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Energy to Serve Your WorldSM

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Docket No.: 50-364

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Joseph M. Farley Nuclear Plant
Request For Technical Specification Changes
Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance Testing

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 50.90, Southern Nuclear Operating Company (SNC) proposes to amend the Farley Nuclear Plant (FNP) Technical Specifications (TS), Appendix A to Operating License NPF-8. This TS amendment request eliminates the requirement to cycle the Unit Two Pressurizer Power Operated Relief Valve (PORV) block valve Q2B31MOV8000B during the remainder of operating cycle 16 and provides additional compensatory action. This PORV block valve is currently in the open position. During cycle 16, the PORV block valves have previously been successfully cycled for surveillance testing purposes twice. Cycle 16 is presently scheduled to end on March 13, 2004.

Surveillance Requirement (SR) 3.4.11.1 specifies that the PORV block valves be cycled on a 92 day frequency. This proposed change adds a note for SR 3.4.11.1 that states "Not required to be performed for Unit Two block valve Q2B31MOV8000B during the remainder of operating cycle 16." This change is needed as the result of packing leakage from this Unit Two PORV block valve that occurred during valve stroking on March 10, 2003. The maximum expected packing leakage based on the existing packing configuration, when the valve is not in the fully open or fully closed position, is substantially less than the normal make-up capability of the charging system. Cycling the valve with this packing leakage could result in additional degradation of the valve packing potentially resulting in a forced unit shutdown. Repair of the valve packing would require the Unit to be shutdown and cooled down to establish conditions for the repair. This condition poses unnecessary risk associated with the shutdown and cooldown of the plant compared to the relatively low risk associated with failure of the PORV block valve to close on demand. In addition, SR 3.4.11.4 is added to require that power to the Unit Two PORV block valve Q2B31MOV8000B be checked to be available at least every 24 hours. This will provide additional assurance that the valve will stroke if demanded. These changes will only be in effect for the remainder of Unit Two cycle 16. If a plant shutdown and cooldown is required prior to the next refueling outage, the PORV block valve will be repaired prior to plant restart. This item will be tracked as an NRC commitment.

A501

Enclosure 1 provides a basis for the proposed changes. Enclosure 2 provides the basis for a determination that the proposed changes do not involve significant hazards consideration pursuant to 10 CFR 50.92. Enclosure 3 provides a markup of the proposed changes to the TS. Enclosure 4 provides the clean typed version of proposed changes to the TS.

Enclosures 5 and 6 contain markups and clean typed copies of the associated TS Bases changes. The bases changes are submitted for information only and will be approved in accordance with the Farley Bases Control Program.

SNC requests that the NRC review and approve the proposed TS change prior to June 10, 2003, since that is the scheduled date for the next PORV block valve cycle test. The NRC approved a similar TS change in letter dated October 25, 2000, "Joseph M. Farley Nuclear Plant, Unit 2 RE: Issuance of Amendment on PORV Block Valves (TAC No. MB0099)," Amendment 139.

SNC has reviewed the proposed amendment pursuant to 10 CFR 50.92 and determined that it does not involve a significant hazards consideration. In addition, there is no significant increase in the amounts of effluents that may be released offsite, and there is no significant increase in individual or cumulative occupational radiation exposure. Consequently, the proposed amendment satisfies the criteria of 10 CFR 51.22 for categorical exclusion from the requirements for an environmental assessment and the human environment is not affected by this amendment.

A copy of the proposed changes has been sent to Dr. D. E. Williamson, the Alabama State Designee, in accordance with 10 CFR 50.91(b)(1).

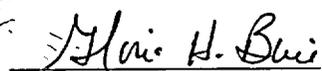
Mr. J. B. Beasley, Jr. states he is a Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY


J. B. Beasley, Jr.

Sworn to and subscribed before me this 31st day of March, 2003.


Notary Public

My commission expires: 6/7/05

JBB/LPH/sdl

- Enclosures:
1. Basis for the TS Change
 2. 10 CFR 50.92 Evaluation
 3. Marked-Up Technical Specification Pages
 4. Clean Typed Technical Specification Pages
 5. Marked-Up Technical Specification Bases Pages
 6. Clean Typed Technical Specification Bases Pages

cc: Southern Nuclear Operating Company
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Mr. D. E. Grissette, General Manager – Plant Farley
Document Services RTYPE: CFA04.054; LC# 13745

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. F. Rinaldi, NRR Project Manager – Farley
Mr. T. P. Johnson, Senior Resident Inspector – Farley

Alabama Department of Public Health
Dr. D. E. Williamson, State Health Officer

Enclosure 1

**Joseph M. Farley Nuclear Plant
Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance Testing
Technical Specification Changes**

Basis for the TS Change

Enclosure 1

Joseph M. Farley Nuclear Plant Unit Two Pressurizer Power Operated Relief Valve (PORV) Block Valve Surveillance Testing Technical Specification Changes

Basis for the TS Change

Description of Changes:

The proposed Technical Specification (TS) change modifies Surveillance Requirement (SR) 3.4.11.1, for Unit Two only by the addition of the following note that states, "Not required to be performed for Unit 2 for the remainder of operating cycle 16 for Q2B31MOV8000B." In addition, a temporary TS SR 3.4.11.4 is added to provide compensatory action for this block valve while SR 3.4.11.1 is suspended. This SR requires that power to the Unit Two PORV block valve Q2B31MOV8000B be checked at least every 24 hours for the remainder of operating cycle 16.

Discussion:

SR 3.4.11.1 currently states "Perform a complete cycle of each block valve" with a frequency of 92 days. During the performance of this SR on March 10, 2003, indication of packing leakage from at least one of the two PORV block valves occurred. Both block valves were cycled during a brief period of time, and with the available indications, it was determined that only PORV block valve Q2B31MOV8000B was leaking. An evaluation was performed to determine the operability of the block valve. The conclusion was that the valve is operable since it is capable of performing its safety function with the leakage. The leakage occurs only during the brief period that the valve is neither fully open nor fully closed. The valve is currently fully open in the normal position with no indicated leakage. If the valve is closed, the valve seat lies between the RCS pressure and the packing. With the potential for packing leakage present, it is desirable that the valve not be cycled to prevent potential equipment damage.

The PORV block valve packing leakoff lines are routed to the reactor coolant drain tank (RCDT). The leakage that occurred during the test conducted on March 10, 2003 pressurized the RCDT and caused the RCDT relief valve to lift. It should be noted that no change in pressurizer level or charging flow was observed during this test. If the cycle test was conducted at the existing frequency for the remainder of operating cycle 16, the RCDT relief valve may again be lifted and could stick in the open position. Should that occur, the availability of the RCDT for normal functions would be lost. These functions include water collection from various valve and equipment leakoff lines including the reactor coolant pump (RCP) number 2 seals. The RCDT also provides level and temperature control for the pressurizer relief tank. Although none of these functions is required for reactor safety, they are important for normal plant operation.

It is the intent of the proposed change to eliminate the operational risk associated with continued cycle testing of PORV block valve Q2B31MOV8000B. The valve will be inspected and repaired during the upcoming Unit Two refueling outage. SNC has determined that the incremental risk imposed by maneuvering the plant to a cold shutdown condition to repair the PORV block valve exceeds the incremental risk

associated with the failure of this PORV block valve to close on demand. Verification of power available to the PORV block valve will provide additional assurance that the valve will close if demanded.

Technical Basis

As discussed above, Unit Two PORV block valve Q2B31MOV8000B has packing leakage when it is not in the fully open or fully closed position. The valve is presently in the normal fully open position with no indicated leakage. Additional stroking of the valve imposes a risk of further degradation of the packing in the affected valve due to either a galled stem rubbing the packing or steam cutting while the valve is being cycled. The maximum expected packing leakage based on the existing packing configuration, when the valve is not in the fully open or fully closed position, is substantially less than the normal make-up capability of the charging system.

Additional packing damage could result in the valve leaking while fully open. Should this occur, a plant shutdown and cooldown would be required to repair the valve. Therefore, it is desired that the valve be left in the normal fully open position and not cycled for testing purposes. Monitoring for PORV block valve packing leakage will continue during Cycle 16 to identify potential packing degradation.

The potential for impact of boron buildup in the valve leakoff has been evaluated. No indication exists of external leakage. The process fluid at the block valve is from the steam space in the pressurizer therefore the amount of boron is minimal. Further, should there be boron present in the process fluid, the combination of the low boron concentration of the fluid and the high process temperature minimizes the potential for boron crystallization. Therefore, valve function is not impacted by potential boron buildup in the leakage path.

The PORV block valve has been demonstrated to be capable of closing if demanded. During cycle 16, it has been successfully cycled twice. The block valve is safety related and is in the FNP GL 89-10 program. Suspending the cycle testing of the valve, as required by TS surveillance SR 3.4.11.1, will result in a slight decrease in the assurance that the PORV block valve would stroke closed if demanded. However, the history of the Farley PORV block valves indicates that they are highly reliable. If the valve is not cycled, as proposed for the remainder of Cycle 16, the stroke time of the block valve should not be impacted if isolation of the PORV becomes necessary. The compensatory measure of verifying power available to the block valve on a 24-hour basis will improve assurance of valve reliability. Probabilistic risk analysis (PRA) was used to evaluate the expected condition of operating with this PORV block valve open. Block valves are used to isolate PORVs in case of excessive leakage or a stuck open PORV. Block valve Q2B31MOV8000B was assumed to fail to close on demand, and the results indicated an incremental change in core damage frequency of approximately $9E-8$ /year and large early release frequency of $1E-10$ /year. This change is considered a very small increase in risk as defined by RG 1.174. In addition, mitigating equipment to respond to a LOCA event as a result of a PORV block valve failure to close on demand is not impacted.

One alternative to this proposed amendment is to continue to perform the cycle test as specified by TS surveillance SR 3.4.11.1. This would require additional tests during the current operating cycle. Continuing to cycle test PORV block valve Q2B31MOV8000B may cause additional packing degradation that could result in packing leakage with the

valve fully open. Such leakage can pose operational challenges, damage equipment, and increase radioactive waste. Should this occur, a plant shutdown and cooldown to repair the PORV block valve would be required.

Cycle testing the PORV block valve results in the potential for causing a pressure transient in the RCDT. This has occurred during previous testing of these valves. During a previously performed cycle test of the PORV block valves, the RCDT relief valve lifted. While the valve reseated, there is some potential for this relief valve to stick in the open position. Should this occur, usage of the RCDT for normal operational purposes is lost. The RCDT serves as a collection point for various leakoff lines along with the leakoff from the reactor coolant pumps number 2 seals. The RCDT is also used for level and temperature control of the pressurizer relief tank. The RCDT relief valve being stuck open could also result in normal plant leakage being released to the containment atmosphere increasing offsite dose and radioactive waste release.

The risk associated with shutting down and cooling the plant to repair the PORV block valve packing, while not quantified, is recognized to be higher than the risk associated with this PORV block valve failure to close on demand. A mid-cycle shutdown to repair this valve would also result in additional personnel radiation exposure. In addition, the potential operational impact of continuing to cycle test the PORV block valve is substantial. Therefore, SNC has determined that the lowest risk option is to suspend cycle testing of the Unit Two PORV block valve Q2B31MOV8000B for the remainder of cycle 16 and that the risk associated with the proposed change is acceptably low.

Summary

Unit Two PORV block valve Q2B31MOV8000B has packing leakage when it is not in the fully open or fully closed position. The proposed TS change modifies Surveillance Requirement 3.4.11.1 such that performance of cycle testing of the PORV block valve for Unit Two during the remainder of operating cycle 16 is suspended. Continuing to perform cycle testing of the block valve could result in additional damage to the PORV block valve packing thus creating conditions that would require a plant shutdown and cooldown. SNC has concluded that the additional risk associated with plant shutdown is greater than that of continuing to operate without performing the cycle test required by TS SR 3.4.11.1. In addition, SR 3.4.11.4 is added to provide compensatory action while SR 3.4.11.1 is suspended. This requires that power be verified available to the PORV block valve at least every 24 hours.

Enclosure 2

**Joseph M. Farley Nuclear Plant
Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance
Testing
Technical Specification Changes**

10 CFR 50.92 Evaluation

Enclosure 2

Joseph M. Farley Nuclear Plant Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance Testing Technical Specification Changes

10 CFR 50.92 Evaluation

Pursuant to 10 CFR 50.92, SNC has evaluated the proposed amendment and has determined that operation of the facility in accordance with the proposed amendment would not involve a significant hazards consideration. The basis for this determination is as follows:

1. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to Surveillance Requirement (SR) 3.4.11.1 suspends the requirement to cycle test the Unit Two pressurizer power operated relief valve (PORV) block valve Q2B31MOV8000B for the remainder of operating cycle 16. This change will eliminate the remaining scheduled cycle tests for the PORV block valve during operating cycle 16. SR 3.4.11.4 is added to provide compensatory measures for verifying power available to the block valve at least every 24 hours. At the end of cycle 16, the proposed changes will no longer be in effect. Suspension of the cycle tests for the PORV block valve Q2B31MOV8000B may result in a small decrease in assurance that the block valve would cycle if required to isolate a stuck open PORV. However, experience with these valves has shown them to be very reliable and suspension of the remaining tests will not appreciably reduce reliability of the valve. There is no relationship between packing leakage on the PORV block valve and a postulated stuck open PORV. The proposed compensatory measure of verifying block valve power available on a 24 hour basis adds additional assurance that the block valve will close if demanded. Therefore, the probability of a previously evaluated accident is not significantly increased.

The proposed changes do not affect the consequences of a previously analyzed accident since the magnitude and duration of analyzed events are not impacted by this change. The dose consequences of the proposed change are bounded by LOCA analyses. Therefore, the consequences of a previously evaluated accident are unchanged.

Therefore, the proposed TS changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed changes involve no change to the physical plant. They allow for suspension of the PORV block valve Q2B31MOV8000B cycle tests for a limited time and provide for compensatory action to verify power to the PORV block

valve. This valve provides an isolation function for a postulated stuck open or leaking pressurizer PORV. This condition is an analyzed event since it is bounded by the FNP LOCA analyses. In addition to the isolation function, the block valve is required to remain open to allow the associated PORV to function automatically to control reactor coolant system (RCS) pressure. These changes do not impact the open function of the block valve since the normal position is open.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed changes do not involve a significant reduction in a margin of safety.

The physical plant is unaffected by these changes. The proposed changes do not impact accident offsite dose, containment pressure or temperature, emergency core cooling system (ECCS) or reactor protection system (RPS) settings or any other parameter that could affect a margin of safety. The elimination of cycle testing of the PORV block valve Q2B31MOV8000B for the remainder of the Unit Two operating cycle and the addition of the proposed compensatory action that enhances assurance of valve operation are offsetting.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Conclusion

Based on the preceding analysis, SNC has determined that the proposed changes to the Technical Specifications will not significantly increase the probability or consequences of an accident previously evaluated, create the possibility of a new or different kind of accident from any accident previously evaluated, or involve a significant reduction in a margin of safety. SNC therefore concludes that the proposed changes meet the requirements of 10 CFR 50.92(c) and do not involve a significant hazards consideration.

Enclosure 3

**Joseph M. Farley Nuclear Plant
Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance
Testing
Technical Specification Changes**

Marked-Up Technical Specification Pages

Affected Pages

3.4.11-3

3.4.11-4

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. More than one block valve inoperable.	F.1 Place associated PORVs in manual control.	1 hour
	<u>AND</u>	
	F.2 Restore one block valve to OPERABLE status.	2 hours
G. Required Action and associated Completion Time of Condition F not met.	<u>AND</u>	
	F.3 Restore remaining block valve to OPERABLE status.	72 hours
G. Required Action and associated Completion Time of Condition F not met.	G.1 Be in MODE 3	6 hours
	G.2 Be in MODE 4.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.11.1 -----NOTES----- 1. Not required to be met with block valve closed in accordance with the Required Action of Condition B or E. 2. Not required to be performed prior to entry into MODE 3. 3. Not required to be performed for Unit 2 for the remainder of operating cycle 14.	Insert 16 for block valve Q2B31MOV8000B
Perform a complete cycle of each block valve.	92 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.11.2	<p>-----NOTE----- Not required to be performed prior to entry into MODE 3. -----</p> <p>Perform a complete cycle of each PORV during MODE 3 or 4.</p>	18 months
SR 3.4.11.3	Perform a complete cycle of each PORV using the backup PORV control system.	18 months
SR 3.4.11.4	<p>-----NOTE----- Required to be performed only for Unit 2 for the remainder of operating cycle 14. -----</p> <p>Check power available to the Unit Two PORV block valves.</p>	24 hours

Replace

SR 3.4.11.4	<p>-----NOTE----- Required to be performed only for Unit 2 for the remainder of operating cycle 16. -----</p> <p>Check power available to the Unit Two PORV block valve Q2B31MOV8000B.</p>	24 hours
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Enclosure 4

**Joseph M. Farley Nuclear Plant
Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance Testing
Technical Specification Changes**

Clean Typed Technical Specification Pages

Affected Pages

3.4.11-3

3.4.11-4

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. More than one block valve inoperable.	F.1 Place associated PORVs in manual control.	1 hour
	<u>AND</u>	
	F.2 Restore one block valve to OPERABLE status.	2 hours
	<u>AND</u>	
	F.3 Restore remaining block valve to OPERABLE status.	72 hours
G. Required Action and associated Completion Time of Condition F not met.	G.1 Be in MODE 3.	6 hours
	<u>AND</u>	
	G.2 Be in MODE 4.	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.11.1 -----NOTES----- 1. Not required to be met with block valve closed in accordance with the Required Action of Condition B or E. 2. Not required to be performed prior to entry into MODE 3. 3. Not required to be performed for Unit 2 for the remainder of operating cycle 16 for block valve Q2B31MOV8000B. ----- Perform a complete cycle of each block valve.	92 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.11.2	<p>-----NOTE----- Not required to be performed prior to entry into MODE 3. -----</p> <p>Perform a complete cycle of each PORV during MODE 3 or 4.</p>	18 months
SR 3.4.11.3	Perform a complete cycle of each PORV using the backup PORV control system.	18 months
SR 3.4.11.4	<p>-----NOTE----- Required to be performed only for Unit 2 for the remainder of operating cycle 16. -----</p> <p>Check power available to the Unit Two PORV block valve Q2B31MOV8000B.</p>	24 hours

Enclosure 5

**Joseph M. Farley Nuclear Plant
Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance Testing
Technical Specification Changes**

Marked-Up Technical Specification Bases Pages

Affected Pages

B 3.4.11-7

B 3.4.11-8

BASES

ACTIONS
(continued)

G.1 and G.2

If the Required Actions of Condition F are not met, then the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 4 within 12 hours. 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. In MODES 4, 5, and 6, the PORVs are not required OPERABLE

SURVEILLANCE
REQUIREMENTS

SR 3.4.11.1

Block valve cycling verifies that the valve(s) can be closed if needed. The basis for the Frequency of 92 days is the ASME Code, Section XI (Ref. 3). If the block valve is closed to isolate a PORV that is capable of being manually cycled, the OPERABILITY of the block valve is of importance, because opening the block valve is necessary to permit the PORV to be used for manual control of reactor pressure. If the block valve is closed to isolate an otherwise inoperable PORV, the maximum Completion Time to restore the PORV and open the block valve is 72 hours, which is well within the allowable limits (25%) to extend the block valve Frequency of 92 days. Furthermore, these test requirements would be completed by the reopening of a recently closed block valve upon restoration of the PORV to OPERABLE status (i.e., completion of the Required Actions fulfills the SR).

This SR is modified by two Notes. Note 1 modifies this SR by stating that it is not required to be met with the block valve closed, in accordance with the Required Action of this LCO. Note 2 modifies this SR to allow entry into and operation in MODE 3 prior to performing the SR. This allows the test to be performed in MODE 3 under operating temperature conditions, prior to entering MODE 1 or 2. A temporary third note has been added to suspend SR 3.4.11.1 for Unit Two for the remainder of operating cycle 14.

PORV block valve
Q2B31MOV8000B
for the remainder of
operating cycle 16.

Insert
SR 3.4.11.2

SR 3.4.11.2 requires a complete cycle of each PORV in MODE 3 or 4. The PORVs are stroke tested during MODES 3 or 4 with the associated block valves closed in order to limit the uncertainty

(continued)

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.4.11.2 (continued)

introduced by testing the PORVs at lesser system temperatures than expected during actual operating conditions. Operating a PORV through one complete cycle ensures that the PORV can be manually actuated for mitigation of an SGTR. The Frequency of 18 months is based on a typical refueling cycle and industry accepted practice. The Note modifies this SR to allow entry into and operation in MODE 3 prior to performing the SR. This allows the test to be performed in MODE 3 under operating temperature conditions, prior to entering MODE 1 or 2.

SR 3.4.11.3

SR 3.4.11.3 requires a complete cycle of each PORV using the backup PORV control system. This surveillance verifies the capability to operate the PORVs using the backup air and nitrogen supply systems. Additionally, this surveillance ensures the correct function of the associated air and nitrogen supply system valves. The 18-month Frequency is based on a typical refueling cycle and industry accepted practice for Surveillances requiring the PORVs to be cycled.

Insert

16 for PORV block valve
Q2B31MOV8000B.

SR 3.4.11.4

SR 3.4.11.4 applies only to Unit 2 for the remainder of cycle ~~14~~. It requires that power to the PORV block valves is checked to be available at least every 24 hours. This surveillance provides additional assurance that the PORV block valve could be stroked if demanded while SR 3.4.11.1 is suspended.

REFERENCES

1. Regulatory Guide 1.32, February 1977.
2. FSAR Sections 5.5 and 15.2.
3. ASME, Boiler and Pressure Vessel Code, Section XI

Enclosure 6

**Joseph M. Farley Nuclear Plant
Unit Two Pressurizer Power Operated Relief Valve Block Valve Surveillance Testing
Technical Specification Changes**

Clean Typed Technical Specification Bases Pages

Affected Pages

B 3.4.11-7

B 3.4.11-8

BASES

ACTIONS
(continued)

G.1 and G.2

If the Required Actions of Condition F are not met, then the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 6 hours and to MODE 4 within 12 hours. 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. In MODES 4, 5, and 6, the PORVs are not required OPERABLE.

SURVEILLANCE
REQUIREMENTS

SR 3.4.11.1

Block valve cycling verifies that the valve(s) can be closed if needed. The basis for the Frequency of 92 days is the ASME Code, Section XI (Ref. 3). If the block valve is closed to isolate a PORV that is capable of being manually cycled, the OPERABILITY of the block valve is of importance, because opening the block valve is necessary to permit the PORV to be used for manual control of reactor pressure. If the block valve is closed to isolate an otherwise inoperable PORV, the maximum Completion Time to restore the PORV and open the block valve is 72 hours, which is well within the allowable limits (25%) to extend the block valve Frequency of 92 days. Furthermore, these test requirements would be completed by the reopening of a recently closed block valve upon restoration of the PORV to OPERABLE status (i.e., completion of the Required Actions fulfills the SR).

This SR is modified by two Notes. Note 1 modifies this SR by stating that it is not required to be met with the block valve closed, in accordance with the Required Action of this LCO. Note 2 modifies this SR to allow entry into and operation in MODE 3 prior to performing the SR. This allows the test to be performed in MODE 3 under operating temperature conditions, prior to entering MODE 1 or 2. A temporary third note has been added to suspend SR 3.4.11.1 for Unit Two PORV block valve Q2B31MOV8000B for the remainder of operating cycle 16.

(continued)

BASES

SURVEILLANCE
REQUIREMENTS
(continued)

SR 3.4.11.2

SR 3.4.11.2 requires a complete cycle of each PORV in MODE 3 or 4. The PORVs are stroke tested during MODES 3 or 4 with the associated block valves closed in order to limit the uncertainty introduced by testing the PORVs at lesser system temperatures than expected during actual operating conditions. Operating a PORV through one complete cycle ensures that the PORV can be manually actuated for mitigation of an SGTR. The Frequency of 18 months is based on a typical refueling cycle and industry accepted practice. The Note modifies this SR to allow entry into and operation in MODE 3 prior to performing the SR. This allows the test to be performed in MODE 3 under operating temperature conditions, prior to entering MODE 1 or 2.

SR 3.4.11.3

SR 3.4.11.3 requires a complete cycle of each PORV using the backup PORV control system. This surveillance verifies the capability to operate the PORVs using the backup air and nitrogen supply systems. Additionally, this surveillance ensures the correct function of the associated air and nitrogen supply system valves. The 18-month Frequency is based on a typical refueling cycle and industry accepted practice for Surveillances requiring the PORVs to be cycled.

SR 3.4.11.4

SR 3.4.11.4 applies only to Unit 2 for the remainder of cycle 16 for PORV block valve Q2B31MOV8000B. It requires that power to the PORV block valve is checked to be available at least every 24 hours. This surveillance provides additional assurance that the PORV block valve could be stroked if demanded while SR 3.4.11.1 is suspended.

REFERENCES

1. Regulatory Guide 1.32, February 1977.
2. FSAR Sections 5.5 and 15.2.
3. ASME, Boiler and Pressure Vessel Code, Section XI.