



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931**

**December 20, 2001**

Carolina Power & Light Company  
ATTN: Mr. James Scarola  
Vice President - Harris Plant  
Shearon Harris Nuclear Power Plant  
P. O. Box 165, Mail Code: Zone 1  
New Hill, NC 27562-0165

**SUBJECT: SAFETY SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION  
NRC INSPECTION REPORT NO. 50- 400/2002-03**

Dear Mr. Scarola:

The purpose of this letter is to notify you that the U.S. Nuclear Regulatory Commission (NRC) Region II staff will conduct a safety system design and performance capability inspection at your Harris facility during February - March, 2002. A team of five inspectors will perform the inspection. The inspection team will be led by Mr. J. Lenahan, a senior reactor inspector from the NRC Region II Office. The inspection will be conducted in accordance with baseline Inspection Procedure 71111.21, Safety System Design and Performance Capability.

The inspection objective will be to evaluate the capability of the emergency diesel generators and support systems, as well as other related systems, to perform the functions required to mitigate a loss of offsite power (LOOP)/station blackout (SBO) event.

During a telephone conversation on December 19, 2001, Mr. J. Lenahan of my staff, and Mr. M. Wallace of your staff, confirmed arrangements for an information gathering site visit during the week of February 4, 2002. The two-week onsite inspection is currently scheduled for the weeks of February 25 - March 1 and March 11 - 15, 2002. We are evaluating your request to delay the second week of the onsite inspection until the week of March 25 - 29, 2002.

The purpose of the information gathering visit is to obtain information and documentation outlined in the enclosure needed to support the inspection. Mr. W. Rogers, a Region II Senior Reactor Analyst, will accompany Mr. Lenahan during the information gathering visit to review PRA data and identify risk significant components which will be examined during the inspection. Please contact Mr. Lenahan prior to preparing copies of the materials listed in the Enclosure. The inspectors will try to minimize your administrative burden by specifically identifying only those documents required for inspection preparation.

During the information gathering visit, the team leader will also discuss the following inspection support administrative details: office space; specific documents requested to be made available to the team in their office space; arrangements for reactor site access; and the availability of knowledgeable plant engineering and licensing organization personnel to serve as points of contact during the inspection.

Thank you for your cooperation in this matter. If you have any questions regarding the information requested or the inspection, please contact me at (404) 562-4605, or Mr. Lenahan at (404) 562-4625.

Sincerely,

**/RA/**

Charles R. Ogle, Chief  
Engineering Branch  
Division of Reactor Safety

Docket No. 50-400  
License No. NPF-63

Enclosure: Information Request for the Safety System Design and Performance Capability  
Inspection: Loss of Offsite Power/Station Blackout Events

cc w/encl:  
Terry C. Morton, Manager  
Performance Evaluation and  
Regulatory Affairs CPB 9  
Carolina Power & Light Company  
Electronic Mail Distribution

Chris L. Burton  
Director of Site Operations  
Carolina Power & Light Company  
Shearon Harris Nuclear Power Plant  
Electronic Mail Distribution

Robert J. Duncan II  
Plant General Manager--Harris Plant  
Carolina Power & Light Company  
Shearon Harris Nuclear Power Plant  
Electronic Mail Distribution

Richard J. Field, Manager  
Regulatory Affairs  
Carolina Power & Light Company  
Shearon Harris Nuclear Power Plant  
Electronic Mail Distribution

(cc w/encl cont'd - See page 3)

(cc w/encl cont'd)

John R. Caves, Supervisor  
Licensing/Regulatory Programs  
Carolina Power & Light Company  
Shearon Harris Nuclear Power Plant  
Electronic Mail Distribution

William D. Johnson  
Vice President & Corporate Secretary  
Carolina Power & Light Company  
Electronic Mail Distribution

John H. O'Neill, Jr.  
Shaw, Pittman, Potts & Trowbridge  
2300 N. Street, NW  
Washington, DC 20037-1128

Mel Fry, Director  
Division of Radiation Protection  
N. C. Department of Environmental  
Commerce & Natural Resources  
Electronic Mail Distribution

Peggy Force  
Assistant Attorney General  
State of North Carolina  
Electronic Mail Distribution

Public Service Commission  
State of South Carolina  
P. O. Box 11649  
Columbia, SC 29211

Chairman of the North Carolina  
Utilities Commission  
P. O. Box 29510  
Raleigh, NC 27626-0510

Robert P. Gruber  
Executive Director  
Public Staff NCUC  
P. O. Box 29520  
Raleigh, NC 27626

(cc w/encl cont'd - See page 4)

CP&L

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(cc w/encl cont'd)  
Vernon Malone, Chairman  
Board of County Commissioners  
of Wake County  
P. O. Box 550  
Raleigh, NC 27602

Richard H. Givens, Chairman  
Board of County Commissioners  
of Chatham County  
Electronic Mail Distribution

Distribution w/encl:  
R. Laufer, NRR  
RIDSNRRDIPMLIPB  
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SIGNATURE	<b>Lenahan</b>	<b>Bonser</b>					
NAME	LENAHAN	BONSER					
DATE	12/20/2001	12/20/2001	1/ /2002	1/ /2002	1/ /2002	1/ /2002	1/ /2002
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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**INFORMATION REQUEST FOR THE SAFETY SYSTEM DESIGN AND  
PERFORMANCE CAPABILITY INSPECTION:**

**LOSS OF OFFSITE POWER (LOOP)/STATION BLACKOUT (SBO) EVENTS**

Note: Electronic media is preferred if readily available (i.e., on computer disc).

1. Site specific administrative procedures related to standard operation, abnormal operation, and emergency operation of the emergency diesel generators (EDGs), including support systems, and other related systems during a loss of offsite power and/or a station blackout. Other related systems include, but may not be limited to the station transformers, the 480V and 6.9 KV buses, station batteries, ventilation, starting air, jacket water support systems, essential service water, and auxiliary feedwater system (turbine driven auxiliary feedwater (TDAFW) pump, including water source).
2. Design criteria (i.e., design basis documents) for the EDGs, in addition to support systems and interfaces for the EDGs, the 480V and 6.9 KV electrical systems, and station batteries.
3. Technical Specification requirements and a list of associated surveillance test/calibration procedures for the EDG and related systems.
4. Copies of applicable sections of the UFSAR for the EDGs and other related systems, and copies of applicable sections of changes to the UFSAR which have yet to be docketed.
5. Piping and instrumentation drawings, one-line diagrams; electrical schematics, and wiring and logic diagrams (i.e., logic of voltage relays and load sequencing for LOOP) for the EDGs and other related systems.
6. A list of engineering calculations (Electrical, Instrumentation and Controls and Mechanical/Nuclear) applicable to the EDGs and other related systems.
7. List of calculations related to meeting 10 CFR 50.63 Station Blackout rule.
8. Strategy for handling LOOP/SBO events.
9. A list of plant modifications to the EDGs and other related systems implemented since 1994.
10. List of current open temporary modifications and operator work arounds involving operation of the EDGs and the other related systems.
11. List of Condition Reports (CRs) initiated since 1994 affecting the EDGs and other related systems.

Enclosure

12. Summary of corrective maintenance activities, including the maintenance rule event log, performed on the EDGs and other related systems in the past 12 months.
13. An index of drawings for the EDGs and other related systems.
14. Self-assessment performed on EDGs and other related systems in the last 24 months.
15. System description and operator training modules for the EDGs and other related systems.
16. EDG nameplate data for engines and generators.
17. List of Operating Experience Program evaluations of industry, vendor, or NRC generic issues related to the EDGs for the past 3 years.
18. List of valves required to change position for a LOOP/SBO event.
19. List of instrument setpoint changes affecting EDGs and related systems initiated since 1994. Include the number and title, date, brief description, and corresponding calculation number.
20. Information describing the type and material used for the seals and O-rings for each reactor coolant pump (RCP).
21. PRA Fault Tree Data for the 6.9 KV buses, vital AC, EDGs, the station batteries, and the turbine driven auxiliary feedwater pump.
22. PRA/Risk Achievement Worth (RAW) listing for the EDGs and related support systems.
23. PRA Event Tree for LOOP initiating event.
24. PRA calculation for RCP seal loss of coolant accident (LOCA) and offsite power recovery.