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

March 11, 2015

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

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE FERMI 2 LICENSE RENEWAL APPLICATION – SET 24 (TAC NO. MF4222)

Dear Mr. Kaminskas:

By letter dated April 24, 2014, DTE Electric Company (DTE or the applicant) submitted an application pursuant to Title10 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.

These requests for additional information were discussed with Ms. Lynne Goodman, and a mutually agreeable date for the response is within 30 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
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-341

Enclosure:
Requests for Additional Information

cc w/encl: ListServ

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FERMI 2
LICENSE RENEWAL APPLICATION
REQUESTS FOR ADDITIONAL INFORMATION SET 24
(TAC NO. MF4222)

RAI B.1.4-2a

Background:

Request for Additional Information (RAI) B.1.4-2 requested the basis for why a 100 mV polarization acceptance criterion will provide adequate protection for buried steel piping in a mixed metal environment.

The response dated January 15, 2015, states that:

> If the new program, when developed, allows use of the -100 mV criterion for piping within the scope of the Buried and Underground Piping AMP, then the program will address why the effects of mixed potentials are minimal and why the most anodic metal in a system for which this criteria is used is adequately protected as required by Note 2 of Table 6a of GALL Report AMP XI.M41 as modified by LR-ISG-2011-03.

License Renewal Interim Staff Guidance (LR-ISG)-2011-03, "Changes to the Generic Aging Lessons Learned (GALL) Report Revision 2 Aging Management Program XI.M41, ′Buried and Underground Piping and Tanks,′" Table 6a, "Cathodic Protection Acceptance Criteria," footnote 2 states that, "applicants must explain in the application why the effects of mixed potentials are minimal and why the most anodic metal in the system is adequately protected."

Issue:

Given that the basis for use of the 100 mV polarization acceptance criterion was not provided in the application or response to RAI B.1.4-2, the staff cannot complete its evaluation of the "acceptance criteria" program element.

Request:

State the basis for why the effects of mixed potentials will be minimal and why the most anodic metal in the system will be adequately protected if the 100 mV polarization cathodic protection acceptance criterion is used.

RAI B.1.19-2a

Background:

By letter dated December 17, 2014, the staff issued RAI B.1.19-2 requesting the basis for why there is reasonable assurance that the intended function of the deluge systems for the control center HVAC (heating, ventilation, and air conditioning) make-up filter charcoal filter absorber unit and the control center HVAC recirculation filter charcoal absorber unit will be met during the period of extended operation when their piping and nozzle inspections only occur when the

charcoal media is replaced. During the audit, the staff reviewed charcoal filter media replacement work orders and determined that the media is replaced approximately every 7 to 10 years.

The response dated January 15, 2015, provides a basis for why the stainless steel piping exposed to the air environment downstream of the manual closed isolation valves from the fire water system would not be susceptible to flow blockage from that portion of the piping. The response also states that the piping upstream of the manual isolation valves is constructed of carbon steel and "is routinely flushed to ensure no blockage."

Issue:

Flow blockage due to buildup of corrosion products would not be expected to occur in the stainless steel, normally-dry portions of the charcoal filter water distribution piping. However, corrosion products could accumulate in the upstream carbon steel piping and, although the RAI response states that this piping is routinely flushed, it did not state the periodicity of these flushes. The staff lacks sufficient information to conclude that corrosion product debris will not prevent the fire water distribution piping from performing its intended function during the period of extended operation.

Request:

State and justify the periodicity of, and the method of, flushing the carbon steel piping upstream of the control center HVAC make-up filter charcoal filter absorber unit and control center HVAC recirculation filter charcoal absorber unit; and state how the periodicity of the flushing is documented.

RAI B.1.19-8a

Background:

One of the plant-specific operating experience examples cited in the license renewal application (LRA) describes fire suppression flow testing that demonstrated degrading conditions in the underground piping system. The LRA states that the frequency of testing and evaluation of this piping has been increased from 3 years, to annual testing.

The response to RAI B.1.19-8, dated January 15, 2015, states an enhancement to the LRA Section B.1.19 "corrective action" program element. The enhancement states, "[r]evise Fire Water System Program procedures to consider in accordance with the Corrective Action Program increasing test frequency if there is a decreasing trend in flow in the fire water system flow test."

Issue:

The staff recognizes that if an adverse trend in system performance is detected during the period of extended operation, the condition adverse to quality will be evaluated in accordance

with the Corrective Action Program. However, given the existing degraded condition, the staff lacks sufficient information to:

- Find the enhancement acceptable because the use of the term "consider" leaves it indeterminate whether the frequency of fire water system flow testing will be increased during the period of extended operation if the current decreasing trend in system performance reveals that the system may not be capable of performing its intended function throughout the period of extended operation.

- Conclude that existing corrective actions will be sufficient to correct the adverse trend prior to the period of extended operation.

Therefore, the staff cannot conclude that plant-specific operating experience associated with flow testing of the underground fire water system has been adequately evaluated.

Request:

State and justify the basis for why the current trend in fire water system performance will be corrected prior to the period of extended operation. Alternatively, revise LRA Section A.1.1.19, as necessary, to continue the increased frequency of fire water system flow tests until such time as trend data demonstrates that the system will be capable of performing its intended function throughout the period of extended operation.