



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

July 24, 2023

Mr. James Barstow
Vice President, Nuclear Regulatory Affairs
and Support Services
Tennessee Valley Authority
1101 Market Street, LP 4A-C
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3; SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 331, 354, AND 314; 365 AND 359 REGARDING ADOPTION OF TSTF-541-A, “ADD EXCEPTIONS TO SURVEILLANCE REQUIREMENTS FOR VALVES AND DAMPERS LOCKED IN THE ACTUATED POSITION” (EPID L-2023-LLA-0012)

Dear Mr. Barstow:

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment Nos. 331, 354, and 314 to Renewed Facility Operating Licenses Nos. DPR-33, DPR-52, and DPR-68 for the Browns Ferry Nuclear Plant, Units 1, 2, and 3, respectively; and Amendment Nos. 365 and 359 to Renewed Facility Operating License Nos. DPR-77 and DPR-79, for the Sequoyah Nuclear Plant, Units 1 and 2, respectively. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated January 31, 2023.

The amendments revise certain TS surveillance requirements (SRs) by adding exceptions to the SRs for when automatic valves or dampers are locked, sealed, or otherwise secured in the actuated position, in order to consider the SR met based on TS Task Force (TSTF) Traveler TSTF-541, Revision 2, “Add Exceptions to Surveillance Requirements for Valves and Dampers Locked in the Actuated Position” (ML19240A315), and the associated NRC safety evaluation for TSTF-541, Revision 2 (ML19323E926).

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

Sincerely,

/RA/

Perry H. Buckberg, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, 50-296,
50-327, and 50-328

Enclosures:

1. Amendment No. 331 to DPR-33
2. Amendment No. 354 to DPR-52
3. Amendment No. 314 to DPR-68
4. Amendment No. 365 to DPR-77
5. Amendment No. 359 to DPR-79
6. Safety Evaluation

cc: Listserv



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-259

BROWNS FERRY NUCLEAR PLANT UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 331
Renewed License No. DPR-33

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated January 31, 2023, 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 Title 10 of the *Code of Federal Regulations* (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-33 is hereby amended to read as follows:

- (2) Technical Specifications

- The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 331, are hereby incorporated in the renewed operating license. The licensee 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

David J. Wrona, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: July 24, 2023

ATTACHMENT TO LICENSE AMENDMENT NO. 331

BROWNS FERRY NUCLEAR PLANT, UNIT 1

TO RENEWED FACILITY OPERATING LICENSE NO. DPR-33

DOCKET NO. 50-259

Replace page 3 of Renewed Facility Operating License No. DPR-33 with the attached page 3. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

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

<u>Remove</u>	<u>Insert</u>
3.5-6	3.5-6
3.5-14	3.5-14
3.6-54	3.6-54
3.7-11	3.7-11

- (3) 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) 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 equipment and instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating 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, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3952 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 331, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 234 to Facility Operating License DPR-33, the first performance is due at the end of the first surveillance interval that begins at implementation of the Amendment 234. For SRs that existed prior to Amendment 234, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 234.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.7</p> <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure \leq 1040 and \geq 950 psig, the HPCI pump can develop a flow rate \geq 5000 gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.8</p> <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure \leq 165 psig, the HPCI pump can develop a flow rate \geq 5000 gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.9</p> <p>-----NOTE----- Vessel injection/spray may be excluded. -----</p> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.3.5</p> <p>-----NOTE----- Vessel injection may be excluded. -----</p> <p>Verify the RCIC System actuates on an actual or simulated automatic initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each SGT subsystem for ≥ 15 continuous minutes with heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each SGT subsystem actuates on an actual or simulated initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.3.4	Verify the SGT decay heat discharge dampers are in the correct position.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Operate each CREV subsystem for ≥ 15 continuous minutes with the heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.7.3.2	Perform required CREV filter testing in accordance with the VFTP.	In accordance with the VFTP
SR 3.7.3.3	Verify each CREV subsystem actuates on an actual or simulated initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.7.3.4	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program



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TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-260

BROWNS FERRY NUCLEAR PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 354
Renewed License No. DPR-52

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated January 31, 2023, 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 Title 10 of the *Code of Federal Regulations* (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-52 is hereby amended to read as follows:

- (2) Technical Specifications

- The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 354, are hereby incorporated in the renewed operating license. The licensee 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

David J. Wrona, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: July 24, 2023

ATTACHMENT TO LICENSE AMENDMENT NO. 354

BROWNS FERRY NUCLEAR PLANT, UNIT 2

RENEWED FACILITY OPERATING LICENSE NO. DPR-52

DOCKET NO. 50-260

Replace page 3 of Renewed Facility Operating License No. DPR-52 with the attached page 3. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

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

<u>Remove</u>	<u>Insert</u>
3.5-6	3.5-6
3.5-14	3.5-14
3.6-54	3.6-54
3.7-12	3.7-12

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) 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 equipment and instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating 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, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3952 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 354, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 253 to Facility Operating License DPR-52, the first performance is due at the end of the first surveillance interval that begins at implementation of the Amendment 253. For SRs that existed prior to Amendment 253, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 253.

- 3) The licensee is authorized to relocate certain requirements included in Appendix A and the former Appendix B to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.7</p> <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure \leq 1040 and \geq 950 psig, the HPCI pump can develop a flow rate \geq 5000 gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.8</p> <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure \leq 165 psig, the HPCI pump can develop a flow rate \geq 5000 gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.9</p> <p>-----NOTE----- Vessel injection/spray may be excluded. -----</p> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.3.5</p> <p>-----NOTE----- Vessel injection may be excluded. -----</p> <p>Verify the RCIC System actuates on an actual or simulated automatic initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each SGT subsystem for ≥ 15 continuous minutes with heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each SGT subsystem actuates on an actual or simulated initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.3.4	Verify the SGT decay heat discharge dampers are in the correct position.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Operate each CREV subsystem for ≥ 15 continuous minutes with the heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.7.3.2	Perform required CREV filter testing in accordance with the VFTP.	In accordance with the VFTP
SR 3.7.3.3	Verify each CREV subsystem actuates on an actual or simulated initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.7.3.4	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program



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TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-296

BROWNS FERRY NUCLEAR PLANT, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 314
Renewed License No. DPR-68

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated January 31, 2023, 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 Title 10 of the *Code of Federal Regulations* (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-68 is hereby amended to read as follows:

- (2) Technical Specifications

- The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 314, are hereby incorporated in the renewed operating license. The licensee 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 from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

David J. Wrona, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: July 24, 2023

ATTACHMENT TO LICENSE AMENDMENT NO. 314
BROWNS FERRY NUCLEAR PLANT, UNIT 3
TO RENEWED FACILITY OPERATING LICENSE NO. DPR-68
DOCKET NO. 50-296

Replace page 3 of Renewed Facility Operating License No. DPR-68 with the attached page 3. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

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

<u>Remove</u>	<u>Insert</u>
3.5-6	3.5-6
3.5-14	3.5-14
3.6-54	3.6-54
3.7-12	3.7-12

- (3) 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) 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 equipment and instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating 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, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3952 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 314, are hereby incorporated in the renewed operating license. The licensee shall operate the facility in accordance with the Technical Specifications.

For Surveillance Requirements (SRs) that are new in Amendment 212 to Facility Operating License DPR-68, the first performance is due at the end of the first surveillance interval that begins at implementation of the Amendment 212. For SRs that existed prior to Amendment 212, including SRs with modified acceptance criteria and SRs whose frequency of performance is being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 212.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.1.7</p> <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure \leq 1040 and \geq 950 psig, the HPCI pump can develop a flow rate \geq 5000 gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.8</p> <p>-----NOTE----- Not required to be performed until 12 hours after reactor steam pressure and flow are adequate to perform the test. -----</p> <p>Verify, with reactor pressure \leq 165 psig, the HPCI pump can develop a flow rate \geq 5000 gpm against a system head corresponding to reactor pressure.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.5.1.9</p> <p>-----NOTE----- Vessel injection/spray may be excluded. -----</p> <p>Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.5.3.5</p> <p>-----NOTE----- Vessel injection may be excluded. -----</p> <p>Verify the RCIC System actuates on an actual or simulated automatic initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each SGT subsystem for ≥ 15 continuous minutes with heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each SGT subsystem actuates on an actual or simulated initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.6.4.3.4	Verify the SGT decay heat discharge dampers are in the correct position.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Operate each CREV subsystem for ≥ 15 continuous minutes with the heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.7.3.2	Perform required CREV filter testing in accordance with the VFTP.	In accordance with the VFTP
SR 3.7.3.3	Verify each CREV subsystem actuates on an actual or simulated initiation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.7.3.4	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program



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TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 365
Renewed License No. DPR-77

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated January 31, 2023, 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 Title 10 of the *Code of Federal Regulations* (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-77 is hereby amended to read as follows:

- (2) Technical Specifications

- The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 365 are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

David J. Wrona, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: July 24, 2023

ATTACHMENT TO LICENSE AMENDMENT NO. 365

SEQUOYAH NUCLEAR PLANT, UNIT 1

RENEWED FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Replace page 3 of Renewed Facility Operating License No. DPR 77 with the attached page 3. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

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

<u>Remove</u>	<u>Insert</u>
3.6.10-2	3.6.10-2
3.7.10-3	3.7.10-3
3.7.12-3	3.7.12-3

- (3) 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) 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 associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the Sequoyah and Watts Bar Unit 1 Nuclear Plants.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The Tennessee Valley Authority is authorized to operate the facility at reactor core power levels not in excess of 3455 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 365 are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Initial Test Program

The Tennessee Valley Authority shall conduct the post-fuel-loading initial test program (set forth in Section 14 of Tennessee Valley Authority's Final Safety Analysis Report, as amended), without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;
- b. Modification of test objectives, methods, or acceptance criteria for any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.10.3	Verify each EGTS Air Cleanup Subsystem train actuates on an actual or simulated actuation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.6.10.4	Verify each EGTS Air Cleanup Subsystem filter cooling bypass valve can be operated, except for valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.6.10.5	Verify each EGTS Air Cleanup Subsystem train flow rate is ≥ 3600 and ≤ 4400 cfm.	In accordance with the Surveillance Frequency Control Program
SR 3.6.10.6	Verify the shield building can be maintained at a negative pressure ≥ 0.5 inch water gauge in the annulus by one EGTS Air Cleanup Subsystem train within 60 seconds after a start signal.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
G. Two CREVS trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B or C.	G.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.7.10.1 Verify each tornado damper that is not locked, sealed or otherwise secured in place, is in the correct position.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.2 Operate each CREVS train for ≥ 15 minutes.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.3 Perform required CREVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.10.4 Verify each CREVS train actuates on an actual or simulated actuation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.5 Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Operate each ABGTS train for ≥ 15 continuous minutes with the heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.7.12.2	Perform required ABGTS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.12.3	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. Actual or simulated actuation on Containment Phase A isolation signal only required to be met in MODES 1, 2, 3 and 4. 2. Actual or simulated actuation on fuel storage pool area high radiation signal only required to be met during movement of irradiated fuel assemblies or with fuel stored in the spent fuel pool. <p>-----</p> <p>Verify each ABGTS train actuates on an actual or simulated actuation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	In accordance with the Surveillance Frequency Control Program
SR 3.7.12.4	Verify each ABGTS train can maintain a pressure ≤ -0.25 inches water gauge with respect to atmospheric pressure during the post accident mode of operation at a flow rate $\geq 8,100$ and $\leq 9,900$ cfm.	In accordance with the Surveillance Frequency Control Program



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 359
Renewed License No. DPR-79

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Tennessee Valley Authority (the licensee) dated January 31, 2023, 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 Title 10 of the *Code of Federal Regulations* (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-79 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 359 are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

David J. Wrona, Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: July 24, 2023

ATTACHMENT TO LICENSE AMENDMENT NO. 359

SEQUOYAH NUCLEAR PLANT, UNIT 2

RENEWED FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Replace page 3 of Renewed Facility Operating License No. DPR 79 with the attached page 3. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

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

<u>Remove</u>	<u>Insert</u>
3.6.10-2	3.6.10-2
3.7.10-3	3.7.10-3
3.7.12-3	3.7.12-3

- (3) 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) 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 associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the Sequoyah and Watts Bar Unit 1 Nuclear Plants.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The Tennessee Valley Authority is authorized to operate the facility at reactor core power levels not in excess of 3455 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 359 are hereby incorporated into the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Initial Test Program

The Tennessee Valley Authority shall conduct the post-fuel-loading initial test program (set forth in Section 14 of Tennessee Valley Authority's Final Safety Analysis Report, as amended), without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- a. Elimination of any test identified in Section 14 of TVA's Final Safety Analysis Report as amended as being essential;

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.10.3	Verify each EGTS Air Cleanup Subsystem train actuates on an actual or simulated actuation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.6.10.4	Verify each EGTS Air Cleanup Subsystem filter cooling bypass valve can be operated, except for valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.6.10.5	Verify each EGTS Air Cleanup Subsystem train flow rate is ≥ 3600 and ≤ 4400 cfm.	In accordance with the Surveillance Frequency Control Program
SR 3.6.10.6	Verify the shield building can be maintained at a negative pressure ≥ 0.5 inch water gauge in the annulus by one EGTS Air Cleanup Subsystem train within 60 seconds after a start signal.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
G. Two CREVS trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B or C.	G.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.10.1	Verify each tornado damper that is not locked, sealed or otherwise secured in place, is in the correct position.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.2	Operate each CREVS train for ≥ 15 minutes.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.3	Perform required CREVS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.10.4	Verify each CREVS train actuates on an actual or simulated actuation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.	In accordance with the Surveillance Frequency Control Program
SR 3.7.10.5	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.	In accordance with the Control Room Envelope Habitability Program

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.12.1	Operate each ABGTS train for ≥ 15 continuous minutes with the heaters operating.	In accordance with the Surveillance Frequency Control Program
SR 3.7.12.2	Perform required ABGTS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.12.3	<p>-----NOTES-----</p> <ol style="list-style-type: none"> 1. Actual or simulated actuation on Containment Phase A isolation signal only required to be met in MODES 1, 2, 3 and 4. 2. Actual or simulated actuation on fuel storage pool area high radiation signal only required to be met during movement of irradiated fuel assemblies or with fuel stored in the spent fuel pool. <p>-----</p> <p>Verify each ABGTS train actuates on an actual or simulated actuation signal, except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.</p>	In accordance with the Surveillance Frequency Control Program
SR 3.7.12.4	Verify each ABGTS train can maintain a pressure ≤ -0.25 inches water gauge with respect to atmospheric pressure during the post accident mode of operation at a flow rate $\geq 8,100$ and $\leq 9,900$ cfm.	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 TSTF-541

AMENDMENT NO. 331 TO FACILITY OPERATING LICENSE NO. DPR-33
AMENDMENT NO. 354 TO FACILITY OPERATING LICENSE NO. DPR-52
AMENDMENT NO. 314 TO FACILITY OPERATING LICENSE NO. DPR-68
AMENDMENT NO. 365 TO FACILITY OPERATING LICENSE NO. DPR-77
AND AMENDMENT NO. 359 TO FACILITY OPERATING LICENSE NO. DPR-79

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT (BFN), UNITS 1, 2, AND 3
SEQUOYAH NUCLEAR PLANT(SQN), UNITS 1 AND 2
DOCKET NOS. 50-259, 50-260, 50-296, 50-327, and 50-328

<u>Application (i.e., initial and supplements)</u> <ul style="list-style-type: none"> January 31, 2023 (ADAMS Accession No. ML23031A247) 	<u>Safety Evaluation Date</u> July 24, 2023
	<u>Principal Contributor to Safety Evaluation</u> <ul style="list-style-type: none"> Josh Wilson

1.0 PROPOSED CHANGES

Tennessee Valley Authority (TVA) (the licensee) requested changes to the technical specifications (TSs) for Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3, and Sequoyah Nuclear Plant (SQN), Units 1 and 2 by license amendment request (LAR, application). The proposed amendments are based on Technical Specifications Task Force (TSTF) Traveler TSTF-541, Revision 2, "Add Exceptions to Surveillance Requirements for Valves and Dampers Locked in the Actuated Position" (TSTF-541) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19240A315), and the associated Nuclear Regulatory Commission (NRC) staff safety evaluation (SE) of TSTF-541 (ML19323E926).

Limiting Conditions for Operation (LCOs) in the Technical Specification (TS) identify the lowest functional capability or performance level of equipment required for safe operation of the facility. Surveillance requirements (SRs) 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 LCOs will be met. Several existing SRs require the licensee to verify that each train of specified trains actuates on an actual or simulated actuation signal. When the trains actuate, valves and dampers within the trains will, if needed, reposition to their "actuated" position, which is the position appropriate to respond to the

transient or accident that caused the actuation. The proposed amendments would eliminate the need to verify that a damper or valve has repositioned if the damper or valve is secured in its actuated position by adding a phrase to each SR, as described in Section 1.2 of this SE.

The proposed amendments are based on TSTF-541 (ML19240A315), and the associated NRC staff SE of TSTF-541 (ML19323E926). Section 1.1 of the NRC staff's SE of TSTF-541 discusses the reason for the proposed changes.

1.1 System Descriptions

1.1.1 System descriptions for Sequoyah, Units 1 and 2:

The control room emergency ventilation system (CREVS) provides a protected environment from which occupants can control the unit following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. The purpose of SR 3.7.10.4 is to verify that each train/subsystem starts and operates on an actual or simulated actuation signal.

The emergency gas treatment system (EGTS) air cleanup subsystem is required to ensure that radioactive materials that leak from the primary containment into the shield building (secondary containment) following a design-basis accident (DBA) are filtered and adsorbed prior to exhausting to the environment. The containment has a secondary containment called the shield building, which is a concrete structure that surrounds the steel primary containment vessel. Between the containment vessel and the shield building inner wall is an annular space that collects any containment leakage that may occur following a loss-of-coolant accident (LOCA). The EGTS air cleanup subsystem establishes a negative pressure in the annulus between the shield building and the steel containment vessel. Filters in the system then control the release of radioactive contaminants to the environment. The EGTS air cleanup subsystem consists of two separate and redundant trains. Each train includes a heater, cooling coils, a prefilter, moisture separators, a high-efficiency particulate air (HEPA) filter, an activated charcoal adsorber section for removal of radioiodines, and a fan. Ductwork, valves and/or dampers, and instrumentation also form part of the system. The system initiates and maintains a negative air pressure in the shield building by means of filtered exhaust ventilation of the shield building following receipt of a safety injection signal. The purpose of SR 3.6.10.3 is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal. The purpose of SR 3.6.10.4 is to ensure that the system is functioning properly by operating the filter bypass damper.

The auxiliary building gas treatment system (ABGTS) filters air from the penetration area between containment and the auxiliary building. The ABGTS consists of two independent and redundant trains. Each train consists of a heater, a prefilter or demister, a HEPA filter, an activated charcoal adsorber section for removal of gaseous activity (principally iodines), and a fan. Ductwork, valves or dampers, and instrumentation, as well as demisters, functioning to reduce the relative humidity of the air stream, also form part of the system. The ABGTS is a standby system, parts of which may also operate during normal unit operations. Upon receipt of the actuating signal(s), the ABGTS dampers are realigned and fans are started to initiate filtration. The purpose of SR 3.7.12.3 is to verify proper actuation of all train components, including dampers, on an actual or simulated actuation signal.

1.1.2 System descriptions for Browns Ferry, Units 1, 2, and 3:

The control room emergency ventilation (CREV) system provides a protected environment from which occupants can control the unit following an uncontrolled release of radioactivity, hazardous chemicals, or smoke. The purpose of SR 3.7.3.3 is to verify that each train/subsystem starts and operates on an actual or simulated actuation signal.

The emergency core cooling system (ECCS) is designed to limit the release of radioactive materials to the environment following a LOCA and consists of the high pressure coolant injection system, the core spray system, the low pressure coolant injection mode of the residual heat removal (RHR) system, and the automatic depressurization system. The purpose of SR 3.5.1.9 is to verify the automatic initiation logic of high pressure coolant injection, core spray, and low pressure coolant injection will cause the systems or subsystems to operate as designed, including actuation of the system throughout its emergency operating sequence, automatic pump startup, and actuation of all automatic valves to their required positions on receipt of an actual or simulated actuation signal.

The function of the reactor core isolation cooling (RCIC) system is to respond to transient events by providing makeup coolant to the reactor. The purpose of SR 3.5.3.5 is to verify the system operates as designed, including actuation of the system throughout its emergency operating sequence; that is, automatic pump startup and actuation of all automatic valves to their required positions on receipt of an actual or simulated actuation signal.

The function of the standby gas treatment (SGT) system is to ensure that radioactive materials that leak from the primary containment into the secondary containment following a DBA are filtered and adsorbed prior to exhausting to the environment. The purpose of SR 3.6.4.3.3 is to verify that each SGT subsystem starts on receipt of an actual or simulated initiation signal. This ensures that the ventilation mode of SGT system operation is available.

1.2 Description of Proposed Changes to Adopt TSTF 541

In accordance with NRC staff-approved TSTF-541, the licensee proposed to revise certain SRs by adding exceptions to the SRs for automatic valves or dampers that are locked, sealed, or otherwise secured in the actuated position. The proposed revisions, therefore, allow the licensee to meet the LCOs without having to test for actuation those valves or dampers that are already secured in the actuated position. Specifically, the licensee proposed the following changes to adopt TSTF-541. The proposed new text is shown in *italics*.

1.2.1 Description of proposed changes for Sequoyah, Units 1 and 2:

SR 3.6.10.3, "Verify each EGTS Air Cleanup Subsystem train actuates on an actual or simulated actuation signal, *except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.*"

SR 3.6.10.4, "Verify each EGTS Air Cleanup Subsystem filter bypass damper can be opened, *except for valves that are locked, sealed, or otherwise secured in the open position.*"

SR 3.7.10.4, "Verify each CREVS train actuates on an actual or simulated actuation signal, *except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.*"

SR 3.7.12.3, "Verify each ABGTS train actuates on an actual or simulated actuation signal, *except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.*"

1.2.2 Description of proposed changes for Browns Ferry, Units 1, 2, and 3:

SR 3.5.1.9, "Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal, *except for valves that are locked, sealed, or otherwise secured in the actuated position.*"

SR 3.5.3.5, "Verify the RCIC System actuates on an actual or simulated automatic initiation signal, *except for valves that are locked, sealed, or otherwise secured in the actuated position.*"

SR 3.6.4.3.3, "Verify each SGT subsystem actuates on an actual or simulated initiation signal, *except for dampers that are locked, sealed, or otherwise secured in the actuated position.*"

SR 3.7.3.3, "Verify each CREV subsystem actuates on an actual or simulated initiation signal, *except for dampers and valves that are locked, sealed, or otherwise secured in the actuated position.*"

1.3 Additional Proposed TS Changes

In addition to the changes proposed consistent with the traveler discussed in Section 1.1, the licensee proposed the following variations.

1.3.1 Editorial Variations

The licensee noted that BFN and SQN TSs have different numbering and nomenclature than standard technical specifications (STs).

1.3.2 Other Variations

The BFN and SQN TS contain a Surveillance Frequency Control Program (SFCP). Therefore, the Frequency for the affected SRs is "In accordance with the Surveillance Frequency Control Program."

2.0 REGULATORY EVALUATION

The regulation under 10 CFR 50.36(b) requires that:

Each license authorizing operation of a ...utilization facility ...will include technical specifications. The technical specifications will be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to [10 CFR] 50.34 ["Contents of applications; technical information."] The Commission may include such additional technical specifications as the Commission finds appropriate.

Additionally, under 10 CFR 50.92(a), in determining whether an amendment to a license will be issued to the applicant, the Commission will be guided by the considerations which govern the issuance of initial licenses to the extent applicable and appropriate. The considerations for issuance of operating licenses in 10 CFR 50.57(a)(3) provide that there must be reasonable assurance that the activities at issue will not endanger the health and safety of the public. The LAR asks for changes to SRs, which are controlled by 10 CFR 50.36(c)(3) (saying that SRs 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 LCOs will be met”). Accordingly, the amended SRs that no longer require verification of valves and dampers already in, and secured in, their actuated positions, must continue to provide reasonable assurance that the LCOs will be met and the other standards of 10 CFR 50.36(c)(3) will be met.

The NRC staff’s guidance for the review of TSs is in Chapter 16.0, “Technical Specifications,” of NUREG-0800, Revision 3, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [Light-Water Reactor] Edition” (SRP), March 2010 (ML100351425). As described therein, as part of the regulatory standardization effort, the NRC staff has prepared STSs for each of the LWR nuclear designs. Accordingly, the NRC staff’s review includes consideration of whether the proposed changes are consistent with the U.S. Nuclear Regulatory Commission, “Standard Technical Specifications, Westinghouse Plants,” NUREG 1431, Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 4.0, dated April 2012 (ML12100A222 and ML12100A228, respectively), and U.S. Nuclear Regulatory Commission, “Standard Technical Specifications, General Electric BWR/4 Plants” NUREG-1433, Volume 1, “Specifications,” and Volume 2, “Bases,” Revision 4.0, dated April 2012 (ML12104A192 and ML12104A193, respectively), as modified by NRC-approved travelers.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Changes to Adopt TSTF-541

The NRC staff compared the licensee’s proposed TS changes in Section 1.2 of this SE against the changes approved in TSTF-541. In accordance with the SRP Chapter 16.0, the NRC staff determined that the STS changes approved in TSTF-541 are applicable to Sequoyah and Browns Ferry’s TSs because Sequoyah is a Westinghouse plant, and Browns Ferry is a BWR-4 plant and the NRC staff approved the TSTF-541 changes for Westinghouse and BWR-4 designs. Therefore, the NRC staff concludes that the licensee’s proposed changes to the Sequoyah and Browns Ferry TSs in Section 1.2 of this SE are consistent with TSTF-541.

As defined in BFN TS 1.1, a train shall be operable:

...when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, division, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).

As defined in SQN TS 1.1, a train shall be operable:

...when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, train, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).

The proposed SRs would exclude the need to verify actuation of dampers and valves that do not, in fact, actuate (e.g., change position) in response to an actuation signal. The licensee's LAR contains the following statements:

While the proposed exceptions permit automatic valves and dampers that are locked, sealed, or otherwise secured in the actuated position to be excluded from the SR in order to consider the SR met, the proposed changes will not permit a system that is made inoperable by locking, sealing, or otherwise securing an automatic valve or damper in the actuated position to be considered operable. As stated in the SR 3.0.1 Bases, "Nothing in this Specification, however, is to be construed as implying that systems or components are OPERABLE when: a. The systems or components are known to be inoperable, although still meeting the SRs."

TVA acknowledges that under the proposed change, the affected valves and dampers may be excluded from the SR when locked, sealed or otherwise secured in the actuated position. However, if the safety analysis assumes movement from the actuated position following an event, or the system is rendered inoperable by locking, sealing, or otherwise securing the valve or damper in the actuated position, then the system cannot perform its specified safety function and is inoperable regardless of whether the SR is met.

TVA acknowledges for components for which the SR allowance can be utilized, the SR must be verified to have been met within its required Frequency after removing the valve or damper from the locked, sealed or otherwise secured status. If the SR exception is utilized to not test the actuation of a valve or damper and the specified Frequency of the SR is exceeded without testing the component, the SR must be performed on the component when it is returned to service in order to meet the SR.

The NRC staff finds that TVA's statements are consistent with TSTF-541 and determines that there is reasonable assurance that the licensee will continue to properly control affected equipment in accordance with existing regulations and requirements when using the exceptions added to the respective SRs.

The NRC staff finds that it is not necessary to verify actuation of valves and dampers that are already in their actuated positions, and are locked, sealed, or otherwise secured in those positions because they are secured in a position where they are already performing their safety function. The amended SRs will continue to require the licensee to verify that valves and

dampers that must actuate perform their safety functions and support functions by being able to change position.

Therefore, the NRC staff determined that the amended BFN and SQN TSs will continue to meet 10 CFR 50.36(c)(3) because the revised SRs will continue to provide reasonable assurance that necessary quality of systems and components is maintained and that the LCOs will be met.

3.2 Additional Proposed TS Changes

3.2.1 Editorial

The licensee noted that BFN and SQN TSs have different numbering and nomenclature than STS. The NRC staff finds that the different TS numbering and nomenclature changes are acceptable because they do not substantively alter TS requirements.

3.2.2 Other Variations

The NRC staff reviewed the licensee's statement regarding the BFN and SQN SFCP and determined that the existence of a SFCP in the BFN and SQN TSs has no effect on the applicability of the proposed change and is, therefore, acceptable.

3.3 TS Change Consistency

The NRC staff reviewed the proposed TS changes for technical clarity and consistency with the existing requirements for customary terminology and formatting. The NRC staff finds that the proposed changes are consistent with Chapter 16.0 of the SRP and are therefore acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Tennessee State official and the Alabama State official were notified of the proposed issuance of the amendments on June 13, 2023. The State officials 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, published in the *Federal Register* on March 21, 2023 (88 FR 7038), and there has been no public comment on such finding. 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 amendment[s].

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(s) will not be inimical to the common defense and security or to the health and safety of the public.

SUBJECT: BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3; SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 331, 354, AND 314; 365 AND 359 REGARDING ADOPTION OF TSTF-541-A, “ADD EXCEPTIONS TO SURVEILLANCE REQUIREMENTS FOR VALVES AND DAMPERS LOCKED IN THE ACTUATED POSITION” (EPID L-2023-LLA-0012) DATED JULY 24, 2023

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