



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

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

April 11, 2002

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

**SUBJECT: SURRY NUCLEAR POWER STATION - NRC INSPECTION REPORT
50-280/02-07, 50-281/02-07**

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 Surry Nuclear Power Station during June 2002. A team of four inspectors will perform the inspection. The inspection team will be led by Mr. Frank 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 ability of the plant and operators to respond to a steam generator tube rupture. The inspection will focus on performance of installed equipment that will be utilized to mitigate the event, and provide adequate core cooling.

During a telephone conversation on, March 26, 2002, Mr. Frank Jape of my staff, and Mr. Barry Garber of your staff, confirmed arrangements for an information gathering site visit and a two-week onsite inspection. The schedule is as follows:

- Information gathering visit: April 23-26, 2002
- Onsite inspection: June 10-14, 2002 and June 24-28, 2002

The purpose of the information gathering visit is to obtain information and documentation outlined in the Enclosure needed to support the inspection. Mr. Walter Rogers, a Region II Senior Reactor Analyst, may accompany Mr. Frank Jape during portions of the information gathering visit to review PRA data and identify risk significant components which will be examined during the inspection. Please contact Mr. Frank 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

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. Frank 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 Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Charles R. Ogle, Chief
Engineering Branch 1
Division of Reactor Safety

Docket Nos: 50-280, 50-281
License Nos: DRP-32, DRP-37

Enclosure: Information Request for the Safety System Design and
Performance Capability Inspection

cc w/encl:
Stephen P. Sarver, Director
Nuclear Licensing and
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Virginia Electric & Power Company
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Richard H. Blount, II
Site Vice President
Surry Power Station
Virginia Electric & Power Company
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(cc w/encl cont'd - See page 3)

VEPCO

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(cc w/encl cont'd)
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**INFORMATION REQUEST FOR THE SAFETY SYSTEM DESIGN AND
PERFORMANCE CAPABILITY INSPECTION:
STEAM GENERATOR TUBE RUPTURE EVENT**

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

1. Design basis documents for the reactor protection system (RPS), the engineered safety features, pressurizer relief valves, secondary system relief valves, atmospheric dump valves and turbine bypass valves. Include performance history of these valves for the past 10 years.
2. A list of associated surveillance tests and calibration procedures for the operational safety instrumentation as listed in Technical Specification (TS) 3.7, Table 3.7-1 items: 5, 7, 8, 9, 11.a, 15 and 17.
3. Procedures used for the operational testing of the safety injection system check valves 410, 24, 79, 82, 85, and 25.
4. Summary of results of the steam generator inservice inspection program.
5. Mitigation strategy for handling steam generator tube rupture events (SGTR) including E-0 and E-3.
6. List of current open temporary modifications and operator work arounds involving any components required for mitigating a SGTR event.
7. System description and operator training modules for SGTR event.
8. List of operating experience program evaluations of industry, vendor, or NRC generic issues related to a SGTR event.
9. Procedures that would be used to sample the reactor coolant system (RCS) during a SGTR event.
10. Calibration and functional testing procedures for the radiation monitoring instrumentation used during a SGTR event.
11. Calibration and functional testing procedures for the reactor trip interlocks as specified in TS 2.3-4 B 1 and 3.
12. Calculations used to support the setpoints in the Emergency Operating Procedures for a SGTR event.
13. Performance history of valves or other equipment used to isolate steam generators in the event of a SGTR event.

Enclosure

14. Calibration and functional test procedures for instruments used to detect RCS pressure, pressurizer level and pressurizer pressure, SG level and pressure, hot and cold leg temperature, subcooling monitor, feedwater flow, steam flow, core exit temperature, high pressure injection (HPI) flow, low pressure injection (LPI) flow, refueling water storage tank (RWST) level, pressurizer heater status, safety relief valve position indicator, AFW flow, CST level, makeup flow, and letdown flow.
15. P&IDs for RCS, HPI, SI, auxiliary feedwater (AFW), chemical and volume control system (CVCS), main steam, and letdown.
16. Electrical schematic showing start logic for the AFW pumps.
17. Test procedures for primary and secondary system safety relief valves including any position indication (include both power operated relief valves (PORVs) and code safety relief valves).
18. Loop uncertainty calculations for SG level, pressurizer pressure and level, and RCS pressure.
19. Test procedures for any defeat switches associated with AFW starting logic.
20. Instrument loop drawings for items identified in Number 14 above.