

## **NRR-PMDAPEm Resource**

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**From:** Dion, Jeanne  
**Sent:** Wednesday, August 07, 2013 1:09 PM  
**To:** hassouna@dteenergy.com  
**Cc:** Wall, Scott; Smith, Edward; Reisifard, Mehdi; Dinsmore, Stephen  
**Subject:** MF0497 Request for Additional Information for Fermi 2 Proposed License Amendment to Revise the Fermi 2 Licensing Bases for Protection from Tornado-Generated Missiles  
**Attachments:** MF0497\_RAI.pdf

Mr. Hassoun,

By letter dated January 11, 2013, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13011A377), DTE Electric Company submitted its proposed license amendment to revise the Fermi 2 Licensing Bases for protection from tornado-generated missiles. The NRC staff in the Balance of Plant Branch (SBPB) and the Probabilistic Risk Assessment Licensing Branch (APLA) have identified areas in which additional information is needed to complete the Technical Review. The staff's Request for Additional Information (RAI) is provided as an attachment to this email.

You may accept this as a formal request for additional information and respond to the questions by September 20, 2013. Alternatively, you may request to discuss the content of the RAIs with the NRC staff in a conference call, including any change to the proposed response date. Please let me know if you have any questions or concerns.

**Jeanne Dion**  
**Project Manager (Rotation)**  
**NRR/DORL/LPL3-1**  
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**REQUEST FOR ADDITIONAL INFORMATION**  
**FERMI NUCLEAR POWER STATION, UNIT 2**  
**PROPOSED LICENSE AMENDMENT TO REVISE**  
**THE LICENSING BASES FOR PROTECTION FROM**  
**TORNADO-GENERATED MISSILES**  
**DOCKET NUMBERS 50-341**

RAI 1

Section 2.0, 2<sup>nd</sup> paragraph states: "...methodology, the probability of multiple missile strikes causing unacceptable damage to unprotected, safety-related plant features..."

Describe what Fermi has done to address the potential damage of safety-related equipment caused by the failure of non-safety related equipment due to a tornado missile strike. An example would be a tornado missile that damages a non-safety related tank and causes water leakage which subsequently damages safety-related cables.

RAI 2

Section 3.0, page 6, states "Missile sources (building...) were catalogued and modeled to a distance of approximately 2,500 feet."

What is the basis of 2,500 feet?

RAI 3

Section 3.0, page 13 states:

...the EDG fuel oil tank vents and the EDG exhaust stacks, which are located on the roof of the RHR complex. Both of these rooftop features are provided with tornado missile shield protection specifically designed to prevent vertically traveling missiles from entering the RHR complex and damaging the EDG fuel oil tanks and diesel engines.

Are the vent stacks protected from horizontally traveling missiles? A missile traveling horizontally could crimp the vent to significantly reduce air flow and prevent the EDG fuel oil tanks and diesel engines from functioning properly.

RAI 4

Clarify if the methodology used in this submittal for calculating the mean aggregate tornado missile damage probability uses any logic (e.g., AND gates) that requires damaging multiple targets simultaneously for establishing a damaged state. If multiple targets need to be simultaneously struck, please summarize the guidelines used to identify such groups and explain how they are modeled in TORMIS.