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DTE Energy



10 CFR 52.79

May 8, 2014 NRC3-14-0008

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555-0001

References: 1) Fermi 3

Docket No. 52-033

Subject:

DTE Electric Company Submittal of COLA Markups Associated with

Inspections, Tests, Analyses, and Acceptance Criteria for the Fermi 3 Turbine Building, Radwaste Building, Service Building, and Ancillary Diesel Building

During a public teleconference on May 8, 2014, the NRC staff provided feedback to DTE Electric on the Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) for the Fermi 3 Turbine Building, Radwaste Building, Service Building, and Ancillary Diesel Building. These ITAAC are contained in Subsections 2.4.15 through 2.4.18 of Part 10 of the Fermi 3 COLA and relate to the soil-structure interaction analyses for the buildings.

The NRC staff proposed several editorial clarifications to these ITAAC and DTE Electric agreed to incorporate the proposed COLA changes. The proposed COLA changes are contained in the attachment to this letter and will be included in the next revision of the Fermi 3 COLA.

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If you have any questions, or need additional information, please contact me at (313) 235-3341.

I state under penalty of perjury that the foregoing is true and correct. Executed on the 8<sup>th</sup> day of May 2014.

Sincerely,

Peter W. Smith, Director

Nuclear Development - Licensing and Engineering

DTE Electric Company

Attachment:

Markup of the Fermi 3 COLA

cc: Adrian Muniz, NRC Fermi 3 Project Manager

Tekia Govan, NRC Fermi 3 Project Manager

John Klos, NRC Fermi 3 Project Manager

Sujata Gomez, NRC Fermi 3 Environmental Project Manager (w/o attachment)

Mallecia Sutton, NRC Fermi 3 Environmental Project Manager (w/o attachment)

Fermi 2 Resident Inspector (w/o attachment)

NRC Region III Regional Administrator (w/o attachment)

NRC Region II Regional Administrator (w/o attachment)

Supervisor, Electric Operators, Michigan Public Service Commission (w/o attachment)

Michigan Department of Natural Resources and Environment

Radiological Protection Section (w/o attachment)

Regina A. Borsh, Dominion Energy, Inc.

Barry C. Bryant, Dominion Energy, Inc.

Patricia L. Campbell, General Electric

Attachment to NRC3-14-0008 Page 1

### Attachment to NRC3-14-0008 (following 8 pages)

### Markup of the Fermi 3 COLA

The following markup represents how DTE Electric intends to reflect this information in the next submittal of the Fermi 3 COLA. However, the same COLA content may be impacted by responses to other COLA RAIs, other COLA changes, plant design changes, editorial or typographical corrections, etc. As a result, the final COLA content that appears in a future submittal may be different than presented here.

Table 2.4.15-1 ITAAC For The Turbine Building		
Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
1. Determine if the Fermi 3 soil properties meet the site parameters in DCD Tier 1 Table 5.1 1. If not, then Fermi 3 site specific seismic soil structure interaction (SSI) analyses using the Fermi 3 soil properties will be performed for the Turbine Building (TB). The Fermi 3 TB site specific seismic SSI analyses shall follow the same methodology used in the ESBWR TB seismic analyses specified in DCD Tier 1 ITAAC Table 2.16.8 1.	Fermi 3 soil properties will be determined. Site specific SSI and SSSI analyses of the TB will be conducted, if necessary.	The Fermi 3 soil properties either (1) meet the site parameters in DCD Tier 1 Table 5.1 1, or (2) site specific SSI analyses will be conducted. The results of Fermi 3 site specific seismic SSI analyses of the TB are compared with the ESBWR TB seismic responses presented in DCD Tier 1 ITAAC Table 2.16.8 1 seismic analyses to confirm the Fermi 3 SSI is adequate for the ESBWR TB seismic design.

# Insert 1:

1.	Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.	Fermi 3 soil properties will be determined.	The Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.
2.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the Turbine Building (TB) following the method, as specified for Seismic Category I structures, including the load combinations and the acceptance criteria, for loads associated with earthquakes. Determine whether the Fermi 3 site specific SSI analysis is bounded by the TB seismic analysis specified in DCD Tier 1 ITAAC Table 2.16.8-1.	Site-specific SSI analyses for the TB will be conducted if necessary.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, the site-specific SSI analysis for the TB is bounded by the TE seismic analysis specified in the DCD Ti 1 ITAAC Table 2.16.8-1.

Table 2.4.16-1 ITAAC For The Radwaste Building		
Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
Determine if the Fermi 3 seil properties meet the site parameters in DCD Tier 1 Table 5.1 1. If not, then Fermi 3 site specific seismic soil structure interaction (SSI) analyses using the Fermi 3 seil properties will be performed for the Radwaste Building (RW). The Fermi 3 RW site specific seismic SSI analyses shall follow the same methodology used in the ESBWR RW seismic analyses specified in DCD Tier 1 ITAAC Table 2.16.9 1.	Fermi 3 soil properties will be determined. Site specific SSI and SSSI analyses of the RW will be conducted, if necessary.	The Fermi 3 soil properties either (1) meet the site parameters in DCD Tier 1 Table 5.1 1, or (2 site specific SSI analyses will be conducted. The results of Fermi 3 site specific seismic SSI analyses of the RW are compared with the ESBWR RW seismic responses presented in DCD Tier 1 ITAAC Table 2.16.9 1 seismic analyses to confirm the Fermi 3 SSI is adequate for the ESBWR RW seismic design.

## Insert 2:

1.	Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.	Fermi 3 soil properties will be determined.	The Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.
2.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the Radwaste Building (RW) following the method, as specified for Seismic Category I structures, including the load combinations and the acceptance criteria, for loads associated with earthquakes. Determine whether the Fermi 3 site specific SSI analysis is bounded by the RW seismic analysis specified in DCD Tier 1 ITAAC Table 2.16.9-1	Site-specific SSI analyses for the RW will be conducted if necessary.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, the site-specific SSI analysis for the RW is bounded by the F seismic analysis specified in the DCD T 1 ITAAC Table 2.16.9-1.

Table 2.4.17-1 ITAAC For The Service Building		
Design Commitment	Inspections, Tests, and Analyses	Acceptance Criteria
Determine if the Fermi 3 soil properties meet the site parameters in DCD Tier 1 Table 5.1 1. If not, then Fermi 3 site specific seismic soil structure interaction (SSI) analyses using the Fermi 3 soil properties will be performed for the Service Building (SB). The Fermi 3 SB site specific seismic SSI analyses shall follow the same methodology used in the ESBWR SB seismic analyses specified in DCD Tier 1 ITAAC Table 2.16.10 1.	Fermi 3 soil properties will be determined. Site specific SSI and SSSI analyses of the SB will be conducted, if necessary.	The Fermi 3 soil properties either (1) meet the site parameters in DCD Tier 1 Table 5.1 1, or (2) site specific SSI analyses will be conducted. The results of Fermi 3 site specific seismic SSI analyses of the SB are compared with the ESBWR SB seismic responses presented in DCD Tier 1 ITAAC Table 2.16.10 1 seismic analyses to confirm the Fermi 3 SSI is adequate for the ESBWR SB seismic design.

# Insert 3:

1.	Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.	Fermi 3 soil properties will be determined.	The Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.
2.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the Service Building (SB) following the method, as specified for Seismic Category I structures, including the load combinations and the acceptance criteria, for loads associated with earthquakes. Determine whether the Fermi 3 site specific SSI analysis is bounded by the SB seismic analysis specified in DCD Tier 1 ITAAC Table 2.16.10-1.	Site-specific SSI analyses for the SB will be conducted if necessary.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, the site-specific SSI analysis for the SB is bounded by the S seismic analysis specified in the DCD T 1 ITAAC Table 2.16.10-1.

Table 2.4.18-1 ITAAC For The Ancillary Diesel Building		
Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. Determine if the Fermi 3 soil properties meet the site parameters in DGD Tier 1 Table 5.1 1. If not, then Fermi 3 site specific seismic soil structure interaction (SSI) analyses using the Fermi 3 soil properties will be performed for the Ancillary Diesel Building (ADB). The Fermi 3 ADB site specific seismic SSI analyses shall follow the same methodology used in the ESBWR ADB seismic analyses specified in DCD Tier 1 ITAAC Table 2.16.11 1.	Fermi 3 soil properties will be determined. Site specific SSI and SSSI analyses of the ADB will be conducted, if necessary.	The Fermi 3 soil properties either (1) meet the site parameters in DCD Tier 1 Table 5.1 1, of (2) site specific SSI analyses will be conducted. The results of Fermi 3 site specific seismic SSI analyses of the ADB are compared with the ESBWR ADB seismic responses presented in DVD Tier 1 ITAAC Table 2.16.11 1 seismic analyses to confirm the Fermi 3 SSI is adequate for the ESBWR ADB seismic design.

## Insert 4:

1.	Determine if the Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.	Fermi 3 soil properties will be determined.	The Fermi 3 soil properties are bounded by the site parameters in DCD Tier 1 Table 5.1-1.
2.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, then perform a Fermi 3 site-specific seismic soil-structure interaction (SSI) analysis for the Ancillary Diesel Building (ADB) following the method, as specified for Seismic Category I structures, including the load combinations and the acceptance criteria, for loads associated with earthquakes. Determine whether the Fermi 3 site specific SSI analysis is bounded by the ADB seismic analysis specified in DCD Tier 1 ITAAC Table 2.16.11-1.	Site-specific SSI analyses for the ADB will be conducted if necessary.	If the Fermi 3 soil properties are not bounded by the site parameters in DCD Tier 1 Table 5.1-1, the site-specific SSI analysis for the ADB is bounded by the ADB seismic analysis specified in the D Tier 1 ITAAC Table 2.16.11-1.