TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

June 11, 1982

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

Dear Ms. Adensam:

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

My letters to you dated September 14, 1981 (original submittal) and October 29, 1981 and March 11, 1982 (revised responses to certain items) provided TVA's responses to NRC concerns specified in NUREG-0737 for Watts Bar Nuclear Plant. Enclosed is our revised response to item III.D.1.1.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 11th day of June 1982
Paulette H. White
Notary Public
My Commission Expires 9-5-84

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

B001

TVA RESPONSE (Revised June 11, 1982)

Plant design was reviewed to evaluate ways to minimize radioactive fluid leakage. Plant systems that were reviewed included RHR, containment spray, safety injection (recirculation mode), CVC, sampling, and waste disposal. The examination included valve stem packing leakoffs, rotating seals, gasket connections, vents, and drains.

As a result of the review, a second pressure boundary will be incorporated on about twenty vents and drains found on pump suction lines and pump casings. The second pressure boundary will be a second valve in most cases and an occasional blind flange.

An additional review was conducted with regard to the North Anna 1 incident and no similar release path was found. The Watts Bar design routes the overpressure relief from the volume control tank to the pressurizer relief tank and all relief paths from high pressure systems vent back into containment to the pressurizer relief tank. All tanks containing radioactivity in the radwaste system and the CVCS vent to a contained release path which is continuously monitored.

TVA will identify the above systems that may be leak checked and will implement a periodic leak check program on these systems. System leakages will be reported to the NRC.

Procedures for reducing and quantifying leakage from liquid systems will be provided. These procedures were written in compliance with the guidelines listed below.

1. Visual inspection with the system in operation is required.

2. Closed loop systems, such as component cooling water, will not be inspected.

3. Inspection will be performed annually.

4. Leakage will be quantified and specifically located by valve number, pump flange or other similar means.

5. Leakages will require immediate attention. All leakage identified will be 'tracked' in plant until the leakage is stopped or controlled (i.e., normal pump seal leakage per manufacturer's spec).

6. Initial leak test results will be provided to the NRC.

The systems identified for leakage checks are listed below.

a. Safety Injection
b. Containment Spray
c. RHR
d. Chemical and Volume Control
e. Sampling

Identification of gaseous leakage is accomplished in response to any alarm from area radiation detectors. Leakages will require immediate attention. All gaseous leakages will be 'tracked' and be controlled. The leak testing procedures for the waste gas system are in SI 656.

The initial test results of the leak reduction program for liquid and gas systems will be provided by fuel loading of unit 1.