



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

June 23, 2018

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 AMENDMENT NOS. 318 AND 321 TO REVISE TECHNICAL SPECIFICATIONS 3.8.1 AND 3.8.3, ONE-TIME CHANGE SUSPENDING EMERGENCY DIESEL GENERATOR SURVEILLANCE TEST COMPLETION REQUIREMENTS (**EMERGENCY SITUATION**) (EPID L-2018-LLA-0173)

Dear Mr. Hanson:

The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued the enclosed Amendment Nos. 318 and 321 to Renewed Facility Operating License Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station (Peach Bottom), Units 2 and 3, respectively. These amendments are in response to your license amendment request dated June 21, 2018 (Agencywide Documents Access and Management System Accession No. ML18172A283).

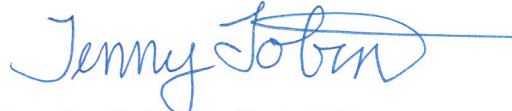
The amendments revise the Peach Bottom Units 2 and 3 Technical Specifications (TSs) for a one-time suspension of the emergency diesel generator (EDG) No. 4 (E-4) surveillance requirements. Specifically, the amendments revise TS Surveillance Requirements 3.8.1.2, 3.8.1.3, 3.8.1.6, and 3.8.3.4 to suspend performing required monthly surveillance testing on the E-4 EDG until the E-3 EDG is returned to operable status, not to exceed 2205 hours eastern time (ET) on June 27, 2018.

The license amendments are issued under the emergency provisions of Title 10 of the *Code of Federal Regulations* Section 50.91(a)(5) due to the time-critical nature of the amendments. In this instance, an emergency situation exists in that failure to act in a timely way would have resulted in a plant shutdown.

A copy of the related safety evaluation is also enclosed. The safety evaluation describes the emergency circumstances under which the amendments were issued and the final no significant

hazards consideration determination. A notice of issuance addressing the final no significant hazards consideration determination and providing for opportunity for a hearing and for public comment will be published after issuance.

Sincerely,



Jennifer C. Tobin, Project Manager  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-277 and 50-278

Enclosures:

1. Amendment No. 318 to DPR-44
2. Amendment No. 321 to DPR-56
3. Safety Evaluation

cc: 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. 318  
Renewed License No. DPR-44

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon Generation Company), dated June 21, 2018, 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. 318, 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 immediately as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



James G. Danna, Chief  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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

Date of Issuance: June 23, 2018

ATTACHMENT TO LICENSE AMENDMENT NO. 318  
PEACH BOTTOM ATOMIC POWER STATION, UNIT 2  
RENEWED FACILITY OPERATING LICENSE NO. DPR-44  
DOCKET NO. 50-277

Replace the following page of Renewed Facility Operating License No. DPR-44 with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

<u>Remove Page</u>	<u>Insert Page</u>
3	3

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove Pages</u>	<u>Insert Pages</u>
3.8-7	3.8-7
3.8-8	3.8-8
3.8-9	3.8-9
3.8-27	3.8-27

- (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 4016 megawatts thermal.

- (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 318, 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<sup>1</sup>, 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:

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<sup>1</sup> The Training and Qualification Plan and Safeguards Contingency Plan are Appendices to the Security Plan.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.2 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. Performance of SR 3.8.1.7 satisfies this SR.</li> <li>2. All DG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading.</li> <li>3. A modified DG start involving idling and gradual acceleration to synchronous speed may be used for this SR as recommended by the manufacturer. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.7 must be met.</li> <li>4. A single test at the specified Frequency will satisfy this Surveillance for both units.</li> <li>5. Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.1.2 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</li> </ol> <p>-----</p> <p>Verify each DG starts from standby conditions and achieves steady state voltage <math>\geq 4160</math> V and <math>\leq 4400</math> V and frequency <math>\geq 58.8</math> Hz and <math>\leq 61.2</math> Hz.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.3 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. DG loadings may include gradual loading as recommended by the manufacturer.</li> <li>2. Momentary transients outside the load range do not invalidate this test.</li> <li>3. This Surveillance shall be conducted on only one DG at a time.</li> <li>4. This SR shall be preceded by and immediately follow, without shutdown, a successful performance of SR 3.8.1.2 or SR 3.8.1.7.</li> <li>5. A single test will satisfy this Surveillance for both units, with synchronization to the Unit 2 4 kV emergency bus for one periodic test and synchronization to the Unit 3 4 kV emergency bus during the next periodic test. However, if the test is not performed on Unit 3, then the test shall be performed synchronized to the Unit 2 4 kV emergency bus.</li> <li>6. Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.1.3 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</li> </ol> <p>-----</p> <p>Verify each DG is synchronized and loaded and operates for <math>\geq 60</math> minutes at a load <math>\geq 2400</math> kW and <math>\leq 2800</math> kW.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.4 Verify each day tank contains <math>\geq 250</math> gal of fuel oil.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.5 Check for and remove accumulated water from each day tank.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>

(continued)



SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.6 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. Procedurally controlled manual actions for manually operating local hand valves and control switches associated with the DG fuel oil transfer system is limited to support transferring fuel between DGs, testing, and sampling activities.</li> <li>2. Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.1.6 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</li> </ol> <p>-----</p> <p>Verify the fuel oil transfer system operates to automatically transfer fuel oil from storage tank to the day tank.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.7 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. All DG starts may be preceded by an engine prelube period.</li> <li>2. A single test at the specified Frequency will satisfy this Surveillance for both units.</li> </ol> <p>-----</p> <p>Verify each DG starts from standby condition and achieves, in <math>\leq 10</math> seconds, voltage <math>\geq 4160</math> V and frequency <math>\geq 58.8</math> Hz, and after steady state conditions are reached, maintains voltage <math>\geq 4160</math> V and <math>\leq 4400</math> V and frequency <math>\geq 58.8</math> Hz and <math>\leq 61.2</math> Hz.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.8 -----NOTE-----</p> <p>This Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.</p> <p>-----</p> <p>Verify automatic and manual transfer of the unit power supply from the normal offsite circuit to the alternate offsite circuit.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains $\geq$ 33,000 gal of fuel.	In accordance with the Surveillance Frequency Control Program.
SR 3.8.3.2	Verify lube oil inventory is $\geq$ a 7 day supply.	In accordance with the Surveillance Frequency Control Program.
SR 3.8.3.3	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.4	<p>-----NOTE-----</p> <p>Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.3.4 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</p> <p>-----</p> <p>Verify each DG air start receiver pressure is <math>\geq</math> 225 psig.</p>	In accordance with the Surveillance Frequency Control Program.
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	In accordance with the Surveillance Frequency Control Program.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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. 321  
Renewed License No. DPR-56

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon Generation Company), dated June 21, 2018, 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. 321, 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 immediately as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



James G. Danna, Chief  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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

Date of Issuance: June 23, 2018

ATTACHMENT TO LICENSE AMENDMENT NO. 321  
PEACH BOTTOM ATOMIC POWER STATION, UNIT 3  
RENEWED FACILITY OPERATING LICENSE NO. DPR-56  
DOCKET NO. 50-278

Replace the following page of Renewed Facility Operating License No. DPR-56 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

<u>Remove Page</u>	<u>Insert Page</u>
3	3

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove Pages</u>	<u>Insert Pages</u>
3.8-7	3.8-7
3.8-8	3.8-8
3.8-9	3.8-9
3.8-27	3.8-27

- (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 4016 megawatts thermal.

- (2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 321, 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<sup>1</sup>, 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.

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<sup>1</sup>The Training and Qualification Plan and Safeguards Contingency Plan and Appendices to the Security Plan.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.2 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. Performance of SR 3.8.1.7 satisfies this SR.</li> <li>2. All DG starts may be preceded by an engine prelube period and followed by a warmup period prior to loading.</li> <li>3. A modified DG start involving idling and gradual acceleration to synchronous speed may be used for this SR as recommended by the manufacturer. When modified start procedures are not used, the time, voltage, and frequency tolerances of SR 3.8.1.7 must be met.</li> <li>4. A single test at the specified Frequency will satisfy this Surveillance for both units.</li> <li>5. Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.1.2 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</li> </ol> <p>-----</p> <p>Verify each DG starts from standby conditions and achieves steady state voltage <math>\geq 4160</math> V and <math>\leq 4400</math> V and frequency <math>\geq 58.8</math> Hz and <math>\leq 61.2</math> Hz.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.3 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. DG loadings may include gradual loading as recommended by the manufacturer.</li> <li>2. Momentary transients outside the load range do not invalidate this test.</li> <li>3. This Surveillance shall be conducted on only one DG at a time.</li> <li>4. This SR shall be preceded by and immediately follow, without shutdown, a successful performance of SR 3.8.1.2 or SR 3.8.1.7.</li> <li>5. A single test will satisfy this Surveillance for both units, with synchronization to the Unit 3 4 kV emergency bus for one periodic test and synchronization to the Unit 2 4 kV emergency bus during the next periodic test. However, if the test is not performed on Unit 2, then the test shall be performed synchronized to the Unit 3 4 kV emergency bus.</li> <li>6. Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.1.3 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</li> </ol> <p>-----</p> <p>Verify each DG is synchronized and loaded and operates for <math>\geq 60</math> minutes at a load <math>\geq 2400</math> kW and <math>\leq 2800</math> kW.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.4      Verify each day tank contains <math>\geq 250</math> gal of fuel oil.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.5      Check for and remove accumulated water from each day tank.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>

(continued)



SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.6 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. Procedurally controlled manual actions for manually operating local hand valves and control switches associated with the DG fuel oil transfer system is limited to support transferring fuel between DGs, testing, and sampling activities.</li> <li>2. Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.1.6 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</li> </ol> <p>-----</p> <p>Verify the fuel oil transfer system operates to automatically transfer fuel oil from storage tank to the day tank.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.7 -----NOTES-----</p> <ol style="list-style-type: none"> <li>1. All DG starts may be preceded by an engine prelube period.</li> <li>2. A single test at the specified Frequency will satisfy this Surveillance for both units.</li> </ol> <p>-----</p> <p>Verify each DG starts from standby condition and achieves, in <math>\leq 10</math> seconds, voltage <math>\geq 4160</math> V and frequency <math>\geq 58.8</math> Hz, and after steady state conditions are reached, maintains voltage <math>\geq 4160</math> V and <math>\leq 4400</math> V and frequency <math>\geq 58.8</math> Hz and <math>\leq 61.2</math> Hz.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>
<p>SR 3.8.1.8 -----NOTE-----</p> <p>This Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.</p> <p>-----</p> <p>Verify automatic and manual transfer of the unit power supply from the normal offsite circuit to the alternate offsite circuit.</p>	<p>In accordance with the Surveillance Frequency Control Program.</p>

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains $\geq$ 33,000 gal of fuel.	In accordance with the Surveillance Frequency Control Program.
SR 3.8.3.2	Verify lube oil inventory is $\geq$ a 7 day supply.	In accordance with the Surveillance Frequency Control Program.
SR 3.8.3.3	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.4	<p>-----NOTE-----</p> <p>Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR 3.8.3.4 for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.</p> <p>-----</p> <p>Verify each DG air start receiver pressure is <math>\geq</math> 225 psig.</p>	In accordance with the Surveillance Frequency Control Program.
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	In accordance with the Surveillance Frequency Control Program.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 318 AND 321

TO RENEWED FACILITY OPERATING LICENSE NOS. DPR-44 AND 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 letter dated June 21, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18172A283), Exelon Generation Company, LLC (Exelon, the licensee) submitted an emergency license amendment request (LAR) for a one-time suspension of the surveillance requirements (SRs) of the emergency diesel generator (EDG) No. 4 (E-4) described in the Technical Specifications (TSs) for Peach Bottom Atomic Power Station, Units 2 and 3 (Peach Bottom). Specifically, the proposed changes would revise SRs 3.8.1.2, 3.8.1.3, 3.8.1.6, and 3.8.3.4 to suspend performing required monthly surveillance testing on E-4 EDG until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours eastern time (ET) on June 27, 2018.

2.0 REGULATORY EVALUATION

The U.S. Nuclear Regulatory Commission (NRC or the Commission) staff reviewed the LAR based on the following regulatory requirements:

- As discussed in Appendix H to the Peach Bottom Updated Final Safety Analysis Report (UFSAR), during the construction/licensing process, both units were evaluated against the then-current Atomic Energy Commission draft of the 27 General Design Criteria (GDC) issued in November 1965. A revised and expanded set of the 70 draft GDC was issued on July 11, 1967. Appendix H to the UFSAR contains an evaluation of the design basis of Peach Bottom against a set of the 70 draft GDC, and it was concluded that Peach Bottom conforms to the intent of the draft GDC. Criterion 24 requires sufficient alternate sources of power to be provided to permit the required functioning of reactor protection systems. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of

their simultaneous failure under operating and postulated accident and environmental conditions.

- GDC 18, "Inspection and testing of electric power systems," of Appendix A to 10 CFR Part 50 requires, in part, that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing of important areas and features, such as wiring, insulation, connections, and switchboards to assess the continuity of the systems and the condition of their components.
- 10 CFR 50.36, "Technical specifications," requires, in part, that the applicants for a license authorizing operation of a production or utilization facility must include in their application proposed TSs in accordance with the requirements of 10 CFR 50.36. The regulations in 10 CFR 50.36(c) require that TSs include items in specific categories including (1) safety limits, limiting safety system settings, and limiting control settings, (2) limiting conditions for operation (LCOs), (3) SRs, (4) design features, and (5) administrative controls. The proposed changes to the Peach Bottom TSs relate to the LCO and SR categories.
- 10 CFR 50.63, "Loss of all alternating current power," requires, in part, that a nuclear power plant must be able to withstand for a specified duration, and recover from a complete loss of offsite and onsite alternating current (AC) sources (i.e., a station blackout (SBO)).
- 10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires, in part, that performing maintenance activities shall not reduce the overall availability of the structures, systems, and components, which are important to safety of the plant.

The NRC staff also reviewed the LAR based on the following regulatory guidance documents:

- Regulatory Guide (RG) 1.93, "Availability of Electric Power Sources," provides guidance with respect to operating restrictions or completion time (CT) if the number of available AC sources is less than that required by the TS LCO. In particular, this guide recommends a maximum CT of 72 hours for an inoperable onsite or offsite AC source.
- RG 1.155, "Station Blackout," provides guidance for complying with the requirement in 10 CFR 50.63 that nuclear power plants be capable of coping with an SBO event for a specified duration.
- NUREG-0800, Branch Technical Position (BTP) 8-8, "Onsite (Emergency Diesel Generators) and Offsite Power Sources Allowed Outage Time Extensions," dated February 2012 (ADAMS Accession No. ML113640138), provides guidance to the NRC staff in reviewing LARs for licensees proposing a one-time or permanent TS change to extend an EDG allowed outage time (AOT) beyond 72 hours. The BTP 8-8 emphasizes that more defense-in-depth is needed for SBO scenarios that are more likely to occur as compared to the less likely occurrence of the large and medium size loss-of-coolant accident (LOCA) scenarios.

### 3.0 TECHNICAL EVALUATION

#### 3.1 Description of the Peach Bottom, Units 2 and 3, AC Power System

The Peach Bottom Class 1E electrical power distribution system AC sources consist of the offsite power sources (i.e., preferred and alternate power sources), and the onsite standby power sources (i.e., E-1, E-2, E-3, and E-4 EDGs). The design of the AC electrical power system provides independence and redundancy to ensure an available source of power to the engineered safety feature (ESF) systems.

The Class 1E AC distribution system is divided into redundant load groups, so that the loss of any one group does not prevent the minimum safety functions from being performed. Each load group has connections to two qualified circuits that connect each unit to multiple offsite power supplies and an EDG for each unit. The onsite standby power source for the four 4 kilovolt (kV) emergency buses in each unit consists of four EDGs. The four EDGs provide onsite standby power for both Units 2 and 3. Each EDG provides standby power to two 4 kV emergency buses – one associated with Unit 2 and one associated with Unit 3. An EDG starts automatically on a LOCA signal (i.e., low reactor water level signal or high drywall pressure signal) from either Unit 2 or Unit 3 or on an emergency bus degraded voltage or undervoltage signal. After the EDG has started, it automatically ties to its respective bus after offsite power is tripped as a consequence of emergency bus undervoltage or degraded voltage, independent of or coincident with a LOCA signal.

The EDGs also start and operate in the standby mode without tying to the emergency bus on a LOCA signal alone. Following the trip of offsite power, all loads are stripped from the emergency bus. When the EDG is tied to the emergency bus, loads are then sequentially connected to its respective emergency bus by individual timers associated with each auto-connected load following a permissive from a voltage relay monitoring each emergency bus.

In the event of a loss of both offsite power sources, the ESF electrical loads are automatically connected to the EDGs in sufficient time to provide for safe reactor shutdown of both units and to mitigate the consequences of a design-basis accident (DBA) such as a LOCA. Within 59 seconds after the initiating signal is received, all automatically connected loads needed to recover the unit or maintain it in a safe condition are returned to service. The failure of any one EDG does not impair safe shutdown because each EDG serves an independent, redundant 4 kV emergency bus for each unit. The remaining EDGs and emergency buses have sufficient capability to mitigate the consequences of a DBA, support the shutdown of the other unit, and maintain both units in a safe condition.

#### 3.2 Station Blackout

For Peach Bottom, the 33 kV Conowingo SBO line, using a separate 33/13.8 kV transformer, can be used to supply the circuit normally supplied by startup and emergency Auxiliary Transformer No. 2. While not a qualified circuit, this alternate source is a direct tie to the Conowingo Hydro Station that provides a highly reliable source of power because: the line and transformers at both ends of the line are dedicated to the support of Peach Bottom; the SBO line is not subject to damage from adverse weather conditions; and the SBO line can be isolated from other parts of the grid when necessary to ensure its availability and stability to support Peach Bottom. The availability of this highly reliable source of offsite power permits an extension of the allowable out-of-service time for an EDG from 7 days to 14 days from the

discovery of failure to meet applicable TS requirements. Therefore, when an EDG is inoperable, it is necessary to verify the availability of the Conowingo SBO line immediately and once per 12 hours thereafter. The CT of "Immediately" reflects the fact that in order to ensure that the full 14-day CT is available for completing preplanned maintenance of a EDG, prudent plant practice at Peach Bottom dictates that the availability of the Conowingo SBO line be verified prior to making an EDG inoperable for preplanned maintenance. The extended CT for restoration of an inoperable EDG afforded by the availability of the Conowingo SBO line is intended to allow completion of an EDG overhaul.

### 3.3 Proposed TS Changes

#### Current TS Requirements

The monthly (i.e., once per 31 days) surveillance testing requirement for the E-4 EDG is controlled by ST-0-052-204-2, "E4 Diesel Generator Slow Start and Full Load Test," and satisfies SRs 3.8.1.2, 3.8.1.3, 3.8.1.6, and 3.8.3.4. Excerpts from the specific SRs are noted below.

Surveillance testing of the E-4 EDG includes tests required to be performed on a monthly frequency.

SR 3.8.1.2: Verify each diesel generator (DG) starts from standby conditions and achieves steady state voltage  $\geq 4,160$  volts (V) and  $\leq 4,400$  V and frequency  $\geq 58.8$  hertz (Hz) and  $\leq 61.2$  Hz.

SR 3.8.1.3: Verify each DG is synchronized and loaded and operates for  $\geq 60$  minutes at a load  $\geq 2,400$  kilowatts (kW) and  $\leq 2,800$  kW.

SR 3.8.1.6: Verify the fuel oil transfer system operates to automatically transfer fuel oil from the storage tank to the day tank.

SR 3.8.3.4: Verify each DG air start receiver pressure is  $\geq 225$  psig.

#### EDG Failure Cause Determination

According to the licensee, the reason for the LAR is that the E-3 EDG is currently inoperable while the E-4 EDG TS surveillance test is required to be conducted. The E-3 EDG is planned to be returned to service by June 23, 2018, at 2300 hours (ET). However, if complications are experienced that cause delays in restoring the E-3 EDG to an operable status and the timing for performing the surveillance for the E-4 EDG overlap, then the station could be forced into a situation requiring a dual-unit shutdown.

The licensee's failure cause determination stated that the abnormal condition that led to the E-3 EDG being declared inoperable was caused by a missing pin in the turbocharger scavenging air inlet check valve. Remains of the pin were found downstream of the check valve and damage to the turbocharger inlet vanes was detected. Pin metal fines were found in the combustion air inlet plenum. The licensee inspected the E-1, E-2, and E-4 EDG inlet air check valves, which determined that the pin similar to the one that caused the damage and inoperability of the E-3 EDG was tightly bound and correctly staked in each of the E-1, E-2, and E-4 EDGs, and that all three valves stroked smoothly and did not exhibit any of the characteristics found on the E-3 EDG during troubleshooting. This provides reasonable assurance that a common-cause failure

does not exist in the E-1, E-2, and E-4 EDGs. The NRC staff finds the licensee's assessment to be reasonable.

### Description of Proposed TS Changes

The proposed changes to the TS would add the following Note to SRs 3.8.1.2, 3.8.1.3, 3.8.1.6, and 3.8.3.4:

-----NOTE-----  
Until E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, performance of SR [3.8.1.2, 3.8.1.3, 3.8.1.6, or 3.8.3.4, as appropriate] for E-4 EDG may be suspended. The past due surveillance will commence within 12 hours of restoration of the E-3 EDG operability.  
-----

The specific proposed changes to the Units 2 and 3 TSs are provided in the marked-up and clean TS pages provided in Attachments 2 and 3 of the LAR, respectively.

## 3.4 Deterministic Evaluation

### 3.4.1 Meeting the Accident Analysis Requirement

In the LAR, the licensee provided the following details of continued capability of meeting the accident analysis:

EDG capacity is such that any three of the four diesels can supply all required loads for the safe shutdown of one unit and a design basis accident on the other unit without offsite power. Each of the four EDGs can supply one of the four separate Class 1E emergency buses. Each EDG is started automatically on a Loss of Offsite Power (LOOP) or LOCA. The EDG arrangement provides adequate capacity to supply the ESF loads for the DBA, assuming the failure of a single active component in the system.

By suspending monthly SRs for E-4 EDG, the E-4 EDG would continue to be available, thus meeting the requirement of three of the four diesels credited in the accident analyses.

The licensee states that the proposed suspension of SR 3.8.1.2, SR 3.8.1.3, SR 3.8.1.6, and SR 3.8.3.4 testing requirements for the E-4 EDG during E-3 EDG inoperability minimizes risk by maintaining defense-in-depth. Performance of these SRs would require the E-4 EDG to be declared inoperable during testing. The licensee states that:

The overall risk of suspending the surveillance for the E-4 EDG during the period of the E-3 EDG inoperability is minimal. The time period is short and historical routine performances of these surveillances have demonstrated good performance of the EDGs. There is no indication of degraded performance of the E-1, E-2, and E-4 EDGs. The proposed changes to suspend performing the SRs is based on the consideration of unit conditions and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the requirements.

The licensee states in the LAR that the E-4 EDG has successfully passed all monthly surveillances during the period from July 14, 2017 to May 17, 2018. Based on past successful performance of SRs for E-4 EDG, the NRC staff has reasonable assurance that the E-4 EDG will perform its function when required, even if the next monthly SRs for the E-4 EDG are temporarily delayed/suspended until the E-3 EDG is returned to service. Therefore, AC power sources credited in the accident analyses will remain the same.

Furthermore, based on the licensee's inspection of the E-1, E-2, and E-4 EDGs, the missing pin in the inlet air check valve that caused the abnormal conditions for the E-3 EDG was found to be bound tightly and staked correctly in the other three EDGs, and no other degraded conditions were identified. This provides reasonable assurance that no common cause failures exist that affect the remaining EDGs. As discussed under compensatory measures, Section 3.4.2 of this safety evaluation, the licensee will also secure the remaining EDGs during the period of inoperability of the E-3 EDG, and pre-stage the "N+1" Flex Pump and Flex Generator inside the site protected area to allow for more rapid deployment in the event of a LOOP with concurrent additional EDG failures.

After reviewing the LAR and the relevant UFSAR section, the NRC staff finds that three EDGs will remain available and continue to meet the accident analysis without offsite power. Other than the temporary suspension, the SRs remain unchanged and therefore will continue to meet 10 CFR 50.36(c)(3). Based on the above review, the NRC staff finds the temporary suspension of SRs 3.8.1.2, 3.8.1.3, 3.8.1.6, and 3.8.3.4 for the E-4 EDG acceptable.

#### 3.4.2 Compensatory Measures/Additional Defense-in-Depth Measures

In the LAR, the licensee states:

The following compensatory measures will be implemented to support the proposed emergency license amendment request.

- The E-1, E-2, and E-4 EDGs shall be protected during the period of inoperability of the E-3 EDG.
- The E-1, E-2, and E-3 EDGs shall be protected from the time of restoration of the E-3 EDG until the E-4 EDG monthly surveillance is satisfactorily performed.
- The Conowingo SBO line, station batteries, and battery chargers, shall be protected, as defense-in-depth, during the suspended EDG surveillance time authorized by the proposed emergency license amendment. In addition, access to the substations will be controlled.
- The "N+1" Flex Pump and Flex Generator will be pre-staged inside the site protected area to allow for more rapid deployment in the event of a LOOP with concurrent additional EDG failures. The use of the "N+1" equipment allows the required FLEX gear to be retained within the protected building, preserving them for an actual FLEX event. This will be controlled in accordance with [existing] plant procedures.



- Component testing or maintenance of safety systems in the off-site power systems and important non-safety equipment in the off-site power systems which can increase the likelihood of a plant transient or LOOP, as determined by plant management, will be avoided during the ... suspended EDG surveillance time authorized by the proposed emergency license amendment.
- The following equipment shall be protected as defense-in-depth, during the suspended EDG surveillance time authorized by the proposed emergency license amendment:
  - RHR Pumps
  - CS Pumps
  - HPSW Pumps
  - All 4kV Bus Rooms
  - LPCI Swing Buses
  - A ESW Pump
  - B MCREV Fan
  - B Standby Gas Treatment Fan
  - 20D021 (2) 125V DC Bus
  - 30D024 125V DC Bus
  - E124-R-C
  - E134-W-A
  - E224-R-B
  - E234-R-B
  - E324-R-B
  - E334-R-B
  - E424-W-A
  - E434-R-B
- Discretionary substation maintenance shall not be allowed during the suspended EDG surveillance time authorized by the proposed emergency licensed amendment.
- The High Pressure Coolant Injection (HPCI) pump, Reactor Core Isolation Cooling (RCIC) pump, and the Residual Heat Removal (RHR) pump associated with the operable EDGs will not be removed from service for elective maintenance activities during the suspended EDG surveillance time authorized by the proposed emergency license amendment.
- The system load dispatcher shall be contacted once per day to determine if any significant grid perturbations (i.e., high grid loading unable to withstand a single contingency of line or generation outage) are expected during the suspended EDG surveillance time authorized by the proposed emergency license amendment. If significant grid perturbations are expected, station managers will assess the conditions and determine the best course for the plant.

Additionally, during the suspended EDG surveillance time authorized by the proposed emergency license amendment, Operations shift crews will be briefed at the beginning of each shift regarding actions in response to a Loss of Offsite Power (LOOP) per applicable plant procedures. Also, all required Fire Risk Management Actions (RMAs) will be performed in accordance with site procedures that fulfill the requirements of 10 CFR 50.65(a)(4).

The NRC staff finds that the above compensatory measures will provide defense-in-depth, add to the safety Risk Management of the plant, and are appropriate for managing the increase in risk per 10 CFR 50.65(a)(4); therefore, the measures are acceptable.

### 3.4.3 Safety Margin

The licensee will continue to meet the accident analysis requirements (considering no additional failure in safety-related equipment in any other train except those impacted by the E-3 EDG inoperability). The NRC staff finds that there will be no or minimal reduction in safety margin.

### 3.4.4 Risk Insights Evaluation

In its LAR, the licensee stated that the basis for the proposed changes is a “one-time, deterministic emergency license amendment to suspend performing required surveillance testing on the E-4 EDG per TS 3.8.1 surveillance requirements.” Therefore, the subject LAR was not a risk-informed request and a risk evaluation was neither required nor submitted for the purpose of making a regulatory decision.

The NRC staff determined that “special circumstances,” as discussed in NUREG-0800, Section 19.2, “Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis; General Guidance,” which would have necessitated additional risk information be provided, did not exist. As such, the NRC staff did not request any additional risk information associated with the review of this LAR.

While this is not a risk-informed LAR, the licensee did provide risk insights related to the proposed change in Section 3.2 of Attachment 1 to the LAR. The risk insights provided by the licensee did not include any numerical results. The NRC staff considered the licensee-provided qualitative risk insights to aid in the deterministic review of the proposed change. The staff reviewed the Peach Bottom Standardized Plant Analysis Risk Model (SPAR). The review of the Peach Bottom SPAR and the licensee-provided risk insights supported the traditional engineering conclusions associated with the licensee's proposed compensatory actions. The risk insights did not challenge the engineering conclusions that the proposed changes maintain defense-in-depth.

### 3.4.5 Technical Evaluation Summary

Based on the above technical evaluation, the NRC staff finds that the proposed TS changes will have minimal impact on the continued safe operation and safe shutdown capability of the plant. The licensee will continue to meet the regulatory requirements listed in Section 2.0 above, except for those GDCs temporarily impacted by non-availability of a redundant source of safety-related onsite power while the plant is in a TS Action Statement. Therefore, the NRC staff concludes that the proposed temporary suspension of the surveillance of the E-4 EDG until the

E-3 EDG is returned to OPERABLE status, not to exceed 2205 hours (ET) on June 27, 2018, is acceptable.

#### 4.0 EMERGENCY SITUATION

The NRC's regulations in 10 CFR 50.91(a)(5) state that where the NRC finds that an emergency situation exists, in that failure to act in a timely way would result in derating or shutdown of a nuclear power plant, or in prevention of either resumption of operation or of increase in power output up to the plant's licensed power level, it may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or for public comment. In such a situation, the NRC will publish a notice of issuance under 10 CFR 2.106, providing for opportunity for a hearing and for public comment after issuance.

As discussed in the licensee's application dated June 21, 2018, the licensee requested that the proposed amendments be processed by the NRC on an emergency basis. The licensee provided the following basis for processing the proposed amendments as emergency amendments.

On June 13, 2018, at 2205 hours (ET), Peach Bottom, Units 2 and 3, entered a 14-day LCO action statement due to an unplanned manual shutdown of the E-3 EDG that occurred during monthly TS surveillance testing due to abnormal conditions and the EDG was declared inoperable. Due to the configuration and shared electrical distribution system at Peach Bottom, Units 2 and 3, TS 3.8.1, Condition B (i.e., one EDG inoperable) was entered. Maintenance activities continue in support of restoring the E-3 EDG to an operable status. The licensee expects the work will be completed and the E-3 EDG is planned to be returned to service by June 23, 2018, at 2300 hours (ET). However, monthly scheduled surveillance testing of the E-4 EDG is required to be completed by no later than June 25, 2018, at 1045 hours (ET), including the allowed 25 percent grace period per SR 3.0.2.

As a result of the E-3 EDG inoperability, troubleshooting commenced and on June 14, 2018, station mechanical maintenance craft personnel were performing visual inspections of E-3 EDG combustion air supply process flow path and discovered a missing pin in the turbocharger scavenging air inlet check valve. Further inspections downstream of the check valve discovered the remains of a pin and damage to the turbocharger inlet vanes leading edges. Metal fines from the pin interacting with the turbocharger were discovered in the inlet plenum, warranting further internal inspections.

An inspection of the other three EDGs (i.e., E-1, E-2, and E-4) inlet air check valves determined that the pins are bound tightly and staked correctly and no other degraded conditions were identified. All three valves stroked smoothly and did not exhibit any of the same characteristics found on the E-3 EDG during troubleshooting. Based on the research performed as noted above and the inspections performed on June 14, 2018, the licensee concluded that no common cause failures exist for the remaining EDGs and that they remain operable.

If the E-3 EDG is not restored to an operable status on June 23, 2018, at 2200 hours (ET) as currently scheduled and the extended restoration time exceeds June 25, 2018, at 1045 hours (ET), the E-4 EDG would exceed the monthly surveillance test frequency (including the 25 percent grace period) and would be declared inoperable. Testing the E-4 EDG during the time when the E-3 EDG is out-of-service would also require the E-4 to be declared inoperable during testing. With two inoperable EDGs, both Peach Bottom units would be required to enter TS 3.8.1, Condition F, "Two or more DGs inoperable." Condition F specifies that at least one

EDG be restored to an operable status within 2 hours. In addition, TS Condition G would apply if the Condition F CT is not met and both Peach Bottom units would need to be placed in Mode 3, "Hot Shutdown," within 12 hours.

Consequently, the need for these one-time proposed changes was not expected, and the licensee requested the proposed changes to the TS on a one-time emergency basis to suspend performing the required monthly surveillance testing of E-4 EDG until such time that the work on the E-3 EDG is completed, not to exceed 2205 hours (ET) on June 27, 2018,.

#### NRC Staff Conclusion

The NRC staff reviewed the licensee's basis for processing the proposed amendments as emergency amendments (as discussed above) and agrees that an emergency situation exists consistent with the provisions in 10 CFR 50.91(a)(5). Furthermore, the NRC staff determined that: (1) the licensee used its best efforts to make a timely application; (2) the licensee could not reasonably have avoided the situation; and (3) the licensee has not abused the provisions of 10 CFR 50.91(a)(5). Based on these findings, and the determination that the amendments involve no significant hazards consideration as discussed below, the NRC staff has determined that a valid need exists for issuance of the license amendments using the emergency provisions of 10 CFR 50.91(a)(5).

#### 5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION

The NRC's regulation in 10 CFR 50.92(c) states that the NRC may make a final determination, under the procedures in 10 CFR 50.91, that a license amendment involves no significant hazards consideration if operation of the facility, in accordance with the amendment, would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

An evaluation of the issue of no significant hazards consideration is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The proposed license amendment provides a deterministic one-time change to suspend the monthly surveillance testing for the E-4 EDG following restoration of the E-3 EDG to operable status. These changes will have no effect on accident probabilities since the EDGs are not considered accident initiators. The proposed suspension of the E-4 EDG surveillance interval does not require any physical plant modifications. Since no individual precursors of an accident are affected, the proposed amendment does not increase the probability of a previously analyzed event.

The consequences of an evaluated accident are determined by the operability of plant systems designed to mitigate those consequences. The EDGs are backup power to components that mitigate the consequences of accidents. The current TSs permit a single EDG to be

inoperable for up to 14 days. The proposed changes would suspend the monthly surveillance testing for the E-4 EDG on a one-time basis, such that the testing would commence following restoration of the E-3 EDG. The proposed changes do not affect any of the assumptions used in deterministic safety analysis. Likewise, the suspension of SR 3.8.1.2, SR 3.8.1.3, SR 3.8.1.6, and 3.8.3.4 related to the E-4 EDG testing temporary basis has no impact on any of the assumptions used in deterministic safety analysis. Granting the proposed change will not adversely affect the consequences of an accident previously evaluated.

Therefore, the proposed amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

Creation of the possibility of a new or different kind of accident requires creating one or more new accident precursors. New accident precursors may be created by modifications of plant configuration, including changes in allowable modes of operation.

The proposed license amendment provides a deterministic one-time change to suspend the monthly surveillance testing of the E-4 EDG following restoration of the E-3 EDG to operable status. These proposed changes do not involve a modification or the physical configuration of the plant (i.e., no new equipment will be installed), create any new failure modes for existing equipment, or create any new limiting single failures. The plant equipment considered available when evaluating the proposed change remains unchanged. Suspending SR 3.8.1.2, SR 3.8.1.3, SR 3.8.1.6 and 3.8.3.4 related to the E-4 EDG testing on a temporary basis will permit completion of repair activities on the E-3 EDG should they be delayed without incurring transient risks associated with performing a dual-unit shutdown with the EDG unavailable.

Therefore, the proposed amendments do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed license amendment provides a deterministic one-time change suspending the monthly surveillance testing of the E-4 EDG following restoration of the E-3 EDG to operable status. A deterministic evaluation of the proposed changes demonstrates there is sufficient margin to safety during the time period that the E-4 EDG surveillance testing is delayed. The overall risk of not performing SR 3.8.1.2, SR 3.8.1.3, SR 3.8.1.6, and SR 3.8.3.4 for the E-4 EDG is minimal and is

consistent with defense-in-depth philosophy. The time period of the temporary suspension is short and historical routine performance of SR 3.8.1.2, SR 3.8.1.3, SR 3.8.1.6, and 3.8.3.4 have demonstrated good performance of the E-4 EDG. The E-1 and E-2 EDGs are not affected by the proposed changes and would remain operable along with the E-4 EDG during the suspended period that the E-3 EDG is inoperable. Suspending the SR 3.8.1.2, SR 3.8.1.3, and SR 3.8.1.6 is based on the consideration of unit conditions and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the requirements.

Therefore, the proposed amendments do not result in a significant reduction in the margin of safety.

Based on the above evaluation, the NRC staff concludes that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff has made a final determination that no significant hazards consideration is involved for the proposed amendments and that the amendments should be issued as allowed by the criteria contained in 10 CFR 50.91.

#### 6.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified by phone on June 22, 2018, of the proposed issuance of the amendments.

#### 7.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 or change SRs. 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. 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.

#### 8.0 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.

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Date: June 23, 2018

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 – ISSUANCE OF AMENDMENT NOS. 318 AND 321 TO REVISE TECHNICAL SPECIFICATIONS 3.8.1 AND 3.8.3, ONE-TIME CHANGE SUSPENDING EMERGENCY DIESEL GENERATOR SURVEILLANCE TEST COMPLETION REQUIREMENTS (**EMERGENCY SITUATION**) (EPID L-2018-LLA-0173) DATED JUNE 23, 2018

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