



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

October 3, 2023

Mr. Thomas P. Haaf
Site Vice President
Shearon Harris Nuclear Power Plant
Mail Code NHP01
5413 Shearon Harris Road
New Hill, NC 27562-9300

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - ISSUANCE OF AMENDMENT NO. 199 REGARDING ADMINISTRATIVE CHANGES TO THE RENEWED FACILITY OPERATING LICENSE AND TECHNICAL SPECIFICATIONS (EPID L-2023-LLA-0020)

Dear Mr. Haaf:

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 199 to Renewed Facility Operating License (RFOL) No. NPF-63 for the Shearon Harris Nuclear Power Plant, Unit 1 (Harris). This amendment is in response to your application dated February 7, 2023.

The amendment to the RFOL and Technical Specifications (TS) removes the reference to Duke Energy's procedure EGR-NGGC-0153, "Engineering Instrument Setpoints" which has been superseded by procedure AD-EG-ALL-1153, "Engineering Instrument Setpoint/Uncertainty Calculations." AD-EG-ALL-1153 was incorporated by reference in the Harris Updated Final Safety Analysis Report (UFSAR). This amendment will also remove the reference to Attachment 1, "TDI [Transamerica Delaval, Inc.] Diesel Engine Requirements" of the RFOL, as well as the attachment itself.

T. Haaf

- 2 -

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

Sincerely,

/RA/

Michael Mahoney, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-400

Enclosures:

1. Amendment No. 199 to NPF-63
2. Safety Evaluation

cc: Listserv



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

DUKE ENERGY PROGRESS, LLC

DOCKET NO. 50-400

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 199
Renewed License No. NPF-63

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Duke Energy Progress, LLC (the licensee), dated February 7, 2023, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission.
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations.
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-63 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 199, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

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

Attachment:
Changes to the Renewed Facility
Operating License No. NPF-63
and Technical Specifications

Date of Issuance: October 3, 2023

ATTACHMENT TO LICENSE AMENDMENT NO. 199
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1
RENEWED FACILITY OPERATING LICENSE NO. NPF-63
DOCKET NO. 50-400

Replace the following page of the Renewed Facility Operating License with the revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change:

<u>Remove</u>	<u>Insert</u>
Page 4	Page 4
Page 12	Page 12

Remove Attachment 1, "TDI Diesel Engine Requirements," of the Renewed Facility Operating License.

<u>Remove</u>	<u>Insert</u>
Page 1	-
Page 2	-
Page 3	-
Page 4	-

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:

<u>Remove</u>	<u>Insert</u>
2-10	2-10
3/4 3-36	3/4 3-36

- 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

Duke Energy Progress, LLC, is authorized to operate the facility at reactor Core power levels not in excess of 2948 megawatts thermal (100 percent rated core power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 199, are hereby incorporated into this license. Duke Energy Progress, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Antitrust Conditions

Duke Energy Progress, LLC. shall comply with the antitrust conditions delineated in Appendix C to this license.

(4) Initial Startup Test Program (Section 14)¹

Any changes to the Initial Test Program described in Section 14 of the FSAR made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(5) Steam Generator Tube Rupture (Section 15.6.3)

Prior to startup following the first refueling outage, Carolina Power & Light Company* shall submit for NRC review and receive approval if a steam generator tube rupture analysis, including the assumed operator actions, which demonstrates that the consequences of the design basis steam generator tube rupture event for the Shearon Harris Nuclear Power Plant are less than the acceptance criteria specified in the Standard Review Plan, NUREG-0800, at 15.6.3 Subparts II (1) and (2) for calculated doses from radiological releases. In preparing their analysis Carolina Power & Light Company* will not assume that operators will complete corrective actions within the first thirty minutes after a steam generator tube rupture.

¹The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

* On April 29, 2013, the name of "Carolina Power & Light Company" (CP&L) was changed to "Duke Energy Progress, Inc." On August 1, 2015, the name "Duke Energy Progress, Inc." was changed to "Duke Energy Progress, LLC."

- L. This license is effective as of the date of issuance and shall expire at midnight on October 24, 2046.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

1. Appendix A – Technical Specifications
2. Appendix B – Environmental Protection Plan
3. Appendix C – Antitrust Conditions
4. Appendix D – Additional Conditions

Date of Issuance: December 17, 2008

TABLE 2.2-1 (Continued)

TABLE NOTATIONS

The values denoted with [*] are specified in the COLR.

NOTE 3: (Continued)

K_6	=	[*]/°F for $T > T''$ and $K_6 = [*]$ for $T \leq T''$,
T	=	As defined in Note 1,
T''	=	Reference T_{avg} at RATED THERMAL POWER ($\leq [*]$ °F),
S	=	As defined in Note 1, and
$f_2(\Delta I)$	=	[*].

NOTE 4: The channel's maximum Trip Setpoint shall not exceed its computed Trip Setpoint by more than 1.4% of ΔT span for ΔT input, 1.35% of T_{avg} span for T_{avg} input; and 0.6% of ΔI span for ΔI input.

NOTE 5: The sensor error is: 1.3% of ΔT span for $\Delta T/T_{avg}$ temperature measurements; and 0.8% of ΔT span for pressurizer pressure measurements.

NOTE 6: The sensor error (in % span of Steam Flow) is: 1.1% for steam flow; 1.8% for feedwater flow; and 2.4% for steam pressure.

NOTE 7: If the as-found channel setpoint is outside its predefined as-found tolerance, the channel shall be evaluated to verify that it is functioning as required before returning the channel to service.

NOTE 8: The instrument channel setpoint shall be reset to a value that is within the as-left tolerance around the Trip Setpoint in Table 2.2-1 (Nominal Trip Setpoint (NTSP)) at the completion of the surveillance; otherwise, the channel shall be declared inoperable. Setpoints more conservative than the NTSP are acceptable provided that the as-found and as-left tolerances apply to the actual setpoint implemented in the surveillance procedures (field setting) to confirm channel performance. The methodologies used to determine NTSPs and the as-found and the as-left tolerances are specified in the FSAR. The as-found and as-left tolerances are specified in the Technical Requirements Manual.

TABLE 3.3-4 (Continued)

TABLE NOTATIONS

- * Time constants utilized in the lead-lag controller for Steam Line Pressure--Low are $\tau_1 \geq 50$ seconds and $\tau_2 \leq 5$ seconds. CHANNEL CALIBRATION shall ensure that these time constants are adjusted to these values.
- ** The time constant utilized in the rate-lag controller for Steam Line Pressure-Negative Rate--High is ≥ 50 seconds. CHANNEL CALIBRATION shall ensure that this time constant is adjusted to this value.
- # The indicated values are the effective, cumulative, rate-compensated pressure drops as seen by the comparator.

NOTE 1: If the as-found channel setpoint is outside its predefined as-found tolerance, the channel shall be evaluated to verify that it is functioning as required before returning the channel to service.

NOTE 2: The instrument channel setpoint shall be reset to a value that is within the as-left tolerance around the Trip Setpoint in Table 3.3-4 (Nominal Trip Setpoint (NTSP)) at the completion of the surveillance; otherwise, the channel shall be declared inoperable. Setpoints more conservative than the NTSP are acceptable provided that the as-found and as-left tolerances apply to the actual setpoint implemented in the surveillance procedures (field setting) to confirm channel performance. The methodologies used to determine NTSPs and the as-found and the as-left tolerances are specified in the FSAR. The as-found and as-left tolerances are specified in the Technical Requirements Manual.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 199 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-63

DUKE ENERGY PROGRESS, LLC

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

1.0 INTRODUCTION

By application dated February 7, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23038A186), Duke Energy Progress, LLC (the licensee), requested changes to the Renewed Facility Operating License (RFOL) and Technical Specifications (TS) for the Shearon Harris Nuclear Power Plant, Unit 1 (Harris). The license amendment request (LAR) proposes to remove the reference to Duke Energy procedure EGR-NGGC-0153, "Engineering Instrument Setpoints." This amendment will also remove Attachment 1, "TDI [Transamerica Delaval, Inc.] Diesel Engine Requirements" of the RFOL.

2.0 REGULATORY EVALUATION

2.1 Description of Changes

2.1.1 Technical Specifications Changes

For the following Harris TSs, the licensee proposes to replace references to "EGR-RGGC-0153, "Engineering Instrument Setpoints." with "the FSAR."

- NOTE 8 of TS Table 2.2-1, "Reactor Trip System Instrumentation Trip Setpoints"
- NOTE 2 of TS Table 3.3-4, "Engineered Safety Features Actuation System Instrumentation Trip Setpoints"

2.1.1 Renewed Facility Operating License Changes

The licensee proposed to remove, in its entirety, Attachment 1, "TDI Diesel Engine Requirements," of the RFOL and renumber the remaining appendices.

2.2 Applicable Regulatory Requirements

In Title 10 of the *Code of Federal Regulation* (CFR), Section 50.36, the Commission established its regulatory requirements related to the content of TSs. Pursuant to 10 CFR 50.36, TS are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) LCOs; (3) Surveillance Requirements (SRs); (4) design features; and (5) administrative controls.

Regulations at 10 CFR 50.57(a)(3)(i) allow for the issuance of an operating license upon finding, in part, that there is reasonable assurance that the activities authorized by the operating license can be conducted without endangering the health and safety of the public.

Regulations at 10 CFR 50.92 (a) in determining whether an amendment to a license, construction permit, or early site permit will be issued to the applicant, the Commission will be guided by the considerations which govern the issuance of initial licenses.

3.0 TECHNICAL EVALUATION

3.1 Evaluation of Technical Specification Changes

The methodology utilized in NOTE 8 of TS Table 2.2-1 and NOTE 2 of TS Table 3.3.4 was relocated to a Duke Energy fleet procedure AD-EG-ALL-1153, "Engineering Instrument Setpoint/Uncertainty Calculation," that superseded procedure EGR-NGGC-0153. AD-EG-ALL-1153 is incorporated by reference in Table 1.6.4, "PROCEDURES, PROGRAMS, OR MANUALS INCORPORATED BY REFERENCE" of the Harris Updated Final Safety Analysis Report (UFSAR). This change does not alter any current Technical Specification requirements or introduce any new requirements.

3.2 Evaluation of Renewal Facility Operating License Changes

This amendment will remove Attachment 1, "TDI Diesel Engine Requirement," of the RFOL in accordance with License Amendment No. 53, issued by letter dated January 12, 1995 (ML020570303). License Amendment No. 53 provided the licensee authorization to delete Attachment 1 of the RFOL, however the licensee inadvertently failed to delete the attachment and the reference to it during implementation of License Amendment No. 53. This change is editorial in nature and does not change any requirements in the RFOL.

3.3 NRC Staff Conclusion

The NRC staff finds that the proposed TS changes do not substantively change TS requirements. As such, the NRC staff concludes that the regulatory requirements of 10 CFR 50.36 continue to be met, and therefore, the proposed changes are acceptable.

The NRC finds that the change to the RFOL is editorial and non-technical in nature. As such, the NRC staff concludes that the regulatory requirements of 10 CFR 50.57(a)(3)(i) continue to be met, therefore, the NRC concludes that the change is acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of North Carolina official was notified of the proposed issuance of the amendment on August 22, 2023. The State of North Carolina official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes requirements with respect to installation or use of a facility's components located within the restricted area as defined in 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 (88 FR 38547, dated June 13, 2023), 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) and (c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need to 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 Contributors: M. Mahoney, NRR
D. Murray, NRR

Date of Issuance: October 3, 2023

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - ISSUANCE OF AMENDMENT NO. 199 REGARDING ADMINISTRATIVE CHANGES TO THE RENEWED FACILITY OPERATING LICENSE AND TECHNICAL SPECIFICATIONS (EPID L-2023-LLA-0020) DATED OCTOBER 3, 2023

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