

## Surinder Arora

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**From:** Surinder Arora  
**Sent:** Wednesday, August 23, 2023 12:29 PM  
**To:** Eric Frank  
**Cc:** Shane L Gatter; Roxanne Vonhabsburg; Jeff Whited; Joshua Wilson; Gordon Curran; Charles Moulton; Naeem Iqbal; Matthew Hamm; Thomas Scarbrough  
**Subject:** RE: Request for Additional Information for Changes to TS 3.7.2, "Emergency Equipment Cooling Water (EECW)/Emergency Equipment Service Water (EESW) System and Ultimate Heat Sink (UHS)" - (EPID L-2023-LLA-0112)

Resent with corrected response date and day mismatch.



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**From:** Surinder Arora  
**Sent:** Tuesday, August 22, 2023 3:07 PM  
**To:** Eric Frank <eric.frank@dteenergy.com>  
**Cc:** Shane L Gatter <shane.gatter@dteenergy.com>; Roxanne Vonhabsburg <roxanne.vonhabsburg@dteenergy.com>; Jeff Whited <Jeffrey.Whited@nrc.gov>; Joshua Wilson <Joshua.Wilson@nrc.gov>; Gordon Curran <Gordon.Curran@nrc.gov>; Charles Moulton <Charles.Moulton@nrc.gov>; Naeem Iqbal <Naeem.Iqbal@nrc.gov>; Matthew Hamm <Matthew.Hamm@nrc.gov>; Thomas Scarbrough <Thomas.Scarbrough@nrc.gov>  
**Subject:** Request for Additional Information for Changes to TS 3.7.2, "Emergency Equipment Cooling Water (EECW)/Emergency Equipment Service Water (EESW) System and Ultimate Heat Sink (UHS)" - (EPID L-2023-LLA-0112)  
**Importance:** High

Mr. Frank:

By letter dated August 10, 2023 (Agencywide Documents Access Management System (ADAMS) Accession No. ML23222A037), DTE Electric Company (the licensee) submitted for the NRC staff review and approval an exigent license amendment request (LAR) for Fermi 2, regarding changes to Technical Specification (TS) 3.7.2, "Emergency Equipment Cooling Water (EECW)/Emergency Equipment Service Water (EESW) System and Ultimate Heat Sink (UHS)" Specifically, the LAR seeks one-time extension of the Condition A Completion Time to allow repair of the Division I Mechanical Draft Cooling Tower A and C Fan pedestals while online.

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing the above request and has determined that response to the following request for additional information (RAIs) is needed to complete its review. This email provides the FINAL RAI for your response at the earliest, but no later than **Friday, August 25, 2023**. Any delay in your response will impact the disposition schedule requested in your submittal. After receipt of your response, if we determine this impact, we will let you know in a separate communication at that time.

Thank you,  
Surinder Arora, P.E.  
Project Manager,  
Fermi 2 and Dresden 2 & 3  
NRR/DORL/LPL3  
 [surinder.arora@nrc.gov](mailto:surinder.arora@nrc.gov)  
 301-415-1421

REQUEST FOR ADDITIONAL INFORMATION  
CHANGES TO TS 3.7.2. "EMERGENCY EQUIPMENT COOLING WATER (EECW)/ EMERGENCY  
EQUIPMENT SERVICE WATER (EESW) SYSTEM AND ULTIMATE HEAT SINK (UHS)"  
(EPID L-2023-LLA-0112)  
FERMI 2  
DTE ELECTRIC COMPANY  
DOCKET NO. 50-341

By application dated August 10, 2023 (ADAMS) Accession No. ML23222A037), DTE Electric Company requested changes to the technical specifications for Fermi 2. The proposed changes would modify the TS to include a footnote to TS 3.7.2 "Emergency Equipment Cooling Water (EECW)/Emergency Equipment Service Water (EESW) System and Ultimate Heat Sink (UHS)," Condition A, "one reservoir inoperable", Required Action A.1, "Restore reservoir to OPERABLE status," with a Completion Time (CT) of 72 hours. The proposed footnote would allow a CT for up to 7 days to repair the Division 1 MDCT A and C fan pedestals during the current operating Cycle 22.

The regulation in 10 CFR 50.36(c)(2)(i) states in part:

Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.

In reviewing the submitted information, the U.S. Nuclear Regulatory Commission staff has developed the below request for additional information to complete the review of your application.

**Request for Additional Information**

**SCPB questions:**

GDC 44 requires redundancy in components and features, and suitable interconnection, leak detection, and isolation capabilities. As indicated in Fermi UFSAR Section 3.1.2.4.1.5, the RHRSW, EESW, and the EDG service water systems are designed in accordance with Criterion 44 to transfer heat from SSCs important to safety to the ultimate heat sink under normal operating and accident conditions and suitable redundancy to accommodate a single failure without hindering the safety function of the systems. 10 CFR 50.65(a)(4) states the following:

Before performing maintenance activities (including but not limited to surveillance, post-maintenance testing, and corrective and preventive maintenance), the licensee shall assess and manage the increase in risk that may result from the proposed maintenance activities. The scope of the assessment may be limited to structures, systems, and components that a risk-informed evaluation process has shown to be significant to public health and safety.

The staff request additional information related to risk configuration during maintenance:

1. Discuss Division 2 ("D" fan) component resolution. On July 19, 2023 (approximately 36 hours into the 72-hour TS LCO completion time), you identified the vibrations were caused by a degraded mounting between the gear reducer and its pedestal, degraded bushings on the driveshaft coupling to the gear reducer, or both." Confirm whether Mechanical Draft Cooling Tower (MDCT) fan A & C are experiencing similar vibration or operational issues.
2. Licensee has performed resolution of issues related to MDCT Division 2 ("D" fan) via enforcement discretion actions. Confirm status of alternate Division 2 MDCT Fan "B" and whether similar corrosion or operational issues are noted in Fan "B" pedestal.

3. During maintenance of either Fan A or C, clarify whether this results in unavailability of both fans of same division (i.e., complete MDCT inoperable and unavailable). Confirm PRA analysis has accounted for both Fans A & C being unavailable during maintenance.
4. Due to lack of redundancy during maintenance, provide discussion of contingency plans or backup capability in the event of issue with either operable fan (B or D) or supported SSC's during the maintenance. For example:
  - a. Discuss any piping cross-ties between EESW, RHRSW or DGSW divisions (other than reservoir) available to provide inventory to either Div 1 & 2 equipment with operable MDCT during maintenance.
  - b. Describe any non-safety systems available as defense in depth in case of an accident or event.
5. Fermi is requesting 14 days of inoperable MDCT (7 days per division) to perform maintenance on MDCT fans separately. Provide discussion on why foundations and operational issues aren't resolved in parallel to minimize inoperable duration.

**APLB Question:**

6. An application of this nature (a risk-informed TS change) should follow the "Four-Element Approach to Integrated Decisionmaking for Risk-Informed TS Changes," (as described in RG 1.177 "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications") or an alternative, similarly comprehensive, approach.

RG 1.177, Revision 1, May 2011, Sections B, states:

*"...In implementing risk-informed decisionmaking, TS changes are expected to meet a set of key principles..."*

*"...Regulatory Guide 1.174 provides additional information regarding the staff's expectations with respect to implementation of these principles. Each of these principles should be considered in the risk-informed, integrated decisionmaking process..."*

Although the LAR relies on the RG for quantitative acceptance criteria, the LAR does not appear to include discussion of the four elements described in the RG. Provide this discussion. This discussion should include defense-in-depth, safety margin, and performance monitoring, along with the rest of the information described in the RG 1.177 approach.

**EMIB Question:**

7. The LAR does not discuss TS surveillances or Inservice Testing (IST) program tests during the repair time of the MDCT A and C fan pedestals while Fermi 2 is online. What are the plans to avoid TS surveillances and IST program tests during the repair time for the MDCT A and C fan pedestals that might cause an inadvertent plant trip?

**STSB Questions:**

8. Not all of the compensatory measures included in the July 26, 2023 NOED are included in the LAR. Provide a discussion describing why the excluded compensatory measures are no longer needed for this proposed one-time extended completion time.
9. The proposed TS markups appear to have potential for misinterpretation by licensee operators and NRC inspectors. Please clarify the proposed Fermi 2, TS 3.7.2 marked-up pages by addressing the following elements:

- a. Revise the footnote to specify that it is limited to a one-time use of the CT extension to 7 days for each applicable Division I MDCT fan pedestals (A and C), regardless of whether maintenance is completed during the attempt.
- b. The extended completion time is contingent on the compensatory measures listed in the LAR. In the TS 3.7.2 footnote, reference the document (the LAR) that contains the list of all compensatory measures, explicitly making them requirements.

10. Section 2.3 of the LAR states in part:

*“The proposed license amendment would revise the LCO 3.7.2, Condition A Completion Time, LCO 3.8.1, Condition B Completion Time, and LCO 3.8.4, Condition A by adding the following footnotes...”*

- The LCO 3.7.2 Actions NOTES requires entry into LCO 3.8.1 and LCO 3.4.8, and LCO 3.0.6 appears to limit the LCO’s required to be entered to these. Verify that the wording in LAR section 2.3 regarding LCO 3.8.4 referenced above is correct and was not a transposition error that should be LCO 3.4.8 as required by the note.
- The only TS proposed to be revised by this LAR is LCO 3.7.2. As currently worded, the completion times for LCO 3.4.8 Condition A and LCO 3.8.1 Condition B would not be extended. These Conditions and Required Actions are required to be entered by the 3.7.2 Note. Verify this is the intent of LAR, or if footnotes should be included for those LCOs, or those LCOs be included in the LCO 3.7.2 footnote.

11. The July 26, 2023 NOED states:

*“Inoperability of the UHS, EECW and EESW systems also caused entry into TS 3.8.7, “Distribution Systems – Operating,” Conditions A and B, TS 3.8.4, “DC Sources – Operating,” Condition B, and TS 3.7.8, “Emergency Diesel Generator Service Water EDGSW) System,” Condition A which initiated entry into TS 3.8.1, “AC Sources – Operating,” Condition B...”*

Will these conditions be entered during the planned maintenance described in the LAR? Describe how the plant will maintain compliance with the TS for the supported systems.