



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

March 6, 2019

Mr. Peter P. Sena, III
President and Chief Nuclear Officer
PSEG Nuclear LLC - N09
Salem Nuclear Generating Station
P.O. Box 236
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION AND SALEM NUCLEAR
GENERATING STATION, UNIT NOS. 1 AND 2 – ISSUANCE OF AMENDMENT
NOS. 214, 327, AND 308 RE: REVISE TECHNICAL SPECIFICATIONS TO
ADOPT TSTF-529 (EPID L-2018-LLA-0185)

Dear Mr. Sena:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment Nos. 214, 327, and 308 to Renewed Facility Operating License Nos. NPF-57, DPR-70, and DPR-75 for the Hope Creek Generating Station, and Salem Nuclear Generating Station, Unit Nos. 1 and 2, respectively. These amendments consist of changes to the Technical Specifications in response to your application dated June 29, 2018.

The amendments revise Technical Specification requirements in Section 3/4.0, "Applicability," regarding limiting condition for operation and surveillance requirement usage. These changes are consistent with NRC-approved Technical Specifications Task Force (TSTF) Traveler TSTF-529, "Clarify Use and Application Rules."

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

Sincerely,

A handwritten signature in black ink, reading "James S. Kim", is positioned above the typed name.

James S. Kim, Project Manager
Plant Licensing Branch I
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-354, 50-272, and 50-311

Enclosures:

1. Amendment No. 214 to NPF-57
2. Amendment No. 327 to DPR-70
3. Amendment No. 308 to DPR-75
4. Safety Evaluation

cc: Listserv



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

PSEG NUCLEAR LLC

DOCKET NO. 50-354

HOPE CREEK GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 214
Renewed License No. NPF-57

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by PSEG Nuclear LLC dated June 29, 2018, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - 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.

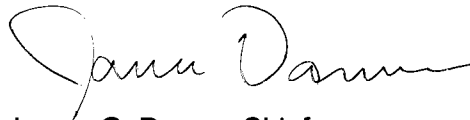
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-57 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 214, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. PSEG Nuclear LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION



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

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

Date of Issuance: March 6, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 214

HOPE CREEK GENERATING STATION

RENEWED FACILITY OPERATING LICENSE NO. NPF-57

DOCKET NO. 50-354

Replace the following page of Renewed Facility Operating License No. NPF-57 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove
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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
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Insert
3/4 0-1
3/4 0-3

reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

- (4) PSEG 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 sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) PSEG 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
- (6) PSEG 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. Mechanical disassembly of the GE14i isotope test assemblies containing Cobalt-60 is not considered separation.
- (7) PSEG Nuclear LLC, pursuant to the Act and 10 CFR Part 30, to intentionally produce, possess, receive, transfer, and use Cobalt-60.

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

PSEG Nuclear LLC is authorized to operate the facility at reactor core power levels not in excess of 3902 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 214, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. PSEG Nuclear LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

Renewed License No. NPF-57
Amendment No. 214

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the Limiting Conditions for Operation contained in the succeeding Specifications is required during the OPERATIONAL CONDITIONS or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, and except as provided in LCO 3.0.8.

3.0.2 Noncompliance with a Specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the Action requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in an OPERATIONAL CONDITION in which the Specification does not apply by placing it, as applicable, in:

1. At least STARTUP within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual Specifications.

This Specification is not applicable in OPERATIONAL CONDITIONS 4 or 5.

3.0.4 When an LCO is not met, entry into an OPERATIONAL CONDITION or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the OPERATIONAL CONDITION or other specified condition in the Applicability for an unlimited period of time; or
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the OPERATIONAL CONDITION or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

APPLICABILITY

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL CONDITIONS or other specified conditions in the Applicability for individual Limiting Conditions for Operation, unless otherwise stated in the Surveillance Requirement. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Condition for Operation. Failure to perform a Surveillance within the specified frequency shall be a failure to meet the Limiting Condition for Operation, except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within its specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. The delay period is only applicable when there is a reasonable expectation the Surveillance will be met when performed. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the Limiting Condition for Operation must immediately be declared not met and the applicable Actions must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition for Operation must immediately be declared not met and the applicable Actions must be entered.

4.0.4 Entry into an OPERATIONAL CONDITION or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 4.0.3. When an LCO is not met due to Surveillances not having been met, entry into an OPERATIONAL CONDITION or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

This provision shall not prevent entry into OPERATIONAL CONDITIONS or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.



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

PSEG NUCLEAR LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-272

SALEM NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 327
Renewed License No. DPR-70

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by PSEG Nuclear LLC, acting on behalf of itself and Exelon Generation Company, LLC (the licensees), dated June 29, 2018, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - 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-70 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 327, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. PSEG 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 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Attachment:
Changes to Renewed Facility Operating
License and Technical Specifications

Date of Issuance: March 6, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 327
SALEM NUCLEAR GENERATING STATION, UNIT NO. 1
RENEWED FACILITY OPERATING LICENSE NO. DPR-70
DOCKET NO. 50-272

Replace the following page of Renewed Facility Operating License No. DPR-70 with the attached revised page as indicated. 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 as indicated. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove
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instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (5) PSEG 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
- (6) PSEG Nuclear LLC, 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 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; 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

PSEG Nuclear LLC is authorized to operate the facility at a steady state reactor core power level not in excess of 3459 megawatts (one hundred percent of rated core power).

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 327, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. PSEG Nuclear LLC shall operate the facility in accordance with the Technical Specifications, and the Environmental Protection Plan.

(3) Deleted Per Amendment 22, 11-20-79

(4) Less than Four Loop Operation

PSEG Nuclear LLC shall not operate the reactor at power levels above P-7 (as defined in Table 3.3-1 of Specification 3.3.1.1 of Appendix A to this renewed license) with less than four (4) reactor coolant loops in operation until safety analyses for less than four loop operation have been submitted by the licensees and approval for less than four loop operation at power levels above P-7 has been granted by the Commission by Amendment of this renewed license.

- (5) PSEG Nuclear LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Updated Final Safety

3/4 LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time; or
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

APPLICABILITY

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other specified conditions in the Applicability for individual Limiting Conditions for Operation, unless otherwise stated in the Surveillance Requirement. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Condition for Operation. Failure to perform a Surveillance within the specified frequency shall be failure to meet the Limiting Condition for Operation, except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. The delay period is only applicable when there is a reasonable expectation the Surveillance will be met when performed. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the Limiting Condition for Operation must immediately be declared not met and the applicable Actions must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition for Operation must immediately be declared not met and the applicable Actions must be entered.

4.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 4.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.



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

PSEG NUCLEAR LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-311

SALEM NUCLEAR GENERATING STATION, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 308
Renewed License No. DPR-75

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by PSEG Nuclear LLC, acting on behalf of itself and Exelon Generation Company, LLC (the licensees), dated June 29, 2018, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - 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-75 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 308, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. PSEG 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 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Attachment:
Changes to Renewed Facility Operating
License and Technical Specifications

Date of Issuance: March 6, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 308

SALEM NUCLEAR GENERATING STATION, UNIT NO. 2

RENEWED FACILITY OPERATING LICENSE NO. DPR-75

DOCKET NO. 50-311

Replace the following page of Renewed Facility Operating License No. DPR-75 with the attached revised page as indicated. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

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

Remove
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Insert
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3/4 0-3

- (4) PSEG 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 or 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;
 - (5) PSEG 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
 - (6) PSEG 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 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

PSEG Nuclear LLC is authorized to operate the facility at steady state reactor core power levels not in excess of 3459 megawatts (thermal).
 - (2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 308, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. PSEG Nuclear LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3/4.0 APPLICABILITY

LIMITING CONDITION FOR OPERATION

3.0.1 Compliance with the limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

3.0.2 Noncompliance with a specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

3.0.3 When a Limiting Condition for Operation is not met except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 24 hours.

Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual specifications.

3.0.4 When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time; or
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate (exceptions to this Specification are stated in the individual Specifications); or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

APPLICABILITY

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other specified conditions in the Applicability for individual Limiting Conditions for Operation, unless otherwise stated in the Surveillance Requirement. Failure to meet a Surveillance, whether such failure is experienced during the performance of the Surveillance or between performances of the Surveillance, shall be failure to meet the Limiting Condition for Operation. Failure to perform a Surveillance within the specified frequency shall be failure to meet the Limiting Condition for Operation, except as provided in Specification 4.0.3. Surveillances do not have to be performed on inoperable equipment or variables outside specified limits.

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. The delay period is only applicable when there is a reasonable expectation the Surveillance will be met when performed. A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the Limiting Condition for Operation must immediately be declared not met and the applicable Actions must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition for Operation must immediately be declared not met and the applicable Actions must be entered.

4.0.4 Entry into a MODE or other specified condition in the Applicability of an LCO shall only be made when the LCO's Surveillances have been met within their specified Frequency, except as provided by SR 4.0.3. When an LCO is not met due to Surveillances not having been met, entry into a MODE or other specified condition in the Applicability shall only be made in accordance with LCO 3.0.4.

This provision shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 214, 327, AND 308 TO

RENEWED FACILITY OPERATING LICENSE NOS. NPF-57, DPR-70, AND DPR-75

PSEG NUCLEAR LLC

HOPE CREEK GENERATING STATION

AND

PSEG NUCLEAR LLC

EXELON GENERATION COMPANY, LLC

SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-354, 50-272, AND 50-311

1.0 INTRODUCTION

By application dated June 29, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18183A343), PSEG Nuclear LLC (PSEG, the licensee) requested changes to the Technical Specifications (TSs) for Hope Creek Generating Station (Hope Creek) and Salem Nuclear Generating Station, Unit Nos. 1 and 2 (Salem) (the facilities). Specifically, the licensee requested changes consistent with Technical Specifications Task Force (TSTF) Traveler TSTF-529, Revision 4, "Clarify Use and Application Rules" dated February 29, 2016 (ADAMS Accession No. ML16062A271).

The licensee proposed changes to the facilities' TS Section 3/4.0, "Applicability." The proposed changes clarify and expand the use and application of the facilities' TS usage rules. The licensee proposed variations from the TS changes described in TSTF-529, Revision 4, that will be addressed below.

2.0 REGULATORY EVALUATION

2.1 Background

Traveler TSTF-529, Revision 4, was approved by the U.S. Nuclear Regulatory Commission (NRC or the Commission) by letter dated April 21, 2016 (ADAMS Package Accession No. ML16060A441). TSTF-529, Revision 4, modifies the current Standard Technical Specifications (STS), NUREG-1431, Revision 4.0, Volume 1, "Standard Technical Specifications: Westinghouse Plants," dated April 2012 (ADAMS Accession No. ML12100A222).

The STS provide guidance on the format and content of TSs for light-water reactor (LWR) nuclear steam supply systems. TSTF-529, Revision 4, makes changes to Section 1.3, "Completion Times"; Limiting Condition for Operation (LCO) 3.0.4; and Surveillance Requirement (SR) 3.0.3 to clarify and expand the use and application of the STS usage rules.

The licensee proposed variations from the changes described in TSTF-529, Revision 4, because the facilities' TSs are not based on NUREG-1431. As such, the facilities' TSs have wording, numbering, and formatting that vary from the STS in NUREG-1431. Specifically, the Hope Creek TSs are based on NUREG-0123, Revision 2, "Standard Technical Specifications for General Electric Boiling Water Reactors," April 1978 (ADAMS Accession No. ML17266A008), while the Salem TSs are based on NUREG-0452, Revision 4, "Standard Technical Specifications for Westinghouse Pressurized Water Reactors," dated Fall 1981 (ADAMS Accession No. ML102590431). Given these differences, the facilities' TS 4.0.3 is the corresponding TS associated with TSTF-529, Revision 4, changes for STS SR 3.0.3. Additionally, the facilities' TSs do not include a section on completion times, similar to STS TS 1.3. Therefore, the changes to STS TS 1.3 included in TSTF-529, Revision 4, are not applicable.

The licensee stated that these variations are administrative only and do not affect the applicability of TSTF-529, Revision 4, to the facilities' TSs.

2.2 Description of the Applicable TS Sections

The facilities' TS 3.0 establish the general requirements applicable to all specifications and apply at all times, unless otherwise stated. Similarly, the facilities' TS 4.0 establish the general requirements for surveillances that are applicable to all specifications and apply at all times, unless otherwise stated.

2.3 Description of TS Changes

The changes that TSTF-529, Revision 4, makes to the STS are independent of each other, and licensees may choose to adopt them separately. Due to plant-specific differences, the licensee did not request the complete set of changes in TSTF-529, Revision 4.

2.3.1 Proposed Changes to LCO 3.0.4

The licensee proposed to revise the facilities' LCO 3.0.4 to read as follows (added text shown in bold and deleted text shown in bold strikeout):

When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- a. When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time; or
- b. After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if

- appropriate; (exceptions to this Specification are stated in the individual Specifications); or
- c. When an allowance is stated in the individual value, parameter, or other Specification.

The licensee proposed to clarify LCO 3.0.4.b by placing the statement regarding exceptions in parentheses, removing the semicolon after the word "appropriate," and replacing the ending comma with a semicolon.

The adequacy of these changes is discussed in Section 3.1 of this safety evaluation.

2.3.2 Proposed Changes to SR 4.0.3

The licensee proposed to revise the facilities' SR 4.0.3 to read as follows (added text shown in bold and deleted text shown in bold strikeout):

If it is discovered that a Surveillance was not performed within its specified frequency, then compliance with the requirement to declare the Limiting Condition for Operation not met may be delayed, from the time of discovery, up to 24 hours or up to the limit of the specified frequency, whichever is greater. This delay period is permitted to allow performance of the Surveillance. **The delay period is only applicable when there is a reasonable expectation the Surveillance will be met when performed.** A risk evaluation shall be performed for any Surveillance delayed greater than 24 hours and the risk impact shall be managed.

If the Surveillance is not performed within the delay period, the Limiting Condition for Operation must immediately be declared not met, and the applicable Actions must be entered.

When the Surveillance is performed within the delay period and the Surveillance is not met, the Limiting Condition for Operation must immediately be declared not met, and the applicable Actions must be entered.

The adequacy of these changes are discussed in Section 3.2 of this safety evaluation.

2.4 Regulatory Requirements and Guidance Documents

The NRC staff considered the following regulatory requirements and guidance documents during its review of the proposed changes:

Paragraph 50.36(c) of Title 10 of the *Code of Federal Regulations* (10 CFR) states the regulatory requirements related to the content of the TSs. This regulation requires that TSs include items in five specified categories related to station operation. These categories include: (1) safety limits, limiting safety systems settings, and control settings; (2) LCOs; (3) SRs; (4) design features; and (5) administrative controls.

Section 50.36(c)(2) of 10 CFR establishes the requirements for LCOs and states, in part:

Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.

Section 50.36(c)(3) of 10 CFR establishes the requirements for SRs and states:

Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

The NRC staff's guidance for review of the TSs is in NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR [Light-Water Reactor] Edition" (Standard Review Plan) Chapter 16, "Technical Specifications," Revision 3, dated March 2010 (ADAMS Accession No. ML100351425). As described therein, as part of the regulatory standardization effort, the staff has prepared improved Standard Technical Specifications (STS) for each of the LWR nuclear steam supply systems and associated balance-of-plant equipment systems. The licensee's proposed amendments are based on TSTF-529, Revision 4, which is an NRC-approved change to the improved STS. As such, the staff's review included consideration of whether the proposed changes are consistent with TSTF-529, Revision 4. Special attention is given to TS provisions that depart from the improved STS, as modified by NRC-approved TSTF travelers, to determine whether proposed differences are justified by uniqueness in plant design or other considerations so that 10 CFR 50.36 continues to be met. In addition, NUREG-0800, Chapter 16, states that for facilities with TSs based on previous STS, licensee should comply with comparable provisions of the current STS to the extent possible or justify deviations. This guidance further states that for facilities requesting a deviation, comparing the change to previous STS can help clarify the intent of the TS.

3.0 TECHNICAL EVALUATION

During the review of the proposed adoption of TSTF-529, Revision 4, the NRC staff considered generally the guidance on acceptance criteria of the Standard Review Plan sections described in Section 2.4 of this safety evaluation, and, in particular, the acceptance criteria in Chapter 16, "Technical Specifications," of NUREG-0800, Revision 3. Additionally, the NRC staff evaluated the proposed changes to the facilities' TS against what is required to be in the TS under 10 CFR 50.36. The staff's evaluation of the proposed changes to the facilities' LCO 3.0.4 and SR 4.0.3 is discussed separately below.

3.1 Proposed Changes to LCO 3.0.4

As stated in Section 2.3.1 of this safety evaluation, the facilities' current LCO 3.0.4 contains three options (LCO 3.0.4.a, b, and c). LOC 3.0.4.a ends with a semicolon followed by the word "or," and LCO 3.0.4.b ends with a comma followed by the word "or."

The statement in LCO 3.0.4.b, as currently written, could lead to operator misinterpretation due to the presence of the comma. Operators could misapply this statement by believing the "or" applies to the phrase regarding exceptions and that LCO 3.0.4.a, b, and c apply concurrently.

The licensee proposed to clarify LCO 3.0.4.b by placing the statement regarding exceptions in parentheses, removing the semicolon after the word "appropriate," and replacing the comma with a semicolon. The proposed LCO 3.0.4.b statement would be the following: "After performance of a risk assessment ... if appropriate (exceptions to this Specification are stated in the individual Specifications); or."

The NRC staff finds that the change is editorial since it does not change the requirements currently in the TS. The NRC staff finds the proposed change acceptable since it removes the potential for misapplication of LCO 3.0.4 allowances, and therefore, provides a clear and objective application of the facilities' TS required actions.

3.2 Proposed Changes to SR 4.0.3

The NRC staff has previously interpreted SR 4.0.3 as inapplicable to SRs that have never been performed. This is because the allowance provided by SR 4.0.3 is based on the fact that if the SR was satisfactorily met in the past, the most probable result of performing the SR is that the SR would establish satisfactory conformance with the SR requirements. Therefore, where an SR has been performed in the past, there is a reasonable expectation that the SR will be met when performed.

However, the NRC staff recognizes that there are instances in which an SR may not have been performed in the past, but there is still a reasonable expectation the SR will be met when performed. For example, if a licensee finds that a relay contact has never been tested in accordance with a particular SR, the licensee can determine that there is still a reasonable expectation the SR will be met when performed if the relay contact has been successfully tested by another SR or if historical operation of the relay contact has been successful.

The NRC staff notes that the delay period allowed by the facilities' SR 4.0.3 offers adequate time to complete SRs that have been missed. In addition, this delay period permits the completion of an SR before complying with required actions or other remedial measures that might preclude completion of the SR. The NRC staff finds the application of the delay period provided by SR 4.0.3 acceptable for use on SRs that have never been performed as long as the licensee can demonstrate a reasonable expectation the SR will be met when performed.

The licensee's proposed changes to the facilities' LCO SR 4.0.3, adds the following new sentence, reflecting the inclusion of SRs that have never been performed: "The delay period is only applicable when there is a reasonable expectation the Surveillance will be met when performed."

When making a determination of reasonable expectation that the SR will be met when performed, licensees must take into consideration many factors. These factors include, but are not limited to, the period of time since the SR was last performed; whether the SR, or a portion thereof, has ever been performed; and other indications, tests, or activities that might support the expectation that the SR will be met when performed. It is not sufficient to infer the performance of the associated equipment from the performance of similar equipment. The determination of whether there is a reasonable expectation that an SR will be met when performed depends, in part, on the length of time since the SR was last performed. If the SR

has been performed recently, a review of the SR history and equipment performance may be sufficient to support a reasonable expectation that the SR will be met when performed. For SRs that have not been performed for a long period of time or that have never been performed, an evaluation based on objective evidence should provide a high degree of confidence that the equipment is capable of performing its specified safety function(s). The evaluation should be documented in sufficient detail to allow a knowledgeable individual to understand the basis for the determination.

The proposed change, which expands the scope of the facilities' SR 4.0.3 to SRs that have never been performed, is acceptable because the licensee must determine that there is a reasonable expectation the SR will be met when performed. In addition, the proposed change supports plant safety since it could prevent unnecessary shutdowns by providing adequate time to complete SRs that have never been performed but are likely to be met when performed.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendments on August 31, 2018. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and change SRs. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, published in the *Federal Register* on August 14, 2018 (83 FR 40351), 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 amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: C. Tilton

Date: March 6, 2019

SUBJECT: HOPE CREEK GENERATING STATION AND SALEM NUCLEAR
GENERATING STATION, UNIT NOS. 1 AND 2 – ISSUANCE OF AMENDMENT
NOS. 214, 327, AND 308 RE: REVISE TECHNICAL SPECIFICATIONS TO
ADOPT TSTF-529 (EPID L-2018-LLA-0185) DATED MARCH 6, 2019

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*by memorandum **by e-mail

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