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Ron Gaston
Director, Nuclear Licensing

10 CFR 50.90

W3F1-2021-034

May 28, 2021

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

Subject: Application to Revise Technical Specifications to Adopt TSTF-563, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program"

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

In accordance with Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Section 50.90, "Application for amendment of license, construction permit, or early site permit," Entergy Operations, Inc. (Entergy) is submitting a request for an amendment to Renewed Facility Operating License, Appendix A, "Technical Specifications" (TSs), for Waterford Steam Electric Station, Unit 3 (Waterford).

Entergy requests to adopt Technical Specification Task Force (TSTF) Traveler TSTF-563, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program," Revision 0. The proposed adoption of TSTF-563 revises the TS definitions of Channel Calibration and Channel Functional Test. The Waterford TS definition of Channel Calibration currently permits performance by any series of sequential, overlapping, or total channel steps. The proposed changes revise the TS definitions of Channel Calibration and Channel Functional Test to be consistent such that they both explicitly permit performance by means of any series of sequential, overlapping, or total channel steps; make clear that the components or devices that are required to be tested or calibrated are those that are necessary for the channel to perform its safety function; and allow the required frequency for testing the components or devices in each step to be determined in accordance with the TS Surveillance Frequency Control Program.

The Enclosure to this letter provides a description and assessment of the proposed changes. Attachment 1 to the Enclosure provides the existing TS pages for Waterford, marked-up to show the proposed changes. Attachment 2 to the Enclosure provides the revised (clean) typed TS pages.

Entergy requests approval of the proposed license amendment by June 28, 2022. The proposed changes would be implemented within 60 days of issuance of the amendment.

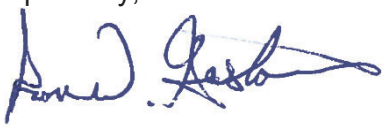
This letter contains no new regulatory commitments.

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

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," paragraph (b), a copy of this application, with Enclosure and attachments, is being provided to the designated State Official.

I declare under penalty of perjury, the foregoing is true and correct. Executed on May 28, 2021.

Respectfully,



Ron Gaston

RWG/cdm

Enclosure: Description and Assessment of the Proposed Changes

Attachments to Enclosure:

1. Markup of Technical Specification (TS) Pages, Waterford Steam Electric Station, Unit 3

2. Clean Technical Specification (TS) Pages, Waterford Steam Electric Station, Unit 3

cc: NRC Region IV Regional Administrator
NRC Senior Resident Inspector – Waterford Steam Electric Station, Unit 3
Louisiana Department of Environmental Quality
NRC Project Manager – Waterford Steam Electric Station, Unit 3

Enclosure

W3F1-2021-034

Description and Assessment of the Proposed Changes

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1.0 DESCRIPTION

In accordance with Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Section 50.90, "Application for amendment of license, construction permit, or early site permit," Entergy Operations, Inc. (Entergy) is submitting a request for an amendment to Renewed Facility Operating License, Appendix A, "Technical Specifications" (TSs) for Waterford Steam Electric Station, Unit 3 (Waterford).

Entergy requests to adopt Technical Specification Task Force (TSTF) Traveler TSTF-563, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program," Revision 0 (Reference 1). The proposed adoption of TSTF-563 revises the TS definitions of Channel Calibration and Channel Functional Test. The Waterford TS definition of Channel Calibration currently permits performance by any series of sequential, overlapping, or total channel steps. The proposed changes revise the TS definitions of Channel Calibration and Channel Functional Test to be consistent such that they both explicitly permit performance by means of any series of sequential, overlapping, or total channel steps; make clear that the components or devices that are required to be tested or calibrated are those that are necessary for the channel to perform its safety function; and allow the required frequency for testing the components or devices in each step to be determined in accordance with the TS Surveillance Frequency Control Program (SFCP).

2.0 ASSESSMENT

2.1 Applicability of Safety Evaluation

Entergy has reviewed the U.S. Nuclear Regulatory Commission (NRC) safety evaluation for TSTF-563 provided to the Technical Specifications Task Force in a letter dated December 4, 2018 (Reference 2). This review included the NRC's evaluations (References 3 and 4), as well as the information provided in TSTF-563. As described herein, Entergy has concluded that the justifications presented in TSTF-563 and the safety evaluation prepared by the NRC are applicable to Waterford and justify this amendment for incorporation of the changes into the Waterford TSs.

As stated in TSTF-563, Section 2.4, "Description of the Proposed Change," only plants that have adopted an SFCP (i.e., TSTF-425) may adopt the proposed TS definition changes described in TSTF-563. As required, an SFCP was previously approved by the NRC and incorporated into the Waterford TSs in Amendment No. 249, dated July 26, 2016 (Reference 5).

2.2 Optional Changes and Variations

Entergy is proposing the following variations from the TS changes described in TSTF-563 and the applicable parts of the NRC’s safety evaluation. The Waterford TSs contain requirements that differ from the Standard Technical Specifications (STS) on which TSTF-563 was based, but are encompassed in the TSTF-563 justification.

a) The Waterford TSs are different from Revision 4 of the Combustion Engineering (CE) STS (i.e., NUREG-1432) (Reference 6) on which TSTF-563 is based. The language in the definition of Channel Calibration includes differences from the STS definition that do not change the intent. The Waterford TS Channel Calibration definition states:

"The CHANNEL CALIBRATION shall encompass the entire channel including the sensor and alarm and/or trip functions, and shall include the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping, or total channel steps such that the entire channel is calibrated." The STS states: "The CHANNEL CALIBRATION shall encompass all devices in the channel required for channel OPERABILITY and the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps." The proposed change to the language regarding what a Channel Calibration encompasses is consistent with the STS definition of Channel Calibration and TSTF-205-A, "Revision of Channel Calibration, Channel Functional Test, and Related Definitions," Revision 3 (Reference 7), which was approved by the NRC on January 13, 1999 and incorporated into Revision 2 of the CE STS.

As discussed in the TSTF-205-A justification, this change makes clear that the components that are required to be tested or calibrated are those that are necessary for the channel to perform its safety function. The representative list of components is eliminated from the definition to clarify the requirements and allow for consistent application of the definitions, tests, and calibrations. The addition of the words "means of" is editorial, and elimination of the phrase, "such that the entire channel is calibrated," has no effect because the proposed revised definition ensures that the Channel Calibration encompasses all components and devices in the channel required for channel operability.

b) The Waterford TS definition of Channel Functional Test does not include the CE STS requirement for the test to verify operability of all devices in the channel required for channel operability. This requirement is proposed to be added to the Channel Functional Test Analog channel, Bistable channel, and Digital computer channel definitions because, as discussed in paragraph "a)" above, this change makes clear that the components and devices that are required to be tested are those that are necessary for the channel to perform its safety function. With the addition of this requirement, the phrase, "including alarm and/or trip function[s]," is no longer needed nor desired and it is proposed to be deleted from each of the channel definitions in the Channel Functional Test definition.

The Waterford TS definition of Channel Functional Test also does not include the CE STS provision to perform the test by means of any series of sequential, overlapping, or total channel steps. As discussed in paragraph "a)" above, the proposed Channel Calibration definition explicitly includes the Channel Functional Test and permits performance of the Channel Calibration by means of any series of sequential, overlapping, or total channel steps. This proposed language is consistent with the STS. Furthermore, as discussed in the TSTF-563 justification, applying the allowance to determine the appropriate Frequency for each step based on the components tested in each Channel Functional Test step avoids potential conflicts between the definitions.

The provision to perform the Channel Functional Test by means of any series of sequential, overlapping, or total channel steps appeared in the original CE STS and was added to the other plant STS definitions of Channel Functional Test by TSTF-205-A, Revision 3 (Reference 7), and incorporated into Revision 2 of the STS. The proposed change to the Channel Functional Test definition to allow the test to be

performed by means of any series of sequential, overlapping, or total channel steps is necessary to adopt TSTF-563. As discussed in the justification for TSTF-205-A, it is understood that this provision applied to the previous Improved Standard Technical Specifications (ISTS) NUREG definitions of Channel Functional Test, although not explicitly stated. Therefore, adding the provision does not change the intent of the existing definition and permits adoption of TSTF-563.

c) Editorial changes in font, font size, and formatting were made to Waterford TS pages affected by this License Amendment Request.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Analysis

Entergy Operations, Inc. (Entergy) requests to adopt Technical Specification Task Force (TSTF) Traveler TSTF-563, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program," Revision 0 (Reference 1). The proposed adoption of TSTF-563 revises the Waterford Steam Electric Station, Unit 3 (Waterford) Technical Specification (TS) definitions of Channel Calibration and Channel Functional Test. The Waterford TS definition of Channel Calibration currently permits performance by any series of sequential, overlapping, or total channel steps. The proposed changes revise the TS definitions of Channel Calibration and Channel Functional Test to be consistent such that they both explicitly permit performance by means of any series of sequential, overlapping, or total channel steps; make clear that the components or devices that are required to be tested or calibrated are those that are necessary for the channel to perform its safety function; and allow the required frequency for testing the components or devices in each step to be determined in accordance with the TS Surveillance Frequency Control Program (SFCP).

Entergy has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in Title 10 of the Code of Federal Regulations (10 CFR) 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No

   The proposed changes revise the TS definitions of Channel Calibration and Channel Functional Test to allow the frequency for testing the components or devices in each step to be determined in accordance with the TS SFCP. The additional conforming changes to the TS definitions do not change the intent of the existing definitions and permit adoption of TSTF-563. All components in the channel continue to be calibrated and tested. The frequency at which a channel calibration or test is performed is not an initiator of any accident previously evaluated; therefore, the probability of an accident is not affected by the proposed changes. The channels surveilled in accordance with the affected definitions continue to be required to be operable and the acceptance criteria of the surveillances are unchanged. As a result, any mitigating functions assumed in the accident analysis will continue to be performed.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any previously evaluated?

   Response: No

   The proposed changes revise the TS definitions of Channel Calibration and Channel Functional Test to allow the frequency for testing the components or devices in each step to be determined in accordance with the TS SFCP. The additional conforming changes to the TS definitions do not change the intent of the existing definitions and permit adoption of TSTF-563. The design function and operation of the components involved are not affected and there is no physical alteration of the plant (i.e., no new or different type of equipment will be installed). No credible new failure mechanisms, malfunctions, or accident initiators not considered in the design and licensing bases are introduced. The proposed changes do not alter assumptions made in the safety analysis and are consistent with the safety analysis assumptions.

   Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

   Response: No

   The proposed changes revise the TS definitions of Channel Calibration and Channel Functional Test to allow the frequency for testing the components or devices in each step to be determined in accordance with the TS SFCP. The additional conforming changes to the TS definitions do not change the intent of the existing definitions and permit adoption of TSTF-563. The SFCP assures sufficient safety margins are maintained, and that the design, operation, surveillance methods, and acceptance criteria specified in applicable codes and standards (or alternatives approved for use by the U.S. Nuclear Regulatory Commission (NRC)) will continue to be met as described in the plant's licensing basis. The proposed changes do not adversely affect existing plant safety margins, or the reliability of the equipment assumed to operate in the safety analysis. As such, there are no changes being made to safety analysis assumptions, safety limits, or limiting safety system settings that would adversely affect plant safety. Margins of safety are unaffected by method of determining surveillance test intervals under an NRC-approved licensee-controlled program.

   Therefore, the proposed amendment does not involve a significant reduction in a margin of safety.

Based on the above, Entergy concludes that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazard consideration" is justified.

3.2 Conclusion

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) 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.

4.0 ENVIRONMENTAL EVALUATION

The proposed changes would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed changes.

5.0 REFERENCES

1. Technical Specifications Task Force (TSTF) letter to U.S. Nuclear Regulatory Commission (NRC), "Transmittal of TSTF-563, 'Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program,'" (ADAMS Accession No. ML18333A152), dated May 10, 2017

2. NRC letter to TSTF, "Final Safety Evaluations of Technical Specifications Task Force Traveler TSTF-563, Revision 0, 'Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program' (EPID L-2017-PMP-0006)," (ADAMS Accession No. ML18333A146), dated December 4, 2018

3. Final Safety Evaluation by the Office of Nuclear Reactor Regulation Technical Specifications Task Force Traveler TSTF-563, Revision 0, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program" Using the Consolidated Line Item Improvement Process (CAC No. MF9955, EPID L-2017-PMP-0006), (ADAMS Accession No. ML18333A144) (Enclosure 1 to Reference 2 letter above)

4. Final Model Safety Evaluation by the Office of Nuclear Reactor Regulation Technical Specifications Task Force Traveler TSTF-563, Revision 0, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program" Using the Consolidated Line Item Improvement Process (CAC No. MF9955, EPID L-2017-PMP-0006), (ADAMS Accession No. ML18333A147) (Enclosure 2 to Reference 2 letter above)

5. NRC letter to Waterford Steam Electric Station, Unit 3, "Waterford Steam Electric Station, Unit 3 – Issuance of Amendment RE: Adoption of TSTF-425, Revision 3 'Relocate Surveillance Frequencies to Licensee Control – RITSTF Initiative 5b' (CAC No. MF6366)," (ADAMS Accession No. ML16159A419), dated July 26, 2016

6. NRC NUREG-1432, "Standard Technical Specifications, Combustion Engineering Plants, Revision 4.0," (ADAMS Accession No. NL12102A165), April 2012

7. TSTF-205-A, Technical Specification Task Force Improved Standard Technical Specifications Change Traveler "Revision of Channel Calibration, Channel Functional Test, and Related Definitions," Revision 3, dated July 31, 2003

Enclosure, Attachment 1

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Markup of Technical Specification (TS) Pages
Waterford Steam Electric Station, Unit 3

TS Pages
1-1
1-2

1.0 DEFINITIONS

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications.

ACTION

1.1 ACTION shall be that part of a specification which prescribes remedial measures required under designated conditions.

AXIAL SHAPE INDEX

1.2 The AXIAL SHAPE INDEX shall be the power generated in the lower half of the core less the power generated in the upper half of the core divided by the sum of these powers.

AZIMUTHAL POWER TILT - Tq

1.3 AZIMUTHAL POWER TILT shall be the power asymmetry between azimuthally symmetric fuel assemblies.

CHANNEL CALIBRATION

all devices in the channel required for channel OPERABILITY

1.4 A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds with the necessary range and accuracy to known values of the parameter which the channel monitors. The CHANNEL CALIBRATION shall encompass ~~the entire channel including the sensor and alarm and/or trip functions,~~ and ~~shall include~~ the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping, or total channel steps ~~such that the entire channel is calibrated~~.

means of

, and each step must be performed within the Frequency in the Surveillance Frequency Control Program for the devices included in the step

CHANNEL CHECK

1.5 A CHANNEL CHECK shall be the qualitative assessment of channel behavior during operation by observation. This determination shall include, where possible, comparison of the channel indication and/or status with other indications and/or status derived from independent instrument channels measuring the same parameter.

CHANNEL FUNCTIONAL TEST

of all devices in the channel required for channel OPERABILITY

1.6 A CHANNEL FUNCTIONAL TEST shall be:

a. Analog channels - the injection of a simulated signal into channel as close to the sensor as practicable to verify OPERABILITY ~~including alarm and/or trip functions~~.

b. Bistable channels - the injection of a simulated signal into the sensor to verify OPERABILITY ~~including alarm and/or trip functions~~.

c. Digital computer channels - the exercising of the digital computer hardware using diagnostic programs and the injection of simulated process data into the channel to verify OPERABILITY ~~including alarm and/or trip function~~.

The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total channel steps, and each step must be performed within the Frequency in the Surveillance Frequency Control Program for the devices included in the step.

CONTAINMENT INTEGRITY

1.7 CONTAINMENT INTEGRITY shall exist when:

a. All penetrations required to be closed during accident conditions are either:

1. Capable of being closed by an OPERABLE containment automatic isolation valve system, or

2. Closed by manual valves, blind flanges, or deactivated automatic valves secured in their closed positions, except for valves that are open under administrative control as permitted by Specification 3.6.3.

b. All equipment hatches are closed and sealed,

c. Each air lock is in compliance with the requirements of Specification 3.6.1.3,

d. The containment leakage rates are within the limits of Specification 3.6.1.2, and

e. The sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

CONTROLLED LEAKAGE

1.8 CONTROLLED LEAKAGE shall be the seal water flow supplied from the reactor coolant pump seals.

Enclosure, Attachment 2

W3F1-2021-034

Clean Technical Specification (TS) Pages
Waterford Steam Electric Station, Unit 3

TS Pages
1-1
1-2

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c. Digital computer channels - the exercising of the digital computer hardware using diagnostic programs and the injection of simulated process data into the channel to verify OPERABILITY of all devices in the channel required for channel OPERABILITY.

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