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

April 26, 2005

Duke Energy Corporation
ATTN: Mr. D. M. Jamil
Site Vice President
Catawba Nuclear Station
4800 Concord Road
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION - SAFETY SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION - NRC INSPECTION REPORT 05000413/2005009 AND 05000414/2005009

Dear Mr. Jamil:

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 Catawba Nuclear Station during the weeks of September 19 and October 3, 2005. A team of five inspectors will perform this inspection. The inspection team will be led by Mr. Randy Moore, 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 used for the identification and mitigation of a small break loss of coolant accident (SBLOCA) in conjunction with a loss of offsite power (LOOP). Procedures which direct the mitigating actions for this event will also be evaluated.

During a telephone conversation on April 21, 2005, Mr. Randy Moore of my staff, and Mr. G. Strickland 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 August 22, 2005
- Onsite inspection weeks: September 19 and October 3, 2005

The purpose of the information gathering visit is to obtain information and documentation outlined in the enclosure needed to support the inspection. Mr. R. Bernhard, a Region II Senior Reactor Analyst, may accompany Mr. Moore 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. Moore 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; scheduling a simulator demonstration of a SBLOCA/LOOP event; and the availability of knowledgeable plant engineering and licensing 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 Mr. Moore at (404) 562-4642 or me at (404) 562-4605.

In accordance with 10 CFR 2.390 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,

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

Docket Nos.: 50-413, 50-414
License Nos. NPF-35, NPF-52

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

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ADAMS: X☐ Yes ACCESSION NUMBER:_____

OFFICE	RII:DRS	RII:DRP	RII:DRS				
SIGNATURE	RLM	MEE	LSM				
NAME	RMoore	MErnstes	LMellen				
DATE	4/21/2005	4/21/2005	4/21/2005	4/ /2005	4/ /2005	4/ /2005	4/ /2005
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: E:\Filenet\ML051170013.wpd

INFORMATION REQUEST FOR THE CATAWBA SAFETY SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION

SMALL BREAK LOCA IN CONJUNCTION WITH A LOSS OF OFFSITE POWER

(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 someone who has a knowledge of pressurized water reactor technology.)

1. Piping and instrumentation drawings for the following systems: Chemical Volume and Control, Residual Heat Removal, Safety Injection, Auxiliary Feedwater, Component Cooling, and supporting systems. Two paper copies are preferred.

2. The normal operating procedures for the systems listed above. Include the procedures which specify the normal valve alignment for these systems. Include an index of procedure titles with this file.

3. A list of surveillance procedures used to ensure the operability of the equipment in the systems in Item 1 above required by your Technical Specifications that are used during the mitigation of the LOOP/SBLOCA event. Please include procedure titles with this list.

4. A list of procedures (with titles) used for the operational testing of check valves in portions of the Item 1 systems and supporting systems used during mitigation of the event.

5. Document which lists the time critical operator actions assumed in the safety analysis for SBLOCA.

6. System description and/or design basis document (DBD) for Item 1 systems and supporting systems.

7. A list, with titles, of calibration and functional test procedures for instruments used in the identification and mitigation of a SBLOCA including subcooling margin.

8. A list of manual actions required outside the control room during a LOOP/SBLOCA event.

9. A list, with titles, of test procedures for the pressurizer PORVs.

10. A list of corrective work orders and non-routine work requests initiated since 2003 affecting the systems in Item 1, and support systems, used to detect and mitigate a LOOP/SBLOCA event, including their power supplies. If work orders are prioritized, just include the highest priority WOs**. If list is more than 25 pages, discuss with lead inspector how to focus this information to a smaller size.**

Enclosure

11. Emergency Operating Procedures (EOPs) and supporting procedures, EOP basis documents, step deviation document, writers guide, and users guide.
Abnormal Operating Procedures that would be used during a LOOP/SBLOCA event.
Please include an index of procedures with this file.

12. Calculations used to support the setpoints in EOPs for this event.

13. A list of engineering calculations applicable to Item 1 systems and support systems. If these calculations are listed in the DBDs refer this request to Item 6.

14. A list of temporary modifications and operator work-arounds since 2003 for Item 1 systems and support systems.

15. A list of operability determinations performed since 2003 related to Item 1 systems and support systems.

16. A list of corrective action program documents (PERs) initiated since 2003 for Item 1 systems and support systems.

17. System health reports and system performance trends for Item 1 systems and support systems going back 2 years.

18. A copy of the Maintenance Rule program procedure and performance criteria for Item 1 systems and support systems. A list of plant systems currently monitored under 50.65(a)(1) and the performance goals. A list of Maintenance Rule functional failures since 2003

19. Operator training lesson plans, system descriptions, and job performance measures for the EOPs, EOP support procedures, abnormal, and normal operating procedures that would be used to mitigate an LOOP/SBLOCA event.

20. Key electrical single line drawings of the intermediate and low voltage alternating current (AC) and DC power systems that include the power distribution for Item 1 systems, and support systems' equipment. Two paper copies are preferred for these.

21. A current copy of the Updated Final Safety Analysis Report (UFSAR)

22. A brief description of the mitigation strategy for the LOOP/SBLOCA event. This should include operator actions, equipment and power sources, as well as indications and control circuits.

23. A list of Operating Experience Program evaluations of industry, vendor, or NRC generic issues for the past 3 years, related to Item 1 systems and support systems equipment or operation.

24 A list of equipment and operator actions with a Risk Achievement Worth (RAW) greater than 1.02 for Item 1 systems and support systems.

25. Probabilistic Risk Assessment (PRA) Event Tree for LOOP/SBLOCA initiating event. A List of PRA system dependencies and success criteria for Item 1 systems and their support systems.

26. A current revision of the Plant Technical Specifications, Bases, and Technical Requirements Manual (or equivalent).

27. A list of Catawba design basis requirements, commitments, and industry standards related to mitigation of the LOOP/SBLOCA event.

28. A list of all permanent plant changes, design changes, setpoint changes, procedure changes, equivalency evaluations, suitability analyses, calculations, and commercial grade dedications since 2003 related to Item 1 systems and support systems.

29. Plant procedures that provide the guidelines for the following programs: 1) Corrective Action Program, 2) program for the evaluation of changes, tests, and experiments [50.59 Program], 3) program for the incorporation of local and industry operating experience into Catawba programs and procedures, 4) the design control program.

30. A list of operations training packages which were required due to modifications related to Item 1 systems and support systems, if any.

31. Summary of differences between Unit 1 and Unit 2 Item 1 systems or SBLOCA procedures and manual actions.

32. A list of valves that are required to change position or are manually operated during implementation of the SBLOCA/LOOP mitigation strategy. If possible, provide equipment failure rates for these valves over the past 10 years.