



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

January 18, 2018

Mr. David B. Hamilton
Site Vice President
FirstEnergy Nuclear Operating Company
Mail Stop A-PY-A290
P.O. Box 97, 10 Center Road
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT, UNIT NO. 1 - ISSUANCE OF
AMENDMENT CONCERNING ADOPTION OF TECHNICAL SPECIFICATION
TASK FORCE (TSTF) TRAVELER 400-A, REVISION 1, "CLARIFY SR ON BYPASS
OF DG AUTOMATIC TRIPS" (CAC NO. MF9855; EPID L-2017-LLA-0246)
(L-17-089)

Dear Mr. Hamilton:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 179 to Facility Operating License No. NPF-58 for Perry Nuclear Power Plant, Unit No. 1 (PNPP). The amendment consists of changes to the technical specifications (TSs) in response to your application dated June 20, 2017.

The amendment revises the PNPP TSs to delete the list of diesel generator (DG) critical trips from TS Surveillance Requirement (SR) 3.8.1.13 and clarify that the purpose of the SR is to verify that the noncritical automatic trips are bypassed. This TS change adopts Technical Specification Task Force Improved Standard Technical Specifications Change Traveler 400-A, Revision 1, "Clarify SR on Bypass of DG Automatic Trips."

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

Sincerely,

A handwritten signature in black ink, appearing to read "Kimberly J. Green".

Kimberly J. Green, Senior Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosures:

1. Amendment No. 179 to NPF-58
2. Safety Evaluation

cc: ListServ



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

FIRSTENERGY NUCLEAR OPERATING COMPANY

FIRSTENERGY NUCLEAR GENERATION, LLC

DOCKET NO. 50-440

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 179
License No. NPF-58

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by FirstEnergy Nuclear Operating Company, et al. (the licensee, FENOC), dated June 20, 2017, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

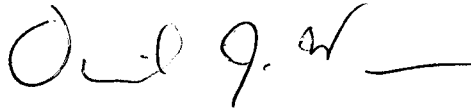
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-58 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 179, are hereby incorporated into the license. FENOC 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 its issuance and shall be implemented within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read 'D. J. Wrona', followed by a horizontal line.

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

Attachment:
Changes to the Facility Operating
License No. NPF-58 and
Technical Specifications

Date of Issuance: January 18, 2018

ATTACHMENT TO LICENSE AMENDMENT NO. 179

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

FACILITY OPERATING LICENSE NO. NPF-58

DOCKET NO. 50-440

Replace the following pages of the Facility Operating License and 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

License NPF-58

- 4 -

TSs

3.8-10

INSERT

License NPF-58

- 4 -

TSs

3.8-10

- 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

FENOC is authorized to operate the facility at reactor core power levels not in excess of 3758 megawatts thermal (100% power) in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 179, are hereby incorporated into the license. FENOC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

- a. FirstEnergy Nuclear Generation, LLC

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.1.12 -----NOTES-----</p> <ol style="list-style-type: none"> 1. All DG starts may be preceded by an engine prelube period. 2. This Surveillance shall not be performed in MODE 1 or 2 (not applicable to Division 3). However, credit may be taken for unplanned events that satisfy this SR. <p>-----</p> <p>Verify on an actual or simulated Emergency Core Cooling System (ECCS) initiation signal each DG auto-starts from standby condition and:</p> <ol style="list-style-type: none"> a. In ≤ 10 seconds for Division 1 and 2, and ≤ 13 seconds for Division 3, after auto-start and during tests, achieves voltage ≥ 3900 V and frequency ≥ 58.8 Hz; and b. Achieves steady state voltage ≥ 3900 V and ≤ 4400 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz; and c. Operates for ≥ 5 minutes. 	<p>In accordance with the Surveillance Frequency Control Program</p>
<p>SR 3.8.1.13 -----NOTE-----</p> <p>This Surveillance shall not be performed in MODE 1, 2, or 3 (not applicable to Division 3). However, credit may be taken for unplanned events that satisfy this SR.</p> <p>-----</p> <p>Verify each DG's non-critical automatic trips are bypassed on an actual or simulated ECCS initiation signal.</p>	<p>In accordance with the Surveillance Frequency Control Program</p>

(continued)



UNITED STATES
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 179 TO FACILITY OPERATING LICENSE NO. NPF-58
FIRSTENERGY NUCLEAR OPERATING COMPANY
FIRSTENERGY NUCLEAR GENERATION, LLC
PERRY NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-440

1.0 INTRODUCTION

By application dated June 20, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17171A301), FirstEnergy Nuclear Operating Company (FENOC, the licensee) requested changes to the technical specifications (TSs) for the Perry Nuclear Power Plant, Unit No. 1 (PNPP or Perry).

The proposed changes would revise the PNPP TSs to delete the list of diesel generator (DG) critical trips from TS Surveillance Requirement (SR) 3.8.1.13 and clarify that the purpose of the SR is to verify that the noncritical automatic trips are bypassed. This TS change adopts Technical Specifications Task Force Traveler (TSTF)-400-A, Revision 1, "Clarify SR on Bypass of DG Automatic Trips" (ADAMS Accession No. ML083380672).

2.0 REGULATORY EVALUATION

The U.S. Nuclear Regulatory Commission (NRC or Commission) staff has reviewed the proposed changes against the criteria of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36 and NUREG-1434, "Standard Technical Specifications (STS), General Electric Plants, BWR [boiling-water reactor]/6," Revision 4.

In 10 CFR 50.36, the NRC established its regulatory requirements related to the content of TSs. In accordance with 10 CFR 50.36(c)(3), 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 limiting conditions for operation (LCOs) will be met. The proper use and application of SR frequency requirements are described in Section 1.4 of the PNPP TSs.

The guidance which the NRC staff applied in its review of the amendment included NUREG-1434, "Standard Technical Specifications (STS), General Electric BWR/6 Plants," (ADAMS Accession No. ML12104A195), General Design Criterion (GDC) 18, "Inspection and Testing of Electrical Power Systems," and Regulatory Guide (RG) 1.9, "Selection, Design,

Qualification, and Testing of Emergency Diesel Generator Units Used as Class 1E Onsite Electric Power Systems at Nuclear Power Plants,” Revision 4, March 2007 (ADAMS Accession No. ML070380553).

GDC 18 requires, in part, that, “[e]lectric power systems important to safety shall be designed to permit appropriate periodic inspection and testing of important areas and features...”

RG 1.9 describes an acceptable method for complying with the regulations with regard to design and testing of DGs. Section 2.2.11, “Periodic Trip Bypass Test,” states, in part, that “typically, engine overspend [*sic*], generator differential current trip and those trips retained with coincident logic are not bypassed,” and recommends that nonbypassed DG critical trips be tested.

3.0 TECHNICAL EVALUATION

Revision 1 to TSTF-400-A, proposed clarification to the STS standby DG trip SR 3.8.1.13 to more clearly state that the SR 3.8.1.13 only verifies that the noncritical DG trips are bypassed.

The NRC approved TSTF-400, Revision 1, by letter dated November 13, 2004 (ADAMS Accession No. ML043200067).

3.1 Proposed Changes

The proposed change revises TS 3.8.1, “AC Sources - Operating,” SR 3.8.1.13, to clarify that the intent of the SR is verify that only the noncritical DG trips are bypassed on an ECCS initiation signal.

Current TS SR 3.8.1.13 states, in part, the following:

Verify each DG's automatic trips are bypassed on an actual or simulated ECCS [emergency core cooling system] initiation signal except:

- a. Engine overspeed; and
- b. Generator differential current

Revised TS SR 3.8.1.13 would state:

Verify each DG's non-critical automatic trips are bypassed on an actual or simulated ECCS initiation signal.

3.2 NRC Evaluation

The changes to SR 3.8.1.13 and the associated TS bases state that the SR only verifies that noncritical DG trips are bypassed. The noncritical DG trips are bypassed during design-basis accidents and provide an alarm on an abnormal engine condition. The NRC staff reviewed this change and has determined that it is editorial, provides clarification, and no STS requirements are materially altered.

Additionally, the NRC staff has determined that the requirements of 10 CFR 50.36(c)(3) will continue to be met because the revised SR provides the appropriate surveillance to ensure the necessary quality of components is maintained and the LCO will be met.

In the amendment request, the licensee addressed two concerns previously identified by the NRC staff in other licensees' requests. The first concern deals with licensee actions to periodically test the DG critical and noncritical trips as part of a preventive maintenance program or commit to add a statement to the updated final safety analysis report (UFSAR). FENOC noted that Revision 4 to Regulatory Guide 1.9, Section c.2.2.11 (ADAMS Accession No. ML070380553), gives guidance on periodic trip bypass testing and verification that critical protective trips are not automatically bypassed. FENOC stated that, "[t]he critical DG protective trip functions (engine overspeed and generator differential current) are tested periodically by plant procedures to verify proper functioning. PNPP procedures also verify that the DG noncritical trips are bypassed and that the DG critical trips are not bypassed during simulated ECCS initiation signals. Therefore, changes to the PNPP USAR [updated safety analysis report] are not necessary." Because the testing of the DG critical trip functions and verification of bypass of noncritical trip functions are included as part of the PNPP procedures, the NRC staff finds that the licensee has adequately addressed the NRC's concern.

The second concern addressed by FENOC in the amendment request deals with including a list of DG critical and noncritical trips in the UFSAR. In a letter to the TSTF, dated August 7, 2009 (ADAMS Accession No. ML092170688), the NRC informed the TSTF that information being relocated from the TS should be placed in the UFSAR, or another licensee-controlled document incorporated by reference in the UFSAR. The NRC staff reviewed Revision 20 of the Perry USAR, and verified that the engine overspeed and generator differential current trips, which are being relocated from TS SR 3.8.1.13, are currently listed in USAR Section 8.3.1.1.3.2.b.3. The nonessential trip functions (i.e., noncritical trip functions) that are bypassed upon receipt of a loss of coolant accident or bus under/degraded voltage signal are also listed in USAR Section 8.3.1.1.3.2.b.3. Therefore, the licensee has addressed the NRC staff's concern about relocation of information from the TS to the USFAR, or another licensee-controlled document incorporated by reference in the UFSAR.

Based on the above, the NRC staff concludes that the changes to SR 3.8.1.13 are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Ohio State official was notified on November 7, 2017, of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes an inspection or SR. 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 and there has been no public comment on such finding (82 FR 38718, dated August 15, 2017). Accordingly, the amendment meets 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.

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.

Principal Contributors: Kim Green, NRR
Pete Snyder, NRR

Date of issuance: January 18, 2018

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 TASK FORCE (TSTF) TRAVELER 400-A, REVISION 1, "CLARIFY SR ON BYPASS
 OF DG AUTOMATIC TRIPS" (CAC NO. MF9855; EPID L-2017-LLA-0246) (L-17-
 089) DATED JANUARY 18, 2018

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ADAMS Accession No.: ML17325B690

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