

**Advanced Passive 1000 (AP1000)
Generic Technical Specification Traveler (GTST)**

Title: Revision of AP1000 GTS Subsection 3.9.1, Boron Concentration

I. Technical Specifications Task Force (TSTF) Travelers, Approved Since Revision 2 of STS NUREG-1431, and Used to Develop this GTST

TSTF Number and Title:

TSTF-471-A, Rev. 1: Eliminate use of term CORE ALTERATIONS in ACTIONS and Notes

STS NUREGs Affected:

TSTF-471-A, Rev. 1: NUREG-1430, -1431, -1432

NRC Approval Date:

TSTF-471-A, Rev. 1: 07-DEC-06

TSTF Classification:

TSTF-471-A, Rev. 1: Technical Change

II. Reference Combined License (RCOL) Standard Departures (Std. Dep.), RCOL COL Items, and RCOL Plant-Specific Technical Specifications (PTS) Changes Used to Develop this GTST

RCOL Std. Dep. Number and Title:

Not Applicable

RCOL COL Item Number and Title:

Not Applicable

RCOL PTS Change Number and Title:

The Vogtle Electric Generating Plant Units 3 and 4 License Amendment Request (VEGP LAR) proposed the following changes to the initial version of the PTS (referred to as the current TS by the VEGP LAR).

These changes include Administrative Changes (A) and Less Restrictive Changes (L) and are discussed in enumerated discussions of change (DOCs). These changes are discussed in Sections VI and VII of this GTST.

DOC A114: Revises the Note to the Applicability

DOC L03: Deletes the Required Action A.1 and renumbering subsequent Actions

III. Comments on Relations Among TSTFs, RCOL Std. Dep., RCOL COL Items, and RCOL PTS Changes

This section discusses changes: (1) that were applicable to previous designs, but are not to the current design; (2) that are already incorporated in the GTS; and (3) that are superseded by another change.

In the AP1000 LCO and Bases GTS 3.9.1 'Boron Concentration,' TSTF 471-A, Rev. 1 removes the term CORE ALTERATIONS and makes corresponding adjustments to the text in each section. In most cases, this change consists of removing the words "CORE ALTERATIONS" and leaving or inserting the phrase "positive reactivity additions." The effects of these changes are visible in NUREG-1431, Rev. 4.

Similar to TSTF 471-A, Rev. 1, DOC L03 also removes the term "CORE ALTERATIONS" and makes corresponding adjustments to the text in this subsection.

IV. Additional Changes Proposed as Part of this GTST (modifications proposed by NRC staff and/or clear editorial changes or deviations identified by preparer of GTST)

None

V. Applicability

Affected Generic Technical Specifications and Bases:

Section 3.9.1 Boron Concentration

Changes to the Generic Technical Specifications and Bases:

TSTF 471-A, Rev. 1 removes the term "CORE ALTERATIONS" and makes corresponding adjustments to the text in this subsection. In most cases, this change consists of removing the words "CORE ALTERATIONS" and leaving or inserting the phrase "positive reactivity additions."

VI. Traveler Information

Description of TSTF changes:

TSTF-471-A, Rev. 1 made the following changes to WOG STS 3.9.1, Rev. 3:

In LCO Subsection 3.9.1: Boron Concentration

- Required Action A.1, "Suspend CORE ALTERATIONS" and its completion time are removed.
- The underlined word AND is removed.
- The following Item A.2 "Suspend positive reactivity additions" becomes the new item A.1, with its corresponding completion time (Immediately).
- Item A.3 (and its completion time) is renumbered to A.2.

In the Bases subsection B 3.9.1, Boron Concentration

-the ACTIONS section has a part A.1 and A.2, and also a part A.3. The term "CORE ALTERATIONS" appears four times in this subsection followed by the words "or positive reactivity additions" or "and positive reactivity additions." The change involves removing the term "CORE ALTERATIONS" and either the 'or' or 'and' leaving only the phrase positive reactivity additions.

Rationale for TSTF changes:

TSTF-51-A, Rev. 2 eliminated all uses of the defined term "CORE ALTERATIONS" from Applicability statements in the PWR NUREGs and most uses of "CORE ALTERATIONS" in Required Actions.

TSTF-471-A, Rev. 1 eliminates the few remaining instances of the defined term "CORE ALTERATIONS" from the PWR IRS NUREGs. This GTST continues the removal of the defined term "CORE ALTERATIONS" from the AP1000 Technical Specifications. (This includes the removal of the defined term "CORE ALTERATIONS" from the list of definitions found in GTS 1.1)

Description of changes in RCOL Std. Dep., RCOL COL Item(s), and RCOL PTS Changes:

Administrative Changes (A):

DOC A114:

The phrase in the Note to the Applicability in LCO 3.9.1 is revised from:

"Only applicable to the fuel transfer canal and the refueling cavity when connected to the RCS."
to

"Applicable to the fuel transfer canal and the refueling cavity only when connected to the RCS."

Also a new paragraph is added to the Applicability in the Bases B 3.9.1 explaining the Note in the corresponding Applicability in LCO 3.9.1. The new paragraph states the following:

“The Applicability is modified by a Note. The Note states that the limits on boron concentration are applicable to the refueling canal and the refueling cavity only when those volumes are connected to the RCS. When the refueling canal and the refueling cavity are isolated from the RCS, no potential path for boron dilution exists from those volumes.”

Less Restrictive Changes (L):

DOC L03:

Similar to TSTF-471-A, Rev. 1, DOC L03 deletes the Required Action A.1 from LCO 3.9.1 and renumbers the subsequent Required Actions.

Rationale for changes in RCOL Std. Dep., RCOL COL Item(s), and RCOL PTS Changes:

The change proposed by DOC A114 to change the wording preference for the Note of the Applicability is made to provide clarification. According to VEGP TSU, the current wording of the Note could imply that "only" the fuel transfer canal and the refueling cavity boron concentration are required to meet the LCO when these two areas are connected to the Reactor Coolant System (RCS). However, the correct meaning of the Note is that the boron concentration limit is applicable to the two areas only when the two areas are actually connected to the RCS. To alleviate any misunderstanding of the Note, the term "only" is moved to reflect the correct meaning. This change is designated as an administrative change and is acceptable because it does not result in technical changes to the TS.

According to DOC L03 for Condition A, “If boron concentration is not within limit, the Required Actions require immediate suspension of core alterations, immediate suspension of positive reactivity additions, and immediate actions to restore the boron concentration within limits. This Specification is concerned with a boron dilution incident. The requirement to suspend positive reactivity additions and initiate actions to restore boron concentration to within limits are the appropriate actions needed to compensate for boron concentration not within limits, thus minimizing the consequences of a potential boron dilution incident. Therefore, the Action to suspend core alterations provides no safety benefit and is not needed.”

Accordingly, the changes made by DOC A114 and DOC L03 are acceptable and are implemented by this GTST in AP1000 STS 3.9.1, Rev. 0.

Description of additional changes proposed by NRC staff/preparer of GTST:

None

Rationale for additional changes proposed by NRC staff/preparer of GTST:

Not applicable

VII. GTST Safety Evaluation

Technical Analysis:

In the WOG and BWOG NUREGs CORE ALTERATION is defined as “the movement of any fuel, sources, or reactivity control components, within the reactor vessel with the vessel head removed and fuel in the vessel. Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

Evaluations performed for TSTF-471-A, Rev. 1 indicate that CORE ALTERATIONS can only occur in mode 6 when the reactor vessel head is removed. The only accidents considered for mode 6 for PWR reactors is a fuel handling accident and a boron dilution accident. If all Required Actions that require suspension of CORE ALTERATIONS also require suspension of movement of [recently] irradiated fuel, suspension of CORE ALTERATIONS provides no safety benefit.

The removal of the term CORE ALTERATIONS is usually replaced by or leaves remaining, the term “positive reactivity additions.” A review of circumstances related to fuel handling accidents and boron dilution accidents concludes that the action to suspend CORE ALTERATIONS provides no benefit, and is not needed. Hence a finding of “no significant hazards consideration” is justified.

TSTF-51-A, Rev. 2 eliminated all uses of the defined term CORE ALTERATIONS from Applicability statements in the PWR NUREGs and most uses of CORE ALTERATIONS in Required Actions. Thus the term CORE ALTERATIONS can be removed from the definitions of Chapter 1 and removed from usage in all other places in the Technical Specifications of NUREG-1431 and AP1000 GTS.

The above changes are implemented by this GTST in AP1000 STS 3.9.1, Rev. 0 to comply with TSTF-471-A, Rev.1 and to be consistent with the corresponding sections of NUREG-1431, Rev. 4.

Technical discussion for the changes proposed by DOC A114 and DOC L03 are covered in the previous section VI of this GTST under “Rationale for changes in RCOL Std. Dep., RCOL COL Item(s), and RCOL PTS Changes.”

References to Previous NRC Safety Evaluation Reports (SERs):

None

VIII. Review Information

Evaluator Comments:

The defined term CORE ALTERATIONS is removed from the list of definitions found in AP1000 GTS 1.1.

Note that the term CORE ALTERATIONS also appears in Subsections 3.8.2, 3.8.6, 3.9.2, and 3.9.3 of the AP1000 GTS.

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Review Information:

Availability for public review and comment on Revision 0 of this traveler approved by NRC staff on Friday, May 23, 2014.

NRC Final Approval Date:

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IX. Evaluator Comments for Consideration in Finalizing Technical Specifications and Bases

None

X. References Used in GTST

1. AP1000 DCD, Revision 19, Section 16, "Technical Specifications," June 2011 (ML11171A500).
2. Vogtle Electric Generating Plant (VEGP), Units 3 & 4 COL Application, Part 4, Technical Specifications, Revision 3 (ML11180A102, 07/01/2011).
3. Vogtle Electric Generating Plant (VEGP) Units 3 and 4 - Final Safety Evaluation Report (ML110450302, 08/10/2011)
4. Southern Nuclear Operating Company, Vogtle Electric Generating Plant, Unit 3 and 4, Technical Specifications Upgrade License Amendment Request, February 24, 2011 (ML12065A057).
5. RAI Letter No. 01 Related to License Amendment Request (LAR) 12-002 for the Vogtle Electric Generating Plant Units 3 and 4 Combined Licenses, September 07, 2012 (ML12251A355).
6. Southern Nuclear Operating Company, Vogtle Electric Generating Plant, Units 3 and 4, Response to Request for Additional Information Letter No. 01 Related to License Amendment Request LAR-12-002, ND-12-2015, October 04, 2012 (ML12286A363 and ML12286A360)
7. NRC Safety Evaluation (SE) for Amendment No. 13 to Combined License (COL) No. NPF- 91 for Vogtle Electric Generating Plant (VEGP) Unit 3, and Amendment No. 13 to COL No. NPF-92 for VEGP Unit 4, September 9, 2013 (ADAMS Package Accession No. ML13238A337), which contains:

ML13238A355 Cover Letter - Issuance of License Amendment No. 13 for Vogtle Units 3 and 4 (LAR 12-002).

ML13238A359 Enclosure 1 - Amendment No. 13 to COL No. NPF-91

ML13239A256 Enclosure 2 - Amendment No. 13 to COL No. NPF-92

ML13239A284 Enclosure 3 - Revised plant-specific TS pages (Attachment to Amendment No. 13)

ML13239A287 Enclosure 4 - Safety Evaluation (SE), and Attachment 1 - Acronyms

ML13239A288 SE Attachment 2 - Table A - Administrative Changes

ML13239A319 SE Attachment 3 - Table M - More Restrictive Changes

ML13239A333 SE Attachment 4 - Table R - Relocated Specifications

ML13239A331 SE Attachment 5 - Table D - Detail Removed Changes

ML13239A316 SE Attachment 6 - Table L - Less Restrictive Changes

The following documents were subsequently issued to correct an administrative error in Enclosure 3:

ML13277A616 Letter - Correction To The Attachment (Replacement Pages) - Vogtle Electric Generating Plant Units 3 and 4- Issuance of Amendment Re: Technical Specifications Upgrade (LAR 12-002) (TAC No. RP9402)

ML13277A637 Enclosure 3 - Revised plant-specific TS pages (Attachment to Amendment No. 13) (corrected)

XI. MARKUP of the Applicable GTS Section for Preparation of the STS NUREG

The entire section of the Specifications and the Bases associated with this GTST is presented next.

Changes to the Specifications and Bases are denoted as follows: Deleted portions are marked in strikethrough red font, and inserted portions in bold blue font.

3.9 REFUELING OPERATIONS

3.9.1 Boron Concentration

LCO 3.9.1 Boron concentration of the Reactor Coolant System (RCS), the fuel transfer canal, and the refueling cavity shall be maintained within the limit specified in COLR.

APPLICABILITY: MODE 6

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Boron concentration not within limit.	A.1 Suspend CORE ALTERATIONS.	Immediately
	<u>AND</u>	
	A.21 Suspend positive reactivity additions.	Immediately
	<u>AND</u>	
	A.32 Initiate actions to restore boron concentration to within limits.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.1.1 Verify boron concentration is within the limit specified in the COLR.	72 hours

B 3.9 REFUELING OPERATIONS

B 3.9.1 Boron Concentration

BASES

BACKGROUND

The limit on the boron concentration of the Reactor Coolant System (RCS), the refueling cavity, and the transfer tube during refueling ensures that the reactor remains subcritical during MODE 6. Refueling boron concentration is the soluble boron concentration in the coolant in each of these volumes having direct access to the reactor core during refueling.

The soluble boron concentration offsets the core reactivity and is measured by chemical analysis of a representative sample of the coolant in each of the volumes. The refueling boron concentration limit is specified in the COLR. Plant procedures ensure the specified boron concentration in order to maintain an overall core reactivity of $k_{eff} \leq 0.95$ during fuel handling with control rods and fuel assemblies assumed to be in the most adverse configuration (least negative reactivity) allowed by procedures.

GDC 26 of 10 CFR 50, Appendix A requires that two independent reactivity control systems of different design principles be provided (Ref. 3). One of these systems, the Passive Core Cooling System (PXS), is capable of holding the core subcritical under safe shutdown conditions as described in Section 7.4.

The reactor is brought to shutdown conditions before beginning operations to open the reactor vessel for refueling. After the RCS is cooled down and depressurized, the vessel head is unbolted and slowly removed. The refueling cavity and the fuel transfer canal are then flooded with borated water from the In-containment Refueling Water Storage Tank (IRWST) by the use of the Spent Fuel Pool Cooling System (SFS).

During refueling, the water volumes in the RCS, the fuel transfer canal and the refueling cavity are contiguous. However, the soluble boron concentration is not necessarily the same in each volume. If additions of boron are required during refueling, the Chemical and Volume Control System (CVS) provides the borated makeup.

The pumping action of the Normal Residual Heat Removal System (RNS) in the RCS, the SFS pumps in the spent fuel pool and refueling

BASES

BACKGROUND (continued)

cavity, and the natural circulation due to thermal driving heads in the reactor vessel and refueling cavity mix the added concentrated boric acid with the water in the fuel transfer canal. The RNS is in operation during refueling to provide forced circulation in the RCS, while the SFS is in operation to cool and purify the spent fuel pool and refueling cavity. Their operation assists in maintaining the boron concentration in the RCS, the refueling cavity, and fuel transfer canal above the COLR limit.

**APPLICABLE
SAFETY
ANALYSES**

The boron concentration limit, specified in the COLR, is based on the core reactivity at the beginning of each fuel cycle (the end of refueling) and includes an uncertainty allowance.

The required boron concentration and the plant refueling procedures that verify the correct fuel loading plan (including full core mapping) ensure that the k_{eff} of the core will remain ≤ 0.95 during the refueling operation. Hence, at least a 5% $\Delta k/k$ margin of safety is established during refueling.

The RCS boron concentration satisfies Criterion 2 of 10 CFR 50.36(c)(2)(ii).

LCO

The LCO requires that a minimum boron concentration be maintained in the RCS, the refueling cavity and the transfer tube while in MODE 6. The boron concentration limit specified in the COLR ensures that a core $k_{\text{eff}} \leq 0.95$ is maintained during fuel handling operations. Violation of the LCO could lead to an inadvertent criticality during MODE 6.

APPLICABILITY

This LCO is applicable in MODE 6 to ensure that the fuel in the reactor vessel will remain subcritical. The required boron concentration ensures a k_{eff} of ≤ 0.95 . Above MODE 6, LCO 3.1.1, "SHUTDOWN MARGIN (SDM)" ensures that an adequate amount of negative reactivity is available to shut down the reactor and maintain it subcritical.

The Applicability is modified by a Note. The Note states that the limits on boron concentration are applicable to the refueling canal and the refueling cavity only when those volumes are connected to the RCS. When the refueling canal and the refueling cavity are isolated from the RCS, no potential path for boron dilution exists from those volumes.

BASES

ACTIONSA.1 and A.2

Continuation of ~~CORE ALTERATIONS~~ or positive reactivity additions (including actions to reduce boron concentration) is contingent upon maintaining the plant in compliance with the LCO. If the boron concentration of any coolant volume in the RCS, the refueling cavity, or the fuel transfer canal is less than its limit, all operations involving ~~CORE ALTERATIONS~~ or positive reactivity additions must be suspended immediately.

Suspension of ~~CORE ALTERATIONS~~ and positive reactivity additions shall not preclude completion of actions to establish a safe condition, including moving a component to a safe position.

A.32

In addition to immediately suspending ~~CORE ALTERATIONS~~ or positive reactivity additions, boration to restore the concentration must be initiated immediately.

In determining the required combination of boration flow rate and concentration, no unique design basis accident (DBA) must be satisfied. The only requirement is to restore the boron concentration to its required value as soon as possible. In order to raise the boron concentration as soon as possible, the operator shall begin boration with the best source available for plant operations.

Once boration is initiated, it must be continued until the boron concentration is restored. The restoration time depends on the amount of boron that must be injected to reach the required concentration.

**SURVEILLANCE
REQUIREMENTS**SR 3.9.1.1

This SR verifies that the coolant boron concentration in the RCS, the refueling cavity and the fuel transfer canal is within the COLR limit. The boron concentration of the coolant in each volume is determined periodically by chemical analysis.

A minimum Frequency of once every 72 hours is a sufficient interval to verify the boron concentration. The surveillance interval is based on operating experience, isolation of unborated water sources in accordance with LCO 3.9.2, and the availability of the source range neutron flux monitors required by LCO 3.9.3.

BASES

REFERENCES

1. Chapter 15, "Accident Analysis."
 2. NS-57.2, ANSI/ANS-57.2-1983, Section 6.4.2.2.3, American Nuclear Society, American National Standard, "Design Requirements for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Plants," 1983.
 3. 10 CFR 50, Appendix A, GDC 26.
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XII. Applicable STS Subsection After Incorporation of this GTST's Modifications

The entire subsection of the Specifications and the Bases associated with this GTST, following incorporation of the modifications, is presented next.

3.9 REFUELING OPERATIONS

3.9.1 Boron Concentration

LCO 3.9.1 Boron concentration of the Reactor Coolant System (RCS), the fuel transfer canal, and the refueling cavity shall be maintained within the limit specified in COLR.

APPLICABILITY: MODE 6

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Boron concentration not within limit.	A.1 Suspend positive reactivity additions.	Immediately
	<u>AND</u> A.2 Initiate actions to restore boron concentration to within limits.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.9.1.1 Verify boron concentration is within the limit specified in the COLR.	72 hours

B 3.9 REFUELING OPERATIONS

B 3.9.1 Boron Concentration

BASES

BACKGROUND The limit on the boron concentration of the Reactor Coolant System (RCS), the refueling cavity, and the transfer tube during refueling ensures that the reactor remains subcritical during MODE 6. Refueling boron concentration is the soluble boron concentration in the coolant in each of these volumes having direct access to the reactor core during refueling.

The soluble boron concentration offsets the core reactivity and is measured by chemical analysis of a representative sample of the coolant in each of the volumes. The refueling boron concentration limit is specified in the COLR. Plant procedures ensure the specified boron concentration in order to maintain an overall core reactivity of $k_{eff} \leq 0.95$ during fuel handling with control rods and fuel assemblies assumed to be in the most adverse configuration (least negative reactivity) allowed by procedures.

GDC 26 of 10 CFR 50, Appendix A requires that two independent reactivity control systems of different design principles be provided (Ref. 3). One of these systems, the Passive Core Cooling System (PXS), is capable of holding the core subcritical under safe shutdown conditions as described in Section 7.4.

The reactor is brought to shutdown conditions before beginning operations to open the reactor vessel for refueling. After the RCS is cooled down and depressurized, the vessel head is unbolted and slowly removed. The refueling cavity and the fuel transfer canal are then flooded with borated water from the In-containment Refueling Water Storage Tank (IRWST) by the use of the Spent Fuel Pool Cooling System (SFS).

During refueling, the water volumes in the RCS, the fuel transfer canal and the refueling cavity are contiguous. However, the soluble boron concentration is not necessarily the same in each volume. If additions of boron are required during refueling, the Chemical and Volume Control System (CVS) provides the borated makeup.

The pumping action of the Normal Residual Heat Removal System (RNS) in the RCS, the SFS pumps in the spent fuel pool and refueling

BASES

BACKGROUND (continued)

cavity, and the natural circulation due to thermal driving heads in the reactor vessel and refueling cavity mix the added concentrated boric acid with the water in the fuel transfer canal. The RNS is in operation during refueling to provide forced circulation in the RCS, while the SFS is in operation to cool and purify the spent fuel pool and refueling cavity. Their operation assists in maintaining the boron concentration in the RCS, the refueling cavity, and fuel transfer canal above the COLR limit.

**APPLICABLE
SAFETY
ANALYSES**

The boron concentration limit, specified in the COLR, is based on the core reactivity at the beginning of each fuel cycle (the end of refueling) and includes an uncertainty allowance.

The required boron concentration and the plant refueling procedures that verify the correct fuel loading plan (including full core mapping) ensure that the k_{eff} of the core will remain ≤ 0.95 during the refueling operation. Hence, at least a 5% $\Delta k/k$ margin of safety is established during refueling.

The RCS boron concentration satisfies Criterion 2 of 10 CFR 50.36(c)(2)(ii).

LCO

The LCO requires that a minimum boron concentration be maintained in the RCS, the refueling cavity and the transfer tube while in MODE 6. The boron concentration limit specified in the COLR ensures that a core $k_{\text{eff}} \leq 0.95$ is maintained during fuel handling operations. Violation of the LCO could lead to an inadvertent criticality during MODE 6.

APPLICABILITY

This LCO is applicable in MODE 6 to ensure that the fuel in the reactor vessel will remain subcritical. The required boron concentration ensures a k_{eff} of ≤ 0.95 . Above MODE 6, LCO 3.1.1, "SHUTDOWN MARGIN (SDM)" ensures that an adequate amount of negative reactivity is available to shut down the reactor and maintain it subcritical.

The Applicability is modified by a Note. The Note states that the limits on boron concentration are applicable to the refueling canal and the refueling cavity only when those volumes are connected to the RCS. When the refueling canal and the refueling cavity are isolated from the RCS, no potential path for boron dilution exists from those volumes.

BASES

ACTIONS

A.1 Continuation of positive reactivity additions (including actions to reduce boron concentration) is contingent upon maintaining the plant in compliance with the LCO. If the boron concentration of any coolant volume in the RCS, the refueling cavity, or the fuel transfer canal is less than its limit, all operations involving positive reactivity additions must be suspended immediately.

Suspension of positive reactivity additions shall not preclude completion of actions to establish a safe condition, including moving a component to a safe position.

A.2

In addition to immediately suspending positive reactivity additions, boration to restore the concentration must be initiated immediately.

In determining the required combination of boration flow rate and concentration, no unique design basis accident (DBA) must be satisfied. The only requirement is to restore the boron concentration to its required value as soon as possible. In order to raise the boron concentration as soon as possible, the operator shall begin boration with the best source available for plant operations.

Once boration is initiated, it must be continued until the boron concentration is restored. The restoration time depends on the amount of boron that must be injected to reach the required concentration.

**SURVEILLANCE
REQUIREMENTS**SR 3.9.1.1

This SR verifies that the coolant boron concentration in the RCS, the refueling cavity and the fuel transfer canal is within the COLR limit. The boron concentration of the coolant in each volume is determined periodically by chemical analysis.

A minimum Frequency of once every 72 hours is a sufficient interval to verify the boron concentration. The surveillance interval is based on operating experience, isolation of unborated water sources in accordance with LCO 3.9.2, and the availability of the source range neutron flux monitors required by LCO 3.9.3.

BASES

REFERENCES

1. Chapter 15, "Accident Analysis."
 2. NS-57.2, ANSI/ANS-57.2-1983, Section 6.4.2.2.3, American Nuclear Society, American National Standard, "Design Requirements for Light Water Reactor Spent Fuel Storage Facilities at Nuclear Power Plants," 1983.
 3. 10 CFR 50, Appendix A, GDC 26.
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