



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 20, 2015

Mr. Vito Kaminskas
Site Vice President - Nuclear Generation
DTE Electric Company
Fermi 2 - 280 OBA
6400 North Dixie Highway
Newport, MI 48166

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
FERMI 2 LICENSE RENEWAL APPLICATION – SET 33 (TAC NO. MF4222)

Dear Mr. Kaminskas:

By letter dated April 24, 2014, DTE Electric Company (DTE or the applicant) submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew the operating license NPF-43 for Fermi 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

This request for additional information was discussed with Ms. Lynne Goodman, and a mutually agreeable date for the response is within 60 days from the date of this letter. If you have any questions, please contact me at (301) 415-3301 or e-mail Daneira.Melendez-Colon@nrc.gov.

Sincerely,

/RA/

Daneira Meléndez-Colón, Project Manager
License Renewal Branch RPB1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosure:
Requests for Additional Information

cc : ListServ

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**FERMI 2
LICENSE RENEWAL APPLICATION
REQUEST FOR ADDITIONAL INFORMATION SET 33
(TAC NO. MF4222)**

RAI 4.1-4a

Background:

The response to Request for Additional Information (RAI) 4.1-4, dated February 5, 2015, states that the standby liquid control (SLC)/core ΔP lines internal to the reactor pressure vessel (RPV) do not perform a license renewal intended function. A proprietary response to RAI 4.1 4, Part 2, which requested a clarification on whether the current licensing basis included any analyses for the internal portions of the SLC system that would need to be identified as time-limited aging analyses (TLAAs), was also provided.

Updated Final Safety Analysis Report (UFSAR) Section 4.5.1.2.11 indicates that the internal portions of the SLC/core ΔP piping consists of two concentric pipes that enter into the RPV lower plenum area and that the inner piping serves the following objectives: (a) facilitates good mixing and dispersion of the sodium pentaborate in the SLC system, and (b) reduces thermal shock to the RPV nozzle should the SLC system be actuated. UFSAR Section 4.5.2.4.1 states that the SLC system supports a number of design bases, including the design basis that the "neutron absorber shall be dispersed with the reactor core in sufficient quantity to provide a reasonable margin for leakage or imperfect mixing."

Issue:

Based on information provided in UFSAR Sections 4.5.1.2.11 and 4.5.2.4.1, the staff has concluded that internal portions of the SLC line (i.e., the portions of the line inside of the reactor pressure vessel) need to be included within the scope of license renewal in accordance with either: (a) Title 10 of the *Code of Federal Regulations* (10 CFR) 54.4(a)(2), where its failure could potentially impact the ability of the SLC/core ΔP nozzle to achieve its reactor coolant pressure boundary function, or (b) 10 CFR 54.4(a)(3) for mitigating the consequences of anticipated transients without scram (ATWS) events.

Request:

- a. Justify why the structural integrity of the internal portions of the SLC/core ΔP line has not been identified as an intended function for the LRA and why the internal portions of the SLC/core ΔP line have not been identified as being within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). In addition, justify why the internal portions of the SLC/core ΔP line would not need to be within the scope of license renewal in accordance with the requirement in 10 CFR 54.4(a)(3).
- b. If it is determined that the internal portions of the SLC/core ΔP line do serve license renewal intended functions, justify why the application would not need to be amended to include the internal portions of the SLC line as a component that needs to be within the scope of license

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renewal in accordance with the requirements in 10 CFR 54.4(a)(2) or 10 CFR 54.4(a)(3) for regulated ATWS events.

- c. State the applicable aging effects requiring management that apply to the components and state (with justification) how these aging effects will be managed during the period of extended operation. Otherwise, justify why the applicable aging effects do not need to be age-managed if condition monitoring activities (i.e., inspections) will not be performed on the internal portions of the SLC during the period of extended operation.

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