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

November 4, 2004

Tennessee Valley Authority
ATTN: Mr. K. W. Singer
Chief Nuclear Officer and
Executive Vice President
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: NOTIFICATION OF BROWNS FERRY NUCLEAR PLANT - SAFETY SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION - NRC INSPECTION REPORT 05000260/2005010 AND 05000296/2005010

Dear Mr. Singer:

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 on the operating Units 2 and 3 at your Browns Ferry Nuclear Plant during the weeks of January 10 and January 24, 2005. A team of five inspectors will perform this inspection. The inspection team will be led by Mr. R. 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."

This inspection will evaluate the design and capability of plant equipment which provides the High Pressure Injection (HPI) function for design basis events. Procedures which direct the mitigating actions for events requiring HPI will also be evaluated.

During a telephone conversation on November 1, 2004, Mr. R. Moore of my staff, and Mr. J. Davenport 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: The week of December 13, 2004
- Onsite inspection weeks: January 10 and January 24, 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, 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. R. 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 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 by Larry Mellen For

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

Docket Nos.: 50-260, 50-296
License Nos.: DPR-52, DPR-68

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

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

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INFORMATION REQUEST FOR THE SAFETY SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION
BROWNS FERRY HIGH PRESSURE INJECTION (HPI) FUNCTION

(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 boiling water reactor technology.)

1. Piping and instrumentation drawings for the following HPI systems: High Pressure Coolant Injection (HPCI) system, Reactor Core Isolation Cooling (RCIC) system and supporting systems.

2. The normal operating procedures for the systems listed above. Include the procedures which specify the normal valve alignment for these systems.

3. Surveillance procedures used to ensure the operability of HPCI and RCIC equipment required by your Technical Specifications.

4. Procedures used for the operational testing of check valves in portions of the HPCI and RCIC systems and supporting systems used during mitigation of the events requiring HPI.

5. Procedures for venting of HPCI and RCIC.

6. Logic diagrams for RCIC and HPCI turbine start, shutdown. Logic diagrams for HPCI mini-flow and full flow test line valves. Logic diagrams for suction swap over from condensate source to suppression pool.

7. Calibration and functional test procedures for instruments used for initiation or termination of HPI, i.e. containment pressure, reactor pressure vessel level, RCIC flow and pressure, HPCI flow and pressure and condenser header/CST level.

8. Description of Loss of offsite power/Station blackout strategy.

9. List of HPCI and RCIC equipment actuated during LOOP/SBO and design base events.

10. A list of problem reports (PERs ?) and non routine work requests initiated since 2002 affecting the HPCI and RCIC, and support systems including their power supplies.

11. Emergency Operating Instructions (EOIs) and supporting procedures, EOI basis documents, step deviation document, writers guide, and users guide. Abnormal Operating Procedures that would be used during a LOOP/SBO event or small break LOCA.

Enclosure

12. Calculations used to support the set points in Emergency Operating Procedures for the HPI function.

13. A list of engineering calculations applicable to HPCI, RCIC and support systems.

14. A list of temporary modifications and operator workaround since 2001, related to HPCI, RCIC and support systems.

15. A list of operability determinations performed since 2001 related to HPCI, RCIC and support systems.

16. Deleted.

17. System Health Reports and System Performance Trends for HPCI, RCIC, and support systems going back two years.

18. A copy of the Maintenance Rule program procedure and performance criteria for HPCI, RCIC, 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 2002.

19. Quality Assurance audits, self-assessments and third party assessments performed on HPCI, RCIC, and support systems for 24 months. Quality Assurance audits, self-assessments, and third party assessments performed on engineering and maintenance department activities performed in the last 24 months.

20. Operator training lesson plans, and job performance measures for the EOIs, EOI support procedures, abnormal, and normal operating procedures that would be used to mitigate events requiring the HPI function.

21. Key electrical single line drawings of the intermediate and low voltage alternating current (AC) and DC power systems for HPCI, RCIC, and support systems. (Paper copies (2) are preferred for these)

22. The electrical system load list(s) particularly DC loading for HPI equipment.

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

24. A list of Operating Experience Program evaluations of industry, vendor, or NRC generic issues for the past three years, related to HPCI, RCIC, and support systems equipment or operation.

25. A list of HPI related equipment and operator actions with a Risk Achievement Worth (RAW) greater than 1.02.

26. A list of PRA basic events which are important to the success of HPCI and RCIC, listed in order of their importance to each system's functions success.
(Contact Rudy Bernhard, PRA Specialist, @ 404 562 4618 if you have questions on this item)

27. Design Basis Manual for major plant electrical, mechanical, and control systems.

28. Plant Technical Specifications, Bases, and Technical Requirements Manual

29. A current copy of the Updated Final Safety Analysis Report.

30. System description, design base document (or equivalent) for HPCI and RCIC systems.

31. A list of all permanent plant changes, design changes, set point changes, procedure changes, equivalency evaluations, suitability analyses, calculations, and commercial grade dedications related to HPI systems and equipment since 2002 .

32. 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 Browns Ferry programs and procedures, (4) the design control program

33. A list of operations training packages which were required due to modifications related to HPCI, RCIC, and support systems. if any.

34. Copies of the most recent self-assessment(s) and audit(s) of the modifications process and the 50.59 process.