

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

June 29, 2001

Virginia Electric and Power Company ATTN: Mr. David A. Christian Senior Vice President and Chief Nuclear Officer Innsbrook Technical Center - 2SW 5000 Dominion Boulevard Glen Allen, VA 23060-6711

SUBJECT: NORTH ANNA POWER STATION - NRC INSPECTION REPORT NOS. 50-338/01-08, 50-339/01-08

Dear Mr. Christian:

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 North Anna facility during August, 2001. A team of five inspectors will perform the inspection. The inspection team will be led by Mr. F. Jape, 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 June 25, 2001, Mr. F. Jape of my staff, and Mr. J. Leberstien of your staff, confirmed arrangements for an information gathering site visit and the two-week onsite inspection. The schedule is as follows:

- Information gathering visit: Week of July 23, 2001
- Onsite inspection: August 13-17 and August 27-31, 2001

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. F. Jape during the information gathering visit to review PRA data and identify risk significant components which will be examined during the inspection. Please contact Mr. F. Jape 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

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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. F. Jape at (404) 562-4541.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publically Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/NRC/ADAMS/index.html</u> (the Public Electronic Reading Room).

Sincerely,

/RA Norman Merriweather for:/

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

Docket Nos. 50-338, 50-339 License Nos. NPF-4, NPF-7

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

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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) and the dedicated shutdown diesel generator, 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 4160V buses, station vital and dedicated diesel batteries, ventilation, starting air, jacket water support systems, and auxiliary feedwater system (turbine driven auxiliary feedwater (TDAFW) pump, including water source).
- 2. Design criteria (i.e., design basis documents) for the EDGs and dedicated shutdown diesel generator, in addition to support systems and interfaces for the EDGs and dedicated shutdown diesel generator, the 480V and 4160V electrical systems, and station batteries.
- 3. EDG 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 dedicated shutdown diesel generator, and other related systems; and copies of applicable sections of changes to the UFSAR which have yet to be docketed.
- 5. Electrical distribution system drawings consisting of : 1. Key One Line Diagram of Switchyard; 2. Main One Line Diagram of Medium Voltage distribution system; 3. 480 VAC MCC One Line Diagrams; and 4. 125 VDC AND 120 VAC Vital One Line Diagram.
- 6. A list of engineering calculations (Electrical, Instrumentation and Controls and Mechanical/Nuclear) applicable to the EDGs and dedicated shutdown diesel generator, 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 dedicated shutdown diesel generator, and other related systems implemented since 1992.
- 10. List of current open temporary modifications and operator work arounds involving operation of the EDGs and the other related systems.
- 11. Elementary or schematic diagrams showing the loss of voltage and degraded voltage relay logic.

Enclosure

- 12. List of Problem Identification Reports (PIs) initiated since 1992 affecting the EDGs, the dedicated shutdown diesel generator, and other related systems.
- 13. Summary of corrective maintenance activities, including the maintenance rule event log, performed on the EDGs and other related systems in the past 12 months.
- 14. An index of drawings for the EDGs, dedicated shutdown diesel generator, and other related systems.
- 15. Self-assessment performed on EDGs and other related systems in the last 24 months.
- 16. System description and operator training modules for the EDGs and other related systems.
- 17. EDG and dedicated shutdown diesel generator nameplate data for engine and generators.
- 18. List of Operating Experience Program evaluations of industry, vendor, or NRC generic issues related to the EDGs for the past 3 years.
- 19. List of valves required to change position for a LOOP/SBO event.
- 20. List of instrument setpoint changes affecting EDGs and related systems initiated since 1991. Include the number and title, date, brief description, and corresponding calculation number.
- 21. Grid Stability Study.
- 22. Information describing the type and material used for the seals and O-rings for each reactor coolant pump (RCP).
- 23. PRA Fault Tree Data for the 4160V buses, vital AC, EDGs, dedicated shutdown diesel generator, the station vital and designated diesel batteries, and the turbine driven auxiliary feedwater pump.
- 24. PRA/Risk Achievement Worth (RAW) listing for the EDGs, dedicated shutdown diesel generator, and related support systems.
- 25. PRA Event Tree for LOOP initiating event.
- 26. PRA calculation for RCP seal loss of coolant accident (LOCA) and offsite power recovery.
- 27. List of problem reports initiated since 1992 affecting the EDG output breakers, degraded and loss of voltage relays, and EDG load sequencers.

Enclosure