UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 9, 2016

Mr. Bryan C. Hanson
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 - ISSUANCE OF AMENDMENTS RE: INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION (CAC NOS. MF7208 AND MF7209)

Dear Mr. Hanson:

The Commission has issued the enclosed Amendments Nos. 307 and 311 to Renewed Facility Operating License Nos. DPR-44 and DPR-56 for the Peach Bottom Atomic Power Station, Units 2 and 3. These amendments consist of changes to the technical specifications (TSs) in response to your application dated December 23, 2015.

The amendments revise TS Limiting Condition for Operation 3.10.1, "Inservice Leak and Hydrostatic Testing Operation," to allow more efficient testing during a refueling outage. The change is based on U.S. Nuclear Regulatory Commission-approved Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler, TSTF-484, Revision 0, "Use of TS 3.10.1 for Scram Time Testing Activities."

A copy of the safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's Biweekly *Federal Register* Notice.

Sincerely,

Richard B. Ennis, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosures:
1. Amendment No. 307 to Renewed DPR-44
2. Amendment No. 311 to Renewed DPR-56
3. Safety Evaluation

cc w/enclosures: Distribution via Listserv

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

EXELON GENERATION COMPANY, LLC

PSEG NUCLEAR LLC

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 307
Renewed License No. DPR-44

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Exelon Generation Company, LLC (Exelon Generation Company) and PSEG Nuclear LLC (the licensees), dated December 23, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Renewed Facility Operating License No. DPR-44 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 307, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Douglas A. Broaddus, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications
and Renewed Facility Operating License

Date of Issuance: May 9, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 307

RENEWED FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

Replace the following page of the Renewed Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove	Insert
3	3

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove	Insert
3.10-1	3.10-1

(5) Exelon Generation Company, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility, and such Class B and Class C low-level radioactive waste as may be produced by the operation of Limerick Generating Station, Units 1 and 2.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

(1) Maximum Power Level

Exelon Generation Company is authorized to operate the Peach Bottom Atomic Power Station, Unit 2, at steady state reactor core power levels not in excess of 3951 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 307, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

(3) Physical Protection

Exelon Generation Company shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans[1], submitted by letter dated May 17, 2006, is entitled: "Peach Bottom Atomic Power Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Independent Spent Fuel Storage Installation Security Program, Revision 3." The set contains Safeguards Information protected under 10 CFR 73.21.

Exelon Generation Company shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Exelon Generation Company CSP was approved by License Amendment No. 281 and modified by Amendment No. 301.

(4) Fire Protection

The Exelon Generation Company shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report for the facility, and as approved in the NRC Safety Evaluation Report (SER) dated May 23, 1979, and Supplements dated August 14, September 15, October 10 and November 24, 1980, and in the NRC SERs dated September 16, 1993, and August 24, 1994, subject to the following provision:

[1] The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

3.10 SPECIAL OPERATIONS

3.10.1 Inservice Leak and Hydrostatic Testing Operation

LCO 3.10.1 The average reactor coolant temperature specified in Table 1.1-1 for MODE 4 may be changed to "NA," and operation considered not to be in MODE 3; and the requirements of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown," may be suspended to allow reactor coolant temperature > 212°F:

- For performance of an inservice leak or hydrostatic test,
- As a consequence of maintaining adequate pressure for an inservice leak or hydrostatic test, or
- As a consequence of maintaining adequate pressure for control rod scram time testing initiated in conjunction with an inservice leak or hydrostatic test,

provided the following MODE 3 LCOs are met:

a. LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," Functions 1, 3, and 4 of Table 3.3.6.2-1;

b. LCO 3.6.4.1, "Secondary Containment";

c. LCO 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)"; and

d. LCO 3.6.4.3, "Standby Gas Treatment (SGT) System."

APPLICABILITY: MODE 4 with average reactor coolant temperature > 212°F.

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WASHINGTON, D.C. 20555-0001

EXELON GENERATION COMPANY, LLC

PSEG NUCLEAR LLC

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 311
Renewed License No. DPR-56

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Exelon Generation Company, LLC (Exelon Generation Company) and PSEG Nuclear LLC (the licensees), dated December 23, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Renewed Facility Operating License No. DPR-56 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 311, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Douglas A. Broaddus, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications
and Renewed Facility Operating License

Date of Issuance: May 9, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 311

RENEWED FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

Replace the following page of the Renewed Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove	Insert
3	3

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove	Insert
3.10-1	3.10-1

(5) Exelon Generation Company, pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not to separate, such byproduct and special nuclear material as may be produced by operation of the facility, and such Class B and Class C low-level radioactive waste as may be produced by the operation of Limerick Generating Station, Units 1 and 2.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 of Part 50, and Section 70.32 of Part 70; all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

(1) Maximum Power Level

Exelon Generation Company is authorized to operate the Peach Bottom Atomic Power Station, Unit No. 3, at steady state reactor core power levels not in excess of 3951 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 311, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications.

(3) Physical Protection

Exelon Generation Company shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822), and the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans[1], submitted by letter dated May 17, 2006, is entitled: "Peach Bottom Atomic Power Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Independent Spent Fuel Storage Installation Security Program, Revision 3." The set contains Safeguards Information protected under 10 CFR 73.21.

Exelon Generation Company shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Exelon Generation Company CSP was approved by License Amendment No. 283 and modified by Amendment No. 304.

[1]-The Training and Qualification Plan and Safeguards Contingency Plan and Appendices to the Security Plan.

3.10 SPECIAL OPERATIONS

3.10.1 Inservice Leak and Hydrostatic Testing Operation

LCO 3.10.1 The average reactor coolant temperature specified in Table 1.1-1 for MODE 4 may be changed to "NA," and operation considered not to be in MODE 3; and the requirements of LCO 3.4.8, "Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown," may be suspended to allow reactor coolant temperature > 212°F:

- For performance of an inservice leak or hydrostatic test,
- As a consequence of maintaining adequate pressure for an inservice leak or hydrostatic test, or
- As a consequence of maintaining adequate pressure for control rod scram time testing initiated in conjunction with an inservice leak or hydrostatic test,

provided the following MODE 3 LCOs are met:

a. LCO 3.3.6.2, "Secondary Containment Isolation Instrumentation," Functions 1, 3, and 4 of Table 3.3.6.2-1;

b. LCO 3.6.4.1, "Secondary Containment";

c. LCO 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)"; and

d. LCO 3.6.4.3, "Standby Gas Treatment (SGT) System."

APPLICABILITY: MODE 4 with average reactor coolant temperature > 212°F.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 307 TO

RENEWED FACILITY OPERATING LICENSE NO. DPR-44 AND

AMENDMENT NO. 311 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-56

EXELON GENERATION COMPANY, LLC

PSEG NUCLEAR LLC

PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

DOCKET NOS. 50-277 AND 50-278

1.0 INTRODUCTION

By application dated December 23, 2015 (Reference 1), Exelon Generation Company, LLC (Exelon, the licensee), submitted a license amendment request (LAR) for the Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. The amendments would modify Technical Specification (TS) Limiting Condition for Operation (LCO) 3.10.1, "Inservice Leak and Hydrostatic Testing Operation," to allow more efficient testing during a refueling outage. The specific changes are described below.

PBAPS TS Table 1.1-1, "MODES," defines Mode 4, "Cold Shutdown," as pertaining to plant conditions when the average reactor coolant temperature is less than or equal to 212 degrees Fahrenheit (°F). Table 1.1-1 defines Mode 3, "Hot Shutdown," as pertaining to plant conditions when the average reactor coolant temperature is greater than 212 °F. Currently, LCO 3.10.1 allows performance of an inservice leak or hydrostatic test with the average reactor coolant temperature greater than 212 °F, while considering operational conditions to still be in Mode 4, provided certain secondary containment LCOs are met. The amendments would revise LCO 3.10.1 to expand its scope to include operations where temperature exceeds 212 °F: (1) as a consequence of maintaining adequate reactor pressure for an inservice leak or hydrostatic test, or (2) as a consequence of maintaining adequate reactor pressure for control rod scram time testing initiated in conjunction with an inservice leak or hydrostatic test.

The LAR is based on Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler, TSTF-484, Revision 0, "Use of TS 3.10.1 for Scram Time

Testing Activities" (Reference 2), which has been approved generically for the Standard Technical Specifications (STS) by the U.S. Nuclear Regulatory Commission (NRC or the Commission). A notice announcing the availability of a model application for TSTF-484 using the consolidated line item improvement process (CLIIP) was published by the NRC staff in the *Federal Register* on November 27, 2006 (71 FR 68642). A model safety evaluation (SE) and no significant hazards determination for TSTF-484 was published by the NRC staff in the *Federal Register* on October 27, 2006 (71 FR 63050). Sections 2.0 and 3.0 of this SE are based on the TSTF-484 model SE with minor editorial changes and changes to reflect the following:

1) As noted above, PBAPS TS Table 1.1-1 defines Mode 4 as pertaining to plant conditions when the average reactor coolant temperature is less than or equal to 212 °F. The STS that form the basis for TSTF-484 (i.e., NUREG-1433, Revision 4, "Standard Technical Specifications General Electric BWR/4 Plants" (Reference 3), and NUREG-1434, Revision 4, "Standard Technical Specifications General Electric BWR/6 Plants" (Reference 4)), define Mode 4 as pertaining to plant conditions when the average reactor coolant temperature is less than or equal to 200 °F. The STS show the 200 °F value in brackets indicating that the value is plant-specific. As such, Sections 2.0 and 3.0 of this SE have been modified accordingly to reflect the Mode 4 temperature in accordance with the PBAPS TSs.

2) The model SE is based on a plant licensed to the General Design Criteria (GDC) as specified in Appendix A to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "General Design Criteria for Nuclear Power Plants." Since PBAPS was not licensed to the GDC in Appendix A to 10 CFR Part 50, Section 2.0 of this SE has been modified to add a discussion regarding the GDC applicable to PBAPS.

2.0 REGULATORY EVALUATION

2.1 General Design Criteria

The construction permit for PBAPS, Units 2 and 3, was issued by the Atomic Energy Commission (AEC) on January 31, 1968. As discussed in Appendix H to the PBAPS Updated Final Safety Analysis Report (UFSAR), during the construction/licensing process, both units were evaluated against the then-current AEC draft of the 27 GDC issued in November 1965. On July 11, 1967, the AEC published, for public comment in the *Federal Register* (32 FR 10213), a revised and expanded set of 70 draft GDC (hereinafter referred to as the "draft GDC"). Appendix H of the PBAPS UFSAR contains an evaluation of the design basis of PBAPS, Units 2 and 3, against the draft GDC. The licensee concluded that PBAPS, Units 2 and 3, conform to the intent of the draft GDC

On February 20, 1971, the AEC published in the *Federal Register* (36 FR 3255) a final rule that added Appendix A to 10 CFR Part 50, "General Design Criteria for Nuclear Power Plants" (hereinafter referred to as the "final GDC"). Differences between the draft GDC and final GDC include a consolidation from 70 to 64 criteria. As discussed in the NRC's Staff Requirements Memorandum for SECY-92-223, dated September 18, 1992 (Reference 5), the Commission decided not to apply the final GDC to plants with construction permits issued prior to May 21, 1971. At the time of promulgation of Appendix A to 10 CFR Part 50, the Commission stressed that the final GDC were not new requirements and were promulgated to more clearly articulate the licensing requirements and practice in effect at that time. Each plant licensed before the

final GDC were formally adopted was evaluated on a plant-specific basis determined to be safe and licensed by the Commission.

The licensee has made changes to the facility over the life of the plant that may have invoked the final GDC. The extent to which the final GDC have been invoked can be found in specific sections of the UFSAR and in other plant-specific design and licensing basis documentation.

The model SE for TSTF-484 states that 10 CFR Part 50, Appendix A, GDC-10, "Reactor design" (i.e., final GDC-10), is applicable to the proposed change to LCO 3.10.1. The NRC staff reviewed the PBAPS licensing basis and determined that final GDC-10 is applicable to PBAPS. Accordingly, no changes to the text from the TSTF-484 model SE discussion regarding GDC-10, as shown below, was necessary.

2.2 Inservice Leak and Hydrostatic Testing

The reactor coolant system (RCS) serves as a pressure boundary and also serves to provide a flow path for the circulation of coolant past the fuel. In order to maintain RCS integrity, Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) requires periodic hydrostatic and leakage testing. Hydrostatic tests are required to be performed once every 10 years, and leakage tests are required to be performed each refueling outage. Appendix G to 10 CFR Part 50 states that pressure tests and leak tests of the reactor vessel that are required by Section XI of the ASME Code must be completed before the core is critical.

NUREG-1433, Revision 4, and NUREG-1434, Revision 4, both currently contain LCO 3.10.1, "Inservice Leak and Hydrostatic Testing Operation." LCO 3.10.1 was created to allow for hydrostatic and leakage testing to be conducted while in Mode 4, with average reactor coolant temperature greater than the temperature limit specified in TS Table 1.1-1 for Mode 4, provided certain secondary containment LCOs are met.

TSTF-484 modifies LCO 3.10.1 to allow a licensee to implement LCO 3.10.1, while hydrostatic and leakage testing is being conducted, should average reactor coolant temperature exceed the Mode 4 temperature limit during testing. This modification does not alter current requirements for hydrostatic and leakage testing as required by Appendix G to 10 CFR Part 50.

2.3 Control Rod Scram Time Testing

Control rods function to control reactor power level and to provide adequate excess negative reactivity to shut down the reactor from any normal operating or accident condition at any time during core life. The control rods are scrammed by using hydraulic pressure exerted by the control rod drive system. GDC 10 of Appendix A to 10 CFR Part 50 states that the reactor core and associated coolant, control, and protection systems shall be designed with appropriate margin to assure that specified acceptable fuel limits are not exceeded during any condition of normal operation, including the effects of anticipated operational occurrences. The scram reactivity used in design-basis accidents and transient analyses is based on an assumed control rod scram time.

NUREG-1433 and NUREG-1434 both currently contain surveillance requirements (SRs) to conduct scram time testing when certain conditions are met in order to ensure that GDC 10 of Appendix A to 10 CFR Part 50 is satisfied (STS SRs 3.1.4.1 and 3.1.4.4). SR 3.1.4.1 requires scram time testing to be conducted following a shutdown greater than or equal to 120 days, while SR 3.1.4.4 requires scram time testing to be conducted, following work on the control rod drive system or following fuel movement within the affected core cell. Both SRs must be performed at reactor steam dome pressure greater than or equal to 800 pounds per square inch gauge (psig) and prior to exceeding 40 percent rated thermal power (RTP).

For PBAPS, adoption of TSTF-484 would modify LCO 3.10.1 to allow SRs 3.1.4.1 and 3.1.4.4 to be conducted in Mode 4 with average reactor coolant temperature greater than 212 °F. Scram time testing would be performed in accordance with LCO 3.10.4, "Single Control Rod Withdrawal - Cold Shutdown." This modification to LCO 3.10.1 does not alter the means of compliance with GDC 10 of Appendix A to 10 CFR Part 50.

3.0 TECHNICAL EVALUATION

For PBAPS, the existing provisions of LCO 3.10.1 allow for hydrostatic and leakage testing to be conducted while in Mode 4 with average reactor coolant temperature greater than 212 °F, while imposing Mode 3 secondary containment requirements. Under the existing provision, LCO 3.10.1 would have to be implemented prior to hydrostatic and leakage testing. As a result, if LCO 3.10.1 was not implemented prior to hydrostatic and leakage testing, hydrostatic and leakage testing would have to be terminated if average reactor coolant temperature exceeded 212 °F during the conduct of the hydrostatic and leakage test. For PBAPS, adoption of TSTF-484 would modify LCO 3.10.1 to allow the licensee to implement LCO 3.10.1, while hydrostatic and leakage and scram time testing are being conducted, should average reactor coolant temperature exceed 212 °F during testing. The modification will allow completion of the above testing without the potential for interrupting the testing in order to reduce reactor vessel pressure, cool the RCS, and restart the test below 212 °F. Since the current LCO 3.10.1 allows testing to be conducted while in Mode 4 with average reactor coolant temperature greater than 212 °F, the proposed change does not introduce any new operational conditions beyond those currently allowed.

PBAPS SRs 3.1.4.1 and 3.1.4.4 require that control rod scram time be tested at reactor steam dome pressure greater than or equal to 800 psig and before exceeding 40 percent RTP. Performance of control rod scram time testing is typically scheduled concurrent with inservice leak or hydrostatic testing while the RCS is pressurized. Because of the number of control rods that must be tested, it is possible for the inservice leak or hydrostatic test to be completed prior to completing the scram time test. Under existing provisions, if scram time testing cannot be completed during the LCO 3.10.1 inservice leak or hydrostatic test, scram time testing must be suspended. Additionally, if LCO 3.10.1 is not implemented and average reactor coolant temperature exceeds 212 °F while performing the scram time test, scram time testing must also be suspended. In both situations, scram time testing is resumed during startup and is completed prior to exceeding 40 percent RTP. TSTF-484 modifies LCO 3.10.1 to allow a licensee to complete scram time testing initiated during inservice leak or hydrostatic testing. As stated earlier, since the current LCO 3.10.1 allows testing to be conducted while in Mode 4 with average reactor coolant temperature greater than 212 °F, the proposed change does not introduce any new operational conditions beyond those currently allowed. Completion of scram

time testing prior to reactor criticality and power operations results in a more conservative operating philosophy with attendant potential safety benefits.

It is acceptable to perform other testing concurrent with the inservice leak or hydrostatic test provided that this testing can be performed safely and does not interfere with the leak or hydrostatic test. However, it is not permissible to remain in TS 3.10.1 solely to complete such testing following the completion of inservice leak or hydrostatic testing and scram time testing.

Since the tests are performed with the reactor pressure vessel (RPV) nearly water solid, at low decay heat values, and near Mode 4 conditions, the stored energy in the reactor core will be very low. Small leaks from the RCS would be detected by inspections before a significant loss of inventory occurred. In addition, two low-pressure emergency core cooling systems (ECCS) injection/spray subsystems are required to be operable in Mode 4 by PBAPS TS LCO 3.5.2, "ECCS–Shutdown." In the event of a large RCS leak, the RPV would rapidly depressurize and allow operation of the low pressure ECCS. The capability of the low pressure ECCS would be adequate to maintain the fuel covered under the low decay heat conditions during these tests. Also, LCO 3.10.1 requires that the secondary containment and standby gas treatment system be operable and capable of handling any airborne radioactivity or steam leaks that may occur during performance of testing.

The protection provided by the normally required Mode 4 applicable LCOs, in addition to the secondary containment requirements required to be met by LCO 3.10.1, minimizes potential consequences in the event of any postulated abnormal event during testing. In addition, the requested modification to LCO 3.10.1 does not create any new modes of operation or operating conditions that are not currently allowed. Therefore, the NRC staff finds the proposed changes to PBAPS LCO 3.10.1 to be acceptable.

Attachment 3 to the licensee's application dated December 23, 2015, provided revised TS Bases pages to be implemented with the associated TS changes. These pages were provided for information only and will be revised in accordance with the TS Bases Control Program discussed in PBAPS TS 5.5.10.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (81 FR 10680). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental

impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. Exelon letter to the NRC, "Application to Revise Technical Specifications to Adopt TSTF-484, 'Use of TS 3.10.1 for Scram Time Testing Activities,' Revision 0, using the Consolidated Line Item Improvement Process," dated December 23, 2015 (ADAMS Accession No. ML15357A250).

2. TSTF-484, "Use of TS 3.10.1 for Scram Time Testing Activities," dated May 5, 2005 (ADAMS Accession No. ML052930102).

3. NUREG-1433, Revision 4.0, "Standard Technical Specifications General Electric BWR/4 Plants," dated April 2012 (ADAMS Accession No. ML12104A192).

4. NUREG-1434, Revision 4.0, "Standard Technical Specifications General Electric BWR/6 Plants," dated April 2012 (ADAMS Accession No. ML12104A195).

5. SECY-92-223, "Resolution of Deviations Identified During the Systematic Evaluation Program," dated September 18, 1992 (ADAMS Accession No. ML003763736).

Principal Contributor: R. Ennis

Date: May 9, 2016

May 9, 2016

Mr. Bryan C. Hanson
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 - ISSUANCE OF AMENDMENTS RE: INSERVICE LEAK AND HYDROSTATIC TESTING OPERATION (CAC NOS. MF7208 AND MF7209)

Dear Mr. Hanson:

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A copy of the safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's Biweekly *Federal Register* Notice.

Sincerely,

/RA/
Richard B. Ennis, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosures:
1. Amendment No. 307 to Renewed DPR-44
2. Amendment No. 311 to Renewed DPR-56
3. Safety Evaluation

cc w/enclosures: Distribution via Listserv

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ADAMS Accession No.: ML16084A968 (OGC concurrence not required per ML072980209)

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