



Entergy Nuclear Northeast
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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Subject: Entergy Nuclear Operatons, Inc.
James A. Fitzpatrick Nuclear Power Plant
Docket No(s) 50-333
**Response to Request for Additional Information Regarding
Resolution of Generic Letter 2006-02, Grid Reliability and the
Impact on Plant Risk and the Operability of Offsite Power
(TAC Nos. MD 0982)**

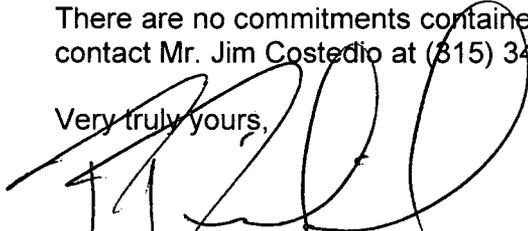
- References:
1. Request for Additional Information Regarding Resolution of Generic Letter 2006-02, Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power, dated December 5, 2006.
 2. Revised Response Date for Request for Additional Information Regarding Resolution of Generic Letter 2006-02, Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power, dated December 13, 2006.

Dear Sir or Madam:

The referenced documents requested additional information regarding the resolution of Generic Letter 2006-02. Attachment 1 to this letter provides the responses to the request for additional information for the James A. Fitzpatrick Nuclear Power Plant.

There are no commitments contained in this letter. If you have any questions, please contact Mr. Jim Costedio at (315) 349-6358.

Very truly yours,



Pete Dietrich
Site Vice President

PD:cf

Attachment

cc: (see list)

A123

cc:

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3. Verification of RTCA Predicted Post-Trip Voltage

Your response to question 2(g) indicates that you have not verified by procedure the voltages predicted by the online grid analysis tool (software program) with actual real plant trip voltage values. It is important that the programs used for predicting post-trip voltage be verified to be reasonably accurate and conservative. What is the range of accuracy for your GO's contingency analysis program? Why are you confident that the post-trip voltages calculated by the GO's contingency analysis program (that you are using to determine operability of the offsite power system) are reasonably accurate and conservative? What is your standard of acceptance?

The online grid analysis tool is not owned or operated by Entergy.

The Grid Operator (GO) National Grid-NY owns and operates a state estimator and a contingency evaluation program to analyze real time and contingency voltage levels and thermal loading for the 115kV system, which is FitzPatrick's off-site power source.

The contingency evaluation program creates a real-time network model starting with bus/branch connectivity, branch impedances and ratings, and steady state generator models. The program then superimposes real-time switch and breaker status to determine network topology. Real-time generation and bus loads are also applied to this model.

The state estimator and contingency evaluation program utilizes this real-time transmission system information, nuclear plant unit specific Loss-of-Coolant-Accident (LOCA) shutdown loads and minimum voltage requirements to determine if voltage and thermal limits are observed and alarms if the results are outside of these limits. If any limit is violated, an alarm is generated and the plant is notified.

The state estimator's on-line contingency analysis application has been in service for approximately twenty years. The accuracy of this analysis tool has been shown to be adequate by the GO via its successful operation over the extended period it has been in use. Although there are no current industry standards that govern the accuracy of contingency analysis models, the GO has indicated that the state estimator contingency analysis application at the 115 kV voltage level has been demonstrated to be accurate.

North American Electric Reliability Corporation (NERC) has been established to ensure that the bulk electric system in North America is reliable, adequate and secure. Two of the responsibilities of NERC are:

- Set standards for the reliable operation and planning of the bulk electric system.
- Monitor, assess, and enforce compliance with reliability standards.

NERC has eight regional reliability councils whose members come from all segments of the electric industry, and are responsible for overseeing and implementing the NERC criteria at the regional levels. Entergy's FitzPatrick nuclear generator is located within the Northeast Power Coordinating Council's oversight area. National Grid – NY Energy Control Center has overall responsibility for ensuring reliability of the 115kV transmission system supplying FitzPatrick's off-site power source.

3a) *What is the range of accuracy for your GO's contingency analysis program?*

The accuracy of the state estimator and contingency analysis program is not specified. There are two approved North American Electric Reliability Council Standards (IRO-002-1, "Reliability Coordination – Facilities" and TOP-006-1, "Monitoring System Condition"), which establish the criteria the Reliability Coordinators and Transmission Operators shall follow to ensure an acceptable transmission system monitoring capability. Neither of these standards establishes an accuracy range for the system.

3b) *Why are you confident that the post-trip voltages calculated by the GO's contingency analysis program (that you are using to determine operability of the offsite power system) are reasonably accurate and conservative?*

The on-line contingency analysis system is one of the primary tools used by the GO to ensure the reliability of the bulk electric system by identifying system contingencies, which could result in unacceptable system conditions if the contingency were to occur. Based on these post-contingency predictions the GO will implement the necessary corrective action to mitigate the potential unacceptable conditions.

In addition, the GO utilizes the on-line contingency analysis system to plan bulk electric system line and equipment outages. If the results predicted by the on-line contingency analysis system are not consistent with the actual system response the GO investigates the discrepancies and implements any necessary adjustments.

The on-line contingency analysis program utilizes the same National Grid-NY transmission system configuration for 115kV and above as the off-line planning programs but has the advantage of real-time system data in determining the post-contingency system response. This coupled with the inclusion of accurate nuclear plant specific accident shutdown loads, provides the best available indicator as to the response of the off-site source to the loss of the nuclear unit and transfer of accidents loads.

Our confidence in the accuracy of the on-line contingency analysis system is based on the inclusion of accurate nuclear plant specific accident shutdown loads provided by FitzPatrick to the GO and the GO's operating experience in the use of the on-line contingency analysis system in identifying and responding to potential unacceptable bulk electric system conditions.

3c) *What is your standard of acceptance?*

As stated above, our confidence in the accuracy of the on-line contingency analysis system is based on the inclusion of accurate nuclear plant specific accident shutdown loads provided by FitzPatrick to the GO and the GOs operating experience in the use of the on-line contingency analysis system in identifying and responding to potential unacceptable bulk electric system conditions.