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DTE Energy



10 CFR 50.54(f)

November 18, 2013 NRC-13-0060

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington D C 20555-0001

References: 1) Fermi 2

NRC Docket No. 50-341 NRC License No. NPF-43

- 2) NRC Letter, "Request For Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012
- 3) DTE Electric Company Letter to NRC, "Detroit Edison's Response to March 12, 2012 Information Request Regarding Seismic Walkdowns," NRC-12-0075, dated November 26, 2012 (ML12341A362)
- 4) NRC Letter, "Request for Additional Information Associated with Near-Term Task Force Recommendation 2.3, Seismic," dated November 1, 2013 (ML13304B418)

Subject: Response to NRC Request for Additional Information Regarding the Fermi 2 Seismic Walkdown Report

On March 12, 2012, the NRC issued Reference 2 to all power reactor licensees and holders of construction permits in active or deferred status. Reference 2 requested specific Actions, Information and Responses associated with Recommendation 2.3 regarding seismic walkdowns.

In Reference 3, DTE Electric Company (DTE) submitted the Fermi 2 Seismic Walkdown Report as requested in Reference 2.

In Reference 4, the NRC staff requested that affected licensees submit responses to two questions within 30 calendar days.

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The Enclosure to this letter provides DTE's response to the Reference 4 Request for Additional Information.

No new commitments are being made in this submittal.

Should you have any questions or require additional information, please contact Mr. Kirk R. Snyder, Manager, Industry Interface at (734) 586-5020.

Sincerely.

Enclosure:

DTE Response to NRC Request for Additional Information Regarding

the Fermi 2 Seismic Walkdown Report

cc: NRC Project Manager
NRC Resident Office
Reactor Projects Chief, Branch 5, Region III
Regional Administrator, Region III
Supervisor, Electric Operators,
Michigan Public Service Commission

I, J. Todd Conner, do hereby affirm that the foregoing statements are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

On this 18th day of November, 2013 before me personally appeared J. Todd Conner, being first duly sworn and says that he executed the foregoing as his free act and deed.

Notary Public

SHARON S. MARSHALL,
NOTARY PUBLIC, STATE OF MI
COUNTY OF MONROE
MY COMMISSION EXPIRES Jun 14, 2019
ACTING IN COUNTY OF A

Enclosure to NRC-13-0060

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

DTE Response to NRC Request for Additional Information Regarding the Fermi 2 Seismic Walkdown Report

NRC Request for Additional Information Regarding the Seismic Walkdown Report

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff issued a letter requesting additional information per Title 10 of the *Code of Federal Regulations*, Section 50.54(f) (hereafter called the 50.54(f) letter). The 50.54(f) letter requested that licensees conduct seismic hazard walkdowns to verify the plant configuration with the current licensing basis (CLB). The licensees stated by letter that the seismic walkdowns would be performed in accordance with Electric Power Research Institute EPRI-1025286, "Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic" (walkdown guidance). Following the NRC staff's initial review of the walkdown reports, regulatory site audits were conducted at a sampling of plants. Based on the walkdown report reviews and site audits, the staff identified additional information necessary to allow the staff to complete its assessments.

Question 1: Conduct of the walkdowns, determination of potentially adverse seismic conditions (PASCs), dispositioning of issues, and reporting

As a result of the audits and walkdown report reviews, the NRC staff noted that licensees' interpretations of the seismic walkdown guidance varied, which resulted in meaningful differences in the process used to disposition identified issues and in the documentation that was provided to the NRC staff. In particular, the application of engineering judgment in determining what constituted a potentially adverse seismic condition (PASC), the threshold for conducting licensing basis evaluations (LBEs), and determining what information was to be reported to the NRC staff varied.

The NRC staff intended that conditions initially marked No (N) or Unknown (U) in the field by the seismic walkdown engineers (SWEs) for which an analysis or calculation was performed would be considered as PASCs and that an analysis or calculation constituted an LBE. The walkdown guidance allows for analysis as part of engineering judgment; however, the intent was to allow for only simple analyses that could be readily performed in support of engineering judgment. Further, the walkdown activities were intended to allow for transparency in the licensee's process to demonstrate that PASCs were appropriately identified, that they were addressed in an appropriate manner, and the basis documented such that the current condition of the plant was clearly consistent with the CLB with regard to seismic capability.

During the audits, the NRC staff identified examples of field observations that were deemed not to be PASCs. However, the basis for the determination was not clearly recorded. In some cases, the field checklists were amplified by noting that the basis was engineering judgment. During site audit discussions, the staff was able to trace the basis for the engineering judgments and found that in many cases they were appropriate. It is expected that these situations would not be included in the walkdown report.

There were other situations that a PASC and LBE were not reported; however, the NRC staff found during the audit that a calculation, analysis (more than just simple), or evaluation was

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conducted but informally. An example is a confirmatory calculation performed to demonstrate that six anchor bolts out of eight was not a seismically adverse condition. Another example would be an analysis to demonstrate that an existing, slightly short weld was as seismically sound as the prescribed weld length in the plant design documentation. The staff expected these types of conditions and evaluations to be captured in the licensee's normal plant processes (e.g., condition report or corrective action program (CAP)), and also reported in the walkdown report, since they were potentially adverse seismic conditions that required more than applying judgment or simple analysis to address.

The NRC staff also found that the process that was used to deal with a field observation that was deemed to be a PASC was also not completely described or captured in the report. In many cases, the licensee reported that an LBE was not performed. However, during the audits, it was clear that an LBE (or an equivalent determination method) was performed and used in determining whether a PASC should be entered into the CAP. The staff expects that these conditions would be reported in the walkdown report.

On the whole, through the audits, the NRC staff found that it was able to conclude that the intent of the guidance was met when the licensee's overall process was completely explained, the information was updated to reflect the actual process, and results were updated. The self-assessments conducted by the licensees of the audited plants also identified the lapse in the description of the process used by the licensee to identify a PASC and disposition it.

Therefore, in order to clarify the process that was followed, please provide a description of the overall process used by the licensee (and its contractors) to evaluate observations identified in the field by the SWEs. The process should include how a field observation was determined to be a PASC or not and how the bases for determinations were recorded. Once a determination was made that an observation was a PASC, describe the process for creating a condition report (or other tracking mechanism), performing the LBE (or other determination method), and the resultant action, such as entering it into the CAP, or documenting the result and basis.

Also, in order to confirm that the reported information supports concluding that the plant meets the CLB, please follow one of the following three acceptable alternatives:

(a) Provide a supplement to the table or text from the original walkdown report, if needed, to include similar conditions as the above examples and situations and for conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination. The supplement should include a short description of each condition, how it was dispositioned and the basis for the disposition, as follows: 1) for each condition that was entered into the CAP, provide the CAP reference number, initiation date, and (if known) the planned completion date, or 2) for all other conditions, provide the result of the LBE (or other determination method), the basis for the result, and how (or where) the result was captured in the plant's documentation or existing plant process.

- (b) Following the plant's standard procedures, confirm that a new CAP entry has been made to verify if appropriate actions were taken when reporting and dispositioning identified PASCs (including conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination). The eventual CAP closeout, including the process followed and actions taken, should be in sufficient detail to enable NRC resident inspectors to follow up.
- (c) If no new conditions are identified for addition to the supplement or the CAP entry mentioned above is deemed not necessary, provide a statement of confirmation that all potentially seismic adverse conditions (including conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination) identified during the walkdowns and walk-bys were addressed and included in the report to the NRC.

Response to Question 1:

During the conduct of seismic walkdowns and walk-bys, the Seismic Walkdown Engineer (SWE) teams utilized engineering judgment, including simple analysis or consultation with other members of the plant staff, to determine if an observed condition was a potential adverse seismic condition (PASC). The team's conclusions and any notes are documented on the seismic walkdown forms. This is the same process described as acceptable in the NRC question. If engineering judgment could not resolve the issue, including situations where the team was unsure of the issue resolution, the item was promptly entered into the plant corrective action program as a Condition Assessment Resolution Document (CARD). Any further evaluation as to conformance to plant's licensing basis or need for corrective action was performed within the plant corrective action program.

All CARD items associated with the seismic walkdowns are described in the Fermi 2 Seismic Walkdown Report. Therefore, alternative (c) as provided above applies to Fermi 2. DTE confirms that all PASCs (including conditions for which a calculation, analysis (if more than a simple analysis), or evaluation was used for a determination) identified during the walkdowns and walk-bys were addressed and are included in the Walkdown Report submitted to the NRC in Reference 3.

Question 2: Conduct of the Peer Review Process

As a result of the walkdown report reviews, the NRC staff noted that some descriptions of the peer reviewers and the peer review process that was followed were varied and, in some cases, unclear. In some cases, the staff could not confirm details of the process, such as if the entire process was reviewed by the peer review team, who were the peer reviewers, what was the role of each peer reviewer, and how the reviews affected the work, if at all, described in the walkdown guidance.

Therefore, in order to clarify the peer review process that was actually used, please confirm whether the following information on the peer review process was provided in the original submittal, and if not, provide the following.

- (a) Confirmation that the activities described in the walkdown guidance on page 6-1 were assessed as part of the peer review process.
- (b) A complete summary of the peer review process and activities. Details should include confirmation that any individual involved in performing any given walkdown activity was not a peer reviewer for that same activity. If there were cases in which peer reviewers reviewed their own work, please justify how this is in accordance with the objectives of the peer review efforts.

Also, if there are differences from the original submittal, please provide a description of the above information. If there are differences in the review areas or the manner in which the peer reviews were conducted, describe the actual process that was used.

Response to Question 2:

A summary of the process and activities of the peer review team for the Fermi 2 Seismic Walkdown and Walk-by effort is documented in Section 8 of the Fermi 2 Seismic Walkdown Report. Section 8 details the peer review assessment for each of the activities on page 6-1 of the walkdown guidance. Appendix F to the report provides the peer review team report.

The composition of the peer review team is detailed in Section 3 of the report. The team consisted of two individuals, of which one was the lead reviewer. Both individuals were involved in each of the activities specified in the walkdown guidance. As shown in Table 3-1 of the report, the peer review team members' activities were limited to the peer review process and thus, peer reviewers did not review their own work.