



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

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

June 3, 2005

Southern Nuclear Operating Company, Inc.  
ATTN: Mr. J. T. Gasser, Vice President  
P. O. Box 1295  
Birmingham, AL 35201-1295

SUBJECT: NOTIFICATION OF VOGTLE NUCLEAR PLANT - SAFETY SYSTEM DESIGN  
AND PERFORMANCE CAPABILITY INSPECTION - NRC INSPECTION  
REPORT 50-424,425/2005006

Dear Mr. Gasser:

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 Vogtle Nuclear Plant during the weeks of August 15-19, 2005 and August 29-September 2, 2005. A team of five inspectors will perform this inspection. The inspection team will be led by Mr. Caswell Smith, a Senior Reactor Inspector from the NRC Region II Office. This biennial inspection will be conducted in accordance with baseline inspection program Attachment 71111.21, "Safety System Design and Performance Capability."

The inspection will evaluate the capability of installed plant equipment to detect and respond to a loss of coolant accident. Procedures which direct the mitigating actions for this event will also be evaluated.

During a telephone conversation on May 26, 2005, Mr. Smith of my staff, and Mr. Ken Lowery 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 18, 2005
- Onsite inspection weeks: August 15 and August 29, 2005.

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. Smith during the information gathering visit to review probabilistic risk assessment data and identify risk significant components which will be examined during the inspection. Please contact Mr. Smith 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 site access; and the availability of knowledgeable plant engineering and licensing personnel to serve as points of contact during the inspection.

SNOOC

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Thank you for your cooperation in this matter. If you have any questions regarding the information requested or the inspection, please contact Mr. Smith at (404) 562-4630 or me at (404) 562-4605.

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 <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.: 50-424 and 50-425  
License Nos.: NPF-68 and NPF-81

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

cc w/encl: (See page 3)

SNOC

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cc w/encl:

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 ADAMS: x Yes    ACCESSION NUMBER: \_\_\_\_\_

OFFICE	RII:DRS	RII:DRP	RII:DRS				
SIGNATURE	/RA/	/RA/	/RA/				
NAME	CSmith	MWidmann	COgle				
DATE	5/31/05	6/2/05	6/3/05				
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

**INFORMATION REQUEST FOR VOGTLE SAFETY SYSTEM DESIGN  
AND PERFORMANCE CAPABILITY INSPECTION  
LOSS OF COOLANT ACCIDENT ( Small Break, Large Break, Inter-System)**

(Please provide the information electronically in searchable “.pdf” files on CDROM. The CDROM should be indexed and hyperlinked to facilitate ease of use. Information in “Lists” should contain enough information to be easily understood by some one who has a knowledge of pressurized water reactor technology.)

1. Design basis documents for the engineered safety features (ESF) and emergency core cooling systems (ECCS) used to mitigate a loss of coolant event. Design basis documents for the high, medium, and low voltage electrical systems that power the ESF and ECCS components/systems.
2. All procedures used to implement the mitigation strategy for the loss of coolant accidents (LOCA) event. Include alarm response procedures as well as normal, abnormal, and emergency operating procedures (EOPs) as appropriate. Also include the EOP user’s guide and EOP set-point document as well as calculations used to support the set-points in EOPs for the LOCA event.
3. Piping and instrumentation drawings (PI&Ds) for the ECCS and other systems used to mitigate the LOCA event. Two paper copies are preferred for these.
4. List of surveillance procedures used to ensure the operability of the equipment required by your Technical Specifications that is used during the mitigating of the LOCA event.
5. List of engineering calculations (electrical, mechanical/nuclear, instrumentation and controls) applicable to the ECCS components and other related systems used for a LOCA event.
6. List of temporary modifications and operator work-arounds involving any components required for mitigation of a LOCA event for the past three years.
7. System descriptions and operator training modules for the LOCA event, the ECCS, and other systems used to mitigate the event. Include a brief overview of the LOCA event mitigation strategy, including operator actions and equipment used.
8. List of operating experience program evaluations of industry, vendor, or NRC generic issues related to a LOCA event within the last 2 years.
9. A list of major modifications completed in the past five years to the ECCS and other systems used to mitigate a LOCA event.

Enclosure

10. Calibration and functional test procedures for instruments used to monitor reactor coolant system (RCS) pressure, pressurizer level, RCS hot and cold leg temperatures, RCS subcooling, high pressure coolant injection flow, low pressure coolant injection flow, borated water storage tank level, auxiliary feedwater flow, condensate storage tank level, and containment sump level.
11. Quality assurance audits and/or self-assessments performed on the ECCS and other systems used to mitigate a LOCA in the past 24 months.
12. Plant Technical Specifications, Bases, and Technical Requirements Manual.
13. A current copy of the Updated Final Safety Analysis Report.
14. Procedures that provide implementation guidance for the following programs: Corrective Action Program, Maintenance Rule Program, Design Control Program, and Operating Experience Program.
15. Probabilistic risk assessment (PRA) event tree for the LOCA event. A list of PRA identified system dependencies and success criteria for the ECSS and other systems used to mitigate a LOCA. Provide LOCA cutsets and risk achievement worths for those basic events ( assuming only a LOCA initiating event).
16. System health reports and/or other performance monitoring information for the ECCS and other systems used to mitigate a LOCA event.
17. A list of condition reports and non-routine work requests initiated since 1999 affecting the ECCS and other systems used to mitigate a LOCA event.
18. Maintenance rule performance criteria for systems used to detect and mitigate a LOCA event. A list of maintenance rule failures of equipment used to detect or mitigate a LOCA event.
19. Key one line diagrams for the alternating current and the 125 VDC systems that provide power for the pumps , valves, and instrumentation and control circuits associated with the ECCS and other systems used to mitigate the LOCA. Also, include the one line diagrams for the Class 1E medium and low voltage switchgear and the 480 V motor control centers. ( Paper copies are preferred for these).
20. Provide a list of valves used to mitigate a LOCA that are required to change position or are manually manipulated during implementation of the LOCA mitigation strategy. Provide equipment failure rates over the past 10 years for these components.