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10 CFR 50.90

September 16, 2016
Serial: HNP-16-076

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Shearon Harris Nuclear Power Plant, Unit 1
Docket No. 50-400
Renewed License No. NPF-63

Subject: Supplement to the License Amendment Request for Temporary Changes to
Technical Specifications for the 'A' Emergency Service Water Pump
Replacement

Ladies and Gentlemen:

By letter dated October 29, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15302A542), Duke Energy Progress, Inc. (Duke Energy), requested a license amendment for the Technical Specifications (TS) for the Shearon Harris Nuclear Power Plant, Unit 1 (HNP) to allow temporary changes to TS 3.1.2.4, "Charging Pumps – Operating," TS 3.5.2, "ECCS [Emergency Core Cooling Systems] Subsystems – Tavg Greater Than or Equal To 350°F," TS 3.6.2.1, "Containment Spray System," TS 3.6.2.2, "Spray Additive System," TS 3.6.2.3, "Containment Cooling System," TS 3.7.1.2, "Auxiliary Feedwater System," TS 3.7.3, "Component Cooling Water System," TS 3.7.4, "Emergency Service Water System," TS 3.7.6, "Control Room Emergency Filtration System," TS 3.7.7, "Reactor Auxiliary Building (RAB) Emergency Exhaust System," TS 3.7.13, "Essential Services Chilled Water System," and TS 3.8.1.1, "AC [Alternating Current] Sources – Operating." The proposed license amendment requested will permit the 'A' Emergency Service Water (ESW) pump to be inoperable for 14 days to allow for the replacement of the 'A' Train ESW pump with design upgrades to improve reliability.

The NRC staff reviewed the request and determined that additional information was needed to complete their review. Duke Energy has supplemented its application per letters dated February 16, 2016 (ADAMS Accession No. ML16047A389), August 8, 2016 (ADAMS Accession No. ML16221A711), August 26, 2016 (ADAMS Accession No. ML16239A306), and September 8, 2016 (ADAMS Accession No. ML16252A358).

On September 15, 2016, the NRC staff identified an inconsistency in the proposed TS changes and the revised TS pages. Duke Energy identified two additional inconsistencies during an extent of condition review of the proposed TS changes and the revised TS pages. By this letter, Duke Energy provides updated proposed TS changes and revised TS pages that address these inconsistencies. Attachment 1 provides a summary of the changes included in this supplement.

Attachment 2 provides a copy of the proposed TS changes. Attachment 3 provides a copy of the revised TS pages.

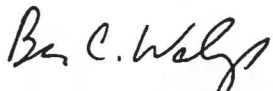
In accordance with 10 CFR 50.91(b), HNP is providing the state of North Carolina with a copy of this response.

This letter contains no new Regulatory Commitments.

Should you have any questions regarding this submittal, please contact Sarah McDaniel – Regulatory Affairs, at (919) 362-3002, extension 3308.

I declare under penalty of perjury that the foregoing is true and correct. Executed on September 16, 2016.

Sincerely,



Benjamin C. Waldrep

Attachments:

1. Supplement
2. Proposed Technical Specification Changes
3. Revised Technical Specification Pages

cc: Mr. M. Riches, NRC Sr. Resident Inspector, HNP
Mr. W. L. Cox, III, Section Chief, N.C. DHSR
Ms. M. Barillas, NRC Project Manager, HNP
NRC Regional Administrator, Region II

Attachment 2 provides a copy of the proposed TS changes. Attachment 3 provides a copy of the revised TS pages.

In accordance with 10 CFR 50.91(b), HNP is providing the state of North Carolina with a copy of this response.

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Attachment 1

SERIAL HNP-16-076

ATTACHMENT 1

SUPPLEMENT

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

RENEWED LICENSE NUMBER NPF-63

By letter dated October 29, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15302A542), Duke Energy Progress, Inc. (Duke Energy), requested a license amendment for the Technical Specifications (TS) for the Shearon Harris Nuclear Power Plant, Unit 1 (HNP) to allow temporary changes to TS 3.1.2.4, "Charging Pumps – Operating," TS 3.5.2, "ECCS [Emergency Core Cooling Systems] Subsystems – Tavg Greater Than or Equal To 350°F," TS 3.6.2.1, "Containment Spray System," TS 3.6.2.2, "Spray Additive System," TS 3.6.2.3, "Containment Cooling System," TS 3.7.1.2, "Auxiliary Feedwater System," TS 3.7.3, "Component Cooling Water System," TS 3.7.4, "Emergency Service Water System," TS 3.7.6, "Control Room Emergency Filtration System," TS 3.7.7, "Reactor Auxiliary Building (RAB) Emergency Exhaust System," TS 3.7.13, "Essential Services Chilled Water System," and TS 3.8.1.1, "AC [Alternating Current] Sources – Operating." The proposed license amendment requested will permit the 'A' Emergency Service Water (ESW) pump to be inoperable for 14 days to allow for the replacement of the 'A' Train ESW pump with design upgrades to improve reliability.

The NRC staff reviewed the request and determined that additional information was needed to complete their review. Duke Energy has supplemented its application per letters dated February 16, 2016 (ADAMS Accession No. ML16047A389), August 8, 2016 (ADAMS Accession No. ML16221A711), August 26, 2016 (ADAMS Accession No. ML16239A306), and September 8, 2016 (ADAMS Accession No. ML16252A358).

On September 15, 2016, the NRC staff identified an administrative issue in the proposed TS changes and the revised TS pages provided per Duke Energy letter dated August 26, 2016.

In the TS 3.7.6 from the August 26th letter, the LIMITING CONDITION FOR OPERATION description stated, "Two independent Control Room Emergency Filtration Systems (CREFS) shall be OPERABLE.*" This supplement provides the previously accepted TS 3.7.6 wording, "Two independent Control Room Emergency Filtration System (CREFS) trains shall be OPERABLE.*"

Duke Energy completed an extent of condition review to address any other similar issues in the TS pages provided per Duke Energy letter dated August 26, 2016. A comparison of each text character within the TS pages to the NRC-approved TS pages was completed. Two additional issues were identified from this review. In TS 3.7.6, from the August 26th letter, ACTION 2.a. contained a colon. This supplement provides the previously accepted TS 3.7.6, ACTION 2.a. that contains a semi-colon. Additionally, in the TS 3.7.4 from the August 26th letter, the ACTION stated, "With only one emergency service water loop OPERABLE, restore at least two loops-to-OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours." This supplement removes the hyphens present in "loops-to-OPERABLE," to align this description with the previously accepted TS 3.7.4 wording.

These issues have been corrected in the updated proposed TS changes and revised TS pages within Attachment 2 and Attachment 3 of this submittal, respectively. There are no changes to the information provided in the significant hazards consideration within the license amendment request (LAR) submitted on October 29, 2015. As such, the conclusion of the original significant hazards consideration remains applicable.

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Attachment 2

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ATTACHMENT 2

PROPOSED TECHNICAL SPECIFICATION CHANGES

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

RENEWED LICENSE NUMBER NPF-63

PLANT SYSTEMS

3/4.7.4 EMERGENCY SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4 At least two independent emergency service water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With only one emergency service water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. *

INSERT G →

SURVEILLANCE REQUIREMENTS

- 4.7.4 At least two emergency service water loops shall be demonstrated OPERABLE:
- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and
 - b. At least once per 18 months by verifying that:
 1. Each automatic valve servicing safety-related equipment or isolating non-safety portions of the system actuates to its correct position on a Safety Injection test signal, and
 2. Each emergency service water pump and each emergency service water booster pump starts automatically on a Safety Injection test signal.

INSERT G

-----NOTE-----

*The 'A' Train emergency service water loop is allowed to be inoperable for a total of 14 days only to allow for the implementation of design improvements on the 'A' Train ESW pump. The 14 days will be taken one time no later than October 29, 2016. During the period in which the 'A' Train ESW pump supply from the Auxiliary Reservoir or Main Reservoir is not available, Normal Service Water will remain available and in service to supply the 'A' Train ESW equipment loads until the system is ready for post maintenance testing. Allowance of the extended Completion Time is contingent on meeting the Compensatory Measures and Conditions described in HNP LAR submittal correspondence letter HNP-16-056.

PLANT SYSTEMS

3/4.7.6 CONTROL ROOM EMERGENCY FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6 Two independent Control Room Emergency Filtration System (CREFS) trains shall be OPERABLE.*

- APPLICABILITY:
- a. MODES 1, 2, 3, and 4
 - b. MODES 5 and 6
 - c. During movement of irradiated fuel assemblies and movement of loads over spent fuel pools

ACTION:

- a. MODES 1, 2, 3 and 4:

-----NOTE-----
In addition to the Actions below, perform Action c. if applicable.

- 1. With one CREFS train inoperable for reasons other than an inoperable Control Room Envelope (CRE) boundary, restore the inoperable CREFS train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. **
- 2. With one or more CREFS trains inoperable due to inoperable CRE boundary:
 - a. Initiate action to implement mitigating actions immediately or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours;
 - b. Within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits and that CRE occupants are protected from hazardous chemicals and smoke or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours;
 - c. Restore CRE boundary to OPERABLE within 90 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- b. MODES 5 and 6

-----NOTE-----
In addition to the Actions below, perform Action c. if applicable.

- 1. With one CREFS train inoperable for reasons other than an inoperable CRE boundary, restore the inoperable CREFS train to OPERABLE status within 7 days or immediately initiate and maintain operation of the remaining OPERABLE CREFS train in the recirculation mode.

INSERT H

* The control room envelope (CRE) boundary may be opened intermittently under administrative controls.

INSERT H

-----NOTE-----

**The 'A' CREFS Train is allowed to be inoperable for a total of 14 days only to allow for the implementation of design improvements on the 'A' Train ESW pump. The 14 days will be taken one time no later than October 29, 2016. During the period in which the 'A' Train ESW pump supply from the Auxiliary Reservoir or Main Reservoir is not available, Normal Service Water will remain available and in service to supply the 'A' Train ESW equipment loads until the system is ready for post maintenance testing. Allowance of the extended Completion Time is contingent on meeting the Compensatory Measures and Conditions described in HNP LAR submittal correspondence letter HNP-16-056.

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Attachment 3

SERIAL HNP-16-076

ATTACHMENT 3

REVISED TECHNICAL SPECIFICATION PAGES

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

RENEWED LICENSE NUMBER NPF-63

PLANT SYSTEMS

3/4.7.4 EMERGENCY SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4 At least two independent emergency service water loops shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With only one emergency service water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours* or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

----- NOTE -----

*The 'A' Train emergency service water loop is allowed to be inoperable for a total of 14 days only to allow for the implementation of design improvements on the 'A' Train ESW pump. The 14 days will be taken one time no later than October 29, 2016. During the period in which the 'A' Train ESW pump supply from the Auxiliary Reservoir or Main Reservoir is not available, Normal Service Water will remain available and in service to supply the 'A' Train ESW equipment loads until the system is ready for post maintenance testing. Allowance of the extended Completion Time is contingent on meeting the Compensatory Measures and Conditions described in HNP LAR submittal correspondence letter HNP-16-056.

SURVEILLANCE REQUIREMENTS

4.7.4 At least two emergency service water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position; and
- b. At least once per 18 months by verifying that:
 1. Each automatic valve servicing safety-related equipment or isolating non-safety portions of the system actuates to its correct position on a Safety Injection test signal, and
 2. Each emergency service water pump and each emergency service water booster pump starts automatically on a Safety Injection test signal.

PLANT SYSTEMS

3/4.7.6 CONTROL ROOM EMERGENCY FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6 Two independent Control Room Emergency Filtration System (CREFS) trains shall be OPERABLE.*

- APPLICABILITY:
- a. MODES 1, 2, 3, and 4
 - b. MODES 5 and 6
 - c. During movement of irradiated fuel assemblies and movement of loads over spent fuel pools

ACTION:

- a. MODES 1, 2, 3 and 4:

-----NOTE-----
In addition to the Actions below, perform Action c. if applicable.

- 1. With one CREFS train inoperable for reasons other than an inoperable Control Room Envelope (CRE) boundary, restore the inoperable CREFS train to OPERABLE status within 7 days** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- 2. With one or more CREFS trains inoperable due to inoperable CRE boundary:
 - a. Initiate action to implement mitigating actions immediately or be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours;
 - b. Within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits and that CRE occupants are protected from hazardous chemicals and smoke or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours;
 - c. Restore CRE boundary to OPERABLE within 90 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

* The control room envelope (CRE) boundary may be opened intermittently under administrative controls.

**The 'A' CREFS train is allowed to be inoperable for a total of 14 days only to allow for the implementation of design improvements on the 'A' Train ESW pump. The 14 days will be taken one time no later than October 29, 2016. During the period in which the 'A' Train ESW pump supply from the Auxiliary Reservoir or Main Reservoir is not available, Normal Service Water will remain available and in service to supply the 'A' Train ESW equipment loads until the system is ready for post maintenance testing. Allowance of the extended Completion Time is contingent on meeting the Compensatory Measures and Conditions described in HNP LAR submittal correspondence letter HNP-16-056.

PLANT SYSTEMS

3/4.7.6 CONTROL ROOM EMERGENCY FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION (Continued)

b. MODES 5 and 6

-----NOTE-----

In addition to the Actions below, perform Action c. if applicable.

1. With one CREFS train inoperable for reasons other than an inoperable CRE boundary, restore the inoperable CREFS train to OPERABLE status within 7 days or immediately initiate and maintain operation of the remaining OPERABLE CREFS train in the recirculation mode.
2. With both CREFS trains inoperable for reasons other than an inoperable CRE boundary or with the OPERABLE CREFS train required to be in the recirculation mode by ACTION b.1., not capable of being powered by an OPERABLE emergency power source, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel.
3. With one or more CREFS trains inoperable due to inoperable CRE boundary, immediately suspend all operations involving CORE ALTERATIONS or movement of irradiated fuel assemblies.