

December 3, 2004

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 - HEATING, VENTILATION, AND COOLING (HVAC) SYSTEMS SECTIONS 2.3.2 AND 2.3.3 - FOLLOWUP 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 the review of TVA's license renewal application, the NRC staff made a request for additional information (RAI) relating to the aging management of Sections 2.3.2 and 2.3.3 of the License Renewal Application. By letter dated November 3, 2004, TVA responded to the additional information requested by the NRC relating to the HVAC Sections 2.3.2 and 2.3.3. The NRC reviewed these RAI responses and determined further clarification was required. This followup NRC RAI was discussed with the TVA staff in a telephone discussion with the NRC on November 9, 2004.

U.S. Nuclear Regulatory Commission  
Page 2  
December 3, 2004

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 3rd day of December, 2004.

Sincerely,

**Original signed by:**

T. E. Abney  
Manager of Licensing  
and Industry Affairs

Enclosure:  
cc: See page 3

U.S. Nuclear Regulatory Commission  
Page 3  
December 3, 2004

Enclosure

cc (Enclosure):

State Health Officer  
Alabama Department of Public Health  
RSA Tower - Administration  
Suite 1552  
P.O. Box 303017  
Montgomery, Alabama 36130-3017

Chairman  
Limestone County Commission  
310 West Washington Street  
Athens, Alabama 35611

(Via NRC Electronic Distribution)

Enclosure

cc (Enclosure):

U.S. Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, Georgia 30303-8931

Mr. Stephen J. Cahill, Branch Chief  
U.S. Nuclear Regulatory Commission  
Region II  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, Georgia 30303-8931

NRC Senior Resident Inspector  
Browns Ferry Nuclear Plant  
10833 Shaw Road  
Athens, Alabama 35611-6970

NRC Unit 1 Restart Senior Resident Inspector  
Browns Ferry Nuclear Plant  
10833 Shaw Road  
Athens, Alabama 35611-6970

cc: continued page 4

U.S. Nuclear Regulatory Commission  
Page 4  
December 3, 2004

cc: (Enclosure)

Margaret Chernoff, Project Manager  
U.S. Nuclear Regulatory Commission  
(MS 08G9)  
One White Flint, North  
11555 Rockville Pike  
Rockville, Maryland 20852-2739

Eva A. Brown, Project Manager  
U.S. Nuclear Regulatory Commission  
(MS 08G9)  
One White Flint, North  
11555 Rockville Pike  
Rockville, Maryland 20852-2739

Yaira K. Diaz-Sanabria, Project Manager  
U.S. Nuclear Regulatory Commission  
(MS 011F1)  
One White Flint, North  
11555 Rockville Pike  
Rockville, Maryland 20852-2739

Ramachandran Subbaratnama, Project Manager  
U.S. Nuclear Regulatory Commission  
(MS 011F1)  
One White Flint, North  
11555 Rockville Pike  
Rockville, Maryland 20852-2739

U.S. Nuclear Regulatory Commission  
Page 5  
December 3, 2004

GLS:BAB

Enclosure

cc (Enclosure):

A. S. Bhatnagar, LP 6-C  
K. A. Brune, LP 4F-C  
J. C. Fornicola, LP 6A-C  
D. F. Helms, LP 6A-C  
F. C. Mashburn, BR 4X-C  
R. G. Jones, NAB 1A-BFN  
K. L. Krueger, POB 2C-BFN  
R. F. Marks, Jr., PAB 1A-BFN  
J. R. Rupert, NAB 1F-BFN  
K. W. Singer, LP 6A-C  
M. D. Skaggs, PAB 1E-BFN  
E. J. Vigluicci, ET 11A-K  
NSRB Support, LP 5M-C  
EDMS, WT CA-K

s://Licensing/Lic/BFN LR Sections 2.3.2 and 2.3.3 HVAC Followup RAI TVA  
Response Letter.doc

ENCLOSURE

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

RESPONSE TO NRC FOLLOWUP REQUEST FOR ADDITIONAL INFORMATION  
(RAI), RELATED TO HEATING VENTILATION AND COOLING  
(HVAC) SYSTEMS SECTION 2.3.2 AND 2.3.3

---

(SEE ATTACHED)

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

**RESPONSE TO NRC FOLLOWUP REQUEST FOR ADDITIONAL INFORMATION  
(RAI), RELATED TO HEATING VENTILATION AND COOLING  
(HVAC) SYSTEMS SECTION 2.3.2 AND 2.3.3**

---

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 the review of TVA's license renewal application, the NRC staff made a request for additional information (RAI) relating to the aging management of Sections 2.3.2 and 2.3.3 of the License Renewal Application. By letter dated November 3, 2004, TVA responded to the additional information requested by the NRC relating to the HVAC Sections 2.3.2 and 2.3.3. The NRC reviewed these RAI responses and determined further clarification was required. This followup NRC RAI was discussed with the TVA staff in a telephone discussion with the NRC on November 9, 2004.

**NRC Request for Additional Information for Section 2.3.5**

LRA Section 2.3.5 should be revised to add the following subcomponent Categories:

Ductwork - Air conditioning unit Housings (RAI 2.3.2.1-1, RBVS), Damper housings (RAI 2.3.2.1-1, RBVS and (RAI 2.3.2.2-1, SGTS), Screens and Plenums (RAI 2.3.3.8-1, VS, and (RAI 2.3.3.9-1, HVACS)

Fire Dampers - Fire Damper Housings (RAI 2.3.3.8-1 and RAI 2.3.3.9-1)

Heat Exchanger - Cooling Coil Housings ((RAI 2.3.2.1-1, RBVS and RAI 2.3.3.9-1, HVACS)

Add Category "Valves" and add subcategory Valve Bodies (RAI 2.3.2.1-1, RBVS and RAI 2.3.3.9-1, HVACS)

**TVA Response to Request for Additional Information by NRC for Section 2.3.5**

The following changes apply to Section 2.3.5:

Under the heading Ductwork:

- Replace "Air Conditioning Unit (ACU)" with "Air Conditioning Unit (ACU) Housings"
- Replace "Air Handling Unit (AHU)" with "Air Handling Unit (AHU) Housings"
- Replace "Dampers (BKD), (BLD), (FCO), (TCO), (XFD), or (DMP)" with "Damper (BKD), (BLD), (FCO), (TCO), (XFD), or (DMP) Housings"
- Add "Plenums"
- Add "Screens"

Replace the heading "Fire Dampers" with "Fire Damper Housings"

Under the heading Heat Exchanger:

- "Replace Cooling Coil (CCL)" with "Cooling Coil (CCL) Housing"

At the end of Section 2.3.5 add "When valves are listed in Tables in Section 2.3 the portion of the valve that is in scope is the body."

#### **NRC Request for Additional Information for Section 2.3.3.9-1**

LRA Section 3.5.2.1.2 is meant for Reactor Building. However, TVA response for RAI 2.3.3.9-1 states that "Structural sealants (such as those required to maintain the control room envelope (at positive pressure with respect to the adjacent areas) or secondary containment (at negative pressure with respect to the adjacent areas) are contained in Section 3.5.2.1.2 and in component type "Compression Joints and Seals" and in component type "Caulking and Sealants" in Table 3.5.2.2." Clarify whether control room envelope is within the reactor building. If not, provide the proper reference Section and Table number where main control room envelope sealants are described. Also, clarify that structural sealants maintain the control room envelope at positive pressure and secondary containment at negative pressure with respect to the adjacent areas.

**TVA Response to Request for Additional Information by NRC for  
Section 2.3.3.9-1**

The Control Room is part of the Reactor Building per License Renewal Application Section 2.4.2.1. The structure sealants are used to maintain the control room envelope at a positive pressure and the secondary containment at a negative pressure.