



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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July 6, 2015

LICENSEE: DTE Electric Company

FACILITY: Fermi 2

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON JANUARY 14, 2015, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND DTE ELECTRIC COMPANY, CONCERNING REQUESTS FOR ADDITIONAL INFORMATION, SET 19 PERTAINING TO THE FERMI 2 LICENSE RENEWAL APPLICATION (TAC NO. MF4222)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of DTE Electric Company (DTE or the applicant) held a telephone conference call on January 14, 2015, to discuss and clarify the staff's draft requests for additional information (DRAIs) 4.2.4-1, 4.2.4-2, and 4.2.4-3 concerning the Fermi 2 license renewal application. The telephone conference call was useful in clarifying the intent of the staff's DRAIs.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the DRAIs discussed with the applicant, including a brief description on the status of the items.

The applicant had an opportunity to comment on this summary.

/RA/

Daneira Meléndez-Colón, Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosures:

1. List of Participants
2. Summary of Telephone Conference Call

cc: Listserv

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TELEPHONE CONFERENCE CALL
FERMI 2
LICENSE RENEWAL APPLICATION

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JANUARY 14, 2015

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SUMMARY OF TELEPHONE CONFERENCE CALL
FERMI 2
LICENSE RENEWAL APPLICATION
JANUARY 14, 2015

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of DTE Electric Company (DTE or the applicant) held a telephone conference call on January 14, 2015, to discuss and clarify the following draft requests for additional information (DRAIs) concerning the Fermi 2 license renewal application (LRA).

DRAI 4.2.4-1

Background:

LRA Section 4.2.4 describes the time-limited aging analysis (TLAA) for upper-shelf energy of the reactor pressure vessel beltline materials. The LRA states that the upper-shelf energy values for the beltline materials were evaluated for the period of extended operation using the guidance in NRC Regulatory Guide (RG) 1.99, "Radiation Embrittlement of Reactor Vessel Materials," Revision 2, dated May 1988.

Issue:

LRA Table 4.2-4 provides values for the various parameters used in the revised upper-shelf energy analysis. However, this table appears to be incomplete because it does not provide the un-irradiated upper-shelf energy value or the percent decrease in upper-shelf energy value for the N-16 water level instrumentation nozzle. In addition, it is not clear from the information in this table as to what methodology was used to establish the un-irradiated upper-shelf energy value and calculate the percent decrease in upper-shelf energy value for this component.

Request:

- (a) Provide the un-irradiated upper-shelf energy value for the N-16 water level instrumentation nozzle and identify and justify the methodology that was used to establish this value.
- (b) Provide the percent decrease in upper-shelf energy that is projected for the N-16 water level instrumentation nozzle and identify and justify the methodology that was used to calculate this value.

Alternatively, provide an explanation as to why LRA Table 4.2-4 omits the un-irradiated upper-shelf energy and percent decrease in upper-shelf energy values for the N-16 water level instrumentation nozzle.

Discussion:

The staff provided clarification related to draft RAI 4.2.4-1. The staff discussed the extent of the information requested and needed to complete its review.

The applicant stated that the response to this RAI might include proprietary information. The applicant understands the staff's concerns and will provide a response to the RAI.

DRAI 4.2.4-2

Background:

LRA Section 4.2.4 describes the TLAA for upper-shelf energy of the reactor pressure vessel beltline materials. LRA Table 4.2-4 indicates that Regulatory Position 2.2 from RG 1.99, "Radiation Embrittlement of Reactor Vessel Materials," Revision 2, was used to determine the percent decrease in upper-shelf energy values for the vertical and girth weld materials at Fermi 2 based on data from the boiling water reactor integrated surveillance program (ISP). LRA Table 4.2-5 provides fluence and upper-shelf energy values from the ISP for plate and weld materials.

Issue:

The LRA does not provide the relevant ISP data that is representative of the Fermi 2 reactor pressure vessel.

Request:

- (a) Provide all host reactor capsule testing data from the ISP that apply to the upper-shelf energy analyses for the vertical and girth weld materials in the Fermi 2 reactor pressure vessel. Specifically, for each host reactor capsule, provide: (a) the inside diameter and $\frac{1}{4}$ T fluence values for all irradiated capsules, (b) the specific material heats that apply to the Fermi 2 vertical and girth weld materials, and (c) for those specific material heats, the un-irradiated upper-shelf energy values, measured upper-shelf energy values, and the copper, nickel, phosphorous, and silicon values. This response may be accomplished by appropriate references to documents that are available in the NRC's Agencywide Documents Access and Management System (i.e., ADAMS).
- (b) Explain how the ISP data were applied to the upper-shelf energy calculations for the Fermi 2 vertical and girth weld materials. As part of this response, indicate whether there is a direct match between the material heats in the host reactors and those material heats that were used to fabricate vertical welds 2-307 A, B, and C; vertical welds 15-308 A, B, C, and D; and girth weld 1-313 at Fermi 2. If there is not a direct match, justify the basis for applying the ISP data to the upper-shelf energy calculations for these welds.

Discussion:

The staff provided clarification related to draft RAI 4.2.4-2 and stated it will revise the RAI as follows:

Issue:

The LRA does not provide the relevant ISP data that is representative of the Fermi 2 reactor pressure vessel vertical and girth welds identified in LRA Table 4.2-4.

The applicant stated that the response to RAI 4.2.4-2 might include proprietary information. The applicant understands the staff's concerns and will provide a response to the RAI.

The RAI will be issued as revised.

D-RAI 4.2.4-3

Background:

LRA Section A.2.1.4 provides the Updated Final Safety Analysis Report (UFSAR) supplement summarizing the TLAA for upper-shelf energy of the reactor pressure vessel beltline materials.

Issue:

The proposed description for this TLAA does not compare the results of the revised upper-shelf energy analysis against the upper-shelf energy requirements in 10 CFR Part 50, Appendix G. As such, the description does not contain adequate information regarding the basis for the demonstration for this TLAA made pursuant to 10 CFR 54.21(c)(1)(ii).

Request:

Provide justification as to why the results of the TLAA are not included in the UFSAR supplement. Otherwise, revise LRA Section A.2.1.4, as appropriate, to include a comparison of the results of the revised upper-shelf energy analysis against the upper-shelf energy requirements in 10 CFR Part 50, Appendix G.

Discussion:

The staff provided clarification related to draft RAI 4.2.4-3. The staff discussed the extent of the information requested and needed to complete its review.

The applicant understands the staff's concerns and will provide a response to the RAI.