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

February 14, 2022

Mr. David P. Rhoades
Senior Vice President
Constellation Energy Generation, LLC
President and Chief Nuclear Officer
Constellation Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 - ISSUANCE OF AMENDMENT NOS. 341 AND 344 RE: CHANGE TO TECHNICAL SPECIFICATION 5.5.7, VENTILATION FILTER TESTING PROGRAM (EPID L-2021-LLA-0078)

Dear Mr. Rhoades:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment Nos. 341 and 344 to Subsequent 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 consist of changes to the technical specifications (TSs) in response to your application dated April 29, 2021.

These amendments revise the Peach Bottom, Units 2 and 3, TSs to change the frequency of the ventilation filter testing program for certain testing requirements from 12 months to 24 months.

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

Sincerely,

/RA/

Jason C. Paige, Senior 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. 341 to Subsequent Renewed Facility DPR-44
2. Amendment No. 344 to Subsequent Renewed Facility DPR-56
3. Safety Evaluation

cc: Listserv

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

CONSTELLATION ENERGY GENERATION, LLC

PSEG NUCLEAR LLC

DOCKET NO. 50-277

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

AMENDMENT TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE

Amendment No. 341
Subsequent 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 April 29, 2021, 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 Subsequent Renewed Facility Operating License No. DPR-44 is hereby amended to read as follows:

2.C.(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 341, are hereby incorporated in the license. Constellation Energy Generation 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

James G. Danna

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Date: 2022.02.14 10:47:00 -05'00'

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

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

Date of Issuance: February 14, 2022

ATTACHMENT TO LICENSE AMENDMENT NO. 341

PEACH BOTTOM ATOMIC POWER STATION, UNIT 2

SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO. DPR-44

DOCKET NO. 50-277

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

Remove	Insert
Page 3	Page 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.

Remove	Insert
5.0-12	5.0-12

(1) Constellation Energy Generation, LLC, pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility and PSEG Nuclear to possess the facility at the designated location in Peach Bottom, York County, Pennsylvania in accordance with the procedures and limitations set forth in this license;

(2) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

(3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or when associated with radioactive apparatus or components;

(5) Constellation Energy Generation, LLC, 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 subsequent 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

Constellation Energy Generation, LLC 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. 340, are hereby incorporated in the license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

1) Once per 24 months for standby service or after 720 hours of system operation; and,

2) After each complete or partial replacement of the HEPA filter train or charcoal adsorber filter; after any structural maintenance on the system housing; and, following significant painting, fire, or chemical release in any ventilation zone communicating with the system while it is in operation.

Tests described in Specifications 5.5.7.d and 5.5.7.e shall be performed once per 24 months.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

a. Demonstrate for each of the ESF systems that an inplace test of the HEPA filters shows a penetration and system bypass < 1.0% when tested in accordance with Regulatory Guide 1.52, Revision 2, Section 5c, and ASME N510-1989, Sections 6 (Standby Gas Treatment (SGT) System only) and 10, at the system flowrate specified below.

ESF Ventilation System	Flowrate (cfm)
SGT System	7200 to 8800
Main Control Room Emergency Ventilation (MCREV) System	2700 to 3300

(continued)

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

CONSTELLATION ENERGY GENERATION, LLC

PSEG NUCLEAR LLC

DOCKET NO. 50-278

PEACH BOTTOM ATOMIC POWER STATION, UNIT 3

AMENDMENT TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE

Amendment No. 344
Subsequent 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 April 29, 2021, 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 Subsequent Renewed Facility Operating License No. DPR-56 is hereby amended to read as follows:

2.C.(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 344, are hereby incorporated in the license. Constellation Energy Generation 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

James G. Danna

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Date: 2022.02.14 10:47:36 -05'00'

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

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

Date of Issuance: February 14, 2022

ATTACHMENT TO LICENSE AMENDMENT NO. 344

PEACH BOTTOM ATOMIC POWER STATION, UNIT 3

SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO. DPR-56

DOCKET NO. 50-278

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

Remove	Insert
Page 3	Page 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.

Remove	Insert
5.0-12	5.0-12

Pennsylvania in accordance with the procedures and limitations set forth in this license;

(2) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

(3) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

(4) Constellation Energy Generation, LLC, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or when associated with radioactive apparatus or components;

(5) Constellation Energy Generation, LLC, 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 subsequent 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

Constellation Energy Generation, LLC 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. 343, are hereby incorporated in the license. Constellation Energy Generation, LLC shall operate the facility in accordance with the Technical Specifications.

5.5 Programs and Manuals

5.5.7 Ventilation Filter Testing Program (VFTP) (continued)

1) Once per 24 months for standby service or after 720 hours of system operation; and,

2) After each complete or partial replacement of the HEPA filter train or charcoal adsorber filter; after any structural maintenance on the system housing; and, following significant painting, fire, or chemical release in any ventilation zone communicating with the system while it is in operation.

Tests described in Specifications 5.5.7.d and 5.5.7.e shall be performed once per 24 months.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

a. Demonstrate for each of the ESF systems that an inplace test of the HEPA filters shows a penetration and system bypass < 1.0% when tested in accordance with Regulatory Guide 1.52, Revision 2, Section 5c, and ASME N510-1989, Sections 6 (Standby Gas Treatment (SGT) System only) and 10, at the system flowrate specified below.

ESF Ventilation System	Flowrate (cfm)
SGT System	7200 to 8800
Main Control Room Emergency Ventilation (MCREV) System	2700 to 3300

(continued)

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 341 TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO. DPR-44 AND

AMENDMENT NO. 344 TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO. DPR-56

CONSTELLATION EENRGY GENERATION, 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 April 29, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21119A141), Exelon Generation Company, LLC (the licensee), requested changes to Technical Specifications (TS) 5.5.7, “Ventilation Filter Testing Program [VFTP],” for certain testing requirements for Peach Bottom Atomic Power Station, Units 2 and 3 (PBAPS 2 and 3). Specifically, the proposed change revises the frequency for performing certain testing requirements from 12 months to 24 months. The VFTP described in TS 5.5.7 establishes the required testing of engineered safety feature (ESF) filter ventilation systems; specifically, the Standby Gas Treatment (SGT) system and the Main Control Room Emergency Ventilation Filtration (MCREV) system in accordance with Regulatory Guide (RG) 1.52, Revision 2 (Reference 1), and American Society of Mechanical Engineers (ASME) N510-1989 (Reference 2).

2.0 REGULATORY EVALUATION

2.1 Standby Gas Treatment System

The design basis for the SGT system is to mitigate the consequences of a design-basis accident (DBA), loss-of-coolant accident (LOCA), and fuel-handling accidents (FHAs). The SGT system is designed to ensure that radioactive materials that leak from the primary containment into the secondary containment following a DBA LOCA are filtered and adsorbed

prior to exhausting to the environment. For all events analyzed, the SGT system is designed to automatically initiate to reduce, via filtration and adsorption, the radioactive material released to the environment.

A single SGT system is common to both PBAPS 2 and 3 and consists of two fully redundant subsystems each with its own set of ductwork, dampers, valves, charcoal filter train, and controls. Both SGT subsystems share a common inlet plenum. This inlet plenum is connected to the reactor building and refueling floor ventilation exhaust duct for each unit and to the suppression chamber and drywell of each unit. Both SGT subsystems exhaust to the plant off-gas stack through a common exhaust duct served by three 100 percent capacity system fans.

Each charcoal filter train consists of (components listed in order of the direction of the air flow):

a. A demister or moisture separator;
b. An electric heater;
c. A prefilter;
d. A high efficiency particulate air (HEPA) filter;
e. A charcoal adsorber; and
f. A second HEPA filter.

The SGT system is sized such that each 100 percent capacity fan will provide a flow rate of 10,500 cubic feet per minute at 20 inches water gauge static pressure to support the control of fission product releases. The SGT system is designed to restore and maintain secondary containment at a negative pressure of 0.25 inches water gauge relative to the atmosphere following the receipt of a secondary containment isolation signal.

2.2 Main Control Room Emergency Ventilation Filtration System

The MCREV system provides a protected environment for the Control Room Envelope (CRE) boundary from which occupants can control the unit following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. The CRE is the area that contains the spaces that the main control room occupants inhabit to control the unit during normal and accident conditions. This area encompasses the main control room and may include other non-critical areas not requiring continuous occupancy in the event of an accident. The CRE is protected during normal operation, natural events, and accident conditions. The CRE boundary is the combination of walls, floor, roof, ducting, dampers, doors, penetrations, and equipment that physically form the CRE.

The MCREV system consists of two independent and redundant high efficiency air filtration subsystems and two 100 percent capacity emergency ventilation supply fans which provide emergency treatment of outside air and a CRE boundary that limits the in-leakage of unfiltered air. Each filtration subsystem consists of a filter, an activated charcoal adsorber section, a second HEPA filter, and the associated ductwork, valves or dampers, doors, barriers, and instrumentation. Either emergency ventilation supply fan can operate in conjunction with either filtration subsystem. HEPA filters remove particulate matter which may be radioactive. The charcoal adsorbers provide a holdup period for gaseous iodine allowing time for decay. A dry gas purge is provided to each MCREV subsystem during idle periods to prevent moisture accumulation in the filters.

The MCREV system is a standby system that is common to both PBAPS 2 and 3. The two MCREV subsystems must be operable if conditions requiring MCREV system operability exist in either PBAPS 2 and 3. Upon receipt of the initiation signal(s) (indicative of conditions that could result in radiation exposure to CRE occupants), the MCREV system automatically starts and pressurizes the CRE to minimize infiltration of contaminated air into the CRE. A system of dampers isolates the CRE along the radiological boundary and outside air, taken in at the normal ventilation intake, is passed through one of the charcoal adsorber filter subsystems for removal of airborne radioactive material. During normal control room ventilation system restoration following operation of the MCREV system, the automatic initiation function of MCREV will briefly be satisfied by operator actions and controlled procedural steps.

The operability of the CRE boundary must be maintained to ensure that the in-leakage of unfiltered air into the CRE will not exceed the in-leakage assumed in the licensing bases analyses of DBA consequences and chemical hazards to CRE occupants. Since the equipment required and the allowable in-leakage is different for radiological and chemical events, the CRE boundary distinguishes between the boundaries required for each event. The CRE and its boundaries are defined in the Control Room Envelope Habitability Program.

2.3 Licensee's Proposed Changes

The testing requirements for both SGT and MCREV are included in the VFTP. The testing for the SGT is governed by TS Surveillance Requirement (SR) 3.6.4.3.2 which requires the tests to be performed in accordance with the VFTP. The testing for the MCREV is governed by TS SR 3.7.4.2 which also requires the tests to be performed in accordance with the VFTP.

The April 29, 2021, license amendment request (LAR) proposes to change the testing frequency of the periodic penetration and bypass tests of the HEPA filters and charcoal absorber beds in the SGT and MCREV systems, as described in TSs 5.5.7.a, 5.5.7.b, and 5.5.7.c, from 12 months to 24 months. The penetration and bypass test requirements based on system operating time described in TSs 5.5.7.a, 5.5.7.b, and 5.5.7.c, and the remaining VFTP testing requirements are not being revised or modified under this LAR.

2.4 Regulatory Requirements

The regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) 50.36(c)(3), state that "surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met." 10 CFR 50.36(c)(5), "Administrative controls," require, in part, the inclusion of administrative controls in TSs that are necessary to ensure operation of the facility in a safe manner. The LAR requested a change to the administrative controls for certain testing requirements in the VFTP of the Peach Bottom TS.

2.5 Regulatory Guidance

RG 1.52, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," provides an approach acceptable to the NRC staff as it applies to the design, inspection, and testing of air filtration and iodine adsorption units of ESF atmosphere cleanup systems in light-water-cooled nuclear power plants. ESF atmosphere cleanup systems are those systems that are credited in the licensee's current DBA analysis, as described in the

safety analysis report (SAR). Peach Bottom TS 5.5.7 establishes the requirements for ESF systems in accordance with RG 1.52, Revision 2 (Reference 2). Utilization of the ESF systems bypass value of 1.0 percent has been maintained as an exception to RG 1.52, Revision 2, as previously approved in Amendment Nos. 213 and 218, and remains unchanged in this amendment request.

Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle" (Reference 3), provides guidance for changes in surveillance intervals to accommodate a 24-month fuel cycle. Peach Bottom extended certain TS surveillance requirements to 24 months as approved in Amendment Nos. 179 and 182, respectively. However, extending the applicable 12-month testing interval frequency for the SGT and MCREV systems was not specifically requested as part of that change.

NUREG-1433, "Standard Technical Specifications General Electric BWR/4 Plants" (Reference 4), contain the criteria and guidance for Improved Technical Specifications (ITS) for GE BWR/4 plants. The ITS were developed based on the criteria in the Final Commission Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, dated July 22, 1993, which was subsequently codified by changes contained in 10 CFR 50.36. Licensees were encouraged to upgrade their TSs consistent with the ITS to the extent practical. Peach Bottom upgraded to ITS as approved in Amendment Nos. 210 and 214, respectively. Other than the requested change in the testing frequency and the previously approved changes issued in Amendment Nos. 213 and 218, the VFTP requirements conform to the guidance provided in NUREG-1433.

3.0 TECHNICAL EVALUATION

Peach Bottom TS 5.5.7 requires testing in accordance with RG 1.52 Revision 2, "Design, Testing, and Maintenance Criteria for Post-Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants" (Reference 2). RG 1.52, Revision 2, Regulatory Position C.5 states that at least once per 18 months an in-place HEPA filter Dioctyl Phthalate (DOP) penetration test should be performed for filter efficiency and that an in-place test of activated carbon adsorber filters bypass leakage with a halogenated hydrocarbon refrigerant should be performed. Regulatory Position C.6 states that at least once per 18 months a sample of the activated carbon adsorber should be laboratory tested for iodine decontamination efficiency. The 18-month frequency, as specified in RG 1.52, Revision 2, was not adopted when Peach Bottom transitioned from custom TS to ITS, since it was not desired at the time due to inefficiencies with test scheduling and seasonal limitations.

The required interval of these tests is proposed to be increased from the currently specified once every 12 months to once every 24 months, for a maximum interval of 30 months including the TS SR 3.0.2 allowed 25 percent interval extension. These tests of the ESF ventilation system filter units verify that they remain capable of providing the designed protection from airborne radionuclides.

In accordance with the GL 91-04 guidance, the licensee reviewed the applicable Peach Bottom surveillance history for the last five years. Over this time period, all required tests for fulfilling the requirements of TS 5.5.7.a, 5.5.7.b, and 5.5.7.c were completed satisfactorily. The licensee demonstrated that no failures of this TS function had occurred during the surveillance history period reviewed that could have been detected solely during periodic performance of these tests (since there were no failures of the equipment). Specifically, as shown in the table of

penetration and filter efficiency test results for the last several years on pages 9-12 of Attachment 1 to the LAR, both trains of the SGT system and both trains of the MCREV filter system demonstrated a penetration and system bypass of < 1.0 percent for the HEPA filters, a penetration and system bypass of < 1.0 percent for the charcoal adsorber, and less than 5 percent methyl iodide penetration when tested at the conditions specified. Specifically, for MCREV filter train A, the average test results show a penetration and system bypass of 0.068 percent for the HEPA filters, a penetration and system bypass of 0.215 percent, and a 1.588 percent methyl iodide penetration. For MCREV filter train B, the average test results show a penetration and system bypass of 0.012 percent for the HEPA filters, a penetration and system bypass of 0.121 percent, and a 2.307 percent methyl iodide penetration. For SGT filter train A, the average test results show a penetration and system bypass of 0.027 percent for the HEPA filters, a penetration and system bypass of 0.3 percent, and a 0.783 percent methyl iodide penetration. For SGT filter train B, the average test results show a penetration and system bypass of < 0.01 percent for the HEPA filters, a penetration and system bypass of 0.089 percent, and a 0.59 percent methyl iodide penetration. The average remaining margin to the acceptance criteria for both trains of the SGT system and both trains of the MCREV filter system is 97 percent for the HEPA filters, 81 percent for the charcoal absorber beds, and 73 percent for the methyl iodide penetration, respectively. Therefore, the NRC staff concludes that increasing the surveillance interval will have only a minimal, if any, impact on system availability.

The licensee stated that the exception to the RG 1.52 interval is explicitly addressed in a proposed change to TS 5.5.7. TS 5.5.7 is proposed to be revised to state as follows (revised text shown underlined):

> 5.5.7 The VFTP shall establish the required testing of Engineered Safety Feature (ESF) filter ventilation systems.
>
> Tests described in Specifications 5.5.7.a, 5.5.7.b, and 5.5.7.c shall be performed:
>
> 1) Once per <u>24</u> months for standby service or after 720 hours of system operation; and,
>
> 2) After each complete or partial replacement of the HEPA filter train or charcoal adsorber filter; after any structural maintenance on the system housing; and, following significant painting, fire, or chemical release in any ventilation zone communicating with the system while it is in operation.
>
> Tests described in Specifications 5.5.7.d and 5.5.7.e shall be performed once per 24 months.

The licensee also states that the ventilation filter (HEPA and charcoal) testing will continue to be performed in accordance with the other frequencies specified in RG 1.52, specifically: (1) on initial installation and (2) following painting, fire, or chemical release in any ventilation zone communicating with the system. Additionally, RG 1.52 requires that a sample of the charcoal adsorber be removed and tested after each 720 hours of system operation, and that an in-place charcoal test be performed following removal of these samples if the integrity of the adsorber section was affected. The licensee clarified that the proposed amendment request will not change the commitment to perform the above tests.

The NRC staff reviewed the proposed change to TS 5.5.7 and the licensee's justification for the change. The NRC staff determined that, since there have been no failures of the surveillance requirements associated with TS 5.5.7.a, 5.5.7.b, and 5.5.7.c, and based on the substantial amount of remaining margin to the acceptance criteria from the test results over the past few years, the impact on plant safety, if any, is small. In addition, in Revision 3 of RG 1.52 (Reference 5), the general acceptability of this longer testing interval was recognized with the change in the recommended frequency to at least once each 24 months. Therefore, the NRC staff concludes that increasing the frequency to 24 months for the above TSs by amending TS 5.5.7 as proposed is acceptable based on: (1) consistency with the guidance provided in the GL 91-04, (2) historical plant maintenance and surveillance data supporting the conclusion, and (3) that the assumptions in the plant licensing basis would not be invalidated as a result of this revision. SRs 3.6.4.3.2 and 3.7.3.2 do not require any wording changes because they require testing in accordance with the VFTP and do not identify any frequency or performance interval.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments on February 7, 2022. 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 (86 FR 50194). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. Regulatory Guide 1.52, Revision 2, "Design, Testing, and Maintenance Criteria Post Accident Engineered Safety-Feature Atmospheric Cleanup System Air Filtration and Adsorption Units for Light-Water-Cooled Nuclear Power Plants," dated March 1978.

2. American Society of Mechanical Engineers (ASME) N510-1989, "Testing of Nuclear Air-Cleaning Systems," dated December 1989.

3. Generic Letter (GL) 91-04, “Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle,” dated April 2, 1991.

4. NUREG-1433, Revision 4, "Standard Technical Specifications - General Electric BWR/4 Plants," dated April 2012.

5. Regulatory Guide 1.52, Revision 3, “Design, Testing, and Maintenance Criteria Post-Accident Engineered Safety-Feature Atmospheric Cleanup System Air Filtration and Adsorption Units for Light-Water-Cooled Nuclear Power Plants,” dated June 2001.

Principal Contributor: B. Lee, NRR

Date: February 14, 2022

SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3 - ISSUANCE OF AMENDMENT NOS. 341 AND 344 RE: CHANGE TO TECHNICAL SPECIFICATION 5.5.7, VENTILATION FILTER TESTING PROGRAM (EPID L-2021-LLA-0078) DATED FEBRUARY 14, 2022

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DATE	02/08/2022	02/14/2022	

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