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SUBJECT: Submits supplemental response to GL 95-07, re reactor core isolation cooling (RCIC) sys injection valves (2/3-FCV-71-39) for BFN, Units 2 & 3.

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Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609

February 19, 1999

U.S. Nuclear Regulatory Commission  
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Gentlemen:

In the Matter of ) Docket Nos. 50-260  
Tennessee Valley Authority ) 50-296

BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 2 AND 3 - GENERIC LETTER (GL) 95-07, PRESSURE LOCKING AND THERMAL BINDING OF SAFETY-RELATED POWER-OPERATED GATE VALVES - SUPPLEMENTAL RESPONSE (TAC NOS. M93437 AND M93438)

This letter provides TVA's response to GL 95-07 regarding the Reactor Core Isolation Cooling (RCIC) System injection valves (2/3-FCV-71-39) for BFN Units 2 and 3. This letter supplements previous TVA responses to GL 95-07 dated July 30, 1996, March 15, 1996, February 13, 1996, December 15, 1995, and October 16, 1995.

TVA's original evaluation performed for GL 95-07 stated that the RCIC injection valves 2/3-FCV-71-39 may be susceptible to pressure locking, but that no modifications were required since this valve does not perform a safety-related function. The evaluation was based on the fact that RCIC is not considered a "safety-related" system at BFN, since it is only required to operate in response to anticipated operational transients (AOTs), such as loss of feedwater events. Also, at the time of TVA's original response to GL-95-07, the valve was not considered part of the GL 89-10 safety related MOV program scope for the same reason.

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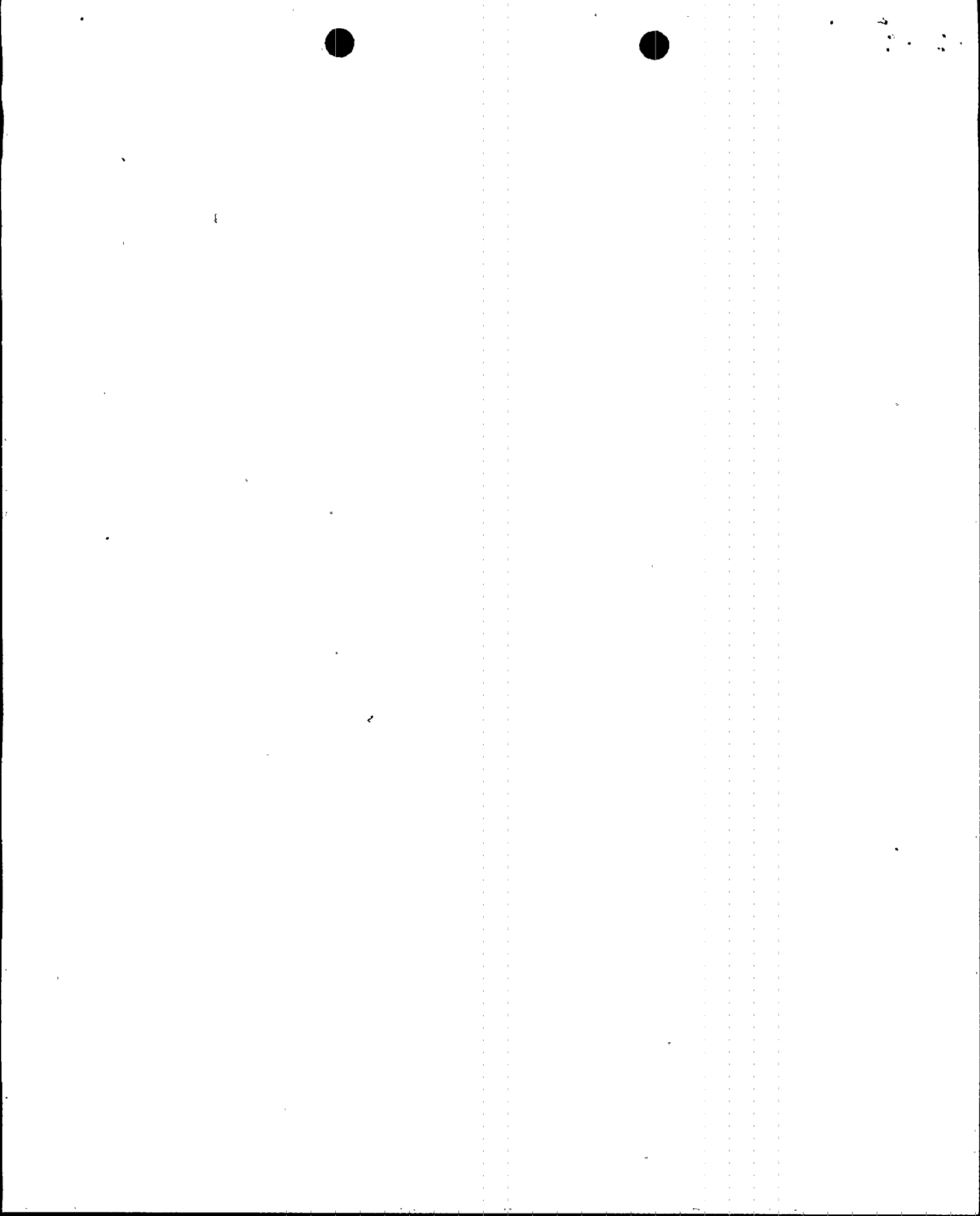
Subsequently, TVA included the valves in the BFN GL 89-10 MOV program as part of the resolution of the MOV program scope issue raised by NRC. This valve was added to the MOV program not because it was considered safety-related, but because the RCIC system is required to mitigate other licensing basis events such as Appendix R and Station Blackout events.

During the review of BFN's response to GL 95-07, NRC raised questions regarding the BFN evaluation for pressure locking/thermal binding of several BFN MOVs. Each of the questions raised was satisfactorily resolved with the exception of the susceptibility for pressure locking of the RCIC injection valves 2/3-FCV-71-39. The NRC reviewer stated that GL 95-07 requires licensees to evaluate other valves outside the scope of the GL based on other licensing commitments. The BFN licensing basis includes the ability for the RCIC system to mitigate AOTs such as loss of feedwater events, Anticipated Transient Without Scram (ATWS), Appendix R, and Station Blackout events.

As a result of the NRC concern described above, TVA has reconsidered its original response to GL 95-07 for RCIC injection valves, 2/3-FCV-71-39. Based on its review, TVA has determined that the valves in question are required for mitigation of certain licensing basis events. The event which could potentially cause a pressure locking condition for the 2/3-FCV-71-39 valves is a loss of all feedwater event which is classified as an AOT.

Therefore, based on the above, TVA is including the BFN Units 2 and 3 RCIC Injection valves (FCV-71-39) in the GL 95-07 program scope. TVA will modify the BFN Units 2 and 3 RCIC injection valves, FCV-71-39 (flexible wedge gate valve), by drilling the disk. This modification will eliminate the possibility for pressure locking of the valves. For Unit 2, the modification will be completed prior to restart from the Cycle 11 (Spring 2001) refueling outage. For Unit 3, the modification will be completed prior to restart from the Cycle 9 (Spring 2000) refueling outage.

In the interim, current plant procedures require that the RCIC System be vented and the 2/3-FCV-71-39 valves stroked on a monthly basis. TVA has also identified the potential

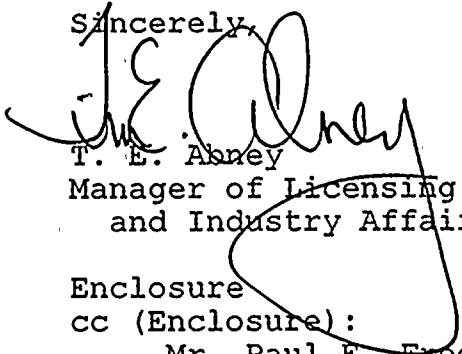


U.S. Nuclear Regulatory Commission  
Page 3  
February 19, 1999

for pressure locking of the 2/3-FCV-71-39 valve in its corrective action program. An operability evaluation has been performed and concluded that the 2/3-FCV-71-39 valves are operable.

If you have any questions, please contact me at  
(256) 729-2636.

Sincerely,



T. E. Abney  
Manager of Licensing  
and Industry Affairs

Enclosure

cc (Enclosure):

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ENCLOSURE

TENNESSEE VALLEY AUTHORITY  
BROWNS FERRY NUCLEAR PLANT (BFN)  
UNITS 2 AND 3

GENERIC LETTER 95-07, PRESSURE LOCKING AND THERMAL BINDING  
OF SAFETY-RELATED POWER-OPERATED GATE VALVES  
SUPPLEMENTAL RESPONSE

COMMITMENT SUMMARY

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1. TVA will modify the BFN Unit 2 Reactor Core Isolation Cooling (RCIC) injection valve, 2-FCV-71-39 (flexible wedge gate valve), by drilling the disk. The modification will be completed prior to restart from the Cycle 11 (Spring 2001) refueling outage.
2. TVA will modify the BFN Unit 3 Reactor Core Isolation Cooling (RCIC) injection valve, 3-FCV-71-39 (flexible wedge gate valve), by drilling the disk. The modification will be completed prior to restart from the Cycle 9 (Spring 2000) refueling outage.

