



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

July 12, 2021

Mr. Rod L. Penfield
Site Vice President
Energy Harbor Nuclear Corp.
Perry Nuclear Power Plant
P.O. Box 97, Mail Stop A-PY-A290
Perry, OH 44081-0097

SUBJECT: PERRY NUCLEAR POWER PLANT, UNIT NO. 1 – ISSUANCE OF AMENDMENT NO. 194 REGARDING THE ADOPTION OF TECHNICAL SPECIFICATIONS TASK FORCE (TSTF) TRAVELER TSTF-002, “RELOCATE THE 10-YEAR SEDIMENT CLEANING OF THE FUEL OIL STORAGE TANK TO LICENSEE CONTROL” (EPID L-2021-LLA-0040)

Dear Mr. Penfield:

The U.S Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment No. 194 to Facility Operating License No. NPF-58 for Perry Nuclear Power Plant, Unit No. 1 (Perry). The amendment consists of changes to the technical specifications (TSs) in response to your application dated March 5, 2021 (Agencywide Documents Access and Management System Accession No. ML21069A276).

The amendment revises TS 3.8.3, “Diesel Fuel Oil, Lube Oil, and Starting Air,” by removing Surveillance Requirement 3.8.3.6 and placing it under licensee control. The changes are consistent with Technical Specifications Task Force (TSTF) Traveler TSTF-002, Revision 1, “Relocate the 10 Year Sediment Cleaning of the Fuel Oil Storage Tank to Licensee Control.”

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

Sincerely,

/RA/

Scott P. Wall, 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. 194 to NPF-58
2. Safety Evaluation

cc: Listserv



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ENERGY HARBOR NUCLEAR CORP.
ENERGY HARBOR NUCLEAR GENERATION LLC
DOCKET NO. 50-440
PERRY NUCLEAR POWER PLANT, UNIT NO. 1
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 194
License No. NPF-58

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by Energy Harbor Nuclear Corp., et al.,¹ dated March 5, 2021, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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.

¹ Energy Harbor Nuclear Corp. is authorized to act as agent for Energy Harbor Nuclear Generation LLC and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

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. 194, are hereby incorporated into the license. Energy Harbor Nuclear Corp. shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This 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

**Nancy L.
Salgado**  Digitally signed by
Nancy L. Salgado
Date: 2021.07.12
15:36:09 -04'00'

Nancy L. Salgado, Chief
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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

Date of Issuance: July 12, 2021

ATTACHMENT TO LICENSE AMENDMENT NO. 194

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

FACILITY OPERATING LICENSE NO. NPF-58

DOCKET NO. 50-440

Facility Operating License No. NPF-58

Replace the following page of Facility Operating License No. NPF-58 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change

REMOVE

INSERT

-4-

-4-

Technical Specifications

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 a marginal line indicating the area of change.

REMOVE

INSERT

3.8-23

3.8-23

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

Energy Harbor Nuclear Corp. 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. 194, are hereby incorporated into the license. Energy Harbor Nuclear Corp. shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

a. Energy Harbor Nuclear Generation LLC shall comply with the antitrust conditions delineated in Appendix C to this license; Appendix C is hereby incorporated into this license.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains \geq a 7 day supply of fuel.	In accordance with the Surveillance Frequency Control Program
SR 3.8.3.2	Verify lube oil inventory is \geq a 7 day supply.	In accordance with the Surveillance Frequency Control Program
SR 3.8.3.3	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.4	Verify each required DG air start receiver pressure is \geq 210 psig.	In accordance with the Surveillance Frequency Control Program
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	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 AMENDMENT NO. 194 TO

FACILITY OPERATING LICENSE NO. NPF-58

ENERGY HARBOR NUCLEAR CORP.

ENERGY HARBOR NUCLEAR GENERATION LLC

PERRY NUCLEAR POWER PLANT, UNIT NO. 1

DOCKET NO. 50-440

1.0 INTRODUCTION

By letter dated March 5, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21069A276), Energy Harbor Nuclear Corp. (EHNC, the licensee) requested changes to the technical specifications (TSs) for Perry Nuclear Power Plant, Unit No. 1 (PNPP).

The amendment would revise TS 3.8.3, "Diesel Fuel Oil, Lube Oil, and Starting Air," by removing Surveillance Requirement (SR) 3.8.3.6 and placing it under licensee control. The proposed changes are consistent with Technical Specifications Task Force (TSTF) Traveler TSTF-002, Revision 1, "Relocate the 10 Year Sediment Cleaning of the Fuel Oil Storage Tank to Licensee Control." TSTF-002, Revision 1, was approved by the U.S. Nuclear Regulatory Commission (NRC, the Commission) on July 16, 1998 (Legacy ADAMS Accession No. 9807280010).

2.0 REGULATORY EVALUATION

2.1 Description of Proposed Change

The licensee proposed to revise TS 3.8.3 by removing SR 3.8.3.6, which currently states:

SURVEILLANCE		FREQUENCY
SR 3.8.3.6	For each fuel oil storage tank: a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank.	In accordance with the Surveillance Frequency Control Program

2.2 Regulatory Requirements

Section 182.a of the Atomic Energy Act of 1954, as amended, requires nuclear power plant operating licenses to include TSs as part of any license. In Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36, "Technical specifications," the Commission established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following categories: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) SRs; (4) design features; and (5) administrative controls.

As stated in 10 CFR 50.36(c)(2)(i), LCOs 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." The remedial actions in the TSs are specified in terms of LCO conditions, required actions, and completion times (CTs), or allowed outage times, to complete the required actions. The conditions and required actions specified in the TSs must be acceptable remedial actions for the LCO not being met, and the CTs must be a reasonable time for completing the required actions while maintaining the safe operation of the plant.

As required by 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 [LCOs] will be met."

The NRC staff reviewed the proposed changes for compliance with 10 CFR 50.36 and consistency with "Standard Technical Specifications, General Electric BWR/6 [Boiling-Water Reactor Type 6] Plants," NUREG-1434, Volume 1, "Specifications," and Volume 2, "Bases," Revision 4.0, dated April 2012 (ADAMS Accession Nos. ML12104A195 and ML12104A196, respectively), as modified by NRC-approved travelers. In general, licensees cannot justify TS changes solely on the basis of adopting the model Standard Technical Specifications (STS). To ensure this, the staff makes a determination that proposed changes maintain adequate safety. Changes that result in relaxation of current TS requirements (i.e., less restrictive condition) require detailed justification.

Licensees may revise their TSs to adopt improved STS format and content provided that plant-specific review supports a finding of continued adequate safety because: (1) the change is editorial, administrative, or provides clarification (i.e., no requirements are materially altered); (2) the change is more restrictive than the licensee's current requirement; or (3) the change is less restrictive than the licensee's current requirement, but nonetheless still affords adequate assurance of safety when judged against current regulatory standards. The detailed application of this general framework, and additional specialized guidance, are discussed in Section 3.0 in the context of specific proposed changes.

3.0 TECHNICAL EVALUATION

In the March 5, 2021, application, the licensee proposed to remove SR 3.8.3.6 from TS 3.8.3. SR 3.8.3.6 requires that each emergency diesel generator (EDG) fuel oil storage tank is drained of fuel, the accumulated sediment is removed from each tank, and each tank is cleaned in accordance with the Surveillance Frequency Control Program. The associated fuel oil storage

tank requirements are also currently in a licensee-controlled document and will be retained there.

The licensee stated that SR 3.8.3.6 is a preventive maintenance activity and is not needed to demonstrate the operability of the EDGs. The NRC staff reviewed the proposed change and determined that SR 3.8.3.6, while requiring maintenance of the fuel oil storage tanks, does not meet the criteria for demonstrating the operability of the EDGs; therefore, it does not meet the criteria in 10 CFR 50.36(c)(3) for retention as an SR. Furthermore, the NRC has not included the requirements of SR 3.8.3.6 through the incorporation of TSTF-002 in its current revision of the improved STS for BWR/6 plants, NUREG-1434.

The licensee stated that once SR 3.8.3.6 is removed from the TS, the fuel oil storage tank cleaning requirement will continue to be governed by the current PNPP commitment to Regulatory Guide (RG) 1.137, "Fuel-Oil Systems for Standby Diesel Generators," Revision 1, dated October 1979 (ADAMS Accession No. ML003740180), and Appendix B of American National Standards Institute (ANSI) N195, "Fuel Oil Systems for Standby Diesel Generators," dated 1976, as described in PNPP Final Safety Analysis Report (FSAR) Section 1.8 (ADAMS Accession No. ML19298C594). The requirement to perform the actions in the current SR 3.8.3.6 will reside in the PNPP FSAR as a commitment to RG 1.137, Section C.2.f, which specifies that the fuel oil stored in the EDG storage tanks should be removed, the accumulated sediment removed, and the tanks cleaned at 10-year intervals.

Accordingly, the licensee stated that the proposed change "has no impact on assuring proper quality of fuel oil and would not impede the ability of [EHNC] to continue meeting the intent of Regulatory Guide 1.137 at PNPP." Any changes regarding compliance with RG 1.137 are subject to the change mechanism of the FSAR, which requires evaluation pursuant to 10 CFR 50.59, "Changes, tests, and experiments."

As stated in 10 CFR 50.36(c)(3), SRs are requirements relating to test, calibration, or inspection to assure that the LCO in that TS is being met. LCO 3.8.3 states that "[t]he stored diesel fuel oil, lube oil, and starting air subsystem shall be within limits for each required diesel generator (DG)." LCO 3.8.3 will continue to be met by the performance of the remaining SRs, which are directly related to EDG fuel oil quantity and quality limits to ensure that the EDGs can perform their design safety function.

The three remaining SRs in TS 3.8.3 related to the stored fuel oil are the following:

1. SR 3.8.3.1, which requires verification that each fuel oil storage tank contains greater than or equal to a 7-day supply of fuel.
2. SR 3.8.3.3, which requires verification that the fuel oil properties of new and stored fuel oil are tested in accordance with and maintained within the limits of, the Diesel Fuel Oil Testing Program.
3. SR 3.8.3.5, which requires checking for and removal of any accumulated water from the fuel oil storage tanks.

SR 3.8.3.1 ensures that the required minimum volume of fuel is present in the tank. SR 3.8.3.3 ensures that the fuel oil is of the necessary quality in accordance with the required fuel oil properties defined in TS 5.5.9, "Diesel Fuel Oil Testing Program." This program limits the water

and sediment content of the fuel oil. SR 3.8.3.5 ensures that the fuel oil storage tanks are periodically checked for water accumulation and that any accumulated water is removed.

Technical Conclusion

The NRC staff concludes that the proposed changes to remove the fuel oil storage tank preventive maintenance requirements of SR 3.8.3.6 from the TSs are acceptable because:

1. SR 3.8.3.6 does not demonstrate that LCO 3.8.3 is being met and does not meet 10 CFR 50.36(c)(3) for inclusion in the PNPP TSs;
2. The preventive maintenance requirements for the EDG fuel oil storage tanks will be maintained in the PNPP FSAR, with changes subject to 10 CFR 50.59; and
3. The remaining TS 3.8.3 SRs are sufficient to demonstrate that LCO 3.8.3 is met.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Ohio official was notified of the proposed issuance of the amendment on June 7, 2021. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. 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 previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on April 20, 2021 (86 FR 20526). 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: K. West, NRR

Date of issuance: July 12, 2021

SUBJECT: PERRY NUCLEAR POWER PLANT, UNIT NO. 1 – ISSUANCE OF AMENDMENT NO. 194 REGARDING THE ADOPTION OF TECHNICAL SPECIFICATIONS TASK FORCE (TSTF) TRAVELER TSTF-002, “RELOCATE THE 10-YEAR SEDIMENT CLEANING OF THE FUEL OIL STORAGE TANK TO LICENSEE CONTROL” (EPID L-2021-LLA-0040) DATED JULY 12, 2021

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