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10 CFR 50.90

September 8, 2016
Serial: HNP-16-072

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) and August 26, 2016 (ADAMS Accession No. ML16239A306).

On September 7, 2016, the NRC staff identified inconsistencies in 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.

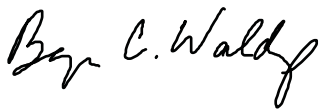
In accordance with 10 CFR 50.91(b), HNP is providing the state of North Carolina with a copy of this response.

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 8, 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

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NRC Regional Administrator, Region II

U.S. Nuclear Regulatory Commission
Serial HNP-16-072
Attachment 1

SERIAL HNP-16-072

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) and August 26, 2016 (ADAMS Accession No. ML16239A306).

On September 7, 2016, the NRC staff identified two administrative issues in the proposed TS changes and the revised TS pages provided per Duke Energy letter dated August 26, 2016.

In TS 3.6.2.1, the changes to the surveillance requirement associated with License Amendment (LA) 150 issued on April 29, 2016, were not incorporated in the TS markup or in the retyped TS pages. Additionally, since the changes associated with LA 150 include a note with an asterisk, the note being added with this proposed amendment has been modified to include a double asterisk for clarity.

In TS 3.7.3, the note at the bottom of the page contained the designation of the pumps as "1C-SAB," "1A-SA," and "1B-SB" in both the TS markup and the retyped TS pages, which are not the designations shown in NRC-approved TS. The designation of the pumps should be "1C-SAB," "1A-SA," and "1B-SB."

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

PROPOSED TECHNICAL SPECIFICATION CHANGES

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

RENEWED LICENSE NUMBER NPF-63

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours. Refer also to Specification 3.6.2.3 Action.

INSERT B →

**

SURVEILLANCE REQUIREMENTS

- 4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:
- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position*;
 - b. By verifying that, on an indicated recirculation flow of at least 1832 gpm, each pump develops a differential pressure of greater than or equal to 186 psi when tested pursuant to the Inservice Testing Program;
 - c. At least once per 18 months by:
 1. Verifying that each automatic valve in the flow path actuates to its correct position on a containment spray actuation test signal and
 2. Verifying that each spray pump starts automatically on a containment spray actuation test signal.
 3. Verifying that, coincident with an indication of containment spray pump running, each automatic valve from the sump and RWST actuates to its appropriate position following an RWST Lo-Lo test signal.
 - d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.
 - e. At least once per 92 days by verifying that containment spray locations susceptible to gas accumulation are sufficiently filled with water.

* Not required to be met for system vent flow paths opened under administrative control.

INSERT B

-----NOTE-----

**The 'A' Train Containment Spray System 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

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3 At least two component cooling water (CCW) pumps*, heat exchangers and essential flow paths shall be OPERABLE.

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

ACTION:

With only one component cooling water flow path OPERABLE, restore at least two flow paths 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. **

SURVEILLANCE REQUIREMENTS

- 4.7.3 At least two component cooling water flow paths 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-related components actuates to its correct position on a Safety Injection test signal, and
 2. Each Component Cooling Water System pump required to be OPERABLE starts automatically on a Safety Injection test signal.
 3. Each automatic valve serving the gross failed fuel detector and sample system heat exchangers actuates to its correct position on a Low Surge Tank Level test signal.

* The breaker for CCW pump 1C-SAB shall not be racked into either power source (SA or SB) unless the breaker from the applicable CCW pump (1A-SA or 1B-SB) is racked out.

INSERT F →

INSERT F

-----NOTE-----

**The 'A' Train component cooling water flow path 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-16-072

ATTACHMENT 3

REVISED TECHNICAL SPECIFICATION PAGES

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1

DOCKET NO. 50-400

RENEWED LICENSE NUMBER NPF-63

CONTAINMENT SYSTEMS

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent Containment Spray Systems shall be OPERABLE with each Spray System capable of taking suction from the RWST and transferring suction to the containment sump.

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

ACTION:

With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 72 hours** or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours. Refer also to Specification 3.6.2.3 Action.

----- NOTE -----

**The 'A' Train Containment Spray System 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

- 4.6.2.1 Each Containment Spray System shall be demonstrated OPERABLE:
- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position*;
 - b. By verifying that, on an indicated recirculation flow of at least 1832 gpm, each pump develops a differential pressure of greater than or equal to 186 psi when tested pursuant to the Inservice Testing Program;
 - c. At least once per 18 months by:
 1. Verifying that each automatic valve in the flow path actuates to its correct position on a containment spray actuation test signal and
 2. Verifying that each spray pump starts automatically on a containment spray actuation test signal.
 3. Verifying that, coincident with an indication of containment spray pump running, each automatic valve from the sump and RWST actuates to its appropriate position following an RWST Lo-Lo test signal.
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PLANT SYSTEMS

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LIMITING CONDITION FOR OPERATION

3.7.3 At least two component cooling water (CCW) pumps*, heat exchangers and essential flow paths shall be OPERABLE.

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

ACTION:

With only one component cooling water flow path OPERABLE, restore at least two flow paths 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.

SURVEILLANCE REQUIREMENTS

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- 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
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 2. Each Component Cooling Water System pump required to be OPERABLE starts automatically on a Safety Injection test signal.
 3. Each automatic valve serving the gross failed fuel detector and sample system heat exchangers actuates to its correct position on a Low Surge Tank Level test signal.

* The breaker for CCW pump 1C-SAB shall not be racked into either power source (SA or SB) unless the breaker from the applicable CCW pump (1A-SA or 1B-SB) is racked out.

**The 'A' Train component cooling water flow path 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.