

September 7, 2007

Robert J. Duncan II, Vice President
Shearon Harris Nuclear Power Plant
Carolina Power & Light Company
Post Office Box 165, Mail Code: Zone 1
New Hill, North Carolina 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - RESPONSE TO
GENERIC LETTER 2006-02, "GRID RELIABILITY AND THE IMPACT ON
PLANT RISK AND THE OPERABILITY OF OFFSITE POWER"
(TAC NO. MD0986)

Dear Mr. Duncan:

On February 1, 2006, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 2006-02, "Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML060180352), to all holders of operating licenses for nuclear power reactors except those who have permanently ceased operations and have certified that fuel has been removed from the reactor vessel.

GL 2006-02 notified licensees of the NRC staff's need for information in four areas as follows:

- (1) use of protocols between the nuclear power plant (NPP) and the transmission system operator (TSO), independent system operator (ISO), or reliability coordinator/authority (RC/RA) and the use of transmission load flow analysis tools (analysis tools) by TSOs to assist NPPs in monitoring grid conditions to determine the operability of offsite power systems under plant technical specifications (TSs). (The TSO, ISO, or RC/RA is responsible for preserving the reliability of the local transmission system. In this GL the term TSO is used to denote these entities);
- (2) use of NPP/TSO protocols and analysis tools by TSOs to assist NPPs in monitoring grid conditions for consideration in maintenance risk assessments;
- (3) offsite power restoration procedures in accordance with Section 2 of NRC Regulatory Guide (RG) 1.155, "Station Blackout;" and
- (4) losses of offsite power caused by grid failures at a frequency equal to or greater than once in 20 site-years in accordance with RG 1.155.

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Subsequent to the GL, the NRC issued a request for additional information (RAI), (ADAMS Accession No. ML063380308) regarding the resolution of GL 2006-02 to 63 of 65 holders of operating licenses for nuclear power reactors. The RAI requested licensees respond to questions in the following areas:

- (1) Switchyard Minimum Voltage
- (2) Loss of Real-Time Contingency Analysis (RTCA) Capability
- (3) Verification of RTCA Predicted Post-Trip Voltage
- (4) Identification of Applicable Single Contingencies
- (5) Seasonal Variation in Grid Stress (reliability and Loss-of-offsite power (LOOP) Probability
- (6) Interface With Transmission System Operator During Extended Plant Maintenance

By letters dated April 3, 2006 (ADAMS Accession No. ML061020109), and January 26, 2007 (ADAMS Accession No. ML070320562), you responded to the information request of GL 2006-02 and the subsequent RAI. Based on the information you provided, the staff has concluded that compliance is being maintained with NRC regulatory requirements governing electric power sources and associated personnel training and considers your response to GL 2006-02 complete.

If you have any questions, please contact me 301-415-3178.

Sincerely,

/RA/

Marlayna Vaaler, Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-400

cc: See next page

R. Duncan

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