

ENCLOSURE 1

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

(TVA-SQN-TS-94-04)

LIST OF AFFECTED PAGES

Unit 1

3/4 5-1  
3/4 5-2  
B3/4 5-1

Unit 2

3/4 5-1  
3/4 5-2  
B3/4 5-1

### 3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

#### 3/4.5.1 ACCUMULATORS

##### COLD LEG INJECTION ACCUMULATORS

##### LIMITING CONDITION FOR OPERATION

3.5.1.1 Each cold leg injection accumulator shall be OPERABLE with:

- a. The isolation valve open,
- b. A contained borated water volume of between 7615 and 8094 gallons of borated water,
- c. Between 2400 and 2700 ppm of boron, and
- d. A nitrogen cover-pressure of between 600 and 683 psig, AND

e. POWER REMOVED FROM ISOLATION VALVE WHEN RCS PRESSURE IS ABOVE 2000 PSIG.

APPLICABILITY: MODES 1, 2 and 3.\*

##### ACTION:

- BORON CONCENTRATION NOT WITHIN LIMITS
- a. With one cold leg injection accumulator inoperable, except as a result of a closed isolation valve, restore the inoperable accumulator to OPERABLE status within one hour or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.  
REDUCE PRESSURIZER PRESSURE TO 1000 PSIG OR LESS
  - b. With one cold leg injection accumulator inoperable due to the isolation valve being closed, either immediately open the isolation valve or be in HOT STANDBY within one hour and be in HOT SHUTDOWN within the next 12 hours.  
AT LEAST THE NEXT 6 FOLLOWING 6

BORON CONCENTRATION NOT WITHIN LIMITS, RESTORE BORON CONCENTRATION TO WITHIN LIMITS WITHIN 72 HOURS

REDUCE PRESSURIZER PRESSURE TO 1000 PSIG OR LESS

\*Pressurizer pressure above 1000 psig.

## EMERGENCY CORE COOLING SYSTEMS (ECCS)

### SURVEILLANCE REQUIREMENTS

4.5.1.1.1 Each cold leg injection accumulator shall be demonstrated OPERABLE:

a. At least once per 12 hours by:

1. Verifying ~~by the absence of alarms or by measurement of levels and pressures~~, the contained borated water volume and nitrogen cover-pressure in ~~the tanks~~, and

↑ EACH COLD LEG INJECTION ACCUMULATOR

2. Verifying that each cold leg injection accumulator isolation valve ~~is open~~.

↑ FULLY

b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 1% of tank volume, by verifying the boron concentration of the cold leg injection accumulator solution.

↑ THAT IS NOT THE RESULT OF ADDITION FROM THE REFUELING WATER STORAGE TANK\*

c. At least once per 31 days when the RCS pressure is above 2000 psig by verifying that power to the isolation valve operator is ~~disconnected~~ by removal of the breaker from the circuit.

↑ REMOVED.

d. ~~At least once per 18 months by verifying that each cold leg injection accumulator isolation valve opens automatically under each of the following conditions:~~

1. ~~When an actual or a simulated RCS pressure signal exceeds the P-11 (Pressurizer Pressure Block of Safety Injection) setpoint,~~

2. ~~Upon receipt of a safety injection test signal.~~

~~4.5.1.1.2 Each accumulator water level and pressure channel shall be demonstrated OPERABLE:~~

a. ~~At least once per 31 days by the performance of a CHANNEL FUNCTIONAL TEST.~~

b. ~~At least once per 18 months by the performance of a CHANNEL CALIBRATION.~~

\*With respect to SR 4.5.1.1.2, the cold leg injection accumulator is considered ~~OPERABLE~~ if one level channel and one pressure channel is OPERABLE in accordance with SR 4.5.1.1.2. SR 4.0.3 applies only to those channels relied upon for an operable cold leg injection accumulator.

# ONLY REQUIRED TO BE PERFORMED FOR AFFECTED ACCUMULATORS THAT EXPERIENCED VOLUME INCREASES.

### 3/4.5 EMERGENCY CORE COOLING SYSTEMS

#### BASES

#### 3/4.5.1 ACCUMULATORS

The OPERABILITY of each cold leg injection accumulator ensures that a sufficient volume of borated water will be immediately forced into the reactor core in the event that the RCS pressure falls below the specified pressure of the accumulators. For the cold leg injection accumulators, this condition occurs in the event of a large or small rupture.

R144

R144

The limits on accumulator volume, boron concentration and pressure ensure that the assumptions used for accumulator injection in the safety analysis are met. The limits in the specification for accumulator volume and nitrogen cover pressure are analysis limits and do not include instrument uncertainty. The cover pressure limits were determined by Westinghouse to be 615 psia and 697.5 psia. Since the instrument read-outs in the control room are in psig, the TS valves have been converted to psig and rounded to the nearest whole numbers. The actual nitrogen cover pressure safety limits in SQN's design documents are 600.3 psig and 682.8 psig. The minimum boron concentration ensures that the reactor core will remain subcritical during the post-LOCA (loss of coolant accident) recirculation phase based upon the cold leg accumulators' contribution to the post-LOCA sump mixture concentration.

R144

R159

The accumulator power operated isolation valves are considered to be "operating bypasses" in the context of IEEE Std. 279-1971, which requires that bypasses of a protective function be removed automatically whenever permissive conditions are not met. In addition, as these accumulator isolation valves fail to meet single failure criteria, removal of power to the valves is required.

#### BORON CONCENTRATION NOT WITHIN LIMITS

CONDITIONS The limits for operation with an accumulator inoperable for any reason except an isolation valve closed minimizes the time exposure of the plant to a LOCA event occurring concurrent with failure of an additional accumulator which may result in unacceptable peak cladding temperatures. If a closed isolation valve cannot be immediately opened, the full capability of one accumulator is not available and prompt action is required to place the reactor in a mode where this capability is not required. FOR AN ACCUMULATOR INOPERABLE DUE TO BORON CONCENTRATION NOT WITHIN LIMITS, THE LIMITS FOR OPERATION ALLOW 72 HOURS TO RETURN BORON CONCENTRATION TO WITHIN LIMITS. THIS IS BASED ON THE AVAILABILITY OF ECCS WATER NOT BEING AFFECTED AND AN INSIGNIFICANT EFFECT ON CORE SUBCRITICALITY DURING REFLOOD BECAUSE BOILING OF ECCS WATER IN THE CORE CONCENTRATES BORON IN THE SATURATED LIQUID.

#### 3/4.5.2 and 3/4.5.3 ECCS SUBSYSTEMS

The OPERABILITY of two independent ECCS subsystems ensures that sufficient emergency core cooling capability will be available in the event of a LOCA assuming the loss of one subsystem through any single failure consideration. Either subsystem operating in conjunction with the accumulators is capable of supplying sufficient core cooling to limit the peak cladding temperatures within acceptable limits for all postulated break sizes ranging from the double ended break of the largest RCS cold leg pipe downward. In addition, each ECCS subsystem provides long term core cooling capability in the recirculation mode during the accident recovery period.

### 3/4.5 EMERGENCY CORE COOLING SYSTEMS

#### 3/4.5.1 ACCUMULATORS

##### COLD LEG INJECTION ACCUMULATORS

##### LIMITING CONDITION FOR OPERATION

3.5.1.1 Each cold leg injection accumulator shall be OPERABLE with:

- a. The isolation valve open,
- b. A contained borated water volume of between 7615 and 8094 gallons of borated water,
- c. Between 2400 and 2700 ppm of boron, ~~and~~

d. A nitrogen cover-pressure of between 600 and 683 psig, AND  
e. ~~POWER REMOVED FROM ISOLATION VALVE WHEN~~ RCS PRESSURE IS ABOVE 2000 PSIG

APPLICABILITY: MODES 1, 2 and 3.\*

##### ACTION:

- a. With one cold leg injection accumulator inoperable, except as a result of a closed isolation valve, restore the inoperable accumulator to OPERABLE status within one hour or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.   
BORON CONCENTRATION NOT WITHIN LIMITS  
REDUCE PRESSURIZER PRESSURE TO 1000 PSIG OR LESS
- b. With one cold leg injection accumulator inoperable due to the BORON isolation valve being closed, either immediately open the isolation valve or be in HOT STANDBY within one hour and be in HOT SHUTDOWN within the next 12 hours.   
AT LEAST  
THE NEXT SIX  
REDUCE PRESSURIZER PRESSURE TO 1000 PSIG OR LESS

CONCENTRATION NOT WITHIN LIMITS, RESTORE BORON CONCENTRATION TO WITHIN LIMITS WITHIN 72 HOURS

\*The requirement to maintain between 2400 and 2700 ppm of Boron for each cold leg injection accumulator is modified to require only three of four accumulators to be maintained between 2400 and 2700 ppm of boron and one accumulator to be maintained between 1900 and 2700 ppm of boron during Unit 2 Cycle 5 operation. This allowance is in effect until the restart of Unit 2 Cycle 5 refueling outage.

\*Pressurizer pressure above 1000 psig.



## EMERGENCY CORE COOLING SYSTEMS

### SURVEILLANCE REQUIREMENTS

4.5.1.1.1 Each cold leg injection accumulator shall be demonstrated OPERABLE:

a. At least once per 12 hours by:

1. Verifying ~~by the absence of alarms or by measurement of levels and pressures~~ the contained borated water volume and nitrogen cover-pressure in ~~the tanks~~, and

EACH COLD LEG INJECTION ACCUMULATOR

2. Verifying that each cold leg injection accumulator isolation valve is ~~open~~.  
FULLY

b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 1% of tank volume by verifying the boron concentration of the cold leg injection accumulator solution.

c. At least once per 31 days when the RCS pressure is above 2000 psig by verifying that power to the isolation valve operator is REMOVED. disconnected by removal of the breaker from the circuit.

THAT IS NOT THE RESULT OF ADDITION FROM THE REFUELING WATER STORAGE TANK #

~~d. At least once per 18 months by verifying that each cold leg injection accumulator isolation valve opens automatically under each of the following conditions:~~

~~1. When an actual or a simulated RCS pressure signal exceeds the P-11 (Pressurizer Pressure Block of Safety Injection) setpoint,~~

~~2. Upon receipt of a safety injection test signal.~~

~~4.5.1.1.2 Each accumulator water level and pressure channel shall be demonstrated OPERABLE:~~

~~a. At least once per 31 days by the performance of a CHANNEL FUNCTIONAL TEST.~~

~~b. At least once per 18 months by the performance of a CHANNEL CALIBRATION.~~

~~\*With respect to SR 4.5.1.1.2, the cold leg injection accumulator is considered OPERABLE if one level channel and one pressure channel is OPERABLE in accordance with SR 4.5.1.1.2. SR 4.0.3 applies only to those channels relied upon for an operable cold leg injection accumulator.~~

# ONLY REQUIRED TO BE PERFORMED FOR AFFECTED ACCUMULATORS THAT EXPERIENCED VOLUME INCREASES.

R132

R13

### 3/4.5 EMERGENCY CORE COOLING SYSTEMS

#### BASES

##### 3/4.5.1 ACCUMULATORS

The OPERABILITY of each cold leg injection accumulator ensures that a sufficient volume of borated water will be immediately forced into the reactor core in the event the RCS pressure falls below the pressure of the accumulators. For the cold leg injection accumulators this condition occurs in the event of a large or small rupture.

R131

The limits on accumulator volume, boron concentration and pressure ensure that the assumptions used for accumulator injection in the safety analysis are met. The limits in the specification for accumulator volume and nitrogen cover pressure are analysis limits and do not include instrument uncertainty. The cover pressure limits were determined by Westinghouse to be 615 psia and 697.5 psia. Since the instrument read-outs in the control room are in psig, the TS values have been converted to psig and rounded to the nearest whole numbers. The actual nitrogen cover pressure safety limits in SQN's design documents are 600.3 psig and 682.8 psig. The minimum boron concentration ensures that the reactor core will remain subcritical during the post-LOCA (loss of coolant accident) recirculation phase based upon the cold leg accumulators' contribution to the post-LOCA sump mixture concentration.

R131

R131

BR-3

The accumulator power operated isolation valves are considered to be "operating bypasses" in the context of IEEE Std. 279-1971, which requires that bypasses of a protective function be removed automatically whenever permissive conditions are not met. In addition, as these accumulator isolation valves fail to meet single failure criteria, removal of power to the valves is required.

#### BORON CONCENTRATION NOT WITHIN LIMITS

CONDITIONS  
The limits for operation with an accumulator inoperable for any reason except an isolation valve closed minimizes the time exposure of the plant to a LOCA event occurring concurrent with failure of an additional accumulator which may result in unacceptable peak cladding temperatures. If a closed isolation valve cannot be immediately opened, the full capability of one accumulator is not available and prompt action is required to place the reactor in a mode where this capability is not required. FOR AN ACCUMULATOR INOPERABLE DUE TO BORON CONCENTRATION NOT WITHIN LIMITS, THE LIMITS FOR OPERATION ALLOW 72 HOURS TO RETURN BORON CONCENTRATION TO WITHIN LIMITS. THIS IS BASED ON THE AVAILABILITY OF ECCS WATER NOT BEING AFFECTED AND AN INSIGNIFICANT EFFECT ON CORE SUBCRITICALITY DURING REFLOOD BECAUSE BOILING OF ECCS WATER IN THE CORE CONCENTRATES BORON IN THE SATURATED LIQUID.

The OPERABILITY of two independent ECCS subsystems ensures that sufficient emergency core cooling capability will be available in the event of a LOCA assuming the loss of one subsystem through any single failure consideration. Either subsystem operating in conjunction with the accumulators is capable of supplying sufficient core cooling to limit the peak cladding temperatures within acceptable limits for all postulated break sizes ranging from the double ended break of the largest RCS cold leg pipe downward. In addition, each ECCS subsystem provides long term core cooling capability in the recirculation mode during the accident recovery period.

With the RCS temperature below 350°F, one OPERABLE ECCS subsystem is acceptable without single failure consideration on the basis of the stable reactivity condition of the reactor and the limited core cooling requirements.

ENCLOSURE 2

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

(TVA-SQN-TS-94-04)

DESCRIPTION AND JUSTIFICATION FOR

REVISION OF COLD LEG INJECTION

ACCUMULATOR REQUIREMENTS



### Description of Change

TVA proposes to modify the Sequoyah Nuclear Plant (SQN) Units 1 and 2 technical specifications (TSs) by revising the limiting condition for operation (LCO), actions, surveillance requirements (SRs), and associated bases for the cold leg injection accumulators (CLAs). The LCO 3.5.1.1.c revision removes a footnote that only applied to Unit 2 and was limited to the Unit 2 Cycle 5 operation. Item "e" for CLA operability has been added to LCO 3.5.1.1 for both units that require power to be removed from the CLA isolation valve when the reactor coolant system (RCS) pressure is above 2000 pounds per square inch gauge (psig).

The action requirements have been revised to allow one hour for returning a CLA to operable status before initiating unit shutdown. This action applies to all CLA inoperabilities except for boron concentration not within limits. Action "b" now addresses CLA inoperability resulting from boron concentrations outside the limits and allows 72 hours to return the boron concentration within limits before initiating unit shutdown. The existing action requirements to be in hot shutdown within 6 or 12 hours after reaching hot standby have been revised to require reducing pressurizer pressure to 1000 psig or less within 6 hours after reaching hot standby. The action time to reach hot standby is 6 hours after the 1- or 72-hour requirement to regain operability has expired.

The SRs have been revised to provide the following changes:

- Specific wording for verifying CLA volume and pressure by absence of alarms or measurements of levels and pressure has been removed.
- In SR 4.5.1.1.1.a.1 the word "tanks" has been replaced with "each cold leg injection accumulator."
- In SR 4.5.1.1.1.a.2 the requirement for the valve to be "open" is further clarified to be "fully open."
- In SR 4.5.1.1.1.b the requirement to verify boron concentration within six hours after a one percent or more CLA volume increase is not applicable if the addition is from the refueling water storage tank (RWST).
- In SR 4.5.1.1.1.c the specifics of verifying power being removed from the valve operator by removal of the breaker from the circuit have been deleted.
- SR 4.5.1.1.1.d that verifies that the CLA isolation valve automatically opens upon exceeding the pressure for blocking safety injection (SI) and upon receipt of an SI test signal has been deleted.

- SR 4.5.1.1.2 and the associated footnote that requires channel functional test and calibrations of CLA level and pressure channels have been deleted.
- A footnote to SR 4.5.1.1.1.b has been added to only require verification of boron concentration for the CLA(s) that experienced the one percent or more volume increase.

The associated basic discussions for Section 3.5.1.1 have been revised to agree with the action requirement changes that allow 1 hour or 72 hours to return a CLA to operable status. Additional discussions have been included to provide the basis for allowing 72 hours to return a CLA boron concentration within limits.

#### Reason for Change

The change to the Unit 2 LCO 3.5.1.1.c removes a footnote that no longer applies because it was only valid during Unit 2 Cycle 5 operation that ended in March 1992. By removing this footnote, unnecessary information is eliminated and thereby provides less confusion in applying the requirements. The addition of Item e to LCO 3.5.1.1 is a clarification of the CLA operability requirements when RCS pressure is above 2000 psig. This is not a new requirement and the LCO addition is proposed to provide consistency with the other operability statements.

The changes to the action requirements are proposed to provide consistency with standard TS (NUREG-1431) and to implement more reasonable actions and action times consistent with the safety significance of specific CLA inoperabilities. The new action times will minimize the need to initiate unit shutdown and subject the plant to unnecessary transients for CLA conditions with durations that do not expose the plant to a significant potential for accidents. The 72-hour action for CLA boron concentration not within limits will provide a more reasonable time interval to return the CLA within limits with respect to the safety importance of boron levels. The one-hour action for all other CLA inoperabilities will also provide a reasonable interval to regain operability and reflects the safety importance to take prompt action. The action to achieve hot shutdown is changed to obtain pressurizer pressure at 1000 psig or less to agree with the conditions of applicability for LCO 3.5.1.1.

The changes to SRs 4.5.1.1.1.a, .b, and .c provide clarifications but do not alter TS requirements. Changes include the removal of unnecessary discussions that limit the methods for achieving the intent of the SRs and better descriptions and clarifications to enhance the intent of the SRs. The remaining change to TS 4.5.1.1.1.b adds an allowance for not verifying boron concentration when CLA volume changes occur because of additions from the RWST. This change prevents the unnecessary performances of the SR and the added footnote clarifies that only CLAs

affected by non-RWST volume increases require the SR performance. These changes are proposed to make the SQN TSs more consistent with NUREG-1431.

The deletion of SRs 4.5.1.1.1.d and 4.5.1.1.2 will remove requirements from the TS that are not necessary to ensure the safety functions assumed in the safety analysis. SR 4.5.1.1.1.d presently verifies the automatic opening feature of the CLA isolation valves every 18 months. By deleting this SR, testing requirements will be more flexible to assist scheduling of activities. By deleting SR 4.5.1.1.2, the testing for CLA pressure and level channels will be handled as compliance instrumentation like most other instruments that do not provide actuation of safety functions. Having a specific SR for compliance instrumentation is not typical within the TS. These deletions are consistent with NUREG-1431, which does not include these SRs.

#### Justification for Change

The footnote for LCO 3.5.1.1.c is no longer applicable because the relaxation for one CLA to have a boron concentration as low as 1900 parts per million (ppm) was only approved for the Unit 2 Cycle 5 operating cycle. Unit 2 has completed Cycle 5 operation and this relaxation is no longer valid. Therefore, removal of the footnote will remove confusion regarding which boron limits are applicable and maintains the TS LCO requirements without change. This change is only a clean-up item that does not result in a revision to the LCO requirements. The addition of Item e to LCO 3.5.1.1 only provides additional clarification of CLA operability requirements with RCS pressure above 2000 psig that is already verified by SR 4.5.1.1.1.c. This is not a change to TS requirements, but provides an operability statement that is consistent with other LCO requirements.

The one-hour action to return an inoperable CLA to operable status is proposed to ensure prompt action for the loss of critical CLA functions. The CLA requirements for an open isolation valve, water volume, and cover pressure ensure the capability and capacity for emergency core cooling assumed in the safety analysis for the CLAs. Deviations from these requirements could prevent the injection of the required contents of three CLAs from reaching the core and lead to unacceptable fuel cladding damage. Because of the severity of the consequences should a loss-of-coolant accident (LOCA) occur under these conditions, the one-hour action time to open the valve or restore the proper water volume or nitrogen cover pressure ensures that prompt action will be taken to return the inoperable CLA to operable status. This action time minimizes the potential for exposure of the plant to a LOCA under these conditions.

The proposed action to allow 72 hours to restore boron concentration to within limits for one CLA provides an acceptable time interval with respect to CLA boron for accident mitigation. The minimum CLA boron concentration is used to ensure reactor subcriticality in a post-LOCA environment. However, one CLA below the minimum boron concentration

limit will have no effect on available emergency core cooling system (ECCS) water and an insignificant effect on core subcriticality during reflood. Boiling of ECCS water in the core during reflood concentrates boron in the saturated liquid that remains in the core to provide additional subcriticality benefit. The 72-hour action is provided to allow a reasonable time to return the boron concentration to within limits.

Both actions for LCO 3.5.1.1 have incorporated a 6-hour duration to achieve at least hot standby after the 72- or 1-hour action to restore CLA operability. Pressurizer pressure at 1000 psig or less must be achieved within six hours following the six-hour duration to reach hot standby. These times and actions are proposed to place the unit in a mode where the LCO does not apply. The existing requirement to continue the shutdown to hot shutdown was more restrictive than necessary. The allowed completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems. The LCO 3.5.1.1 action changes described in the above paragraphs are consistent with NUREG-1431.

The wording changes to SR 4.5.1.1.1.a Items 1 and 2 do not change any testing requirements. The deletion of the text in Item 1 does not relax the requirement to verify CLA water volume or nitrogen cover pressure, but it does allow more flexibility in how the verifications can be achieved. The additions to both items provide enhanced verbiage to clarify that the requirements are for each CLA and that the isolation valve must be fully open. The addition to SR 4.5.1.1.1.b, along with the associated footnote, reduces unnecessary surveillance activities. When the CLA volume is increased from RWST inventory, boron levels are maintained within the same limits. This is based on RWST boron limits being within the CLA limits; therefore, such additions cannot place the CLA outside operability requirements and performance of the SR would be unnecessary. When a CLA volume increases from other sources and the boron concentration needs verification, the SR needs only to be performed on the CLA that experienced the increase. The footnote addition clarifies this position and prevents unnecessary SR performances. These changes to SRs 4.5.1.1.1.a and b are consistent with NUREG-1431.

SR 4.5.1.1.1.c has been revised to remove the details on how power is removed from the CLA isolation valve operator. The verification to ensure motive power to the valve is disabled to prevent inadvertent closure has not changed. This change provides flexibility for removing power, but still requires the same attribute for ensuring the CLA isolation valve remains open above 2000 psig. Item d of SR 4.5.1.1.1, which verified each isolation valve opens automatically above the pressurizer pressure block on SI (2-11) setpoint or upon an SI signal, has been removed. When RCS pressure is below 2000 psig and valve operator power can be available, these functions ensure the valves will open if closed. The LCO 3.5.1.1 requirements, along with SRs 4.5.1.1.1.a.2 and 4.5.1.1.1.c, ensure the valves are open and remain open under plant conditions where the CLAs are assumed to be available for accident



mitigation in the accident analysis. These design features that provide automatic valve opening represent an additional redundancy and diversity to the LCO requirements that ensure safety analysis assumptions. These features do not need to be controlled by TSs. These changes to SRs 4.5.1.1.1.c and d are consistent with NUREG-1431.

SR 4.5.1.1.2 and the associated footnote require calibration and functional testing of the CLA level and pressure instrumentation channels. This instrumentation does not provide a safety function assumed in the safety analysis. The indications from these channels are used to assess the operability of the CLAs. For this type of TS compliance function the instrumentation is not usually required to be covered by TS requirements. The requirements in SR 4.5.1.1.2 and the associated footnote are proposed to be removed based on the above discussions. This change is consistent with NUREG-1431.

The additions to the Bases Section 3/4.5.1 are proposed to provide consistency with the revised action requirements previously discussed. Additional discussions have been added to provide the basis behind the 72-hour action for boron concentration out of limits. These bases changes support the proposed actions for CLA inoperability and are consistent with NUREG-1431.

#### Environmental Impact Evaluation

The proposed change request does not involve an unreviewed environmental question because operation of SQN Units 1 and 2 in accordance with this change would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staff's testimony to the Atomic Safety and Licensing Board, supplements to the FES, environmental impact appraisals, or decisions of the Atomic Safety and Licensing Board.
2. Result in a significant change in effluents or power levels.
3. Result in matters not previously reviewed in the licensing basis for SQN that may have a significant environmental impact.

Enclosure 3

PROPOSED TECHNICAL SPECIFICATION CHANGE

SEQUOYAH NUCLEAR PLANT UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

(TVA-SQN-TS-94-04)

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION



## Significant Hazards Evaluation

TVA has evaluated the proposed technical specification (TS) change and has determined that it does not represent a significant hazards consideration based on criteria established in 10 CFR 50.92(c). Operation of Sequoyah Nuclear Plant (SQN) in accordance with the proposed amendment will not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes to TS 3.5.1.1 implement revised action times for cold leg injection accumulator (CLA) inoperability. Several other clarifications and enhancements have been incorporated to provide consistency with the latest version of standard TSs (NUREG-1431). The new action times provide a prompt one-hour action to initiate unit shutdown for conditions that could prevent the injection of a CLA into the core. For boron concentration outside limits, a 72-hour action to restore CLA concentration is allowed because the CLA can still perform the core injection safety function. The removal of surveillance requirements (SRs) for verifying automatic opening features for the CLA isolation valves does not impact the required TS alignment that is assumed in the safety analysis. The instrumentation calibration and functional test SRs have also been removed based on the instrumentation only providing CLA level and pressure indications for TS compliance and not performing an accident mitigation function. The above changes do not alter the required limits for CLA operability or system configurations. These changes are consistent with NUREG-1431 and provide acceptable flexibility for CLA operability verification and surveillance testing and reasonable actions for CLA inoperability. Since no changes have been proposed that would change the conditions assumed for the CLAs in the accident analysis, the consequences of an accident will not be increased. The CLAs perform accident mitigation functions and are not considered to be the source of an accident. Therefore, since the plant configurations and functions are unchanged by the proposed changes, the probability of an accident will not be increased.

2. Create the possibility of a new or different kind of accident from any previously analyzed.

The proposed changes clarify existing CLA operability requirements, modify action times for CLA inoperability, enhance and simplify SRs, and remove surveillances that are not required to verify the CLA's ability to perform safety functions. None of these changes affect the operation of the plant or the CLA configuration and accident mitigation capabilities. Therefore, since the CLAs will continue to support the plant as before, these proposed changes will not create a new or different kind of accident.

3. Involve a significant reduction in a margin of safety.

The CLA requirements for volume, pressure, boron, and isolation valve position are not changed by the proposed request. The CLAs will continue to provide the same safety function capabilities as assumed in the safety analysis. Therefore, no reduction in the margin of safety will result from these changes because CLA functions are unchanged.