



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

**October 3, 2002**

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

**SUBJECT: NOTIFICATION OF BROWNS FERRY NUCLEAR POWER PLANT - SAFETY  
SYSTEM DESIGN AND PERFORMANCE CAPABILITY INSPECTION  
NRC INSPECTION REPORT NOS. 50-259/2002-05, 50-260/2002-05, AND  
50-296/2002-05**

Dear Mr. Scalice:

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 Browns Ferry facility during the periods December 9-13, 2002 and January 13-17, 2003. A team of five NRC 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. The inspection will be conducted in accordance with baseline inspection program Attachment 71111.21, Safety System Design and Performance Capability.

The inspection scope will include those components and activities which accomplish the containment heat removal function at your plant. Your Individual Plant Examination shows this function as significant in the successful mitigation of accidents at your Browns Ferry facility. The inspectors will review design, testing, preventive and predictive maintenance, and material condition of the residual heat removal system and its support systems, to determine if the reviewed items can impact the success of the containment heat removal function. Fire and internal flood contributions that contribute to a loss of the containment heat removal function may be examined. In addition, components and activities which would mitigate the failure of the containment heat removal function (hardened wet well vent, residual heat removal system cross-tie, and others), their support systems, and their related procedures will be examined.

During a telephone conversation on September 30, Mr. Jim Moorman of my staff, and Mr. Jim 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: November 4-8, 2002
- Onsite inspection: December 9-13, 2002 and January 13-17, 2003

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, will accompany Mr. Moorman during the information gathering visit to review PRA data and identify risk significant components which will be examined during the inspection. Please contact Mr. Moorman 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, Mr. Moorman 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 at the site; arrangements for plant 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 me at (404) 562-4605, or Mr. Moorman at (404) 562-4647.

Sincerely,

**/RA: ORIGINAL SIGNED BY J. MOORMAN FOR:/**

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

Docket Nos. 50-259, 50-260, 50-296  
License Nos. DPR-33, DPR-52, DPR-68

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

cc w/encl:  
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Senior Vice President  
Nuclear Operations  
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James E. Maddox, Acting Vice President  
Engineering and Technical Services  
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(cc w/encl cont'd - See page 3)

(cc w/encl cont'd)

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Distribution w/encl: (See page 4)

TVA

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SIGNATURE			SMITH	BERNHARD	TAYLOR		
NAME			SMTIH	BERNHARD	FREDRICKSON	MOORMAN	
DATE			10/3/2002	10/3/2002	10/3/2002		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML022800673.wpd

**INFORMATION REQUEST FOR THE SAFETY SYSTEM DESIGN AND  
PERFORMANCE CAPABILITY INSPECTION:  
Report No. 50-259;-260;-296/2002-05**

**Containment Heat Removal Function**

Note: Electronic media is preferred if readily available. (The preferred file format is searchable “.pdf” files on CDROM.)

- Emergency, abnormal, and operating procedures used to accomplish the containment heat removal function. Also provide site specific procedures related to the operation of systems which support the primary containment heat removal systems. These systems include air, electrical, prelube, cooling water, ventilation, and system suction and discharge interfaces.
- Design criteria (i.e., design basis documents) for the systems used to implement the containment heat removal function and their support systems.
- Technical Specification requirements and a list of associated surveillance test/calibration procedures for the components within the systems. Include a list of instruments used in the emergency operating procedures that are Technical Specification related.
- Piping and instrumentation drawings for the Residual Heat Removal (RHR) System, the Residual Heat Removal Service Water (RHRSW) System, Emergency Equipment Cooling Water (EECW) System, hardened wet well vent, and support systems
- A list of engineering calculations applicable to RHR, RHRSW, EECW, hardened wet well vent and associated components.
- A list of plant modifications implemented to the RHR, RHRSW, and EECW systems and hardened drywell vent since 1994.
- A list of existing temporary modifications and operator work arounds.
- A list of Condition Reports (CRs) and non-routine work requests initiated since 1999 affecting the RHR, RHRSW, EECW, and hardened wet well vent systems.
- System Health Report, Performance Trends, and any other monitoring reports for the RHR, RHRSW, EECW, and hardened wet well vent.
- A list of all maintenance and test procedures (other than surveillances) involving the RHR, RHRSW, EECW, hardened wet well vent, and support systems.
- Maintenance Rule performance criteria for the RHR, RHRSW, EECW, and hardened wet well vent.

Enclosure

- Summary of corrective maintenance activities, including the maintenance rule event log, performed on the RHR, RHRSW, EECW, and hardened wet well vent systems in the past 12 months.
- Self-assessments, third-party assessment, audits or any other assessments performed on RHR, RHRSW, EECW, hardened wet well vent systems, and other related systems in the last 24 months.
- Operator training lesson plans, job performance measures or other training material used to train licensed or auxiliary operators to accomplish the containment heat removal function.
- System description, operator training modules, or other training materials used to train licensed and auxiliary operators to accomplish the containment heat removal function.
- Key electrical single line diagrams of the alternating current and direct current power systems that provide power for the pumps, valves, and instrumentation and control circuits associated with the systems that accomplish the containment heat removal function.
- Strategy for implementing the containment heat removal function and the sequences or events identified by your PRA in which this function is critical in preventing core damage.
- A list of Operating Experience Program evaluations of industry, vendor, or NRC generic issues related to the containment heat removal function for the past 3 years.
- Provide a list of equipment in the RHR, RHRSW, and EECW systems that changes state or is manually manipulated during the accomplishment of the containment heat removal function. Provide equipment failure rates over the past 10 years for these components.
- A list of equipment and operator actions involving RHR, RHRSW, and EECW systems with a Risk Achievement Worth greater than 1.02.
- Probabilistic Risk Assessment Event Trees for events or sequences that include the containment heat removal function.
- A List of PRA system dependencies and success criteria for RHR, RHRSW, and EECW systems, and their support systems.