

ATTACHMENT 2

MARKUPS OF PROPOSED CHANGES  
TO  
TECHNICAL SPECIFICATIONS  
AND ASSOCIATED BASES

9506060347 950531  
PDR ADDCK 05000498  
P PDR

REACTIVITY CONTROL SYSTEMS3.1.2 BORATION SYSTEMSFLOW PATHS SHUTDOWNLIMITING CONDITION FOR OPERATION

3.1.2.1 As a minimum, one of the following boron injection flow paths shall be OPERABLE and capable of being powered from an OPERABLE emergency power source:

- a. A flow path from the Boric Acid Storage System via either a boric acid transfer pump or a gravity feed connection, and a charging pump to the Reactor Coolant System if the Boric Acid Storage System is OPERABLE as given in Specification 3.1.2.5a. for MODES 5 and 6 or as given in Specification 3.1.2.6a. for MODE 4; or
- b. The flow path from the refueling water storage tank via a charging pump to the Reactor Coolant System if the refueling water storage tank is OPERABLE as given in Specification 3.1.2.5b. for MODES 5 and 6 or as given in Specification 3.1.2.6b. for MODE 4.

APPLICABILITY: MODES 4\*, 5\*, and 6\*.

ACTION:

With none of the above flow paths OPERABLE or capable of being powered from an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

4.1.2.1 At least one of the above required flow paths shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that the temperature of the heat traced portion of the flow path is greater than or equal to 65°F when a flow path from the boric acid tanks is used, and
- b. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

---

\*The requirements of this specification are not applicable during charging pump testing or switching pursuant to Specification 4.1.2.3.2

REACTIVITY CONTROL SYSTEMSFLOW PATHS—OPERATINGLIMITING CONDITION FOR OPERATION

3.1.2.2—At least two of the following three boron injection flow paths shall be OPERABLE:

- a.——The flow path from the Boric Acid Storage System via either a boric acid transfer pump or a gravity feed connection, and a charging pump to the Reactor Coolant System (RCS), and
- b.——Two flow paths from the refueling water storage tank via charging pumps to the RCS.

APPLICABILITY——MODES 1, 2, and 3.\*

ACTION:

With only one of the above required boron injection flow paths to the RCS OPERABLE, restore at least two boron injection flow paths to the RCS to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to at least the limit as shown in Figure 3.1.2 at 200°F within the next 6 hours; restore at least two flow paths to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.2—At least two of the above required flow paths shall be demonstrated OPERABLE:

- a.——At least once per 7 days by verifying that the temperature of the heat traced portion of the flow path from the boric acid tanks is greater than or equal to 65°F when it is a required water source;
- b.——At least once per 31 days by verifying that each valve (manual, power operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;
- c.——At least once per 18 months during shutdown by verifying that each automatic valve in the flow path actuates to its correct position on a Safety Injection test signal; and
- d.——At least once per 18 months by verifying that the flow path required by Specification 3.1.2.2a. delivers at least 30 gpm to the RCS.

\*The provisions of Specifications 3.0.4 and 4.0.4 are not applicable for entry into MODE 3 for the charging pump declared inoperable pursuant to Specification 4.1.2.3.2 provided that the charging pump is restore to OPERABLE status within 4 hours or prior to the temperature of one or more of the RCS cold legs exceeding 375°F, whichever comes first.

~~REACTIVITY CONTROL SYSTEMS~~~~CHARGING PUMPS—SHUTDOWN~~~~LIMITING CONDITION FOR OPERATION~~

~~3.1.2.3 One charging pump in the boron injection flow path required by Specification 3.1.2.1 shall be OPERABLE and capable of being powered from an OPERABLE emergency power source.~~

~~APPLICABILITY: MODES 4\*\*, 5, and 6.~~

~~ACTION:~~

~~With no charging pump OPERABLE or capable of being powered from an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.~~

~~SURVEILLANCE REQUIREMENTS~~

~~4.1.2.3.1 The above required charging pump shall be demonstrated OPERABLE by verifying, on recirculation flow, that a differential pressure across the pump of greater than or equal to 2300 psid is developed when tested pursuant to Specification 4.0.5.~~

~~4.1.2.3.2 All charging pumps, excluding the above required OPERABLE pump, shall be demonstrated inoperable\* at least once per 31 days, except when the reactor vessel head is removed, by verifying that the motor circuit breakers are secured in the open position.~~

---

\*—An inoperable pump may be energized for testing or pump switching provided the discharge of the pump has been isolated from the RCS by a closed isolation valve with power removed from the valve operator, or by a manual isolation valve secured in the closed position. Reactor coolant pump seal injection flow may be maintained during the RCS isolation process.

\*\*—The provisions of Specification 3.0.4 and 4.0.4 are not applicable for entry into MODE 4 from MODE 3 for the charging pumps declared OPERABLE pursuant to Specification 4.1.2.4 provided that a maximum of one charging pump is OPERABLE within 4 hours after entry into MODE 4 from MODE 3 or prior to the temperature of one or more of the RCS cold legs decreasing below 325°F, whichever comes first.

REACTIVITY CONTROL SYSTEMSCHARGING PUMPS OPERATINGLIMITING CONDITION FOR OPERATION

---

3.1.2.4 At least two charging pumps shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3\*.

ACTION:

With only one charging pump OPERABLE, restore at least two charging pumps to OPERABLE status within 7 days or be in at least HOT STANDBY and bled to a SHUTDOWN MARGIN equivalent to at least the limit as shown in Figure 3.1.2 at 200°F within the next 6 hours; restore at least two charging pumps to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 days.

SURVEILLANCE REQUIREMENTS

---

4.1.2.4 At least two charging pumps shall be demonstrated OPERABLE by verifying, on recirculation flow, that a differential pressure across each pump of greater than or equal to 2300 psid is developed when tested pursuant to Specification 4.0.5.

---

\*The provisions of Specification 3.0.4 and 4.0.4 are not applicable for entry into MODE 3 for the charging pumps declared inoperable pursuant to Specification 4.1.2.3.2 provided that the charging pump is restored to OPERABLE status within 4 hours or prior to the temperature of one or more of the RCS cold legs exceeding 375°F, whichever comes first.

REACTIVITY CONTROL SYSTEMSBORATED WATER SOURCES SHUTDOWNLIMITING CONDITION FOR OPERATION

---

3.1.2.5 As a minimum, one of the following borated water sources shall be OPERABLE:

a. A Boric Acid Storage System with:

- 1) A minimum contained borated water volume of 2900 gallons for Unit 1 and 3200 gallons for Unit 2;
- 2) A minimum boron concentration of 7000 ppm, and
- 3) A minimum solution temperature of 65°F.

b. The refueling water storage tank (RWST) with:

- 1) A minimum contained borated water volume of 122,000 gallons for MODE and 33,000 gallons for MODE 6; and
- 2) A boron concentration between 2800 ppm and 3000 ppm

APPLICABILITY: MODES 5 and 6.

ACTION:

With no borated water source OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

SURVEILLANCE REQUIREMENTS

---

4.1.2.5 The above required borated water source shall be demonstrated OPERABLE at least once per 7 days by:

- a. Verifying the boron concentration of the water;
- b. Verifying the contained borated water volume; and
- c. Verifying the boric acid storage tank solution temperature when it is the source of borated water.

SOUTH TEXAS UNITS 1 & 2 3/4 1 13 Unit 1 Amendment No. 51, 54  
Unit 2 Amendment No. 40, 43

REACTIVITY CONTROL SYSTEMSBORATED WATER SOURCES—OPERATINGLIMITING CONDITION FOR OPERATION

---

~~3.1.2.6 As a minimum, the following borated water source(s) shall be OPERABLE as required by Specification 3.1.2.2 for MODES 1, 2, and 3 and one of the following borated water sources shall be OPERABLE as required by Specification 3.1.2.1 for MODE 4:~~

~~a. A Boric Acid Storage System with:~~

- ~~1) A minimum contained borated water volume of 27,000 gallons;~~
- ~~2) A minimum boron concentration of 7000 ppm; and~~
- ~~3) A minimum solution temperature of 65°F.~~

~~b. The refueling water storage tank (RWST) with:~~

- ~~1) A minimum contained borated water volume of 458,000 gallons; and~~
- ~~2) A boron concentration between 2800 ppm and 3000 ppm.~~

~~APPLICABILITY: MODES 1, 2, 3, and 4.~~

ACTION:

- ~~a. With the Boric Acid Storage System inoperable and being used as one of the above required borated water sources, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and borated to a SHUTDOWN MARGIN equivalent to at least the limit as shown in Figure 3.1.2 at 200°F; restore the Boric Acid Storage System to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.~~
- ~~b. With the RWST inoperable, restore the tank to OPERABLE status within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~



REACTIVITY CONTROL SYSTEMS

SURVEILLANCE REQUIREMENTS

---

~~4.1.2.6 Each borated water source shall be demonstrated OPERABLE at least once per 7 days by:~~

- ~~a. Verifying the boron concentration in the water;~~
- ~~b. Verifying the contained borated water volume of the water source; and~~
- ~~c. Verifying the Boric Acid Storage System solution temperature when it is the source of borated water.~~



REACTIVITY CONTROL SYSTEMSBASESMODERATOR TEMPERATURE COEFFICIENT (Continued)

The most negative MTC value, equivalent to the most positive moderator density coefficient (MDC), was obtained by incrementally correcting the MDC used in the FSAR analysis to nominal operating conditions. These corrections involved: (1) a conversion of the MDC used in the FSAR analysis to its equivalent MTC, based on the rate of change of moderator density with temperature at RATED THERMAL POWER conditions, and (2) subtracting from this value the largest differences in MTC observed at EOL, all rods withdrawn, RATED THERMAL POWER conditions, and those most adverse conditions of moderator temperature and pressure, rod insertion, axial power skewing, and xenon concentration that can occur in nominal operation and lead to a significantly more negative EOL MTC at RATED THERMAL POWER. These corrections transformed the MDC values used in the FSAR analysis into the limiting EOL MTC value specified in the CORE OPERATING LIMITS REPORT (COLR). The 300 ppm surveillance MTC value specified in the COLR represents a conservative value (with corrections for burnup and soluble boron) at a core condition of 300 ppm equilibrium boron concentration, and is obtained by making these corrections to the limiting MTC value.

The Surveillance Requirements for measurement of the MTC at the beginning and near the end of the fuel cycle are adequate to confirm that the MTC remains within its limits since this coefficient changes slowly due principally to the reduction in RCS boron concentration associated with fuel burnup.

3/4.1.1.4 MINIMUM TEMPERATURE FOR CRITICALITY

This specification ensures that the reactor will not be made critical with the Reactor Coolant System average temperature less than 561°F. This limitation is required to ensure: (1) the moderator temperature coefficient is within its analyzed temperature range, (2) the trip instrumentation is within its normal operating range, (3) the pressurizer is capable of being in an OPERABLE status with a steam bubble, and (4) the reactor vessel is above its minimum  $RT_{NDT}$  temperature.

3/4.1.2 BORATION SYSTEMS — BASES

~~The Boron Injection System ensures that negative control is available during each mode of facility operation. The components required to perform this function include: (1) borated water sources, (2) charging pumps, (3) separate flow paths, (4) boric acid transfer pumps, and (5) an emergency power supply from OPERABLE diesel generators.~~

~~With the RCS average temperature above 350°F, a minimum of two boron injection flow paths are required to ensure single functional capability in the event an assumed failure renders one of the flow paths inoperable. The boration capability of either flow path is sufficient to provide a SHUTDOWN MARGIN from expected operating conditions of 1.3% ( $\Delta k/k$ ) after xenon decay and cooldown to 200°F. The maximum expected boration capability requires 27,000 gallons of 7000 ppm borated water from the boric acid storage system or 458,000 gallons of 2800 ppm borated water from the refueling water storage tank (RWST). The RWST volume is an ECCS requirement and is more than adequate for the required boration capability.~~

REACTIVITY CONTROL SYSTEMSBASESBORATION SYSTEMS (Continued)

With the RCS temperature below 350°F, one boron injection flow path/source is acceptable without single failure consideration on the basis of the stable reactivity condition of the reactor and the additional restrictions prohibiting CORE ALTERATIONS and positive reactivity changes in the event the single boron injection flow path/source becomes inoperable.

The limitations for a maximum of one charging pump to be OPERABLE and the Surveillance Requirement to verify all charging pumps except the required OPERABLE pump to be inoperable below 350°F provides assurance that a mass addition pressure transient can be relieved by the operation of a single PORV.

In order to provide for charging pump testing and switching below 350°F, an allowance to have both Centrifugal Charging Pumps energized simultaneously is permitted provided the pump discharge is isolated from the RCS. During pump switching, isolation from the RCS does not violate the requirement to have the boration flow path available below 350°F since the simultaneous energization of the two charging pumps and accompanying RCS isolation, is a momentary action under direct administrative control. Such actions are acceptable due to the limited time the flow path is isolation, the stable reactivity of the reactor, and the restrictions prohibiting CORE ALTERATIONS and positive reactivity should the isolated flow path not be immediately realigned following the pump testing or switching. Isolation of the RCS also precludes a cold overpressurization event during the pump switching or testing process. Reactor Coolant Pump seal flow may be maintained during the RCS isolation process.

The boration capability required below 200°F is sufficient to provide a variable SHUTDOWN MARGIN based on the results of a boron dilution accident analysis where the SHUTDOWN MARGIN is varied as a function of RCS boron concentration after xenon decay and cooldown from 200°F to 140°F. This condition requires 3200 gallons of 7000 ppm borated water from the boric acid storage system or 122,000 gallons of 2800 ppm borated water from the RWST for MODE 5 and 33,000 gallons of 2800 ppm borated water from the RWST for MODE 6.

The contained water volume limits include allowance for water not available because of discharge line location and other physical characteristics.

The limits on contained water volume and boron concentration of the RWST also ensure a pH value of between 7.5 and 10.0 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components.

The OPERABILITY of one Boron Injection System during REFUELING ensures that this system is available for reactivity control while in MODE 6.

## REACTOR COOLANT SYSTEMS

### 3/4 4.2 SAFETY VALVES

#### SHUTDOWN

#### LIMITING CONDITION FOR OPERATION

---

~~3.4.2.1 A minimum of one pressurizer Code safety valve shall be OPERABLE with a lift setting of 2485 psig  $\pm$  1%\*.~~

~~APPLICABILITY: MODES 4 and 5.~~

#### ACTION:

~~With no pressurizer Code Safety valve OPERABLE, immediately suspend all operations involving positive reactivity changes and place an OPERABLE RHR loop into operation in the shutdown cooling mode.~~

#### SURVEILLANCE REQUIREMENTS

---

~~4.4.2.1 No additional requirements other than those required by Specification 4.0.5.~~

---

\*The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure.

### 3/4.4 REACTOR COOLANT SYSTEM

#### BASES (Continued)

---

#### 3/4.4.1 REACTOR COOLANT LOOPS AND COOLANT CIRCULATION

The restrictions on starting an RCP with one or more RCS cold legs less than or equal to 350°F are provided to prevent TCS pressure transients, caused by energy additions from Secondary Coolant System, which could exceed the limits of Appendix G to 10 CFR Part 50. The RCS will be protected against overpressure transients and will not exceed the limits of Appendix G by restricting starting of the RCPs to when the secondary water temperature of each steam generator is less than 50°F above each of the RCS cold leg temperatures.

#### 3/4.4.2 SAFETY VALVES

The pressurizer Code safety valves operate to prevent the RCS from being pressurized above its Safety limit of 2735 psig. Each safety valve is designed to relieve 504,950 lbs per hour of saturated steam at the valve setpoint of 2500 psia. ~~The relief capacity of a single safety valve is adequate to relieve any over pressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE, an operating RHR loop, connected to RCS, provides overpressure relief capability and will prevent RCS overpressurization. In addition, the Overpressure Protection System provides a diverse means of protection against RCS overpressurization at low temperatures.~~

During Modes 1, 2, and 3, ~~operation~~, all pressurizer Code safety valves must be OPERABLE to prevent the RCS from being pressurized above its Safety Limit of 2735 psig. The combined relief capacity of all of these valves is greater than the maximum surge rate resulting from a complete loss-of-load assuming no Reactor trip until the first Reactor Trip System Trip Setpoint is reached (i.e., no credit is taken for a direct Reactor trip on the turbine trip resulting from loss-of-load) and also assuming no operation of the power-operated relief valves or steam dump valves.

Demonstration of the safety valves' lift settings will occur only during shutdown and will be performed in accordance with the provision of Section XI of the ASME Boiler and Pressure Code.

ATTACHMENT 3

TECHNICAL SPECIFICATION SCREENING  
EVALUATION BASED ON THE  
FINAL POLICY STATEMENT CRITERIA

**(1) TECHNICAL SPECIFICATION**STP T.S. LOCATION / NUMBER 3/4.1.2.1 to 3/4.1.2.6**(2) EVALUATION BASED ON FINAL POLICY STATEMENT CRITERIA**

Is the Technical Specification applicable to:

<u>YES</u>	<u>NO</u>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1)	Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(2)	A process variable, design feature, or operating restriction that is an initial condition of a Design Bases Accident or Transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(3)	A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a Design Bases Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(4)	A structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to the public health and safety?

If the answer to any one of the above questions is "YES", then the Specification shall be included in the Technical Specifications.

If the answer to all four criteria is "NO", then the Specifications may be relocated to Licensee-controlled documents.



### Technical Specification Screening Form

#### (3) Discussion

The purpose of the boration subsystem of the Chemical and Volume Control System, as addressed by Technical Specifications 3/4.1.2.1 through 3/4.1.2.6 is to provide for negative reactivity control during each mode of facility operation. As stated in Technical specification 3/4.1.2, Boration Systems - Bases:

- With the Reactor Coolant System average temperature above 350°F, a minimum of two boron injection flow paths are required to ensure single functional capability in the event an assumed failure renders one of the flow paths inoperable. The boration capability of either flow path is sufficient to provide a shutdown margin from expected operating conditions of 1.3% ( $\Delta k/k$ ) after xenon decay and cooldown to 200°F.
- With the Reactor Coolant System temperature below 350°F, one boron injection flow path/source is acceptable without single failure consideration on the basis of the stable reactivity condition of the reactor and the additional restrictions prohibiting core alterations and positive reactivity changes in the event the single boron injection flow path/source becomes inoperable.
- The boration capability required below 200°F is sufficient to provide a variable shutdown margin based on the results of a boron dilution accident analysis where the shutdown margin is varied as a function of Reactor Coolant System boron concentration after xenon decay and cooldown from 200°F to 140°F.
- The operability of one Boron Injection System during refueling ensures that this system is available for reactivity control while in Mode 6.

However, continued negative reactivity control is ensured through other Technical Specifications not affected by this change.

The boration subsystem of the Chemical and Volume Control System, including the flow paths, charging pumps, and borated water sources, is not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Therefore, the boration subsystem of the Chemical and Volume Control System does not meet Criterion 1.



The boration subsystem of the Chemical and Volume Control System, including the flow paths, charging pumps, and borated water sources, is not a process variable, design feature, or operating restriction that is an initial condition of a Design Basis Accident or Transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Shutdown Margin is a process variable which is an initial condition of various Design Basis Accidents and Transient Analyses. However, operability of the Chemical and Volume Control System is not. Limitations on Shutdown Margin are established and maintained by other Technical Specifications (e.g., 3/4.1.1) that are not affected by this proposed change. Therefore, the boration subsystem of the Chemical and Volume Control System does not meet Criterion 2.

The boration subsystem of the Chemical and Volume Control System, including the flow paths, charging pumps, and borated water sources, is not a structure, system or component that is part of the primary success path and which function or actuates to mitigate a Design Basis Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Control and maintenance of the boron concentration in the Reactor Coolant system by the Chemical and Volume Control System is not a part of the primary success path for mitigation of a Design Basis Accident or Transient. This function is provided either by the Emergency Core Cooling System (for some accidents or transients) or through maintenance of the Shutdown Margin, as established by specifications not affected by the proposed change, which is adequate to provide for the required safety function for other transients and postulated design basis accidents. Therefore, the boration subsystem of the Chemical and Volume System Control does not meet Criterion 3.

The boration subsystem of the Chemical and Volume Control System, including the flow paths, charging pumps, and borated water sources, is not a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to the public health and safety. Boration paths are not modeled on the probabilistic safety assessment of the South Texas Project except for borated water injected via the Refueling Water Storage Tank. Leakage through the Reactor Coolant Pump seals due to loss of seal injection by the charging pumps is included in the probabilistic safety assessment, but the contribution to Core Damage Frequency is not significant. Operating experience is included in the probabilistic safety assessment. Therefore, the boration subsystem of the Chemical and Volume Control System does not meet Criterion 4.

#### (4) CONCLUSION

- ☐ This Specification should be included in Technical Specifications.
- ☒ This Specification may be relocated to a Licensee-controlled Document.

**(1) TECHNICAL SPECIFICATION - Safety Valves - Shutdown**STP T.S. LOCATION / NUMBER 3/4.4.2.1**(2) EVALUATION BASED ON FINAL POLICY STATEMENT CRITERIA**

Is the Technical Specification applicable to:

<u>YES</u>	<u>NO</u>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(1)	Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(2)	A process variable, design feature, or operating restriction that is an initial condition of a Design Bases Accident or Transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(3)	A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a Design Bases Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	(4)	A structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to the public health and safety?

If the answer to any one of the above questions is "YES", then the Specification shall be included in the Technical Specifications.

If the answer to all four criteria is "NO", then the Specifications may be relocated to Licensee-controlled documents.

### Technical Specification Screening Form

#### **(3) Discussion**

The purpose of Technical Specification 3/4.4.2.1, Safety Valves - Shutdown, is to ensure that sufficient capability is available to prevent the Reactor Coolant System from being pressurized above its safety limit of 2735 psig. However, below Mode 3, overpressure protection is provided by the low temperature overpressure protection requirements so that the pressurizer safety valves are not assumed to function to mitigate a design basis accident or transient under those conditions.

The pressurizer Code safety valves are not installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. The pressurizer Code safety valves do not meet Criterion 1.

The pressurizer Code safety valves in Modes 4 and 5 are not a process variable, design feature, or operating restriction that is an initial condition of a Design Basis Accident or Transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The limitations and restrictions established for the Overpressure Protection Systems provide the design feature in Modes 4 and 5, which the pressurizer Code safety valves provide for operations in Modes 1, 2 and 3. Therefore, the pressurizer Code safety valves do not meet Criterion 2 in Modes 4 and 5.

The pressurizer Code safety valves in Modes 4 and 5 are not a structure, system or component that is part of the primary success path and which functions or actuates to mitigate a Design Basis Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. The limitations and restrictions established for the Overpressure Protection Systems provide the design feature in Modes 4 and 5, which the pressurizer Code safety valves provide for operations in Modes 1, 2 and 3. Therefore, the pressurizer Code safety valves do not meet Criterion 3 in Modes 4 and 5.

The pressurizer Code safety valves in Modes 4 and 5 are not a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to the public health and safety. Reviews that have been performed are only applicable to operating modes. The pressurizer Code safety valves do not meet Criterion 4 in Modes 4 and 5.

#### **(4) CONCLUSION**

- ☐ This Specification should be included in Technical Specifications.
- ☒ This Specification may be relocated to a Licensee-controlled Document.