



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

January 13, 1995

Mr. Oliver D. Kingsley, Jr.  
President, TVA Nuclear and  
Chief Nuclear Officer  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3  
SAFETY EVALUATION OF RESPONSE TO GENERIC LETTER 94-03  
(TAC NOS. M90081, M90082, AND M90083)

Dear Mr. Kingsley:

By letter dated August 23, 1994, the Tennessee Valley Authority (TVA) provided their response to Generic Letter (GL) 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in BWRs," for the Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3. GL 94-03 requested that licensees take the following actions with respect to their core shrouds:

1. inspect their core shrouds in their BWR plants no later than the next refueling outage;
2. perform materials related and plant specific consequence safety analyses with respect to their core shrouds;
3. develop core shroud inspection plans which address inspection of all core shroud welds and which takes into account the latest available inspection technology;
4. develop plans for evaluation and/or repair of their core shrouds; and
5. work closely with the BWR Owners Group with respect to addressing intergranular stress corrosion cracking of BWR internals.

The NRC staff required that licensees submit, under oath or affirmation, the following information in response to GL 94-03 within 30 days of the date of issuance:

1. a schedule for inspection of their core shrouds;
2. a safety analysis, including a plant specific safety analysis as appropriate, which supports continued operation of the facility until inspections are conducted;
3. a drawing(s) of the core shroud configurations; and
4. a history of shroud inspections completed to date.

9501230107 950103  
PDR ADDCK 05000259  
P PDR

*MAF*  
*DF01*  
NRC FILE CENTER COPY



The NRC staff also required that licensees submit, under oath and affirmation, no later than 3 months prior to performing their core shroud inspections, their scope for inspection of their core shrouds and their plans for evaluating and/or repairing their core shrouds based on their inspection results. The NRC staff further required licensee's to submit, under oath or affirmation their core shroud inspection results within 30 days of completing their shroud examinations.

Based on the staff's review of TVA's response to GL 94-03, and in regard to the information that was requested to be submitted within 30 days of the date of issuance of the GL, the staff has determined that TVA has provided the operational, fabrication, and materials related information requested for the BFN units. The staff has noted that TVA performed the examinations of the BFN core shrouds during outages in the summer of 1994 for Unit 3 and in the fall of 1994 for Unit 2.

Based on the inspection results and evaluation of identified cracking, the staff concludes that the structural integrity of the BFN Unit 2 and 3 core shrouds will be maintained for at least one operating cycle following each unit's respective outage. Therefore, the staff concludes that the results of the licensee's analysis is sufficient to justify operation of the BFN Unit 2 and 3 reactors for the operating cycle following their recent inspection, without necessitating a modification to each unit's core shroud. In a phone call on December 19, 1994, TVA representatives indicated commitment to reinspect the core shroud in accordance with the guidance provided by the BWR Vessels and Internals Project (BWRVIP). Currently, the BWRVIP recommends inspecting the BFN core shrouds during each refueling outage. The staff agrees with this recommendation.

TVA has also indicated that Unit 1 will be inspected prior to restart. Inspection results will then be evaluated to justify operation of the unit.

Please call me at (301) 415-1470 if you have any questions regarding this topic.

Sincerely,  
Original signed by  
Joseph F. Williams, Project Manager  
Project Directorate II-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-259, 50-260, and 50-296

Enclosure: Safety Evaluation

Distribution  
BFN Rdg.  
J. Medoff  
OGC

Docket File  
S. Varga  
P. Rush  
ACRS(4)

PUBLIC  
J. Zwolinski  
D. Brinkman  
E. Merschoff

DOCUMENT NAME: G:\BFN\GL9403.LTR

TO GET a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure  
"E" = Copy with attachment/enclosure "N" = No copy

OFFICE	PDII-4/LA	E	PDII-4/PM	E	PDII-4/D	C			
NAME	BClayton		JWilliams		FHebdon				
DATE	1/12/95		1/13/95		1/13/95				

OFFICIAL RECORD COPY



*[The text in this section is extremely faint and illegible due to low contrast and noise. It appears to be a large block of text, possibly a list or a series of entries, but the individual characters and words cannot be discerned.]*