



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

April 28, 2026

Mark Jones
Site Vice President
Susquehanna Nuclear, LLC
769 Salem Boulevard
NUCSB3
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 292 AND 276 RE: ADOPTION OF TSTF-599, REVISION 1 (EPID L-2025-LLA-0186)

Dear Mark Jones:

The U.S. Nuclear Regulatory Commission (NRC or the Commission) has issued the enclosed Amendment No. 292 to Renewed Facility Operating License No. NPF-14 and Amendment No. 276 to Renewed Facility Operating License No. NPF-22 for the Susquehanna Steam Electric Station (Susquehanna), Units 1 and 2, respectively. These amendments consist of changes to the technical specifications (TS) in response to Susquehanna Nuclear, LLC's application dated December 3, 2025.

The amendments revise Susquehanna's technical specifications by eliminating the periodic surveillance requirement to verify that all required diesel generators achieve rated frequency and voltage within the specified time period when started simultaneously, consistent with Technical Specifications Task Force (TSTF)-599, Revision 1, "Eliminate Periodic Surveillance Test of Simultaneous Start of Redundant Diesel Generators."

The NRC staff's safety evaluation for these amendments is enclosed. The NRC will include a notice of issuance in the Commission's monthly *Federal Register* notice.

Sincerely,

/RA/

Thomas Buffone, Project Manager
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosures:

1. Amendment No. 292 to NPF-14
2. Amendment No. 276 to NPF-22
3. Safety Evaluation

cc: Listserv



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

SUSQUEHANNA NUCLEAR, LLC

DOCKET NO. 50-387

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 292
Renewed License No. NPF-14

1. The U.S. Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for the amendment filed by Susquehanna Nuclear, LLC, dated December 3, 2025, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 Renewed Facility Operating License and Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-14 is hereby amended to read as follows:

2.C.(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 292, and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. Susquehanna Nuclear, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Undine Shoop, Chief
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: April 28, 2026

ATTACHMENT TO LICENSE AMENDMENT NO. 292
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 1
RENEWED FACILITY OPERATING LICENSE NO. NPF-14
DOCKET NO. 50-387

Replace the following page of Renewed Facility Operating License No. NPF-14 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE
Page 3

INSERT
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
3.8-16

INSERT
3.8-16

- (3) Susquehanna Nuclear, 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 neutron sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) Susquehanna Nuclear, 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 associated with radioactive apparatus or components; and
 - (5) Susquehanna Nuclear, LLC, 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 facility.
- C. This 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

Susquehanna Nuclear, LLC is authorized to operate the facility at reactor core power levels not in excess of 3952 megawatts thermal in accordance with the conditions specified herein. The preoperational tests, startup tests and other items identified in License Conditions 2.C.(36), 2.C.(37), 2.C.(38), and 2.C.(39) to this license shall be completed as specified.
 - (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 292, and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. Susquehanna Nuclear, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

For Surveillance Requirements (SRs) that are new in Amendment 178 to Facility Operating License No. NPF-14, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 178. For SRs that existed prior to Amendment 178, 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 178.

3.8 Electrical Power Systems

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.8.1.20 Not Used	



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SUSQUEHANNA NUCLEAR, LLC

DOCKET NO. 50-388

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 276
Renewed License No. NPF-22

1. The U.S. Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for the amendment filed by Susquehanna Nuclear, LLC, dated December 3, 2026, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 Renewed Facility Operating License and Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-22 is hereby amended to read as follows:

2.C.(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 276, and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. Susquehanna Nuclear, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Undine Shoop, Chief
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: April 28, 2026

ATTACHMENT TO LICENSE AMENDMENT NO. 276
SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2
RENEWED FACILITY OPERATING LICENSE NO. NPF-22
DOCKET NO. 50-388

Replace the following page of Renewed Facility Operating License No. NPF-22 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE
Page 3

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Page 3

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

REMOVE
3.8-18

INSERT
3.8-18

- (3) Susquehanna Nuclear, 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 neutron sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Susquehanna Nuclear, 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 associated with radioactive apparatus or components; and
- (5) Susquehanna Nuclear, LLC, 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 facility.

C. This 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

Susquehanna Nuclear, LLC is authorized to operate the facility at reactor core power levels not in excess of 3952 megawatts thermal in accordance with the conditions specified herein. The preoperational tests, startup tests and other items identified in License Conditions 2.C.(20), 2.C.(21), 2.C.(22), and 2.C.(23) to this license shall be completed as specified.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 276, and the Environmental Protection Plan contained in Appendix B are hereby incorporated in the license. Susquehanna Nuclear, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

For Surveillance Requirements (SRs) that are new in Amendment 151 to Facility Operating License No. NPF-22, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 151. For SRs that existed prior to Amendment 151, 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 151.

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.8.1.20 Not Used	
<p>SR 3.8.1.21 -----NOTE----- When Unit 1 is in MODE 4 or 5, or moving irradiated fuel assemblies in the secondary containment, the Note to Unit 1 SR 3.8.2.1 is applicable.</p> <p>----- For required Unit 1 AC sources, the following SRs of Unit 1 Specification 3.8.1 are applicable:</p> <p>SR 3.8.1.1; SR 3.8.1.10; SR 3.8.1.3; SR 3.8.1.11; SR 3.8.1.4; SR 3.8.1.14; SR 3.8.1.5; SR 3.8.1.15; SR 3.8.1.6; SR 3.8.1.16; SR 3.8.1.7; SR 3.8.1.18; SR 3.8.1.9; SR 3.8.1.19; and</p> <p>SR 3.8.1.8 (when more than one Unit 1 offsite circuit is required)</p>	<p>In accordance with applicable SRs</p>



UNITED STATES
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 292

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-14

AND AMENDMENT NO. 276

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-22

SUSQUEHANNA NUCLEAR, LLC

SUSQUEHANNA STEAM ELECTRIC STATIONS, UNITS 1 AND 2

DOCKET NOS. 50-387 AND 50-388

1.0 INTRODUCTION

Susquehanna Nuclear, LLC (the licensee) requested changes to the technical specifications (TS) for Susquehanna Steam Electric Station, Units 1 and 2 (Susquehanna) by license amendment request (LAR, application). The proposed changes would revise the TS for each facility based on Technical Specifications Task Force (TSTF) Traveler TSTF-599, Revision 1, "Eliminate Periodic Surveillance Test of Simultaneous Start of Redundant Diesel Generators" (TSTF-599) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25093A204), and the associated U.S. Nuclear Regulatory Commission (NRC, the Commission) staff final safety evaluation (SE) of Traveler TSTF-599 (ML25119A288).

Specifically, the proposed change would delete a surveillance requirement (SR) in TS 3.8.1, "AC [alternating current] Sources – Operating," to verify that diesel generators (DG) achieve a specific frequency and voltage within a specified time period when started simultaneously.

2.0 REGULATORY EVALUATION

2.1 System Description

The Class 1E AC electrical power distribution system's onsite standby power sources provide independence and redundancy to ensure an available source of power to the engineered safety feature (ESF) systems when the offsite or preferred power sources are unavailable. Specifically, the onsite standby power source consists of emergency DGs to power ESF buses. A safety injection (SI) signal or a loss of offsite power (i.e., an ESF bus degraded voltage or undervoltage) signal will automatically start the DGs. If DGs start due to a loss of offsite power signal (independent of or coincident with an SI signal), the DGs will automatically tie to their respective ESF buses. If the DGs receive an SI signal alone, they will start and operate in standby mode (i.e., without tying to the ESF buses.) Following the trip of offsite power, nonpermanent loads are stripped from the ESF buses. When the DGs are tied to the ESF buses, emergency loads are then sequentially connected to their respective ESF buses by the

automatic load sequencer. The sequencing logic controls the permissive and starting signals to motor breakers to prevent overloading the DGs by automatic load application.

In the event of a loss of preferred (offsite) power, the ESF electrical loads are automatically connected to the DGs in sufficient time to provide for safe reactor shutdown and to mitigate the consequences of a design basis accident, such as a loss-of-coolant accident.

2.2 Description of Proposed Changes

The licensee proposed deleting the SR that requires simultaneous starting of the DGs.

The current requirement for Susquehanna states:

SR 3.8.1.20	-----NOTES-----
	<ol style="list-style-type: none">1. All DG starts may be preceded by an engine prelube period. 2. This SR must be met, but does not have to be performed with DG E substituted for any DG.

	Verify, when started simultaneously from standby condition, each DG achieves, in ≤ 10 seconds, voltage ≥ 3793 V and frequency ≥ 58.8 and after steady state conditions are reached, maintains voltage ≥ 4000 V and ≤ 4400 V frequency ≥ 59.3 Hz and ≤ 60.5 Hz.

In the LAR, the licensee identified a variation from TSTF-599 in that Susquehanna's SR 3.8.1.20 has a second Note that is plant-specific, as shown above.

The licensee stated in the LAR that SR 3.8.1.20 is not referenced in other TS, so no other changes were proposed. The NRC staff notes that the absence of references to the SR is not a variation but is consistent with the TSTF-599 standard TS (STS) markups for NUREG-1433 (for boiling water reactor type 4 plants.)

Proposed Changes to Technical Specification Bases

Consistent with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36(a)(1), the licensee submitted corresponding changes to the TS Bases, for information only, that provide the reasons for the proposed TS changes. The regulation at 10 CFR 50.36(a)(1) states that a summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the TS. The licensee shall make changes to the plant TS Bases in accordance with the "TS Bases Control Program," found at TS 5.5.10 for Susquehanna.

2.3 Applicable Regulatory Requirements and Guidance

The regulation in 10 CFR 50.36, "Technical specifications," provides the regulatory requirements for the content of the TS. It requires, in part, that a summary statement of the bases for such specifications shall be included by applicants for a license authorizing operation of a production or utilization facility. Specifically, the regulation in 10 CFR 50.36(c)(3), "Surveillance requirements," states that "[s]urveillance requirements are requirements related 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.”

3.0 TECHNICAL EVALUATION

The NRC staff compared the licensee’s proposed TS changes in section 1.2 of this SE against the changes approved in TSTF-599. The NRC staff finds that the licensee’s proposed changes to Susquehanna TS in section 1.2 of this SE are consistent with those found acceptable in TSTF-599. In addition, the NRC staff reviewed the variation requesting deletion of Note 2 to SR 3.8.1.20 and found that it provides clarification for the testing conditions; it does not conflict with the intent of TSTF-599.

In the NRC SE of TSTF-599, the NRC staff considered common-cause failure a very low likelihood event, and therefore concluded that the performance of STS SR 3.8.1.20 does not enhance safety over the increased risk of equipment inoperability. Additionally, in recent decades, industry operating experience during loss of offsite power events has demonstrated consistent performance of the DG simultaneous start function. Therefore, as discussed in section 4.0 of the NRC staff’s SE of TSTF-599, the NRC staff found the proposed deletion of STS SR 3.8.1.20 was acceptable because the TS would continue to meet 10 CFR 50.36(c)(3) since the remaining STS 3.8.1 DG SRs provide assurance that the necessary quality of systems and components are maintained. For these same reasons, the NRC staff concludes that the corresponding proposed changes to the Susquehanna TS in section 1.2 of this SE continue to meet the requirements of 10 CFR 50.36(c)(3).

4.0 STATE CONSULTATION

In accordance with the Commission’s regulations, on March 18, 2026, the NRC staff notified the Commonwealth of Pennsylvania official of the proposed issuance of the amendment. The Commonwealth official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in Title 10 of the *Code of Federal Regulations* (10 CFR), part 20. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, which was published in the *Federal Register* on February 17, 2026 (91 FRN 7310), and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and 10 CFR 51.22(c)(10). 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.

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.

Date: April 28, 2026

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – ISSUANCE
OF AMENDMENT NOS. 292 AND 276 RE: ADOPTION OF TSTF-599,
REVISION 1 (EPID L-2025-LLA-0186) DATED APRIL 28, 2026

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ADAMS Accession Nos.:

ML26099A064 (Package)

ML26099A062 (Amendment)

e-Concurrence 20260409-90024