UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

February 18, 1993

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

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford, Vice President
Nuclear Assurance, Licensing and Fuels
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Dr. Medford:

SUBJECT: ALTERNATIVE INSERVICE INSPECTION METHODS FOR THE REACTOR WATER CLEANUP AND RESIDUAL HEAT REMOVAL SYSTEMS - BROWNS FERRY (TAC NOS. M85070, M85071, AND M85072)

By letter dated November 25, 1992, the Tennessee Valley Authority (TVA) requested NRC concurrence to employ alternative methods for the inservice inspection of piping welds in the reactor water cleanup (RWCU) and residual heat removal (RHR) systems required by Generic Letter (GL) 88-01 "NRC Position on Intergranular Stress Corrosion Cracking (IGSCC) in BWR Austenitic Stainless Steel Piping."

TVA has proposed to delete all RWCU piping welds outboard of the containment isolation valves from the GL 88-01 inspection program. This proposal is based on TVA's commitment to replace all RWCU piping outside the drywell with piping resistant to IGSCC. TVA will replace this piping for Units 1 and 3 before restart and for Unit 2 during the current Cycle 6 refueling outage scheduled to finish by June of 1993. Furthermore, TVA is also planning to implement the recommended actions of GL 89-10, "Safety-related Motor-operated Valve Testing and Surveillance." Once the RWCU piping is replaced with IGSCC resistant material, the staff agrees that IGSCC inspections of RWCU welds outside of the containment isolation valves (non-Code class) are not necessary assuming the actions of GL 89-10 for applicable motor-operated valves are satisfactorily complete.

Presently, each of two RHR return penetrations (assemblies X-13A and X-13B) for Units 1, 2, and 3, contain an inaccessible weld within the scope of GL 88-01. By letter dated August 1, 1988, TVA had committed to remove these welds or apply local leak detection. GL 88-01 provides the following staff position regarding the inspection of inaccessible welds:

> Welds that are not UT [ultrasonic test] inspectable should be replaced, "sleeved", or local leak detection applied. RT [radiographic test] examination or visual inspection for leakage may also be considered.

220027

D[illegible] 1/0

TVA has now decided to revise its previous commitment by proposing to conduct only visual inspections of the aforementioned inaccessible welds for leakage. These welds are classified as IGSCC susceptible Category G. They are part of the RHR system process piping located in a sleeved guard pipe. The staff reviewed TVA's procedure for leak testing these welds. TVA will perform a system leakage test each refueling outage in accordance with Section XI of the ASME Code; this includes notifying the Authorized Inspection Agency or Authorized Nuclear Inservice Inspector (ANII) before testing. Insulation between the guard pipe and process pipe will be removed to aid visual inspection. The RHR process pipe will be pressurized to greater than 500 psig while conducting system walkdowns and allowing test parameters to stabilize. Process piping pressure will then be increased to a minimum of 1005 psig (normal reactor operating pressure). Qualified quality control inspectors will visually inspect the RHR process piping, in particular the subject inaccessible welds, for evidence of leakage. Any leaking areas will be evaluated for repair or replacement. Furthermore, the ANII will review and approve the final data package. Based on these conditions, the NRC staff agrees that TVA's proposed visual inspections are in compliance with the staff positions promulgated by GL 88-01.

If there are any questions regarding this letter, please contact the NRC project manager, Thierry M. Ross at (301) 504-1474.

Sincerely,

Original signed by

Frederick J. Hebdon, Project Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

cc: See next page
Distribution
Docket File
NRC & Local PDR
BFN Rdg. File
S. Varga 14-E-4
G. Lainas 14-H-1
F. Hebdon
J. Williams
T. Ross
M. Sanders
OGC
ACRS(10)
P. Frederickson RII
E. Merschoff RII

OFC	PDII-4/LA	PDII-4/PM	PDII-4/PM	PDII-4/D	
NAME	MSanders	TRoss:as	JWilliams	FHebdon	
DATE	2/18/93	2/18/93	2/18/93	2/18/93	

DOCUMENT NAME: ALT-ISI.BFN

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford

cc:
Mr. John B. Waters, Director
Tennessee Valley Authority
ET 12A
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Mr. J. R. Bynum, Vice President
Nuclear Operations
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Mr. R. R. Baron, Site Licensing Manager
Browns Ferry Nuclear Plant
Tennessee Valley Authority
P.O. Box 2000
Decatur, Alabama 35602

Mr. O. J. Zeringue, Vice President
Browns Ferry Nuclear Plant
Tennessee Valley Authority
P.O. Box 2000
Decatur, Alabama 35602

Mr. M. J. Burzynski, Manager
Nuclear Licensing and Regulatory Affairs
5B Lookout Place
Chattanooga, Tennessee 37402-2801

TVA Representative
Tennessee Valley Authority
11921 Rockville Pike
Suite 402
Rockville, Maryland 20852

General Counsel
Tennessee Valley Authority
ET 11H
400 West Summit Hill Drive
Knoxville, Tennessee 37902

Chairman, Limestone County Commission
P.O. Box 188
Athens, Alabama 35611

Claude Earl Fox, M.D.
State Health Officer
State Dept. of Public Health
State Office Building
Montgomery, Alabama 36130

Regional Administrator
U.S.N.R.C. Region II
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30323

Mr. Charles Patterson
Senior Resident Inspector
Browns Ferry Nuclear Plant
U.S.N.R.C.
Route 12, Box 637
Athens, Alabama 35611