

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401  
400 Chestnut Street Tower II

April 13, 1984

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. 50-327  
Tennessee Valley Authority )

At the request of Carl Stahle of your staff, we are providing additional information to an exemption request provided also on April 13, 1984 for 12 additional components which have been unable to be completed during the unit 1, cycle 2 refueling outage. We are providing a revised enclosure which provides additional information and clarification to the previous submittal. All 12 items can be completed during non-outage periods as discussed in the enclosure.

At your request, TVA will reevaluate its listing of electrical equipment within the scope of 10 CFR 50.49 and will provide within 30 days to you a reconfirmation that the listing is complete and accurate.

If you have any questions concerning this matter, please get in touch with K. P. Parr at FTS 858-2685.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*L. M. Mills*  
L. M. Mills, Manager  
Nuclear Licensing

Sworn to and subscribed before me  
this 13<sup>th</sup> day of April 1984.

*Julian S. Galdston*  
Notary Public

My Commission Expires Sept. 5, 1984  
Enclosure

cc: U.S. Nuclear Regulatory Commission (Enclosure)  
Region II  
Attn: Mr. James P. O'Reilly, Regional Administrator  
101 Marietta Street, NW, Suite 2900  
Atlanta, Georgia 30303

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## ENCLOSURE

F NEB 8152

The six components listed below are used as containment isolation valves. It was determined that certain environmental conditions could exist that might cause a failure of the limit switches associated with the valves listed below. This modification will entail extensive wiring changes (i.e., cable pulling, terminations, etc.) of which the design nature is not fully known at the current time. The current design of the modification consists of logic changes to these valves to ensure that the valves in question will not reopen during a postulated submergence event. This modification will be completed substantially before the March 31, 1985, date. Our current schedule is to have these modifications completed by June 1, 1984, providing the present design can be implemented.

FCV-62-72, 73, 74; FCV-77-16; FCV-87-7, 8.

### JUSTIFICATION FOR CONTINUED OPERATION (JCO)

Letdown valves 1-FCV-62-74, 1-FCV-62-73, and 1-FCV-62-72 use a limit switch in the containment isolation seal-in circuit. Failure of these limit switches due to submergence inside containment could result in the reopening of the valves if the Phase A containment isolation signal was reset. Several other conditions would have to occur together with the limit switch failure in order to allow the valve to reopen on reset of the isolation signal. These include:

1. Limit switch failure gives a "valve open" signal.
2. valve solenoid and valve operator must not fail.
3. interlock with other inboard letdown isolation valves to be "full open;"
4. one charging pump must be running;
5. pressurizer level greater than 17 percent must be in channels,
6. the control switch must be in the A-Auto position and
7. control air must be available at the valve.

If the above conditions are met the valve would reopen when the Phase A signal is reset. Containment isolation would not be lost unless the outboard isolation valve failed open. Furthermore, the control circuit for the inboard containment isolation valves are designed such that they can be closed from the main control room regardless of the status of the "full open" limit switches.

These conditions make it highly unlikely that containment isolation will be lost upon reset of the containment isolation signal.

Test valves 1-FCV-87-7, 1-FCV-87-8, and 1-FCV-77-16 also use a limit switch in the containment isolation seal-in circuit. Failure of these limit switches due to submergence inside containment could result in the reopening of the valves if the Phase A containment isolation signal was reset. Several conditions would have to occur together with limit switch failure in order to allow the valve to reopen on reset of the isolation signal. These include:

1. Limit switch failure gives a "valve open signal,"
2. valve, solenoid and valve operator must not fail due to submergence
3. control switch must be in the A-Auto position, and
4. control air must be available at the valve.

If the above conditions are met the valve would reopen when the Phase A signal is reset. Containment isolation would not be lost unless the outboard isolation valves and other outboard valves failed open or were open. There are several normally closed manual isolation valves downstream of 1-FCV-87-7 and 1-FCV-87-8. There is a gas analyzer sequencing valve downstream of 1-FCV-77-16. Furthermore, the control circuit for the inboard containment isolation valves are designed such that they can be closed from the main control room regardless of the status of the "full open" limit switches.

These conditions make it highly unlikely that containment isolation will be lost upon reset of the containment isolation signal.

For the above listed components we affirm that the NRC has been provided appropriate JCO's for the time up to the end of the unit 1, cycle 2 refueling outage. This JCO has not changed and remains valid up until the schedules indicated for replacement.