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Energy to Serve Your World™

NL-03-0775

September 2, 2003

Docket Nos.: 50-348 50-424
50-364 50-425

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

Joseph M. Farley Nuclear Plant
Vogtle Electric Generating Plant
Application for Technical Specification Improvement
To Extend the Completion Time for Condition B of
Technical Specification 3.5.1, "Accumulators," Using the
Consolidated Line Item Improvement Process

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 50.90, Southern Nuclear Operating Company (SNC) is submitting a request for an amendment to the technical specifications (TS) for the Farley Nuclear Plant (FNP) Units 1 and 2 and Vogtle Electric Generating Plant (VEGP) Units 1 and 2.

The proposed amendment would extend the completion time from 1 hour to 24 hours for Condition B of TS 3.5.1, "Accumulators." The change is consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-370, "Risk Informed Evaluation of an Extension to Accumulator Completion Times for Westinghouse Plants." The availability of this technical specification improvement was announced in the *Federal Register* on March 12, 2003 as part of the consolidation line item improvement process (CLIP).

Enclosure 1 provides a description of the proposed TS changes for FNP Units 1 and 2 and VEGP Units 1 and 2, including confirmation of applicability. Enclosure 2 provides the existing TS pages and TS Bases marked-up (for information only) to show the proposed changes and the clean-typed copies of the affected pages for FNP Units 1 and 2. Enclosure 3 similarly provides the marked-up and clean typed TS and TS Bases pages (for information only) for VEGP Units 1 and 2. There are no new regulatory commitments associated with these proposed changes.

ADD1

SNC requests approval of the proposed license amendments by December 31, 2003, with the amendments being implemented within 60 days.

A copy of the proposed changes has been sent to Dr. D. E. Williamson, the Alabama State Designee, and Mr. L. C. Barrett, the Georgia 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.

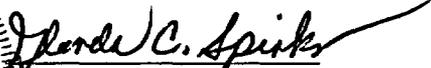
If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY


J. B. Beasley, Jr.

Sworn to and subscribed before me this 2nd day of September, 2003.


Notary Public

My commission expires: 11/10/06

JBB/LPH/sdl

Enclosures:

1. Basis for the Proposed TS Change (Description & Assessment)
2. Farley Marked-Up and Clean Typed TS and TS Bases Pages
3. Vogtle Marked-Up and Clean Typed TS and TS Bases Pages

cc: Southern Nuclear Operating Company
Mr. J. D. Woodard, Executive Vice President w/o Enclosures
Mr. J. B. Beasley, Jr., Vice President, Plant Farley
Mr. J. T. Gasser, Vice President, Plant Vogtle
Mr. L. M. Stinson, General Manager – Farley
Mr. P. D. Rushton, General Manager – Vogtle
Mr. D. E. Grissette, General Manager – Plant Farley
Mr. W. F. Kitchens, General Manager – Plant Vogtle
Document Services RTYPE: CVC7000; CFA04.054; LC# 13778

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Mr. L. A. Reyes, Regional Administrator

Mr. F. Rinaldi, NRR Project Manager – Farley

Mr. F. Rinaldi, NRR Project Manager – Vogtle

Mr. T. P. Johnson, Senior Resident Inspector – Farley

Mr. J. Zeiler, Senior Resident Inspector – Vogtle

State of Alabama

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

State of Georgia

Mr. L. C. Barrett, Commissioner, Department of Natural Resources

Enclosure 1

Basis for Proposed Change

Enclosure 1

Joseph M. Farley Nuclear Plant Vogtle Electric Generating Plant

Basis for Proposed Change

1.0 DESCRIPTION

The proposed License amendment extends the completion time from 1 hour to 24 hours for Condition B of Technical Specification (TS) 3.5.1, "Accumulators."

The changes are consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-370, "Risk Informed Evaluation of an Extension to Accumulator Completion Times for Westinghouse Plants." The availability of this technical specification improvement was announced in the *Federal Register* on March 12, 2003 (68 FR 11880) as part of the consolidated line item improvement process (CLIP).

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

Southern Nuclear Operating Company (SNC) has reviewed the safety evaluation published on July 15, 2002 (67 FR 46542) as part of the CLIP. This verification included a review of the NRC staff's evaluation as well as the supporting information provided to support TSTF-370 (i.e., WCAP-15049-A, "Risk-Informed Evaluation of an Extension to Accumulator Completion Times," dated May 18, 1999). SNC has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Farley Nuclear Plant (FNP) Units 1 and 2 and Vogtle Electric Generating Plant (VEGP) Units 1 and 2 and justify this amendment for the incorporation of the changes to the FNP and VEGP Technical Specifications.

2.2 Optional Changes and Variations

SNC is not proposing any variations or deviations from the technical specification changes described in TSTF-370 or the NRC staff's model safety evaluation published on July 15, 2002.

Enclosure 1

**Joseph M. Farley Nuclear Plant
Vogtle Electric Generating Plant**

Basis for Proposed Change

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Determination

SNC has reviewed the proposed no significant hazards consideration determination published on July 15, 2002 (67 FR 46542) as part of the CLIP. SNC has concluded that the proposed determination presented in the notice is applicable to FNP and VEGP, and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2 Verification and Commitments

There are no new regulatory commitments associated with this proposed change.

4.0 ENVIRONMENTAL EVALUATION

SNC has reviewed the environmental evaluation included in the model safety evaluation published on July 15, 2002 (67 FR 46542) as part of the CLIP. SNC has concluded that the NRC staff's finding presented in that evaluation are applicable to FNP and VEGP, and the evaluation is hereby incorporated by reference for this application.

Enclosure 2
Joseph M. Farley Nuclear Plant
Marked-Up and Clean Typed
TS and TS Bases Pages

Affected Pages

3.5.1-1
B 3.5.1-6
B.3.5.1-7
B 3.5.1-8

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.1 Accumulators

LCO 3.5.1 Three ECCS accumulators shall be OPERABLE.

APPLICABILITY: MODES 1 and 2,
MODE 3 with RCS pressure > 1000 psig.

-----NOTE-----

In MODE 3, with RCS pressure > 1000 psig, the accumulators may be inoperable for up to 12 hours to perform pressure isolation valve testing per SR 3.4.14.1.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One accumulator inoperable due to boron concentration not within limits.	A.1 Restore boron concentration to within limits.	72 hours
B. One accumulator inoperable for reasons other than Condition A.	B.1 Restore accumulator to OPERABLE status.	4 hour <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 20px;"> Replace with: 24 hours </div>
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Reduce RCS pressure to ≤ 1000 psig.	12 hours
D. Two or more accumulators inoperable.	D.1 Enter LCO 3.0.3.	Immediately

BASES

ACTIONS
(continued)

B.1

Replace with:
24 hours

Replace with:
24

If one accumulator is inoperable for a reason other than boron concentration, the accumulator must be returned to OPERABLE status within 4-hour. In this Condition, the required contents of two accumulators cannot be assumed to reach the core during a LOCA. Due to the severity of the consequences should a LOCA occur in these conditions, the 4 hour Completion Time to open the valve, remove power to the valve, or restore the proper water volume or nitrogen cover pressure ensures that prompt action will be taken to return the inoperable accumulator to OPERABLE status. The Completion Time minimizes the potential for exposure of the plant to a LOCA under these conditions.

Add: The 24 hours allowed to restore an inoperable accumulator to OPERABLE status is justified in WCAP-15049-A, Rev. 1 (Ref. 3).

C.1 and C.2

If the accumulator cannot be returned to OPERABLE status within the associated Completion Time, 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 MODE 3 within 6 hours and RCS pressure reduced to ≤ 1000 psig 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.

D.1

If more than one accumulator is inoperable, the plant is in a condition outside the accident analyses; therefore, LCO 3.0.3 must be entered immediately.

**SURVEILLANCE
REQUIREMENTS**

SR 3.5.1.1

Each accumulator valve should be verified to be fully open every 12 hours. This verification ensures that the accumulators are available for injection and ensures timely discovery if a valve should be less than fully open. If an isolation valve is not fully open, the rate of injection to the RCS would be reduced. Although a motor operated valve position should not change with power removed, a closed valve could result in not meeting accident analyses assumptions. This Frequency is considered reasonable in view of other administrative controls that ensure a mispositioned isolation valve is unlikely.

(continued)

BASES

**SURVEILLANCE
REQUIREMENTS**
(continued)

SR 3.5.1.2 and SR 3.5.1.3

Every 12 hours, borated water volume and nitrogen cover pressure are verified for each accumulator. This Frequency is sufficient to ensure adequate injection during a LOCA. Because of the static design of the accumulator, a 12 hour Frequency usually allows the operator to identify changes before limits are reached. Operating experience has shown this Frequency to be appropriate for early detection and correction of off normal trends.

SR 3.5.1.4

The boron concentration should be verified to be within required limits for each accumulator every 31 days since the static design of the accumulators limits the ways in which the concentration can be changed. The 31 day Frequency is adequate to identify changes that could occur from mechanisms such as stratification or inleakage. Sampling the affected accumulator within 6 hours after a 12% level, indicated, increase (approximately 1% of tank volume) will identify whether inleakage has caused a reduction in boron concentration to below the required limit. It is not necessary to verify boron concentration if the added water inventory is from the refueling water storage tank (RWST), when the water contained in the RWST is within the accumulator boron concentration requirements. This is consistent with the recommendation of NUREG-1366 (Ref. 3) ←

Replace with: 4

SR 3.5.1.5

Verification every 31 days that power is removed from each accumulator isolation valve operator when the pressurizer pressure is ≥ 2000 psig ensures that an active failure could not result in the undetected closure of an accumulator motor operated isolation valve. If this were to occur, only one accumulator would be available for injection given a single failure coincident with a LOCA. Therefore, each isolation valve operator is disconnected by a locked open disconnect device. Since power is removed under administrative control, the 31 day Frequency will provide adequate assurance that power is removed.

This SR allows power to be supplied to the motor operated isolation valves when RCS pressure is < 2000 psig, thus allowing operational flexibility by avoiding unnecessary delays to manipulate the breakers during plant startups or shutdowns.

(continued)

BASES

**SURVEILLANCE
REQUIREMENTS**

SR 3.5.1.5 (continued)

Should closure of a valve occur below 2000 psig, the SI signal provided to the valves would open a closed valve in the event of a LOCA.

REFERENCES

1. FSAR, Chapter 15.
2. 10 CFR 50.46
3. NUREG-1366, February 1990.

Add:
3. WCAP-15049-A, Rev. 1,
April 1999.

Replace with: 4

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.1 Accumulators

LCO 3.5.1 Three ECCS accumulators shall be OPERABLE.

APPLICABILITY: MODES 1 and 2,
MODE 3 with RCS pressure > 1000 psig.

-----NOTE-----

In MODE 3, with RCS pressure > 1000 psig, the accumulators may be inoperable for up to 12 hours to perform pressure isolation valve testing per SR 3.4.14.1.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One accumulator inoperable due to boron concentration not within limits.	A.1 Restore boron concentration to within limits.	72 hours
B. One accumulator inoperable for reasons other than Condition A.	B.1 Restore accumulator to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Reduce RCS pressure to ≤ 1000 psig.	12 hours
D. Two or more accumulators inoperable.	D.1 Enter LCO 3.0.3.	Immediately

BASES

ACTIONS
(continued)

B.1

If one accumulator is inoperable for a reason other than boron concentration, the accumulator must be returned to OPERABLE status within 24 hours. In this Condition, the required contents of two accumulators cannot be assumed to reach the core during a LOCA. Due to the severity of the consequences should a LOCA occur in these conditions, the 24 hour Completion Time to open the valve, remove power to the valve, or restore the proper water volume or nitrogen cover pressure ensures that prompt action will be taken to return the inoperable accumulator to OPERABLE status. The Completion Time minimizes the potential for exposure of the plant to a LOCA under these conditions. The 24 hours allowed to restore an inoperable accumulator to OPERABLE status is justified in WCAP-15049-A, Rev. 1 (Ref. 3).

C.1 and C.2

If the accumulator cannot be returned to OPERABLE status within the associated Completion Time, 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 MODE 3 within 6 hours and RCS pressure reduced to ≤ 1000 psig 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.

D.1

If more than one accumulator is inoperable, the plant is in a condition outside the accident analyses; therefore, LCO 3.0.3 must be entered immediately.

**SURVEILLANCE
REQUIREMENTS**

SR 3.5.1.1

Each accumulator valve should be verified to be fully open every 12 hours. This verification ensures that the accumulators are available for injection and ensures timely discovery if a valve should be less than fully open. If an isolation valve is not fully open, the rate of injection to the RCS would be reduced. Although a motor operated valve position should not change with power removed, a closed valve could result in

(continued)

BASES

**SURVEILLANCE
REQUIREMENTS**

SR 3.5.1.1 (continued)

not meeting accident analyses assumptions. This Frequency is considered reasonable in view of other administrative controls that ensure a mispositioned isolation valve is unlikely.

SR 3.5.1.2 and SR 3.5.1.3

Every 12 hours, borated water volume and nitrogen cover pressure are verified for each accumulator. This Frequency is sufficient to ensure adequate injection during a LOCA. Because of the static design of the accumulator, a 12 hour Frequency usually allows the operator to identify changes before limits are reached. Operating experience has shown this Frequency to be appropriate for early detection and correction of off normal trends.

SR 3.5.1.4

The boron concentration should be verified to be within required limits for each accumulator every 31 days since the static design of the accumulators limits the ways in which the concentration can be changed. The 31 day Frequency is adequate to identify changes that could occur from mechanisms such as stratification or inleakage. Sampling the affected accumulator within 6 hours after a 12% level, indicated, increase (approximately 1% of tank volume) will identify whether inleakage has caused a reduction in boron concentration to below the required limit. It is not necessary to verify boron concentration if the added water inventory is from the refueling water storage tank (RWST), when the water contained in the RWST is within the accumulator boron concentration requirements. This is consistent with the recommendation of NUREG-1366 (Ref. 4).

SR 3.5.1.5

Verification every 31 days that power is removed from each accumulator isolation valve operator when the pressurizer pressure is ≥ 2000 psig ensures that an active failure could not result in the undetected closure of an accumulator motor operated isolation valve. If this were to occur, only one accumulator would be available for injection given a single failure coincident with a LOCA. Therefore, each isolation valve operator is disconnected by a locked open disconnect device. Since power is removed under administrative control, the 31 day Frequency will provide adequate assurance that power is removed.

(continued)

BASES

**SURVEILLANCE
REQUIREMENTS**

SR 3.5.1.5 (continued)

This SR allows power to be supplied to the motor operated isolation valves when RCS pressure is < 2000 psig, thus allowing operational flexibility by avoiding unnecessary delays to manipulate the breakers during plant startups or shutdowns.

Should closure of a valve occur below 2000 psig, the SI signal provided to the valves would open a closed valve in the event of a LOCA.

REFERENCES

1. FSAR, Chapter 15.
 2. 10 CFR 50.46
 3. WCAP-15049-A, Rev. 1, April 1999. |
 4. NUREG-1366, February 1990. |
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Enclosure 3

Vogtle Electric Generating Plant

Marked-Up and Clean Typed

TS and TS Bases Pages

Affected Pages

3.5.1-1

B 3.5.1-6

B 3.5.1-8

B 3.5.1-9

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.1 Accumulators

LCO 3.5.1 Four ECCS accumulators shall be OPERABLE.

APPLICABILITY: MODES 1 and 2,
MODE 3 with pressurizer pressure > 1000 psig.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One accumulator inoperable due to boron concentration not within limits.	A.1 Restore boron concentration to within limits.	72 hours
B. One accumulator inoperable for reasons other than Condition A.	B.1 Restore accumulator to OPERABLE status.	1 hour 
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Reduce pressurizer pressure to ≤ 1000 psig.	12 hours
D. Two or more accumulators inoperable.	D.1 Enter LCO 3.0.3.	Immediately

Replace with:
24 hours

BASES (continued)

ACTIONS

A.1

If the boron concentration of one accumulator is not within limits, it must be returned to within the limits within 72 hours. In this Condition, ability to maintain subcriticality or minimum boron precipitation time may be reduced. The boron in the accumulators contributes to the assumption that the combined ECCS water in the partially recovered core during the early reflooding phase of a large break LOCA is sufficient to keep that portion of the core subcritical. One accumulator below the minimum boron concentration limit, however, will have no effect on available 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. The accumulators will discharge following a large main steam line break, however, their impact is minor with respect to this limiting design basis event. Thus, 72 hours is allowed to return the boron concentration to within limits.

B.1

If one accumulator is inoperable for a reason other than boron concentration, the accumulator must be returned to OPERABLE status within 1 hour. In this Condition, the required contents of three accumulators cannot be assumed to reach the core during a LOCA. Due to the severity of the consequences should a LOCA occur in these conditions, the 1-hour Completion Time to open the valve, remove power to the valve, or restore the proper water volume or nitrogen cover pressure ensures that prompt action will be taken to return the inoperable accumulator to OPERABLE status. The Completion Time minimizes the potential for exposure of the plant to a LOCA under these conditions.

Replace with 24 hours

Replace with 24 hour

Add: The 24 hours allowed to restore an inoperable accumulator to OPERABLE status is justified in WCAP-15049-A, Rev. 1 (Ref. 5)

C.1 and C.2

If the accumulator cannot be returned to OPERABLE status within the associated Completion Time, 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 MODE 3 within 6 hours and pressurizer pressure reduced to

(continued)

BASES

**SURVEILLANCE
REQUIREMENTS**
(continued)

SR 3.5.1.4

The boron concentration should be verified to be within required limits for each accumulator every 31 days since the static design of the accumulators limits the ways in which the concentration can be changed. The 31 day Frequency is adequate to identify changes that could occur from mechanisms such as stratification or inleakage. Sampling the affected accumulator within 6 hours after a 1% volume increase (7% of indicated level) will identify whether inleakage has caused a reduction in boron concentration to below the required limit. It is not necessary to verify boron concentration if the added water inventory is from the refueling water storage tank (RWST), because the water contained in the RWST is within the accumulator boron concentration requirements. This is consistent with the recommendation of NUREG-1366 (Ref. 5).

Replace with Ref. 6.

SR 3.5.1.5

Verification every 31 days that power is removed from each accumulator isolation valve operator when the pressurizer pressure is > 1000 psig ensures that an active failure could not result in the undetected closure of an accumulator motor operated isolation valve. If this were to occur, only two accumulators would be available for injection given a single failure coincident with a LOCA. Since power is removed under administrative control, the 31 day Frequency will provide adequate assurance that power is removed.

This SR allows power to be supplied to the motor operated isolation valves when pressurizer pressure is \leq 1000 psig, thus allowing operational flexibility by avoiding unnecessary delays to manipulate the breakers during plant startups or shutdowns.

(continued)

BASES (continued)

REFERENCES

1. Deleted.
2. FSAR, Chapter 6.
3. 10 CFR 50.46.
4. FSAR, Chapter 15.
5. NUREG-1366, February 1990.

Add: 5. WCAP-15049-A, Rev. 1,
April 1999.

Change Ref. 5 to 6.

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.1 Accumulators

LCO 3.5.1 Four ECCS accumulators shall be OPERABLE.

APPLICABILITY: MODES 1 and 2,
MODE 3 with pressurizer pressure > 1000 psig.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One accumulator inoperable due to boron concentration not within limits.	A.1 Restore boron concentration to within limits.	72 hours
B. One accumulator inoperable for reasons other than Condition A.	B.1 Restore accumulator to OPERABLE status.	24 hours
C. Required Action and associated Completion Time of Condition A or B not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Reduce pressurizer pressure to ≤ 1000 psig.	12 hours
D. Two or more accumulators inoperable.	D.1 Enter LCO 3.0.3.	Immediately

BASES (continued)

ACTIONS

A.1

If the boron concentration of one accumulator is not within limits, it must be returned to within the limits within 72 hours. In this Condition, ability to maintain subcriticality or minimum boron precipitation time may be reduced. The boron in the accumulators contributes to the assumption that the combined ECCS water in the partially recovered core during the early reflooding phase of a large break LOCA is sufficient to keep that portion of the core subcritical. One accumulator below the minimum boron concentration limit, however, will have no effect on available 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. The accumulators will discharge following a large main steam line break, however, their impact is minor with respect to this limiting design basis event. Thus, 72 hours is allowed to return the boron concentration to within limits.

B.1

If one accumulator is inoperable for a reason other than boron concentration, the accumulator must be returned to OPERABLE status within 24 hours. In this Condition, the required contents of three accumulators cannot be assumed to reach the core during a LOCA. Due to the severity of the consequences should a LOCA occur in these conditions, the 24 hour Completion Time to open the valve, remove power to the valve, or restore the proper water volume or nitrogen cover pressure ensures that prompt action will be taken to return the inoperable accumulator to OPERABLE status. The Completion Time minimizes the potential for exposure of the plant to a LOCA under these conditions. The 24 hours allowed to restore an inoperable accumulator to OPERABLE status is justified in WCAP-15049-A, Rev. 1 (Ref. 5)

C.1 and C.2

If the accumulator cannot be returned to OPERABLE status within the associated Completion Time, 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 MODE 3 within 6 hours and pressurizer pressure reduced to

(continued)

BASES

**SURVEILLANCE
REQUIREMENTS
(continued)**

SR 3.5.1.4

The boron concentration should be verified to be within required limits for each accumulator every 31 days since the static design of the accumulators limits the ways in which the concentration can be changed. The 31 day Frequency is adequate to identify changes that could occur from mechanisms such as stratification or inleakage. Sampling the affected accumulator within 6 hours after a 1% volume increase (7% of indicated level) will identify whether inleakage has caused a reduction in boron concentration to below the required limit. It is not necessary to verify boron concentration if the added water inventory is from the refueling water storage tank (RWST), because the water contained in the RWST is within the accumulator boron concentration requirements. This is consistent with the recommendation of NUREG-1366 (Ref. 6).

SR 3.5.1.5

Verification every 31 days that power is removed from each accumulator isolation valve operator when the pressurizer pressure is > 1000 psig ensures that an active failure could not result in the undetected closure of an accumulator motor operated isolation valve. If this were to occur, only two accumulators would be available for injection given a single failure coincident with a LOCA. Since power is removed under administrative control, the 31 day Frequency will provide adequate assurance that power is removed.

This SR allows power to be supplied to the motor operated isolation valves when pressurizer pressure is \leq 1000 psig, thus allowing operational flexibility by avoiding unnecessary delays to manipulate the breakers during plant startups or shutdowns.

(continued)

BASES (continued)

REFERENCES

1. Deleted.
 2. FSAR, Chapter 6.
 3. 10 CFR 50.46.
 4. FSAR, Chapter 15.
 5. WCAP-15049-A, Rev. 1, April 1999.
 6. NUREG-1366, February 1990.
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