

Peter Dietrich
Senior Vice President and Chief Nuclear Officer

DTE Energy Company
6400 N. Dixie Highway, Newport, MI 48166
Tel: 734.586.4153 Fax: 734.586.1431
Email: peter.dietrich@dteenergy.com



June 5, 2020
NRC-20-0032

10 CFR 50.90

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

Fermi 2 Power Plant
NRC Docket No. 50-341
NRC License No. NPF-43

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

Pursuant to Title 10 of the Code of Federal Regulations Section 50.90 (10 CFR 50.90), DTE Electric Company (DTE) is submitting a request for an amendment to the Technical Specifications (TS) for Fermi Unit 2 (i.e., Appendix A, Technical Specifications of Renewed Facility Operating License NPF-43).

DTE requests adoption of TSTF-563, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program." TSTF-563 revises the TS definitions of Channel Calibration and Channel Functional Test, which currently permit performance by any series of sequential, overlapping, or total channel steps, to 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.

Enclosure 1 provides a description and assessment of the proposed changes. Enclosure 2 provides the existing TS pages marked to show the proposed changes. Enclosure 3 provides revised (clean) TS pages.

Approval of the proposed amendment is requested within one year of the date of this letter. Once approved, the amendment shall be implemented within 60 days.

No new commitments are being made in this submittal.

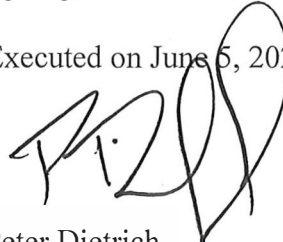
In accordance with 10 CFR 50.91, a copy of this application, with enclosures, is being provided to the designated Michigan State Official.

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Should you have any questions or require additional information, please contact Ms. Margaret Offerle, Manager – Nuclear Licensing, at (734) 586-5076.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 5, 2020

A handwritten signature in black ink, appearing to read 'P. Dietrich', written over the date 'June 5, 2020'.

Peter Dietrich
Senior Vice President and Chief Nuclear Officer

Enclosures:

1. Description and Assessment
2. Proposed Technical Specification Changes (Mark-Up)
3. Revised Technical Specification Pages

cc: NRC Project Manager
NRC Resident Office
Regional Administrator, Region III
Michigan Department of Environment, Great Lakes, and Energy

**Enclosure 1 to
NRC-20-0032**

**Fermi 2 NRC Docket No. 50-341
Operating License No. NPF-43**

**Application to Revise Technical Specifications to Adopt TSTF-563,
“Revise Instrument Testing Definitions to Incorporate the
Surveillance Frequency Control Program”**

Description and Assessment

1.0 DESCRIPTION

DTE Electric Company (DTE) requests adoption of TSTF-563, “Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program.” TSTF-563 revises the Technical Specification (TS) definitions of Channel Calibration and Channel Functional Test, which currently permit performance by any series of sequential, overlapping, or total channel steps, to 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.

2.0 ASSESSMENT

2.1 Applicability of Safety Evaluation

DTE has reviewed the safety evaluation for TSTF-563 provided to the Technical Specifications Task Force in a letter dated December 4, 2018. This review included a review of the NRC staff’s evaluation, as well as the information provided in TSTF-563. DTE has concluded that the justifications presented in TSTF-563 and the safety evaluation prepared by the NRC staff are applicable to Fermi 2 and justify this amendment for the incorporation of the changes to the Fermi 2 TS.

A Surveillance Frequency Control Program was incorporated into the Fermi 2 TS in a license amendment dated July 14, 2015 (NRC Agency Documents Access and Management System (ADAMS) Accession No. ML15155B416).

2.2 Optional Changes and Variations

DTE is proposing the following variations from the TS changes described in the TSTF-563 or the applicable parts of the NRC staff’s safety evaluation:

- The Fermi 2 TS definition of CHANNEL CALIBRATION uses slightly different wording than Revision 4 of the General Electric BWR/4 Standard TS (STS) (NUREG-1433) on which TSTF-563 is based. Specifically, the Fermi 2 definition uses “*A* CHANNEL CALIBRATION...” rather than “*The* CHANNEL CALIBRATION...” (italics added to show the difference).
- The Fermi 2 TS definition of CHANNEL FUNCTIONAL TEST uses slightly different wording than Revision 4 of the General Electric BWR/4 STS (NUREG-1433) on which TSTF-563 is based. Specifically, the Fermi 2 definition uses “*A* CHANNEL FUNCTIONAL TEST...” rather than “*The* CHANNEL FUNCTIONAL TEST...” (italics added to show the difference).

These minor wording differences in the existing portions of the definitions are editorial only and have no effect on the applicability of either the proposed TSTF-563 change to the Fermi 2 TS or the NRC staff’s safety evaluation dated December 4, 2018.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Consideration Analysis

DTE Electric Company (DTE) requests adoption of TSTF-563, "Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program." TSTF-563 revises the Technical Specification (TS) definitions of Channel Calibration and Channel Functional Test, which currently permit performance by any series of sequential, overlapping, or total channel steps, to 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.

DTE has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 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 change revises 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 Surveillance Frequency Control Program. All components in the channel continue to be calibrated. The frequency at which a channel calibration is performed is not an initiator of any accident previously evaluated, so the probability of an accident is not affected by the proposed change. 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 change does 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 accident previously evaluated?

Response: No.

The proposed change revises 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 Surveillance Frequency Control Program. The design function or 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 changes do not alter assumptions made in

the safety analysis. The proposed changes are consistent with the safety analysis assumptions.

Therefore, the proposed change does 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 change revises 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 Surveillance Frequency Control Program. The Surveillance Frequency Control Program assures sufficient safety margins are maintained, and that design, operation, surveillance methods, and acceptance criteria specified in applicable codes and standards (or alternatives approved for use by the NRC) will continue to be met as described in the plant's licensing basis. The proposed change does 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 as a result of the proposed change. Margins of safety are unaffected by method of determining surveillance test intervals under an NRC-approved licensee-controlled program.

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

Based on the above, DTE concludes that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards 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 amendment 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 change 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 change does 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 change

meets 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 change.

**Enclosure 2 to
NRC-20-0032**

**Fermi 2 NRC Docket No. 50-341
Operating License No. NPF-43**

**Application to Revise Technical Specifications to Adopt TSTF-563,
“Revise Instrument Testing Definitions to Incorporate the
Surveillance Frequency Control Program”**

Proposed Technical Specification Changes (Mark-Up)

1.0 USE AND APPLICATION

1.1 Definitions

-----NOTE-----

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

<u>Term</u>	<u>Definition</u>
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)	The APLHGR shall be applicable to a specific planar height and is equal to the sum of the LHGRs for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle at the height.
CHANNEL CALIBRATION	A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. A CHANNEL CALIBRATION shall encompass all devices in the channel required for channel OPERABILITY and the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. A CHANNEL CALIBRATION 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

(continued)

1.1 Definitions (continued)

CHANNEL CHECK

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

CHANNEL FUNCTIONAL TEST

A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY of all devices in the channel required for channel OPERABILITY. A 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

CORE ALTERATION shall be the movement of any fuel sources, or reactivity control components, within the reactor vessel with the vessel head removed and fuel in the vessel. The following exceptions are not considered to be CORE ALTERATIONS:

- a. Movement of source range monitors, local power range monitors, intermediate range monitors, traversing incore probes, or special movable detectors (including undervessel replacement); and
- b. Control rod movement, provided there are no fuel assemblies in the associated core cell.

Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

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**Enclosure 3 to
NRC-20-0032**

**Fermi 2 NRC Docket No. 50-341
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**Application to Revise Technical Specifications to Adopt TSTF-563,
“Revise Instrument Testing Definitions to Incorporate the
Surveillance Frequency Control Program”**

Revised Technical Specification Pages

1.0 USE AND APPLICATION

1.1 Definitions

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

<u>Term</u>	<u>Definition</u>
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)	The APLHGR shall be applicable to a specific planar height and is equal to the sum of the LHGRs for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle at the height.
CHANNEL CALIBRATION	A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. A CHANNEL CALIBRATION shall encompass all devices in the channel required for channel OPERABILITY and the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. A CHANNEL CALIBRATION 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.

(continued)

1.1 Definitions (continued)

CHANNEL CHECK	A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.
CHANNEL FUNCTIONAL TEST	A CHANNEL FUNCTIONAL TEST shall be the injection of a simulated or actual signal into the channel as close to the sensor as practicable to verify OPERABILITY of all devices in the channel required for channel OPERABILITY. A 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.
CORE ALTERATION	<p>CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components, within the reactor vessel with the vessel head removed and fuel in the vessel. The following exceptions are not considered to be CORE ALTERATIONS:</p> <ul style="list-style-type: none">a. Movement of source range monitors, local power range monitors, intermediate range monitors, traversing incore probes, or special movable detectors (including undervessel replacement); andb. Control rod movement, provided there are no fuel assemblies in the associated core cell. <p>Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.</p>

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