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ATTENTION: Rulemakings and Adjudications Staff

SUBJECT: Comments on Proposed Generic Communication *Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power* (70 FR 19125, April 12, 2005)

Ladies and Gentlemen:

Progress Energy endorses the Nuclear Energy Institute (NEI) comments, regarding the subject matter, sent to you on June 13, 2005. In addition, we have the following comments:

1. Requested Information Item 2:

   The second and third paragraphs imply that use of the Real Time Contingency Analysis (RTCA) is required for compliance to GDC 17. Please revise this section to clarify that RTCA or Analytical Transmission System Studies or both or other means of predicting post trip Nuclear Power Plant switchyard voltage support are acceptable methods of minimizing the probability of the loss of power from the transmission network given a loss of power generated by the nuclear power unit. We recommend that the request for information regarding the RTCA and/or Analytical Transmission System Studies be preceded by wording similar to that implied in the fourth paragraph. For example, the addition of wording similar to the following sentence at the end of paragraph 1 "Predictive methods such as Real Time Contingency Analysis, Analytical Transmission System Studies, or other means used should be described."

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Add = A. Markley (AWM)

The design of some plants is such that the power output of the nuclear plant generator is connected to one transmission system (such as a 500KV system) and the offsite power supply for the plant is connected to another transmission system (such as a 230KV system). With this type of configuration, the trip of the nuclear generator does not have a significant effect on the voltage support for the offsite power supply. This is because the nuclear generator reactive power is not contributing to voltage support for the other transmission system being used as the offsite power source. When this is the case, "other means" such as the design itself or simply ensuring a minimum set of nearby generators and capacitor banks are in service, could be used to minimize the probability of the loss of power from the transmission network given a loss of power generated by the nuclear power unit. Such methods are implicitly excluded from the Generic Letter (GL) due to the way it is worded.

2. Requested Information Item 3:

The second paragraph implies that EDGs and safety related equipment should be declared inoperable when offsite power is declared inoperable for predicted inadequate post trip voltage support reasons. This is not consistent with standard improved technical specifications or the guidance of Regulatory Guide 1.93 "Availability of Electric Power Sources." Please revise this section to clarify that EDG and safety related equipment inoperability does not result from offsite power inoperability due to predicted inadequate post trip voltage support. The level of degradation is such that the offsite electrical power system may not have the capability to affect safe shutdown and mitigate an accident, however, the onsite AC sources and safety related equipment are not degraded. According to Regulatory Guide 1.93, with available offsite AC sources two less than required by the LCO, operation may continue for 24 hours. If all offsite sources are restored within 24 hours, unrestricted operation may continue.

Declaring EDGs and safety related equipment inoperable due to offsite power system predicted inadequate post trip voltage support will result in a much shorter time requirement to shut down the plant. Given a degraded grid scenario, it is not desirable for the nuclear plants to enter into a short duration shutdown LCO because the onsite AC power sources remain available to support plant safety and shut down of the nuclear plant will make the degraded grid worse. It then becomes possible that the degraded grid problem will spread and affect more nuclear plants over a larger geographical area increasing overall risk.

The 24 hour time period allowed for restoration of offsite power operability due to predicted inadequate post trip voltage support is acceptable because sufficient onsite AC sources are available to achieve and maintain the unit in a safe shutdown condition in the event of a DBA or transient. A simultaneous loss of offsite AC sources, a LOCA, and a worst case single failure are postulated as a part of the plant design basis in the safety analysis. Thus, the 24 hour completion time provides for restoration commensurate with the importance of maintaining the combined offsite/onsite AC electrical power system capable of meeting its design criteria.

3. Requested Information Item 5:

   The third paragraph of the request for information implies that "consideration of seasonal variations in Loss Of Offsite Power (LOOP) probability" is required for compliance with 10 CFR 50.65(a)(4) (Maintenance Rule). Various factors affect the probability of LOOP with variations in transmission system loading being only one of many. Please revise this section to recognize that the probability of LOOP used for risk assessments should vary based on "considerations such as line maintenance activities, severe weather, and variations of transmission system loading (grid stress)". Variations in transmission system loading occur daily, for example, even during summer peak loading times there are daily variations where the risk of LOOP is lower at night due to lower loading. In addition, risk factors used for LOOP can be applied in an on/off, enveloping manner (considered low or high) to simplify the risk assessment process while still remaining in compliance with Maintenance Rule (a)(4). Consideration of "seasonal" variations should therefore not be implicitly mandated.

4. Requested Information Item 8:

   The wording used in the request for information "grid-related total loss of offsite power" and "grid-related total LOOP" is not consistent with Regulatory Guide 1.155 Table 4, which used the words "total loss of offsite power caused by grid failures". Please revise the GL wording to be the same as that used in the Regulatory Guide.

   The words "grid-related" imply a broader scope than "caused by grid failures." Including this broader scope could increase the number of nuclear plants that fall under the "greater than once in 20 site-years" umbrella and consequently indicate the need for coping durations longer than required by the Station Blackout (SBO) rule/Reg. Guide.

Please contact me at (919) 546–4579 if you have any questions.

Sincerely,

Rick Gamer for T. GROBLEWSKI

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Supervisor - Corporate Regulatory Affairs

TG/kmh

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