TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

September 29, 1982

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

In the Matter of	)	Docket Nos. 50-390
Tennessee Valley Authority	)	50-391

In your letter dated January 22, 1982 to H. G. Parris, TVA was requested to provide information concerning the Watts Bar Nuclear Plant Preservice Inspection Program. TVA's response to questions Q121.21 and Q121.23 were provided by my letter to you dated July 30, 1982. Enclosed are responses to questions Q121.20 and Q121.22.

If you have any questions concerning this matter, please get in touch with D. P. Ormsby at FTS 858-2682.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 29th day of Sept. 1982
Paulette D. White
Notary Public
My Commission Expires 9-5-84

Enclosure
cc: U.S. Nuclear Regulatory Commission (Enclosure)
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

B001

ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
PRESERVICE INSPECTION PROGRAM

Question 121.20

Your PSI Program does not specifically identify the examinations of the Emergency Core Cooling or Containment Heat Removal Systems. Paragraph 50.55a(b)(2)(iv)(A) of 10 CFR Part 50 requires that extent of examination for Residual Heat Removal, Emergency Core Cooling, and Containment Heat Removal Systems be determined by requirements of paragraph IWC-1220, Table IWC-2520, Category C-F and C-G, and paragraph IWC-2411 in the 1974 Edition and Addenda through the Summer 1975 of Section XI of the ASME Code. Paragraph IWC-2411 requires the equivalent of 100-percent examination of one of the multiple streams of a system which perform the same or redundant function. The control of water chemistry to minimize stress corrosion described in Paragraph IWC-1220(c) of the 1974 Edition and Addenda through the Summer 1975 is not an acceptable basis for exempting components from examination because practical evaluation, review and acceptance standards cannot be defined. To satisfy the inspection requirement of General Design Criteria 36, 39, 42, and 45, the inservice inspection program must include periodic volumetric and/or surface examination of a representative sample of welds in the Residual Heat Removal, Emergency Core Cooling and Containment Heat Removal Systems including components exempted from examination based on the "chemistry control" provisions of paragraph IWC-1220(c).

Discuss the preservice examination of Residual Heat Removal, Emergency Core Cooling, and Containment Heat Removal Systems.

Response

The extent of examination for residual heat removal, emergency core cooling, and containment heat removal systems is determined by paragraphs IWC-1220(a), IWC-1220(b), IWC-1220(d), Table IWC-2520, and paragraph IWC-2411 in the 1974 Edition and Addenda through the summer 1975 of Section XI of the ASME Code. The preservice examination of these systems is discussed in revision 7 of the PSI program, specifically Sections 7.0 through 7.6 (pages 17-22) and Table 7.6 (pages 38-39).

Question 121.22

To evaluate your compliance with 10 CFR Part 50.55a(g)(2), we will require that all Class 1 and 2 pressure retaining welds that cannot be examined as required by Section XI of the ASME Code be identified with a supporting technical justification.

A. Where relief is requested for pressure retaining welds in the reactor vessel and steam generator shell welds, identify the specific welds that did not receive a 100-percent preservice ultrasonic examination and estimate the extent of the examination that was performed.

B. Where relief is requested for piping system welds (Examination Category B-J, C-F, and C-G), provide a list of the specific welds that did not receive a complete Section XI preservice examination including a drawing or isometric identification number, system, weld number, and physical configuration, e.g., pipe to nozzle weld, etc. Estimate the extent of the preservice examination that was performed. When the volumetric examination was performed from one side of the weld, discuss whether the entire weld volume and heat affected zone (HAZ) and base metal on the far side of the weld were examined. State the primary reason that a specific examination is impractical, e.g., support or component restricts access, fitting prevents adequate ultrasonic coupling on one side, component to component weld prevents ultrasonic examination, etc. Indicate any alternative or supplemental examinations performed and method(s) of fabrication examination.

Response

Paragraph A--As identified in the steam generator request for relief weld SG-4B-5-1 was selected to be examined on a best effort basis for baseline inspection. It was determined that at least 55 percent of this weld was examined due to the support bracket interference.

Paragraph B--At this time the preservice examinations are incomplete so a complete listing of specific welds cannot be provided; however, a representative sample of these welds is attached. Upon completion of the preservice examinations, a complete listing of specific welds will be provided via revision of the request for relief. As stated in the request for relief, a visual examination was performed during the ASME Section III hydrostatic pressure test, a "best effort" ultrasonic examination was performed, and a surface examination will be performed on accessible areas of the welds. Fabrication examinations were performed in accordance with ASME Code Section III, 1971 Edition through the 1973 Summer Addenda.

WELDS REQUIRING ALTERNATE SURFACE EXAMINATIONS

Weld ID No.	Dwg No.	% Inspection	Limitation
RHRF-D053-1 (R-292)	CH-M-2636-C	32%	Nozzle Configuration - Branch Conn.
RHRF-D053-12 (R-294)	CH-M-2636-C	60%	Configuration - Tee to Valve
RHRF-D053-14 (R275)	CH-M-2636-C	60%	Configuration - Valve to 90° Elbow
SIS-13 L/S (R-715)	CH-M-2758-C	40%	Elbow Curvature
UHIF-D041-7 (R-1279)	ISI-0004-C	40%	Fitting Configuration - Graylock fitting to concentric reducer