

January 18, 2005

10 CFR 54

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop: OWFN P1-35
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of)	Docket Nos. 50-259
Tennessee Valley Authority)	50-260
		50-296

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, AND 3 LICENSE
RENEWAL APPLICATION (LRA) - LRA SECTION RELATED TO THE ASME
SECTION XI SUBSECTION IWF PROGRAM, LRA SECTION B.2.1.33 -
REQUEST FOR ADDITIONAL INFORMATION (RAI) (TAC NOS. MC1704,
MC1705, AND MC1706)**

By letter dated December 31, 2003, TVA submitted, for NRC review, an application pursuant to 10 CFR 54, to renew the operating licenses for the Browns Ferry Nuclear Plant, Units 1, 2, and 3. As part of its review of TVA's license renewal application, the NRC staff, by letter dated December 13, 2004, identified an area where additional information is needed to complete its review.

The specific area requiring a request for additional information (RAI) is related to the ASME Section XI, Subsection IWF Program, Section B.2.1.33 of the LRA.

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The enclosure to this letter contains the specific NRC requests for additional information and the corresponding TVA response.

If you have any questions regarding this information, please contact Ken Brune, Browns Ferry License Renewal Project Manager, at (423) 751-8421.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 18th day of January, 2005.

Sincerely,

Original signed by:

T. E. Abney
Manager of Licensing
and Industry Affairs

Enclosure:
cc: See page 3

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Enclosure

cc (Enclosure):

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(Via NRC Electronic Distribution)

Enclosure

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NRC Senior Resident Inspector
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cc: continued page 4

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Enclosure

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GLS:BAB

Enclosure

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- K. A. Brune, LP 4F-C
- J. C. Fornicola, LP 6A-C
- R. G. Jones, NAB 1A-BFN
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- NSRB Support, LP 5M-C
- EDMS, WT CA-K

s://Licensing/Lic/BFN LR Class MC Supports Civil Section B.2.1.33 RAI Response

ENCLOSURE

TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3
LICENSE RENEWAL APPLICATION (LRA) ,

RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION (RAI) ,
SECTION RELATED TO THE ASME SECTION XI, SUBSECTION
IWF PROGRAM, LRA SECTION B.2.1.33

(SEE ATTACHED)

**TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3
LICENSE RENEWAL APPLICATION (LRA) ,**

**RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION (RAI) ,
SECTION RELATED TO THE ASME SECTION XI, SUBSECTION
IWF PROGRAM, LRA SECTION B.2.1.33**

By letter dated December 31, 2003, TVA submitted, for NRC review, an application pursuant to 10 CFR 54, to renew the operating licenses for the Browns Ferry Nuclear Plant, Units 1, 2, and 3. As part of its review of TVA's license renewal application, the NRC staff, by letter dated December 13, 2004, identified an area where additional information is needed to complete its review.

The specific area requiring a request for additional information (RAI) is related to the ASME Section XI, Subsection IWF Program, Section B.2.1.33 of the LRA.

Listed below are the specific NRC requests for additional information and the corresponding TVA responses.

NRC RAI B.2.1.33-1

Section B.2.1.33 states that inspection of equivalent Class 1, 2, and 3 piping and component supports covered in Subsection IWF is performed in accordance with the 1995 edition through the 1996 addenda for the Units 1 and 2 current inspection interval, and in accordance with the 1989 edition and Code Case N-491 for the Unit 3 current inspection interval. There is no discussion of the inspection performed for the supports on Class MC piping and components. The applicant is requested to address how the supports of Class MC piping and components are inspected during the current licensing term. The regulations in 10 CFR 50.55a(g)(4) states, in part, that components which are classified as Class MC pressure retaining components and their integral attachments must meet the requirements set forth in Section XI of the ASME Code. In light of this, also provide the basis for the statement made in LRA Section B.2.1.33 that "10 CFR 50.55a(g)(4) does not require inspection of supports for Class MC components using the ASME Section XI IWF Inservice Inspection Program," for the current licensing term.

TVA Response to NRC RAI B.2.1.33-1

The TVA Class MC Classification Basis is: "The Class MC boundaries include the steel containment vessel (SCV), which is comprised of the drywell, pressure suppression chamber or torus and associated vent piping, including vertical and circumferential structural stiffeners; penetrations, reinforcement structure, the portion of the SCV embedded in the drywell concrete floor slab, and attachment welds between structural attachments and the SCV pressure retaining boundary or reinforcing structure." Piping in containment that is not ASME equivalent Class 1, 2, or 3 is evaluated as Non-ASME piping.

The supports for the BFN drywell, torus and vent system are currently not periodically inspected in accordance with ASME Section XI. Inspection of supports for ASME Class MC components is not required by 10 CFR 50.55a(g)(4) which states in part ...components (including supports) which are classified as ASME Code Class 1, Class 2, and Class 3 must meet the requirements, ... set forth in Section XI... It later states, Components which are classified as Class MC pressure retaining components and their integral attachments, and components which are classified as Class CC pressure retaining components and their integral attachments must meet the requirements, ... set forth in Section XI....

BFN uses this as the basis for excluding the supports for Class MC components from the scope of ASME Section XI, Subsection IWF inspections. For license renewal, BFN intends to manage aging of the supports for the drywell, torus, and vent system by either the Structures Monitoring Program (for supports in a containment atmosphere or inside air environment) or by the Chemistry Control Program and One-Time Inspections (for supports in a submerged torus water environment). These program descriptions are as defined in LRA Appendices B.2.1.36, B.2.1.5, and B.2.1.29 and provide the necessary mitigative functions, inspection parameters, aging detection methods, monitoring and trending reporting, inspection acceptance criteria, corrective actions, confirmation process, and administrative controls to manage aging for the period of extended operation.

NRC RAI B.2.1.33-2

Please describe the aging management program for the supports of Class MC components during the period of extended operation.

TVA Response to NRC RAI B.2.1.33-2

For license renewal, BFN intends to manage aging of the supports for the drywell, torus, and vent system in the scope of license renewal by either the Structures Monitoring Program (for supports in a containment atmosphere or inside air environment) or by the Chemistry Control Program and One-Time Inspections (for supports in a submerged torus water environment) as noted on the following table.

BFN LRA Table 3 Reference	Components	Aging Mgmt. Activity
Table 3.5.2.26, Row No. 85 and 86, Supports for Drywell, Torus, and Vent System (components in containment air and inside air environments)	Torus cradle (Includes base plates & supports for ECCS Ring Header), Vent Downcomer, and Vent Header supports	B.2.1.36 Structures Monitoring Program
Table 3.5.2.26, Row No. 87, Supports for Drywell, Torus, and Vent System (components submerged in torus water environment)	Vent Downcomer and Vent Header supports submerged in the torus water	B.2.1.5 Chemistry Control Program (torus water chemistry) and B.2.1.29 One-Time Inspection

The Structures Monitoring Program and One-Time Inspection will manage aging effects such that there is reasonable assurance that the intended functions will be maintained in the extended period of operation. Summary details of each aging management program are provided in the following table.

	Structures Monitoring Program (for the following environments: Containment Atmosphere and Inside Air)	One-Time Inspection (for the following environment: Submerged in Torus Water)
Extent of Inspection of Support or Component	100% of all accessible surfaces of support or component are visually inspected.	100% of all accessible surfaces of support or component are visually inspected.
Selection of Supports or Components subject to Inspections	100% of supports or components will be inspected unless a sampling method is to be used. When sampling is used, the basis for selecting the sample size will be defined, documented, and reviewed by the structures monitoring program engineer.	25% of supports for Units 2 & 3 100% of supports for Unit 1
Frequency of Inspection	At least once every 5 years unless more frequent inspections are specified.	The One-Time Inspection shall occur prior to the extended period of operation for Unit 2 & 3. The One-Time Inspection shall occur prior to restart for Unit 1.
Qualification of Inspection Personnel	Qualification is consistent with the guidance of ACI 349.3 R-96 and will be enhanced to include training and proficiency demonstration for structural aging effects and long-term performance issues.	See Structures Monitoring Program (containment atmosphere and inside air)

NRC RAI B.2.1.33-3

Describe and justify the method by which the supports on Class MC piping and components in inaccessible areas are currently being managed, and the method by which they will be managed during the period of extended operation. In addition, clarify the commitment to the provision of 10 CFR 50.55a covering inaccessible areas.

TVA Response to NRC RAI B.2.1.33-3

There is no Class MC piping at BFN. Piping in the scope of license renewal located in Containment that is not ASME equivalent Class 1, 2, or 3 is evaluated as Non-ASME piping.

None of the torus cradles, downcomer supports, or vent header supports located in containment air or inside air environments are inaccessible. A One-Time Inspection will be performed on the vent downcomer and vent header supports that are submerged in a Torus Water environment. Aging Management considerations of the One-Time Inspection are provided in the response to RAI B.2.1.33-2.