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10 CFR 50.90

W3F1-2021-0055

August 20, 2021

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

Subject: Supplement to License Amendment Request to Relocate Boration Systems
Technical Specifications to the Technical Requirements Manual

Waterford Steam Electric Station, Unit 3
NRC Docket No. 50-382
Renewed Facility Operating License No. NPF-38

In Reference 1, Entergy Operations, Inc. (Entergy) submitted a request for a proposed amendment to Renewed Facility Operating License (FOL) NPF-38, Appendix A, "Technical Specifications" (TSs) for Waterford Steam Electric Station, Unit 3. Specifically, Entergy requested removal of TS 3/4.1.2.1 through 3/4.1.2.8, "Boration Systems," and the references to the TSs, and relocation of the information to the licensee-controlled Technical Requirements Manual (TRM). In Reference 2, Entergy provided a revision to the license amendment request.

Subsequent to submittal of Reference 2, it was determined that the proposed changes to TS 3/4.4.3.2, "Auxiliary Spray," and the associated Bases for TS 3/4.4.3, "Pressurizer," contained editorial errors and that some conforming changes were incomplete. Therefore, Entergy has revised the affected TS 3/4.4.3.2 and TS 3/4.4.3 Bases pages to include appropriate corrections. The changes to the affected Reference 2 TS and TS Bases pages are considered editorial.

The TS 3/4.4.3.2 changes revise TS page 3/4 4-9a as follows:

- Added commas at the end of TS Limiting Conditions for Operation (LCOs) 3.4.3.2.a, b, and c. Added a comma and word "and" at the end of LCO 3.4.3.2.d. These changes are consistent with the intent that all of the listed LCOs apply.
- Added the word "pressurizer" to TS Surveillance Requirements (SRs) 4.4.3.2.1 and 4.4.3.2.2 between the words "auxiliary" and "spray." This change is consistent with the change to the TS 3.4.3.2 title to "Auxiliary Pressurizer Spray" that was proposed in Reference 2.

- Reworded TS SR 4.4.3.2.3 to read: "Verify each auxiliary pressurizer spray manual, power-operated, and automatic valve in the flow path..." and reworded TS SR 4.4.3.2.4 to read: "Verify each auxiliary pressurizer spray automatic valve in the flow path..." These changes are consistent with the proposed change to the TS 3.4.3.2 title and apply human factors principles to the SR wording for clarity.
- Reworded TS SR 4.4.3.2.5 to read: "Verify each required charging pump starts..." and reworded TS SR 4.4.3.2.6 to read: "Verify each required boric acid makeup pump starts..." These changes are consistent with TS LCOs 3.4.3.2.b and d as proposed in Reference 2 and apply human factors principles to the SR wording for clarity.
- Reworded TS SR 4.4.3.2.7 to read: "Verify boric acid makeup tank water volume is greater than or equal to 58% indicated level..." This change is consistent with TS LCO 3.4.3.2.e as proposed in Reference 2 and applies human factors principles to the SR wording for clarity.
- Reworded TS SR 4.4.3.2.8 to read: "Verify boric acid makeup tank solution temperature..." This change corrects grammatical and typographical errors and applies human factors principles to the SR wording for clarity.

The TS 3/4.4.3 Bases changes revise page B 3/4 4-2 to correct legacy typographical and punctuation errors; correct the affected TS 3.4.3.2 Action designations; and revise the references to "pressurizer spray," "auxiliary spray," and "auxiliary pressurizer" to be consistent with the change to the TS 3.4.3.2 title to "Auxiliary Pressurizer Spray" that was proposed in Reference 2.

This letter transmits the revised TS 3/4 4-9a markup page in Enclosure 1 and the associated revised TS 3/4 4-9a and 3/4 4-9b clean pages in Enclosure 2. The revised TS B 3/4 4-2 Bases markup page is provided in Enclosure 3 for information only. The enclosed TS 3/4 4-9a markup page, TS 3/4 4-9a and 3/4 4-9b clean pages, and TS B 3/4 4-2 Bases page replace the corresponding pages previously submitted in Reference 2 in their entirety.

The No Significant Hazards Consideration determination in Reference 1 is not altered by the information provided in this letter.

In accordance with Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Section 50.91(b)(1), "Notice for public comment: State consultation," a copy of this letter is being provided to the designated State Official.

Should you have any questions or require additional information, please contact Paul Wood, Regulatory Assurance Manager, at 504-464-3786.

I declare under penalty of perjury, that the foregoing is true and correct. Executed on August 20, 2021.

Respectfully,



Ron Gaston
RWG/rrd

- Enclosures:
1. Revised Markup Technical Specification Page
 2. Revised Clean Technical Specification Pages
 3. Revised Markup Technical Specification Bases Pages (Information Only)
- References:
1. Entergy Operations, Inc. (Entergy) letter to U.S. Nuclear Regulatory Commission (NRC), "License Amendment Request to Relocate Boration Systems Technical Specifications to the Technical Requirements Manual," W3F1-2019-0062, (ML19263F129), dated September 20, 2019
 2. Entergy letter to NRC, "Revision to License Amendment Request to Relocate Boration Systems Technical Specifications to the Technical Requirements Manual (EPID L-2019-LLA-0203)," W3F1-2021-0017, (ML21116A143), dated April 26, 2021
- cc:
- NRC Region IV Regional Administrator
 - NRC Senior Resident Inspector – Waterford Steam Electric Station, Unit 3
 - NRR Project Manager – Waterford Steam Electric Station, Unit 3
 - Louisiana Department of Environmental Quality, Office of Environmental Compliance

Enclosure 1

W3F1-2021-0055

Revised Markup Technical Specification Page

**(TS page)
3/4 4-9a**

- a. Both auxiliary pressurizer spray valves,
- b. One flow path from an acceptable boric acid makeup tank via its boric acid makeup pump,
- c. One flow path from an acceptable boric acid makeup tank via its gravity feed valve,
- d. At least two independent charging pumps, and
- e. One boric acid makeup tank with a minimum water volume of 58% indicated level.

PRESSURIZER

REACTOR COOLANT SYSTEM

AUXILIARY SPRAY

Two trains

LIMITING CONDITION FOR OPERATION

3.4.3.2 ~~Both~~ auxiliary spray valves shall be OPERABLE- ← consisting of the following:

APPLICABILITY: MODES 1, 2 and 3.

pressurizer

ACTION:

a. With only one of the above required auxiliary spray valves OPERABLE, restore both valves to OPERABLE status within 30 days or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

trains

b. With none of the above required auxiliary spray valves OPERABLE, restore at least one valve to OPERABLE status within the next 6 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

train

pressurizer

SURVEILLANCE REQUIREMENTS

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4.4.3.2.1 The auxiliary spray valve shall be verified to have power available to each valve in accordance with the Surveillance Frequency Control Program.

pressurizer

4.4.3.2.2 The auxiliary spray valves shall be cycled in accordance with the Surveillance Frequency Control Program.

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- 4.4.3.2.3 Verify each auxiliary pressurizer spray manual, power-operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.4 Verify each auxiliary pressurizer spray automatic valve in the flow path actuates to its correct position on an SIAS test signal in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.5 Verify each required charging pump starts in response to an SIAS test signal in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.6 Verify each required boric acid makeup pump starts in response to an SIAS test signal in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.7 Verify boric acid makeup tank water volume is greater than or equal to 58% indicated level in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.8 Verify boric acid makeup tank solution temperature is greater than or equal to 60 °F when the Reactor Auxiliary Building air temperature is less than 55 °F in accordance with the Surveillance Frequency Control Program.

Enclosure 2

W3F1-2021-0055

Revised Clean Technical Specification Pages

(TS pages)

3/4 4-9a

3/4 4-9b

REACTOR COOLANT SYSTEM

AUXILIARY PRESSURIZER SPRAY

LIMITING CONDITION FOR OPERATION

- 3.4.3.2 Two auxiliary pressurizer spray trains shall be OPERABLE consisting of the following:
- a. Both auxiliary pressurizer spray valves,
 - b. One flow path from an acceptable boric acid makeup tank via its boric acid makeup pump,
 - c. One flow path from an acceptable boric acid makeup tank via its gravity feed valve,
 - d. At least two independent charging pumps, and
 - e. One boric acid makeup tank with a minimum water volume of 58% indicated level.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

- a. With only one of the above required auxiliary pressurizer spray trains OPERABLE, restore both trains to OPERABLE status within 30 days or be in HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With none of the above required auxiliary pressurizer spray trains OPERABLE, restore at least one train to OPERABLE status within the next 6 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

SURVEILLANCE REQUIREMENTS

- 4.4.3.2.1 The auxiliary pressurizer spray valves shall be verified to have power available to each valve in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.2 The auxiliary pressurizer spray valves shall be cycled in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.3 Verify each auxiliary pressurizer spray manual, power-operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.4 Verify each auxiliary pressurizer spray automatic valve in the flow path actuates to its correct position on an SIAS test signal in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.5 Verify each required charging pump starts in response to an SIAS test signal in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.6 Verify each required boric acid makeup pump starts in response to an SIAS test signal in accordance with the Surveillance Frequency Control Program.
- 4.4.3.2.7 Verify boric acid makeup tank water volume is greater than or equal to 58% indicated level in accordance with the Surveillance Frequency Control Program.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.3.2.8 Verify boric acid makeup tank solution temperature is greater than or equal to 60 °F when the Reactor Auxiliary Building air temperature is less than 55 °F in accordance with the Surveillance Frequency Control Program.

Enclosure 3

W3F1-2021-0055

**Revised Markup Technical Specification Bases Pages
(Information Only)**

(TS Bases pages)

3/4 4-2

INSERT page

REACTOR COOLANT SYSTEM

BASES

SAFETY VALVES (Continued)

valves are OPERABLE, an operating shutdown cooling loop, connected to the RCS, provides overpressure relief capability and will prevent RCS overpressurization. In addition, the overpressure protection system provides a diverse means of protection against RCS overpressurization at low temperatures.

During operation, all pressurizer code safety valves must be OPERABLE to prevent the RCS from being pressurized above its safety limit of 2750 psia. The combined relief capacity of these valves is sufficient to limit the system pressure to within its Safety Limit of 2750 psia following a complete loss of turbine generator load while operating at RATED THERMAL POWER and assuming no reactor trip until the first Reactor Protective System trip setpoint (Pressurizer Pressure-High) is reached and also assuming no operation of the steam dump valves.

Demonstration of the safety valves' lift settings will occur only during reactor shutdown and will be performed in accordance with the provisions of Section XI of the ASME Boiler and Pressure Vessel Code.

3/4.4.3 PRESSURIZER

An OPERABLE pressurizer provides pressure control for the Reactor Coolant System during operations with both forced reactor coolant flow and with natural circulation flow. The minimum water level in the pressurizer assures the pressurizer heaters, which are required to achieve and maintain pressure control, remain covered with water to prevent failure, which could occur if the heaters were energized while uncovered. The maximum water level in the pressurizer ensures that this parameter is maintained within the envelope of operation assumed in the safety analysis. The maximum water level also ensures that the RCS is not a hydraulically solid system and that a steam bubble will be provided to accommodate pressure surges during operation. The steam bubble also protects the pressurizer code safety valves against water relief. The requirement to verify that on an SIAS test signal the pressurizer heaters are automatically shed from the emergency power sources is to ensure that the non-Class 1E heaters do not reduce the reliability of or overload the emergency power source. The requirement that a minimum number of pressurizer heaters be OPERABLE enhances the capability to control Reactor Coolant System pressure and establish and maintain natural circulation.

The auxiliary pressurizer spray is used to depressurize the RCS by cooling the pressurizer steam space. The auxiliary pressurizer spray is used during those periods when normal pressurizer spray is not available, such as the later stages of a normal RCS cooldown. The auxiliary pressurizer spray also distributes boron to the pressurizer when normal pressurizer spray is not available.

The auxiliary pressurizer spray is used, in conjunction with the throttling of the HPSI pumps, during the recovery from a steam generator tube rupture accident. The auxiliary pressurizer spray is also used during a natural circulation cooldown as a safety related means of RCS depressurization to achieve shutdown cooling system initiation conditions and subsequent COLD SHUTDOWN per the requirements of Branch Technical Position (RSB) 5-1.

→(DRN 06-916, Ch. 48)
←(DRN 06-916, Ch. 48)

→(LBDCR 16-046, Ch. 86)

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

←(LBDCR 16-046, Ch. 86)

→(DRN 04-1223, Ch. 33)

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Each train of the auxiliary pressurizer spray system consists of a water supply through either the boric acid makeup pump or the gravity feed valve to the charging pumps and then through the auxiliary pressurizer spray valves. Each train is required to be operable to support the auxiliary pressurizer spray safety function. ACTION "a" is the loss of one train, the remaining train may consist of multiple train components provided auxiliary pressurizer spray flow can still be achieved (e.g., boric acid makeup tank B through the boric acid makeup pumps to charging pump A then discharging through auxiliary pressurizer spray valve B). The loss of both trains or the loss of the water source would require entry into ACTION "b."