Pressure Drop from Recirc Pump Seal to PI/PT Instrument Due to Cont Venting Flow, 05/15/07
Main Control Room Narrative Logs for 09/10/04, 09/14/04, and 09/21/05
Modification Package 79-028(EP), Recirculation Pump Seal Feed and Bleed System Piping (Unit 2&3), Revision 0
NRC IN 93-61: Excessive Reactor Coolant Leakage Following a Seal Failure in a Reactor Coolant Pump or Reactor Recirculation Pump
NRC IN 97-90, Use of Nonconservative Acceptance Criteria in Safety Related Pump Surveillance Tests, Revision 0
P&ID 6280-M-365, High Pressure Coolant Injection System, Sheet 1, Revision 61
Peach Bottom HPCI and RCIC PV&F ST Data from 10/18/03 to 03/22/07, dated 05/16/07
Peach Bottom Maintenance Standing Orders, Revision 2
Peach Bottom Plant Technical Decision for Continued Operation with Degraded Unit 3 Recirculation Pump Seals until Fall Outage, 05/14/07
Peach Bottom Technical Requirements Manual
Peach Bottom Technical Specifications
Peach Bottom Updated Final Safety Analysis Report
Reactor Recirc Pump Mechanical Seal Drawing
Technical Evaluation A1406063, Review of Mod 79-028 Recirculation Seal Pressure Bleed Off, 08/11/03

Technical Evaluation A1580264, E-3 Diesel Generator Mechanical, 08/19/06
Temporary Modification A1613094, Provide Supplemental Cooling to the 3A RR Seal Purge Line, 04/23/07
Unit 2 and 3 Recirculation Pump Seal Issue Abbreviated Time Line, 05/16/07

LIST OF ACRONYMS

ACE	Apparent Cause Evaluation
ACM	Adverse Condition Monitoring
CAP	Corrective Action Program
CAPCo	Corrective Action Program Coordinator
CFR	Code of Federal Regulations
CR	Condition Report
EAL	Emergency Action Level
ECP	Employee Concerns Program
EDG	Emergency Diesel Generator
FASA	Focused Area Self-Assessment
FME	Foreign Material Exclusion
HPCI	High Pressure Coolant Injection
HPSW	High Pressure Service Water
HX	Heat Exchanger
IMC	NRC Inspection Manual Chapter
IN	NRC Information Notice
LORT	Licensed Operator Requalification Training
MRC	Management Review Committee
NCV	Non-Cited Violation
NOS	Nuclear Oversight
NRC	Nuclear Regulatory Commission
OE	Operating Experience
P&ID	Piping and Instrumentation Drawing
PI&R	Problem Identification and Resolution
PMT	Post-Maintenance Test
PV&F	Pump, Valve, and Flow
RCA	Root Cause Analysis
RCIC	Reactor Core Isolation Cooling
RHR	Residual Heat Removal
ROP	Reactor Oversight Program
RWT	Refueling Water Tank
SCWE	Safety Conscious Work Environment
SDP	Significance Determination Process
T&RM	Technical and Reference Manual
TRM	Technical Requirements Manual
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
NSSS	Nuclear Steam Supply System