

March 21, 2022

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

CONSTELLATION ENERGY GENERATION,
LLC
(F/K/A EXELON GENERATION CO, LLC)

(Peach Bottom Atomic Power Station, Units 2
and 3)

Docket Nos. 50-277-SLR
50-336-SLR

NRC STAFF VIEWS ON THE PRACTICAL EFFECTS OF (1) THE SUBSEQUENT RENEWED
LICENSES CONTINUING IN PLACE AND (2) THE PREVIOUS LICENSES BEING
REINSTATED

INTRODUCTION

Pursuant to the Commission's direction in *Exelon Generation Co., LLC*, the NRC Staff (Staff) hereby provides its views on the practical effects of (1) the subsequent renewed licenses continuing in place and (2) the previous licenses being reinstated.¹

BACKGROUND

On March 5, 2020, the NRC issued Subsequent Renewed Facility Operating Licenses (SLR licenses) Nos. DPR-44 and DPR-56 for Peach Bottom Atomic Power Station, Units 2 and 3, respectively.² As issued,³ the SLR licenses expire at midnight on August 8, 2053, and

¹ *Exelon Generation Co., LLC* (Peach Bottom Units 2 and 3), CLI-22-4, 95 NRC __ (Feb. 24, 2022) (slip op.) (ADAMS Accession No. ML22055A557).

² Exelon Generation Company, LLC and PSEG Nuclear, LLC Peach Bottom Atomic Power Station, Units 2 and 3; Subsequent renewed licenses and record of decision; issuance, 85 Fed. Reg. 14,247 (Mar. 11, 2020).

³ In CLI-22-4, the Commission directed the Staff to modify the expiration dates to midnight August 8, 2033, and midnight July 2, 2034, respectively, to match the end dates of the superseded licenses. *Peach Bottom*, CLI-22-4, 95 NRC __, __ (slip op. at 3-4).

midnight on July 2, 2054.⁴ The SLR licenses superseded⁵ Renewed License (LR licenses) Nos. DPR-44 and DPR-56 that would have expired at midnight August 8, 2033, and midnight July 2, 2034.⁶

Since issuance on March 5, 2020, the Peach Bottom SLR licenses have been amended⁷ as shown in the table below:

Amendment Nos.	Title and Description	Date	Accession No.
333 (U2)/336 (U3)	Issuance of Amendments to Delete License Conditions for Decommissioning Trusts (EPID L-2019-LLA-0185): Deletes certain license conditions that specify requirements for decommissioning trust agreements and deletes some obsolete license conditions associated with completed license transfers.	04/06/2020	ML20021A070
339 (U2)/342 (U3)	Issuance of Amendments to Revise Reactor Coolant Leakage Requirements (EPID L-2021-LLA-0121): Revises the reactor coolant leakage requirements in the technical specifications.	01/13/2022	ML21347A038

⁴ After issuance, licenses can be amended. The latest versions of the licenses are available at static (i.e., unchanging) ADAMS accession numbers. See Peach Bottom Unit 2 Subsequent Renewed Facility Operating License, DPR-44 (ML052720266) (Peach Bottom Unit 2 SLR); Peach Bottom Unit 3 Subsequent Renewed Facility Operating License, DPR-56 (ML052720269) (Peach Bottom Unit 3 SLR). These files are updated in a reasonable period after amendments to the licenses are issued.

⁵ 10 C.F.R. § 54.31(c) (stating “A renewed license will become effective immediately upon its issuance, thereby superseding the operating license ... previously in effect. If a renewed license is subsequently set aside upon further administrative or judicial appeal, the operating license ... previously in effect will be reinstated[.]”).

⁶ See attached LR licenses.

⁷ The NRC elected not to re-start the amendment numbers at 1 upon issuance of a renewed license to a power reactor. *Cf.*, NRR, NRC, License Amendment Review Procedures, NRR Office Instruction LIC-101, App. C “Guide for Processing License Amendments For Non-Power Production and Utilization Facilities, Revision 0,” at 30 (July 2020) (ML19248C539):

Reissuance is in the form of a new license, not an amendment to the license (although the license number is retained). Because it is a new license, reissuance of the license replaced all past amendments to the license. However, a decision was made to continue to number amendments to the reissued license in order and not restart numbering at Amendment No. 1.

Amendment Nos.	Title and Description	Date	Accession No.
332 (U2)/335 (U3)	Issuance of Amendments Revising Instrument Testing and Calibration Definitions (EPID L-2019-LLA-0131): Revises the instrument testing and calibration definitions in the technical specifications for the facility to incorporate the surveillance frequency control program.	03/12/2020	ML20034G546
340 (U2)/343(U3)	Issuance of Amendments Related to Order Approving Transfer of Licenses (EPID L-2022-LLM-0000): License Transfer	2/01/2022	ML22021B659
334(U2)/337(U3)	Issuance of Amendments Revising the High Radiation Area Administrative Controls (EPID L-2019-LLA-0133 and L-2019-LLA-0134): Revises the technical specification to establish standard language across the fleet for high radiation area administrative controls	07/08/2020	ML20134H940
335(U2)/338(U3)	Issuance of Amendments Based on Technical Specifications Task Force Traveler TSTF-427, "Allowance for Non-Technical Specification Barrier Degradation on Supported System Operability," Revision 2 (EPID L-2019-LLA-0132): Revises the requirements related to the unavailability of barriers in the technical specifications for each facility.	07/10/2020	ML20141L636
336(U2)/339(U3)	Issuance of Amendments to Adopt Technical Specifications Task Force Traveler TSTF-568 (EPID L-2020-LLA-0096): Clarifies the Applicability statements and removes the undefined term "scheduled plant shutdown" and provide adequate terminal actions.	02/02/2021	ML21013A005
341(U2)/344(U3)	Change To Technical Specification 5.5.7, Ventilation Filter Testing Program (EPID L-2021-LLA-0078): Revises the frequency of the ventilation filter testing program for certain testing requirements from 12 months to 24 months.	2/14/22	ML22004A258

Amendment Nos.	Title and Description	Date	Accession No.
338(U2)/341(U3)	Adoption of TSTF-505, Revision 2, "Provide Risk-Informed Extended Completion Times – RITSTF Initiative 4B" (EPID L-2020-LLA-0120): Revises technical specification requirements to permit the use of risk-informed completion times for actions to be taken when limiting conditions for operation are not met.	05/14/21	ML21074A411

The exemption shown in the table below has been granted for Peach Bottom Units 2 and 3 after the issuance of the SLR licenses on March 5, 2020.⁸

Title	Date	Accession Number
Exemption from Specific Requirements of 10 CFR Part 26 (EPID L-2021-LLE-0041 [Covid-19])	10/13/21	ML21265A438

DISCUSSION

To determine the practical effects of the two options, the NRC Staff considered the set of NRC requirements and written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis, i.e., the Current Licensing Basis (CLB), how the CLB changed upon issuance of the SLR licenses, and how the CLB has changed since that time.⁹ The CLB changed when the SLR licenses superseded the LR

⁸ COVID-19 Related Request for Exemption from Part 26 Work Hours Requirements, was submitted on September 17, 2021 (ML21260A162). This exemption was granted on October 13, 2021. Exemption from Specific Requirements of 10 CFR Part 26 (EPID L-2021-LLE-0041 [Covid-19]) (ML21265A438). Issuance of Exemption in Response to COVID-19 Public Health Emergency, Exemption; issuance, 86 Fed. Reg. 69,104 (Dec. 6, 2021).

⁹ As used in 10 C.F.R. Part 54 and defined in 10 C.F.R. § 54.3(a), the CLB is:

[T]he set of NRC requirements applicable to a specific plant and a licensee's written commitments for ensuring compliance with and operation within applicable NRC requirements and the plant-specific design basis (including all modifications and additions to such commitments over the life of the license) that are docketed and in effect. The CLB includes the NRC regulations contained in 10 CFR parts 2,

licenses, and the CLB changed each time an amendment was issued or an exemption granted. The CLB also changed each time the licensee made a change under § 50.59 even if those changes did not require pre-approval by the NRC. In determining the practical effects of retaining the SLR licenses with modified end dates or vacating the SLR licenses and reinstating the initial LR licenses, the NRC Staff refrained from speculating about issues outside of NRC's direct authority and knowledge (e.g., the practical effects on how a licensee is allowed to depreciate equipment).

I. Practical Effects of the SLR Licenses Remaining in Place

A. The Implementation Schedule for New and Enhanced Programs is Maintained

Maintaining the SLR licenses would require the licensee to continue to meet the implementation schedule for new programs and enhancements in the current licensing basis. As reflected in the "Subsequent Renewed License Conditions" section of each SLR license, the subsequent renewed license conditions require licensees to implement new programs and enhancements to existing programs and complete certain other activities by the six-month date prior to the Subsequent Period of Extended Operation (SPEO) or by the end of the last refueling outage before the SPEO, whichever occurs later.¹⁰

Aging Management Programs (AMPs) credited by the licensee are tabulated in Table 3.0-1 "PBAPS Aging Management Programs" of the NRC safety evaluation report related to the subsequent license renewal of Peach Bottom Units 2 and 3; the table shows if the AMPs are an

19, 20, 21, 26, 30, 40, 50, 51, 52, 54, 55, 70, 72, 73, 100 and appendices thereto; orders; license conditions; exemptions; and technical specifications. It also includes the plant-specific design-basis information defined in 10 CFR 50.2 as documented in the most recent final safety analysis report (FSAR) as required by 10 CFR 50.71 and the licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports.

¹⁰ See License Condition 2.C.(19)(b), Peach Bottom Unit 2 SLR, at 15; License Condition 2.C.(19)(b), Peach Bottom Unit 3 SLR, at 15.

existing or new program.¹¹ The topics addressed by the 11 new AMPs in Table 3.0-1 include: Thermal Aging Embrittlement of Cast Austenitic Stainless Steel; Selective Leaching; and Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks.¹² These are examples of the new programs and activities that would continue to be required if the SLR licenses are maintained, but the superseded LR licenses did not require these new programs and activities and would not require them even if reinstated.

B. The Updated Final Safety Analysis Report Continues to Include the Subsequent License Renewal New and Enhanced Programs

Maintaining the SLR licenses in place while the Staff completes additional National Environmental Policy Act (NEPA) analysis and updates NUREG-1437, Revision 1, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (June 2013) (GEIS) would have the practical effect of maintaining the current, Updated Final Safety Analysis Reports (UFSAR), whereas reinstating the superseded LRs would render these reports obsolete. The FSAR describes the facility, presents the design bases and the limits on its operation, and presents a safety analysis of the structures, systems, and components and of the facility as a whole.¹³ A licensee must periodically update its FSAR (resulting in an UFSAR) to assure that the information included in the report contains the latest information developed.¹⁴ The update must include an identification of changes made under the provisions of 10 C.F.R. § 50.59, but not previously submitted to the Commission.¹⁵

As part of a license renewal application, an applicant must submit a supplement to the FSAR pursuant to 10 C.F.R. § 54.21(d), in which the applicant describes programs to be

¹¹ Safety Evaluation Report Related to the Subsequent License Renewal of Peach Bottom Atomic Power Station, Units 2 and 3, Final Report, at Table 3.0-1 (February 2020) (ML20044D902).

¹² *Id.*

¹³ See 10 C.F.R. § 50.34(b).

¹⁴ See 10 C.F.R. § 50.71(e).

¹⁵ See 10 C.F.R. § 50.71(e).

implemented and activities to be completed prior to the period of extended operation or subsequent period of extended operation, as applicable. By operation of the SLR license conditions, the license renewal FSAR supplement is integrated into the UFSAR.¹⁶ If the SLR licenses continue, then the current UFSARs will not be changed and information within them is not rendered obsolete.

C. It Is Not Clear if the SLR Licensees are Subject to Requirements That Only Bind Applicants

Keeping the SLR licenses in place while the NEPA review is underway by the Staff introduces some uncertainty about whether regulations normally only applicable to applicants are nonetheless applicable to these SLR licensees. Vacating the SLR licenses and reinstating the initial LR licenses would not vacate the SLR application, which would remain pending. Regulations applicable to applicants for SLRs would arguably apply, creating new requirements for these licensees to update the SLR applications while the Staff's NEPA review is ongoing. For example, 10 C.F.R. § 54.21(b) requires an applicant to inform the NRC of CLB changes that materially affect the contents of the license renewal application, including the FSAR supplement. But 10 C.F.R. § 54.21(b) is inapplicable to a non-applicant licensee. As the Staff's review of the environmental impacts of subsequent license renewal is active, one might argue that the SLR licensee is also an SLR license applicant that must follow 10 C.F.R. § 54.21(b).

D. License Amendments and Changes to the CLB Issued or Made After Issuance of the SLR Licenses Continue

Continuing the SLR licenses does not simply continue the SLR licenses as issued, but rather continues the SLR licenses as amended since issuance. As shown in the table of amendments above, the NRC issued several amendments to the SLR licenses; the amendments did not apply to or affect the superseded LR licenses. The CLB includes "orders;

¹⁶ See License Condition 2.C.(19)(a), Peach Bottom Unit 2 SLR, at 14-15; License Condition 2.C.(19)(a), Peach Bottom Unit 3 SLR, at 14-15.

license conditions; exemptions; and technical specifications.”¹⁷ Leaving the SLR licenses in place does not alter the CLB and, as a result, does not alter the effectiveness of orders, license conditions, exemptions, and changes to technical specifications included in those licenses or issued between their issuance and the present. Also significant, continuing the SLR licenses does not disturb decisions made by the SLR licensee under 10 C.F.R. § 50.59 concerning changes to the facility and the facility described in the UFSAR.¹⁸ Vacating the SLR licenses would have the practical effect of also vacating each of the amendments, orders, license conditions, exemptions, and changes to technical specifications included in the SLR licenses or approved after their issuance.

II. Practical Effects of Reinstating the LR Licenses

A. The New and Enhanced Programs Would Not Be Required

If the superseded LR licenses were reinstated, then the licensee’s aging management programs would be those the NRC found acceptable when issuing the LR licenses in 2003, as modified by the licensee via § 50.59, or by the NRC via § 50.92, prior to the issuance of the SLR licenses on March 5, 2020. The reinstated LR licenses simply do not require the new and improved programs SLR licenses are currently required to implement. For example, Peach Bottom would not be required to implement its new selective leaching program. The licensee can, of course screen the new and improved programs and procedures reflected subsequent license renewal application via § 50.59, and assuming the programs do not require pre-approval via a license amendment, implement those programs. But the practical effect of reinstating the LR licensees would be that the licensee would no longer be required to do so.

¹⁷ 10 C.F.R. § 54.3(a).

¹⁸ One factor a licensee uses in a § 50.59 evaluation is whether a “change to the technical specifications incorporated in the license is not required[.]” 10 C.F.R. § 50.59(c)(1)(i). During the period of effectiveness of the subsequent license, the license against which the licensee performed § 50.59 evaluations was the subsequent license, as amended. Continuing the superseding SLR licenses as amended does not impugn those previous evaluations.

B. The Updated Final Safety Analysis Report Would Be Obsolete

By operation of the SLR license conditions, the subsequent license renewal FSAR supplements were integrated in to the UFSARs.¹⁹ Per 10 C.F.R. § 54.21(d), the FSAR supplement is submitted as part of the renewal application, and per 10 C.F.R. § 50.59(c)(3), for purposes of 10 C.F.R. § 50.59 evaluations, the UFSAR is considered to include changes resulting from evaluations performed pursuant to 10 C.F.R. § 50.59, and analyses performed pursuant to 10 C.F.R. § 50.90, since submittal of the last update of the UFSAR pursuant to 10 C.F.R. § 50.71. If the LR licenses were reinstated, then the UFSARs would still have information concerning the changes made to the UFSAR that occurred as a result of, and subsequent to, the issuance of the SLR license. The practical effect would be that the licensee would have to determine how best to modify the UFSAR to assure that the current UFSAR reflects the new CLB (*i.e.*, the CLB for the reinstated LR licenses). Further, where the licensee's determination under 10 C.F.R. § 50.59 is that preapproval is required, then the licensee would have to submit an appropriate license amendment request.

C. Updates to the Application Would Likely Resume

Pursuant to 10 C.F.R. § 54.21(b), an SLR applicant must periodically update the application. If the LR licenses were reinstated, the SLR application would remain pending and the SLR licensee would no longer be a SLR licensee. Instead, the former SLR licensees would once again be SLR applicants. Accordingly, the SLR applicants would need to resume the duties of applicants by, for example, providing the updates required by 10 C.F.R. § 54.21(b).

D. Reinstating the Previous Licenses Eliminates All Requirements and Authorizations Set Forth in Amendments to the SLR Licenses and Impacts the CLB

The LR licenses previously in effect lack the amendments that were issued to the superseding SLR licenses during the time the superseding licenses were effective. The

¹⁹ See License Condition 2.C.(19)(b), Peach Bottom Unit 2 SLR, at 15; License Condition 2.C.(19)(b), Peach Bottom Unit 3 SLR, at 15.

previous LR licenses do not contain the associated license conditions, amended technical specifications, and other approvals made to the superseding SLR licenses. As shown in the table of amendments above, the licensee requested and received several amendments addressing a variety of matters including amendments to reflect license transfers (Peach Bottom Amendment Nos. 340 (Unit 2)/343 (Unit 3)). The practical effect of reinstating the previous LR licenses is removal of all requirements imposed by, and permissions granted by, the amendments made to the SLR licenses.²⁰

Under the reinstated licenses, the CLB, which includes “orders; license conditions; exemptions; and technical specifications, [and] the plant-specific design-basis information ... as documented in the most recent final safety analysis report (FSAR)”²¹ would not necessarily be the exact same CLB that existed when the reinstated license was superseded. The licensee could have changed the facility or FSAR under 10 C.F.R. § 50.59. As 10 C.F.R. § 50.59(c)(1)(i) considers whether a change to the technical specifications is required, restoring the previous licenses results in the plant and its UFSAR being incongruent with restored license.

CONCLUSION

The current licensing basis for Peach Bottom Units 2 and 3 would be maintained if the SLR licenses continue, and requirements for new aging management programs and enhancements to existing programs, that exist in the SLR licenses, would continue to be required. By contrast, the practical effect of reinstating the previous, superseded LR licenses is removal of the requirements to implement new or enhanced programs and eliminating each of the amendments, orders, license conditions, exemptions, and changes to technical specifications included in the SLR licenses or approved after their issuance. Also significant, reinstating the superseded LR licenses has the practical effect of reinstating the SLR license

²⁰ See 10 C.F.R. § 54.31(c).

²¹ 10 C.F.R. § 54.3(a).

applications, which would remain pending. Current SLR licensees would be required to meet all requirements for applicants, including but not limited to updating the SLR application, while the Staff completes its work under NEPA and updates the GEIS.

/Signed (electronically) by/

David E. Roth
Counsel for NRC Staff
Mail Stop: O-14-A44
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Telephone: (301) 287-9121
E-mail: David.Roth@nrc.gov

Dated this 21st day of March 2022

Attachments: Peach Bottom Atomic Power Station Unit No. 2 Renewed License
Peach Bottom Atomic Power Station Unit No. 3 Renewed License

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of

CONSTELLATION ENERGY GENERATION,
LLC
(F/K/A EXELON GENERATION CO, LLC)

(Peach Bottom Atomic Power Station, Units 2
and 3)

Docket Nos. 50-277-SLR
50-336-SLR

Certificate of Service

Pursuant to 10 C.F.R § 2.305, I hereby certify that copies of the foregoing: (1) "NRC STAFF VIEWS ON THE PRACTICAL EFFECTS OF (1) THE SUBSEQUENT RENEWED LICENSES CONTINUING IN PLACE AND (2) THE PREVIOUS LICENSES BEING REINSTATED," (2) Peach Bottom Atomic Power Station Unit No. 2 Renewed License, and (3) Peach Bottom Atomic Power Station Unit No. 3 Renewed License, dated March 21, 2022, have been served upon the Electronic Information Exchange (the NRC's E-Filing System), in the captioned proceeding, this 21st day of March 2022.

/Signed (electronically) by/

David E. Roth
Counsel for NRC Staff
Mail Stop: O-14-A44
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Telephone: (301) 287-9121
E-mail: David.Roth@nrc.gov

Dated this 21st day of March 2022