LIMITED STATEMENT FOR ASLB HEARING ON PROPOSED FERMI NEW

REACTOR

by **FAROUK D. BAXTER, PE**

(Expert/Specialist, Nuclear Power Plant Electrical Systems)

Fermi Unit 3
Doc. # 50-033-COL
Docketed USNRC
October 21, 2013
Office of the
Secretary

The following two contentions outline <u>inadequate and unsatisfactory review and</u> <u>resolution by the NRC Staff</u> in addressing and resolving Safety Related issues related to <u>Fermi 3's Offsite Power Transmission System</u>.

 The routing of the three transmission lines is technically flawed, and as a result is susceptible to many single failure events that could remove all the three lines from service.

Fermi 3 FSAR Chapter 8.2 states: "There are no single failures that can prevent the Fermi offsite power system from performing its function to provide power to EF3." However, all three transmission lines from Fermi are routed in a common corridor (right-of-way), and as a consequence are susceptible to various severe weather and man-made single failure events, such as tornadoes, ice storms, brush fires, galloping conductors, severe solar disturbances, light-aircraft impingement, and the like; each of these events has the potential for independently removing all three transmission lines in this common corridor for an extended period of time through structural damage to conductors or hardware or both.

<u>Conclusion</u>: The routing of the transmission lines are flawed, thus making them susceptible to multiple types of single failure occurrences that could prevent the Fermi transmission system from providing offsite power to EF3 for extended periods of time. The FSAR statement that "There are no single failures that can prevent the Fermi offsite power system from performing its function to provide power to EF3" is without any technical merit, and contradicts even commonsense. There is an immediate need for the NRC Staff to reanalyze and resolve this issue prior to approving Fermi 3 design.

2. FSAR Section 8.2 states: "The normal preferred and alternate preferred circuits are fed from separate transmission systems, each capable of supplying the shutdown loads".

Technically, these lines cannot be considered separate because they are routed in a common corridor (right-of-way) and are susceptible to various severe weather and man-made single failure events, such as tornadoes, ice storms, brush fires, galloping conductors, severe solar disturbances, light-aircraft impingement, and the like; each of these events could remove both circuits for

LIMITED STATEMENT FOR ASLB HEARING ON PROPOSED FERMI NEW REACTOR

by **FAROUK D. BAXTER, PE**

(Expert/Specialist, Nuclear Power Plant Electrical Systems)

an extended period of time through structural damage to multiple transmission line conductors and hardware simultaneously. In addition, both the 'normal preferred' and 'alternate preferred' circuits have the same termination points (the Switchyard at one end and the Milan Substation at the other), which further challenge the claim that they "are fed from separate transmission systems".

<u>Conclusion</u>: there is no diversity between the 'normal preferred' and 'alternate preferred' transmission systems circuits from one end to the other, to demonstrate that they are separate transmission systems. There is an immediate need for the NRC Staff to reanalyze and resolve this issue prior to approving Fermi 3 design.

From: Farouk Baxter

To: Spritzer, Ronald; Williams, Onika; Docket, Hearing

Subject: ASLB Hearing on Fermi New Reactor

Date: Saturday, October 19, 2013 11:58:12 AM

Attachments: FERMI 3.docx

Dear Recipients,

Please find attached "Limited Statement for ASLB Hearing on Proposed Fermi New Reactor" for your consideration. Though these contentions may not be directly related to the issues and arguments to be presented on October 30, 2013; however, they are being provided to ASLB to identify significant Safety flaws in the design of the Fermi offsite power transmission system. It is my position that the Fermi 3 COL should not be issued until these contentions have been satisfactorily addressed and resolved by the NRC Staff or others.

Please advise me of ASLB's dispositioned of my concerns.

Thank You, Farouk Baxter, PE Expert/Specialist, Nuclear Power Plant Electrical Systems 23 Pilgrims Path Sudbury, MA 01776 978 443-2914