Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

August 6, 2001

TVA-SQN-TS-01-05 10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

In the Matter of	)	Docket Nos. 50-327
Tennessee Valley Authority	)	50-328

SEQUOYAH NUCLEAR PLANT (SQN) - UNITS 1 AND 2 - TECHNICAL SPECIFICATION (TS) CHANGE NO. 01-05 "CONTAINMENT ISOLATION VALVE (CIV) VERIFICATION CHANGE"

In accordance with the provisions of 10 CFR 50.4 and 50.90, TVA is submitting a request for an amendment to SQN's Licenses DPR-77 and 79 to change the TSs for Units 1 and 2. The proposed change revises the surveillance requirements for CIVs to be verified closed. More specifically, valves in high radiation areas may be verified by administrative means. In addition, valves which are locked sealed or otherwise secured do not need to be reverified closed and are eliminated from the scope of the surveillance. The associated TS Bases pages are also included.

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the change is exempt from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). The SQN Plant Operations Review Committee and the SQN Nuclear Safety Review Board have reviewed this proposed change and determined that

D030

operation of SQN Units 1 and 2, in accordance with the proposed change, will not endanger the health and safety of the public. Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter to the Tennessee State Department of Public Health.

Enclosure 1 to this letter provides the description and evaluation of the proposed change. This includes TVA's determination that the proposed change does not involve a significant hazards consideration, and is exempt from environmental review. Enclosure 2 contains copies of the appropriate TS pages from Units 1 and 2 marked up to show the proposed change. Enclosure 3 forwards the revised TS pages for Units 1 and 2 which incorporate the proposed change.

The proposed change will reduce radiation exposure by allowing valves that are located in high radiation areas to be verified closed by use of administrative means. Additionally, secured valves will not have to be reverified closed. Some secured valves are located in areas that personnel safety is challenged in order to verify closure. These secured valves must be verified closed during each unit's outage before reaching Mode 4 from Mode 5. The next opportunity to avoid this personnel safety issue is during the upcoming Unit 1 Cycle 11 refueling outage scheduled to start in October. Therefore, TVA request that this proposed change be approved to support the upcoming outage.

Both of the proposed changes are consistent with NUREG-1431. The use of administrative means was approved in the development of NUREG-1431, Revision 0. The elimination of valves which are locked sealed or otherwise secured valves from the scope of the applicable surveillances was approved in Industry Technical Specification Task Force 45, Revision 2, which has been integrated into NUREG-1431, Revision 2. No commitments are contained in this letter.

TVA requests that the revised TS be made effective within 45 days of NRC approval. In accordance with NRC RIS 2001-05, only one paper copy of this document is being sent to the NRC

Document Control Desk. If you have any questions about this change, please telephone me at (423) 843-7170 or J. D. Smith at (423) 843-6672.

Sincerely,

Pedro Salas

Pedro Salas
Licensing and Industry Affairs Manager

Subscribed and sworn to before me
on this 6th day of August

Peggy M. Billingsley
Notary Public

My Commission Expires October 9, 2002

Enclosures
cc: See Page 4

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ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN)
UNITS 1 AND 2
DOCKET NOS. 327 AND 328

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE NO. 01-05
DESCRIPTION AND EVALUATION OF THE PROPOSED CHANGE

I. DESCRIPTION OF THE PROPOSED CHANGE

TVA proposes to modify the SQN Units 1 and 2 TSs by replacing Surveillance Requirement (SR) 4.6.3.4 with two SRs as follows.

The current SR is listed below and includes the associated note:

"4.6.3.4 At least once per 31 days, verify that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative controls.

*Except valves, blind flanges and deactivated automatic valves which are located inside the annulus or containment or the main steam valve vaults and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days."

The proposed SRs and clarifying note are as follows:

"4.6.3.4 Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days.*

4.6.3.5 Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, at least once per 31 days.*

* NOTE: Valves and blind flanges in high radiation areas may be verified by use of administrative means."

The proposed changes to the above specifications include associated revisions to the Bases Section.

II. REASON FOR THE PROPOSED CHANGE

The proposed changes are developed consistent with NRC approved changes to NUREG-1431 as provided by the Industry Technical Specification Task Force (TSTF) 45 and NUREG-1431, Revision 2. Specifically, NUREG-1431, Revision 2, eliminated the requirement to reverify closure of those valves that have been secured and verified closed. Additionally, as developed during the original NUREG-1431 issuance, the proposed change allows the use of administrative means to verify valve closure for those containment isolation valves (CIVs) located in high radiation areas.

The present SR consist of verifying that all penetrations are closed or secured. The SR includes clarifying notes for exceptions to the SR in specific areas. The proposed change will reduce operator burden and radiation exposure from not having to verify valves that are located in high radiation areas are closed.

III. SAFETY ANALYSIS

Background:

As described in the SQN Updated Final Safety Analysis Report Section 6.2.1, SQN's CIVs form part of the containment pressure boundary and are typically arranged with two isolation barriers that are closed on a containment isolation signal. These isolation devices are either passive or active (automatic). Manual valves, de-activated automatic valves secured in their closed position (including check valves with flow through the valve secured), blind flanges, and closed systems are considered passive devices. Check valves, or other automatic valves designed to close without operator action following an accident, are considered active devices. Two barriers in series are provided for each penetration so that no single credible failure or malfunction of an active component can result in a loss of isolation or leakage that exceeds limits assumed in the safety analyses. One of these barriers may be a closed system. These barriers (typically CIVs) make up the containment isolation system.

The TS operability requirements for CIVs help ensure that containment is isolated within the time limits assumed in the safety analyses. Therefore, the operability requirements provide assurance that the containment function assumed in the safety analyses will be maintained.

Applicable Safety Analysis:

SQN's CIV limiting condition for operation (LCO) supports the safety analyses assumptions related to minimizing the release of fission products from containment. As part of the containment boundary, CIV operability supports leak tightness of the containment. Therefore, the safety analyses of any event requiring isolation of containment is applicable to this LCO.

The Design Basis Accident that results in a release of radioactive material within containment is a loss of coolant accident. In the analysis for this accident, it is assumed that CIVs are either closed or function to close within the required isolation time following event initiation. This ensures that potential paths to the environment through CIVs are minimized.

Justification:

The proposed revision does not alter the intent or application of the current TS requirements. The purpose of the revision is to prevent repetitive verification of valve closure for locked, sealed, or otherwise secured valves. In addition, for valves that are located in high radiation areas, valve closure may be verified by use of administrative means.

This change is consistent with other valves required to be in the correct position prior to an accident in other system SRs (i.e., Emergency Core Cooling System 4.5.2.b.2, Auxiliary Feedwater System 4.7.1.2.1, Component Cooling System 4.7.3.a, and Emergency Raw Cooling Water System 4.7.4.a). Verification of the position of valves is not necessary when valves have been secured under administrative means.

The use of verification by administrative means was included in the development of NUREG-1431, Revision 0. Since access to areas inside containment and high radiation areas are typically restricted, the probability of misalignment of these CIVs, once they have been verified to be in their proper position, is small.

In conclusion, the proposed revisions described above remain consistent with requirements contained in NUREG-1431. These changes will continue to provide appropriate actions and surveillance requirements for demonstrating each CIV OPERABLE. These changes will not adversely impact nuclear safety.

IV. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

TVA has concluded that operation of Sequoyah Nuclear Plant (SQN) Units 1 and 2, in accordance with the proposed change to the technical specifications (TS) does not involve a significant hazards consideration. TVA's conclusion is based on its evaluation, in accordance with 10 CFR 50.91(a)(1), of the three standards set forth in 10 CFR 50.92(c). The proposed revisions enhance the TS requirements to provide greater consistency with the standard technical specifications (STS) in NUREG-1431. This revision proposes changes to the requirements for containment isolation valves (CIVs) in Specifications 3.6.3. The proposed revisions are not the result of changes to plant equipment, system design, testing methods, or operating practices. The modified requirements will allow the use of administrative means for verification of valve closure for those CIVs located in high radiation areas and eliminates the requirement to verify close those valves that are locked, sealed, or otherwise secured. These changes provide more appropriate requirements in consideration of the safety significance and the design capabilities of the plant as determined by the improved standard TS industry effort.

A. **The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.**

The proposed changes to the surveillance requirements (SR) for verification of valve position continues to assure the operability of these valves such that the containment isolation function assumed in the safety analyses is maintained. Since these proposed revisions will continue to support the required safety functions without modification of the plant features, the probability of an accident is not increased.

The provisions proposed in this change request will continue to maintain an acceptable level of protection for the health and safety of the public and will not impact the potential for the offsite release of radioactive products. The overall effect of the proposed change will result in specifications that have equivalent requirements compared to existing specifications for CIV operability and will not increase the consequences of an accident.

B. **The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.**

The proposed revisions are not the result of changes to plant equipment, system design, testing methods, or operating practices. The modified requirements will allow the use of administrative means for verification of valve closure for those CIVs located in high radiation areas and eliminate the requirement to verify close those valves that are locked, sealed, or otherwise secured. The specifications for CIVs serve to provide controls for maintaining the containment pressure boundary. TVA's proposed changes does not contribute to the generation of postulated accidents. Since the function of the CIVs and their associated systems remains unchanged, and the effects do not contribute to accident generation, the proposed changes will not create the possibility of a new or different kind of accident.

C. **The proposed amendment does not involve a significant reduction in a margin of safety.**

The proposed change involves upgrading the CIV TS surveillance requirement to be consistent with the STS. The proposed change has been developed considering the importance of the CIVs in limiting the consequences of a design basis event and the concerns for the plant's ability to perform required operational support functions with the necessary systems isolated. The proposed change allows for alternative protection to assure the isolation function of the valves remain available.

Since the proposed revision does not alter the intent or application of the current TS requirements, and the function of the CIVs and their associated systems remains unchanged, the proposed change will continue to provide controls for maintaining the containment pressure boundary. Therefore, the proposed change is acceptable and does not involve a reduction in the margin of safety.

V. ENVIRONMENTAL IMPACT CONSIDERATION

The proposed change does not involve a significant hazards consideration, a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or a significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
SEQUOYAH PLANT (SQN)
UNITS 1 AND 2

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE
MARKED PAGES

I. AFFECTED PAGE LIST

UNIT 1

3/4 6-18
B 3/4 6-3a

UNIT 2

3/4 6-18
B 3/4 6-3a

II. MARKED PAGES

See attached.

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one or more penetration flow paths with one containment isolation valve inoperable; except for containment vacuum relief isolation valves(s), isolate each affected penetration within 4 hours by use of at least one closed deactivated automatic valve, closed manual valve, blind flange, or check valve## with flow through the valve secured; and, verify# the affected penetration flow path is isolated once per 31 days for isolation devices outside containment, and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment.

b. With one or more penetration flow paths with two containment isolation valves inoperable; except for containment vacuum relief isolation valves(s), isolate each affected penetration within 1 hour by use of at least one closed deactivated automatic valve, closed manual valve, or blind flange and verify# the affected penetration flow path is isolated once per 31 days.

c. With one or more containment vacuum relief isolation valve(s) inoperable, the valve(s) must be returned to OPERABLE status within 72 hours.

d. With any of the above ACTIONS not met, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. The provisions of Specification 3.0.4 do not apply.

SURVEILLANCE REQUIREMENTS

4.6.3.1 -Deleted

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*1. Penetration flow path(s) may be unisolated intermittently under administrative controls.

2. Enter the ACTION of LCO 3.6.1.1, "Primary Containment" when containment isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

#3. Isolation devices in high radiation areas may be verified by use of administrative means.

#4. Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.

##5. A check valve with flow through the valve secured is only applicable to penetration flow paths with two containment isolation valves.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each automatic containment isolation valve shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on a Containment Ventilation isolation test signal, each Containment Ventilation Isolation valve actuates to its isolation position.

d. Verifying that on a high containment pressure isolation test signal, each Containment Vacuum Relief Valve actuates to its isolation position.

e. Verifying that on a Safety Injection test signal that the Normal Charging Isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

Add Insert 1

4.6.3.4 ~~At least once per 31 days, verify that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative controls.~~

~~*Except valves, blind flanges and deactivated automatic valves which are located inside the annulus or containment or the main steam valve vaults and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.~~

Add Insert 2

BASES

The opening of penetration flow path(s) on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with the control room, at the valve controls, (2) instructing the operator to close these valves in an accident situation, and (3) assuring that the environmental conditions will not preclude access to close the valves and that this action will prevent the release of radioactivity outside the containment. For valves with controls located in the control room, these conditions can be satisfied by including a specific reference to closing the particular valves in the emergency procedures, since communication and environmental factors are not affected because of the location of the valve controls.

Note that due to competing requirements and dual functions associated with the containment vacuum relief isolation valves (FCV-30-46, -47, and -48), the air supply and solenoid arrangement is designed such that upon the unavailability of Train A essential control air, the containment vacuum relief isolation valves are incapable of automatic closure and are therefore considered inoperable for the containment isolation function without operator action.

The containment vacuum relief valves (30-571, -572, and -573) are qualified to perform a containment isolation function. These valves are not powered from any electrical source and no spurious signal or operator action could initiate opening. The valves are spring loaded, swing disk (check) valves with an elastomer seat. The valves are normally closed and are equipped with limit switches that provide fully open and fully closed indication in the main control room (MCR). Based upon the above information, a 72 hour allowed action time is appropriate while actions are taken to return the containment vacuum relief isolation valves to service.

Isolation of a containment penetration flow path may include the use of a check valve with flow through the valve secured. This method of isolation would involve stopping flow through the penetration flow path such that the check valve acts as a containment isolation barrier.

Add Insert 3 →

3/4.6.3 CONTAINMENT ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.3 Each containment isolation valve shall be OPERABLE.*

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

a. With one or more penetration flow paths with one containment isolation valve inoperable; except for containment vacuum relief isolation valves(s), isolate each affected penetration within 4 hours by use of at least one closed deactivated automatic valve, closed manual valve, blind flange, or check valve## with flow through the valve secured; and, verify# the affected penetration flow path is isolated once per 31 days for isolation devices outside containment, and prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment.

b. With one or more penetration flow paths with two containment isolation valves inoperable; except for containment vacuum relief isolation valves(s), isolate each affected penetration within 1 hour by use of at least one closed deactivated automatic valve, closed manual valve, or blind flange and verify# the affected penetration flow path is isolated once per 31 days.

c. With one or more containment vacuum relief isolation valve(s) inoperable, the valve(s) must be returned to OPERABLE status within 72 hours.

d. With any of the above ACTIONS not met, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

e. The provisions of Specification 3.0.4 do not apply.

SURVEILLANCE REQUIREMENTS

4.6.3.1 Deleted

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*1. Penetration flow path(s) may be unisolated intermittently under administrative controls.

2. Enter the ACTION of LCO 3.6.1.1, "Primary Containment" when containment isolation valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

#3. Isolation devices in high radiation areas may be verified by use of administrative means.

#4. Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.

##5. A check valve with flow through the valve secured is only applicable to penetration flow paths with two containment isolation valves.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each automatic containment isolation valve shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on a Containment Ventilation isolation test signal, each Containment Ventilation Isolation valve actuates to its isolation position.

d. Verifying that on a high containment pressure isolation test signal, each Containment Vacuum Relief Valve actuates to its isolation position.

e. Verifying that on a Safety Injection test signal that the Normal Charging Isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

Add Insert 1

4.6.3.4 ~~At least once per 31 days, verify that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except for valves that are open under administrative controls.~~

~~*Except valves, blind flanges and deactivated automatic valves which are located inside the annulus or containment or the main steam valve vaults and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.~~

Add Insert 2

3/4.6.3 CONTAINMENT ISOLATION VALVES (Continued

The opening of penetration flow path(s) on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with the control room, at the valve controls, (2) instructing the operator to close these valves in an accident situation, and (3) assuring that the environmental conditions will not preclude access to close the valves and that this action will prevent the release of radioactivity outside the containment. For valves with controls located in the control room, these conditions can be satisfied by including a specific reference to closing the particular valves in the emergency procedures, since communication and environmental factors are not affected because of the location of the valve controls.

Note that due to competing requirements and dual functions associated with the containment vacuum relief isolation valves (FCV-30-46, -47, and -48), the air supply and solenoid arrangement is designed such that upon the unavailability of Train A essential control air, the containment vacuum relief isolation valves are incapable of automatic closure and are therefore considered inoperable for the containment isolation function without operator action.

The containment vacuum relief valves (30-571, -572, and -573) are qualified to perform a containment isolation function. These valves are not powered from any electrical source and no spurious signal or operator action could initiate opening. The valves are spring loaded, swing disk (check) valves with an elastomer seat. The valves are normally closed and are equipped with limit switches that provide fully open and fully closed indication in the main control room (MCR). Based upon the above information, a 72 hour allowed action time is appropriate while actions are taken to return the containment vacuum relief isolation valves to service.

Isolation of a containment penetration flow path may include the use of a check valve with flow through the valve secured. This method of isolation would involve stopping flow through the penetration flow path such that the check valve acts as a containment isolation barrier.

Add Insert 3 →

INSERT 1

Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days.*

4.6.3.5 Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, at least once per 31 days.*

INSERT 2

* NOTE: Valves and blind flanges in high radiation areas may be verified by use of administrative means.

INSERT 3

Surveillance Requirement 4.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation valves inside containment, the Frequency of "prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during Modes 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

Surveillance Requirement 4.6.3.5

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those containment isolation valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for containment isolation valves outside containment is relatively easy, the 31 day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during Modes 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
SEQUOYAH PLANT (SQN)
UNITS 1 AND 2

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE
REVISED PAGES

I. AFFECTED PAGE LIST

UNIT 1

3/4 6-18
B 3/4 6-3a
B 3/4 6-3b (added new page)

UNIT 2

3/4 6-18
B 3/4 6-3a
B 3/4 6-3b (added new page)

II. REVISED PAGES

See attached.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each automatic containment isolation valve shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on a Containment Ventilation isolation test signal, each Containment Ventilation Isolation valve actuates to its isolation position.

d. Verifying that on a high containment pressure isolation test signal, each Containment Vacuum Relief Valve actuates to its isolation position.

e. Verifying that on a Safety Injection test signal that the Normal Charging Isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days.*

4.6.3.5 Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, at least once per 31 days.*

* NOTE: Valves and blind flanges in high radiation areas may be verified by use of administrative means.

The opening of penetration flow path(s) on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with the control room, at the valve controls, (2) instructing the operator to close these valves in an accident situation, and (3) assuring that the environmental conditions will not preclude access to close the valves and that this action will prevent the release of radioactivity outside the containment. For valves with controls located in the control room, these conditions can be satisfied by including a specific reference to closing the particular valves in the emergency procedures, since communication and environmental factors are not affected because of the location of the valve controls.

Note that due to competing requirements and dual functions associated with the containment vacuum relief isolation valves (FCV-30-46, -47, and -48), the air supply and solenoid arrangement is designed such that upon the unavailability of Train A essential control air, the containment vacuum relief isolation valves are incapable of automatic closure and are therefore considered inoperable for the containment isolation function without operator action.

The containment vacuum relief valves (30-571, -572, and -573) are qualified to perform a containment isolation function. These valves are not powered from any electrical source and no spurious signal or operator action could initiate opening. The valves are spring loaded, swing disk (check) valves with an elastomer seat. The valves are normally closed and are equipped with limit switches that provide fully open and fully closed indication in the main control room (MCR). Based upon the above information, a 72 hour allowed action time is appropriate while actions are taken to return the containment vacuum relief isolation valves to service.

Isolation of a containment penetration flow path may include the use of a check valve with flow through the valve secured. This method of isolation would involve stopping flow through the penetration flow path such that the check valve acts as a containment isolation barrier.

Surveillance Requirement 4.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation valves inside containment, the Frequency of "prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during Modes 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

Surveillance Requirement 4.6.3.5

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification, through a system walkdown, that those containment isolation valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for containment isolation valves outside containment is relatively easy, the 31 day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during Modes 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.2 Each automatic containment isolation valve shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying that on a Phase A containment isolation test signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on a Phase B containment isolation test signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on a Containment Ventilation isolation test signal, each Containment Ventilation Isolation valve actuates to its isolation position.

d. Verifying that on a high containment pressure isolation test signal, each Containment Vacuum Relief Valve actuates to its isolation position.

e. Verifying that on a Safety Injection test signal that the Normal Charging Isolation valve actuates to its isolation position.

4.6.3.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

4.6.3.4 Verify each containment isolation manual valve and blind flange that is located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days.*

4.6.3.5 Verify each containment isolation manual valve and blind flange that is located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed, except for containment isolation valves that are open under administrative controls, at least once per 31 days.*

* NOTE: Valves and blind flanges in high radiation areas may be verified by use of administrative means.

3/4.6.3 CONTAINMENT ISOLATION VALVES (Continued

The opening of penetration flow path(s) on an intermittent basis under administrative control includes the following considerations: (1) stationing an operator, who is in constant communication with the control room, at the valve controls, (2) instructing the operator to close these valves in an accident situation, and (3) assuring that the environmental conditions will not preclude access to close the valves and that this action will prevent the release of radioactivity outside the containment. For valves with controls located in the control room, these conditions can be satisfied by including a specific reference to closing the particular valves in the emergency procedures, since communication and environmental factors are not affected because of the location of the valve controls.

Note that due to competing requirements and dual functions associated with the containment vacuum relief isolation valves (FCV-30-46, -47, and -48), the air supply and solenoid arrangement is designed such that upon the unavailability of Train A essential control air, the containment vacuum relief isolation valves are incapable of automatic closure and are therefore considered inoperable for the containment isolation function without operator action.

The containment vacuum relief valves (30-571, -572, and -573) are qualified to perform a containment isolation function. These valves are not powered from any electrical source and no spurious signal or operator action could initiate opening. The valves are spring loaded, swing disk (check) valves with an elastomer seat. The valves are normally closed and are equipped with limit switches that provide fully open and fully closed indication in the main control room (MCR). Based upon the above information, a 72 hour allowed action time is appropriate while actions are taken to return the containment vacuum relief isolation valves to service.

Isolation of a containment penetration flow path may include the use of a check valve with flow through the valve secured. This method of isolation would involve stopping flow through the penetration flow path such that the check valve acts as a containment isolation barrier.

Surveillance Requirement 4.6.3.4

This SR requires verification that each containment isolation manual valve and blind flange located inside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. For containment isolation valves inside containment, the Frequency of "prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days" is appropriate since these containment isolation valves are operated under administrative controls and the probability of their misalignment is low. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time they are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This Note allows valves and blind flanges located in high radiation areas to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during Modes 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.

Surveillance Requirement 4.6.3.5

This SR requires verification that each containment isolation manual valve and blind flange located outside containment and not locked, sealed, or otherwise secured and required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verific00ation, through a system walkdown, that those containment isolation valves outside containment and capable of being mispositioned are in the correct position. Since verification of valve position for containment isolation valves outside containment is relatively easy, the 31 day Frequency is based on engineering judgment and was chosen to provide added assurance of the correct positions. The SR specifies that containment isolation valves that are open under administrative controls are not required to meet the SR during the time the valves are open. This SR does not apply to valves that are locked, sealed, or otherwise secured in the closed position, since these were verified to be in the correct position upon locking, sealing, or securing.

This Note applies to valves and blind flanges located in high radiation areas and allows these devices to be verified closed by use of administrative means. Allowing verification by administrative means is considered acceptable, since access to these areas is typically restricted during Modes 1, 2, 3, and 4 for ALARA reasons. Therefore, the probability of misalignment of these containment isolation valves, once they have been verified to be in their proper position, is small.