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HDI PNP 2024-027

10 CFR 50.90

July 09, 2024

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

Palisades Nuclear Plant
NRC Docket No. 50-255
Renewed Facility Operating License No. DPR-20

Reference: Holtec Decommissioning International, LLC letter to U.S. Nuclear Regulatory Commission (HDI PNP 2023-030), "License Amendment Request to Revise Renewed Facility Operating License and Permanently Defueled Technical Specifications to Support Resumption of Power Operations" dated December 14, 2023 (ADAMS Accession No. ML23348A148)

Subject: Supplement to License Amendment Request to Revise Renewed Facility Operating License and Permanently Defueled Technical Specifications to Support Resumption of Power Operations

In the above referenced letter, HDI PNP 2023-030, Holtec Decommissioning International, LLC (HDI) on behalf of Holtec Palisades LLC, requested U. S. Nuclear Regulatory Commission (NRC) review and approval of a proposed license amendment request (LAR) to revise the Palisades Nuclear Plant (PNP) Renewed Facility Operating License (RFOL) DPR-20. The proposed LAR would revise the RFOL, Appendix A Permanently Defueled Technical Specifications (PDTS), and the Appendix B Environmental Protection Plan (EPP) to reflect the resumption of power operations at PNP.

Since submittal of HDI PNP 2023-030, the NRC has informed HDI of several items that potentially could require clarification or administrative corrections. HDI has reviewed the NRC identified items and is submitting this supplemental information to provide further clarity and administrative corrections to HDI PNP 2023-030.

The enclosure to this letter provides supplemental information to the HDI PNP 2023-030 enclosure titled "Evaluation of Proposed Changes." Enclosure Attachment 1 to this letter provides updated Proposed Changes (mark-up) to the Palisades Plant Renewed Facility Operating License DRP-20 and Appendix A Permanently Defueled Technical Specifications. Enclosure Attachment 2 to this letter provides updated retyped RFOL and Technical Specifications (TS) pages. Enclosure Attachment 3 to this letter provides updated TS Bases changes. The proposed TS Bases changes are provided for information and will be incorporated in accordance with the TS Bases Control Program upon implementation of the approved amendment.

This supplement does not alter the no significant hazards consideration or environmental evaluation contained in the above Reference (HDI PNP 2023-030).

In accordance with 10 CFR 50.91(b), *State consultation*, HDI is notifying the State of Michigan of this LAR supplement by transmitting a copy of this letter, with its enclosures, to the designated State of Michigan official.

This letter contains no new regulatory commitments and no revisions to existing regulatory commitments.

If you have any questions regarding this submittal, please contact Jim Miksa, Manager Regulatory Assurance, Palisades, at (269) 764-2945.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 09, 2024.

Respectfully,

Jean A. Fleming

Digitally signed by Jean A. Fleming
DN: cn=Jean A. Fleming, c=US, o=Holtec Decommissioning International, LLC, ou=Regulatory and Environmental Affairs, email=J.Fleming@Holtec.com
Date: 2024.07.09 11:14:35 -04'00'

Jean A. Fleming
Vice President of Licensing and Regulatory Affairs
Holtec International

Enclosure: Updates to License Amendment Request (LAR) Evaluation of Proposed Changes

Enclosure Attachments:

1. Updated Proposed Changes (mark-up) to Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Permanently Defueled Technical Specifications

2. Updated Retyped Pages for the Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Technical Specifications

3. Updated Proposed Technical Specifications Bases Changes (for information only)

cc: NRC Region III Regional Administrator
NRC Senior Resident Inspector – PNP
NRC Project Manager PNP
Designated Michigan State Official

HDI PNP 2024-027

Enclosure

Updates to License Amendment Request (LAR) Evaluation of Proposed Changes

Updates to License Amendment Request (LAR) Evaluation of Proposed Changes

Provided below is supplemental information and administrative updates to the Holtec Decommissioning International, LLC (HDI) letter to the U.S. Nuclear Regulatory Commission (HDI PNP 2023-030), "License Amendment Request to Revise Renewed Facility Operating License and Permanently Defueled Technical Specifications to Support Resumption of Power Operations" dated December 14, 2023 (Reference 1) for Palisades Nuclear Plant (PNP). HDI is submitting this supplemental information to provide further clarity and administrative corrections to HDI PNP 2023-030.

The supplemental information and administrative updates are listed below as items and are arranged in the order in which they appear in HDI PNP 2023-030. For each item the location in HDI PNP 2023-030, the original text in HDI PNP 2023-030 (if applicable), the updated text, and the reason for the change is provided.

Item 1 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Section affected:

Table of Contents, Page 2 of 97 and 3.2 Evaluation of the Proposed Change, page 17 of 97

HDI PNP 2023-030 text	**Updated text**
Table of Contents "3.1.2 Proposed Changes to the Permanently Defueled Technical Specifications" Section Title "3.1.2 Proposed Changes to the Permanently Defueled Technical Specifications"	Table of Contents **3.2.2** Proposed Changes to the Permanently Defueled Technical Specifications Section Title **3.2.2** Proposed Changes to the Permanently Defueled Technical Specifications

Reason:

The misnumbering of this section is an editorial error. It is listed within section 3.2, "Evaluation of the Proposed Change" and should be numbered 3.2.2

Item 2 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Section affected:

3.2.1, Proposed Changes to the PNP Renewed Facility Operating License, Page 8 of 97, 1st paragraph

HDI PNP 2023-030 text	**Updated text**
"License Conditions removed in Amendment 272 because they were identified as historical Conditions will not be reinstated (i.e., original License Conditions 2.C(4), 2.C(7), 2.H, and 2.I)."	License Conditions removed in Amendment 272 because they were identified as historical Conditions will not be reinstated (i.e., original License Conditions 2.C(4) and 2.C(7) ~~2.H, and 2.I~~).

Reason:

License Conditions 2.H and 2.I associated with Palisades license renewal period will be reinstated to support HDI plans to pursue subsequent license renewal. See Item 5. This is consistent with subsequent license renewal industry precedent.

Item 3 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Section affected:

3.2.1, Proposed Changes to the PNP Renewed Facility Operating License (RFOL), Page 8 of 97

Updated text

Add as 3rd paragraph: **Prior to and since docketing of the 10 CFR 50.82(a)(1) certifications, there have been no non-conservative Technical Specifications (TS) entered in the Palisades corrective action process. Therefore, the process described by Regulatory Guide 1.239 (ML20294A510) is not needed for this license amendment.**

Reason:

HDI PNP 2023-030 did not specifically document that there were no unresolved non-conservative PNP Technical Specifications (TS) in the PNP corrective action process prior to transitioning to permanently defueled technical specifications. Therefore, this supplemental information to HDI PNP 2023-030 is provided to clarify that there were no non-conservative TS associated with PNP TS prior to or since docketing the 10 CFR 50.82(a)(1) certifications.

Item 4 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Section affected:

3.2.1, Proposed Changes to the PNP Renewed Facility Operating License, Page 8 of 97

Updated text

Add as 4th paragraph: **License Condition 2.E. for the PNP Physical Security Plan (PSP) is not proposed for modification by this power operations technical specification LAR and was not modified by the PDTS amendment. License condition 2.E remains unchanged from the pre-permanent cessation of power operations / permanent removal of fuel from the PNP reactor power operations technical specifications version. However, the Palisades Physical security plan has been revised since certification of permanent defueling and permanent removal of fuel from the reactor to reflect the reduced risks of a reactor in decommissioning. To support the transition of PNP back to a power operations plant the PSP will be updated, in accordance with 10 CFR 50.54(p), *Conditions of licenses,* to reflect the docketed version that was in effect prior to the 10 CFR 50.82(a)(1) certifications, PSP Revision 16 (Reference 16). Any PSP changes made during decommissioning that will be retained in the reinstated POLB PSP have been or will be evaluated in accordance with 50.54(p) against the PNP POLB to determine if NRC approval is required to retain the change prior to exiting the period of decommissioning. The power operations PSP revision will be implemented coincident with the implementation of the power operations technical specification (POTS) amendment.**

Add as a Reference on page 97 of 97:

16. Entergy Nuclear Operations, Inc. letter to U.S. Nuclear Regulatory Commission, "Palisades Nuclear Plant Security Plan Revision 16 (U)," dated June 11, 2014 (ADAMS Accession Number ML14163A564)

Reason:

License Condition 2.E describes the requirement to maintain a PSP and PSP elements. It does not reference the specific PNP documents that comprise the PSP. Therefore, this supplemental information to HDI PNP 2023-030 is provided to clarify the PSP document that will be the basis for the PNP power operations PSP.

Item 5 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Section affected:
3.2.1, Proposed Changes to the PNP Renewed Facility Operating License, Page 14 of 97
Updated text
Add the below tables following License Condition 2.D
Reason: Changes proposed to the RFOL are necessary to reinstate the license conditions that were removed by license amendment 272 (Reference 8*) due to docketing the 10 CFR 50.82 decommissioning certifications (Reference 2*). Reinstatement of License Conditions 2.H and 2.I supports HDI plans to pursue subsequent license renewal. This is consistent with subsequent license renewal industry precedent. Note that the reinstated License Conditions 2.H and 2.I list Entergy Nuclear Operations (ENO) as the entity responsible for the actions of the License Conditions. Since these License Conditions were deleted during the transition to decommissioning, HDI did not have responsibility for the actions of these License Conditions. Because they are now included in this LAR, the change of responsibility to the new owner is appropriate and the use of [Palisades Energy] as a placeholder for the change in ownership is applicable. *References 2 and 8 are listed in HDI PNP 2023-030 (the original LAR), Enclosure, Page 96 of 97.

License Condition 2.H	
Current License Condition 2.H	Proposed License Condition 2.H
~~[Deleted]~~	***The Updated Safety Analysis Report supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the Updated Safety Analysis Report required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, ~~ENO~~ [Palisades Energy] may make changes to the programs and activities described in the supplement without prior Commission approval, provided that ~~ENO~~ [Palisades Energy] evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and***

	otherwise complies with the requirements in that section.

Basis

This License Condition is proposed for reinstatement in its entirety to that which was in effect prior to the 10 CFR 50.82(a)(1) certifications to restore the PNP power operations RFOL. Upon recission of the 10 CFR 50.82(a)(1) certifications, as conditioned by the exemption to 10 CFR 50.82(a)(2), Reference 3, this license condition is reinstated to restore a one-time Updated Final Safety Analysis Report (UFSAR) supplement requirement associated with Palisades license renewal. This TS is reinstated as it existed in the previously approved TS prior to Amendment 272 (Reference 8), to reflect the power operation condition of the plant.

License Condition 2.I	
Current License Condition 2.I	Proposed License Condition 2.I
~~[Deleted]~~	***The Updated Safety Analysis Report supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. ~~ENO~~ [Palisades Energy] shall complete these activities no later than March 24, 2011, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.***

Basis

This License Condition is proposed for reinstatement in its entirety to that which was in effect prior to the 10 CFR 50.82(a)(1) certifications to restore the PNP power operations RFOL. Upon recission of the 10 CFR 50.82(a)(1) certifications, as conditioned by the exemption to 10 CFR 50.82(a)(2), Reference 3, this license condition is reinstated to restore a one-time requirement to complete license renewal commitments prior to entering the period of extended operation. This TS is reinstated as it existed in the previously approved TS prior to Amendment 272 (Reference 8), to reflect the power operation condition of the plant.

Item 6 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Sections affected:

TS 1.2, Logical Connectors, Basis, Page 25 of 97
TS 1.3, Completion Times, Basis, Pages 25 of 97, 26 of 97 and 27 of 97
TS 1.4, Frequency, Basis, Page 29 of 97
TS Section 2.0, Safety Limits (SL), Basis, Page 30 of 97
LCO 3.0.1, Basis, Page 31 of 97
LCO 3.0.2, Basis, Page 31 of 97
LCO 3.0.3, Basis, Page 31 of 97
LCO 3.0.4, Basis, Page 32 of 97
LCO 3.0.5, Basis, Page 32 of 97
LCO 3.0.6, Basis, Page 33 of 97
LCO 3.0.7, Basis, Page 33 of 97
LCO 3.0.8, Basis, Page 34 of 97
LCO 3.0.9, Basis, Page 34 of 97
TS 5.6.2, Radiological Environmental Operating Report, Basis for Change, Page 82 of 97
TS 5.6.3, Radioactive Effluent Release Report, Basis for Change, page 82 of 97

Updated text

Add to each Basis: **This TS is reinstated as it existed in the previously approved TS prior to Amendment 272 (Reference 8), to reflect the power operation condition of the plant.**

Reason:

In HDI PNP 2023-030 Enclosure Section 2.1, "Reason for Proposed Change," it explains that this LAR is needed to reinstate the PNP TS that were in effect just prior to the 10 CFR 50.82(a)(1) certifications to support returning PNP to a power operations licensing basis. Proposed changes to the PNP TS are described in HDI PNP 2023-030 Enclosure Section 3.2.2, "Proposed Changes to the Permanently Defueled Technical Specifications," (PDTS).
HDI PNP 2023-030 Enclosure Section 3.2.2 is arranged in a table format that summarizes the proposed changes to each affected PNP TS Section and provides a basis for the proposed changes.

The basis for the proposed changes typically states, "this TS is proposed for reinstatement in its entirety to that which was in effect prior to the 10 CFR 50.82(a)(1) certification to restore the PNP power operations renewed facility operating license." In addition, the basis for most proposed changes typically clarifies that the TS "is reinstated as it existed in the previously approved TS prior to Amendment 272 (PDTS), to reflect the power operation condition of the plant." Referencing Amendment 272 provides information that supports and clarifies the basis for the proposed changes to the PDTS.

Item 7 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Sections affected: TS Section 2.0, Safety Limits (SLs), description of change, Page 29 of 97	
HDI PNP 2023-030 text	**Updated text**
….SL violations in TS Section 2.2 are values of various parameters for which automatic protective action is needed during normal operations or anticipated transients to prevent exceeding an SL.	….SL violations in TS Section 2.2 are values of various parameters for which automatic protective action is needed during normal operations or anticipated transients to prevent exceeding an SL. **Proposed Safety Limits for reinstatement are listed below. The corresponding TS Bases are also reinstated to reflect these changes.**
Reason: TS Section 2.0 has associated TS Bases that are proposed for reinstatement. Therefore, a statement to that effect is appropriate.	

Item 8 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Section affected: TS Section 3.0, Limiting Conditions for Operation (LCO), title for description of change, Page 30 of 97	
HDI PNP 2023-030 text	**Updated text**
"TS Section 3.0, Limiting Conditions for Operation (LCO)"	TS Section 3.0, Limiting Conditions for Operation (LCO) **Applicability**
Reason: The correct title of the TS section includes the word "Applicability" at the end. This corrects an editorial error.	

Item 9 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Section affected: TS Section 3.1 Reactivity Control Systems, description of change, Page 37 of 97	
HDI PNP 2023-030 text	**Updated text**
…."TS Section 3.1 is proposed for reinstatement in its entirety."….	…."TS Section 3.1 is proposed for reinstatement in its entirety**, except for the SR 3.1.4.3 NOTE."**….
Reason: SR 3.1.4.3 previously contained a NOTE that is no longer applicable and was removed as part of the PDTS amendment 272 (Reference 2). The proposed SR 3.1.4.3 listed in HDI PNP 2023-030 does not include reinstatement of the NOTE. This supplemental information is included to clarify that the proposed power operations technical specification SR 3.1.4.3 does not include the NOTE.	

Item 10 – HDI PNP 2023-030 Enclosure, "Evaluation of the Proposed Changes"

Sections affected: TS 3.7.14, Spent Fuel Pool (SFP) Water Level, Basis for Change, Page 65 of 97 TS 3.7.15, Spent Fuel Pool (SFP) Boron Concentration, Basis for Change, Page 67 of 97 TS 3.7.16, Spent Fuel Pool Storage, Basis for Change, Page 67 of 97 Add to the end of the first paragraph in each Basis:	
HDI PNP 2023-030 text	**Updated text**
…."Amendment 272, to reflect the power operation condition of the plant."….	…."Amendment 272, to reflect the power operation condition of the plant. **This TS is proposed for reinstatement in its entirety to that which was in effect prior to the 10 CFR 50.82(a)(1) certifications to restore the PNP power operations renewed facility operating license."**….

Reason:

In HDI PNP 2023-030 Enclosure Section 2.1, "Reason for Proposed Change," it explains that this LAR is needed to reinstate the PNP TS that were in effect just prior to the 10 CFR 50.82(a)(1) certifications to support returning PNP to a power operations licensing basis. Proposed changes to the PNP TS are described in HDI PNP 2023-030 Enclosure Section 3.2.2, "Proposed Changes to the Permanently Defueled Technical Specifications (PDTS)." The HDI PNP 2023-030 Enclosure Section 3.2.2 is arranged in a table format that summarizes the proposed changes to each affected PNP TS Section and provides a basis for the proposed changes.

The basis for the proposed changes typically states, "…is reinstated as it existed in the previously approved TS prior to Amendment 272 (PDTS), to reflect the power operation condition of the plant." In addition, the basis for most proposed changes typically clarifies that "this TS is proposed for reinstatement in its entirety to that which was in effect prior to the 10 CFR 50.82(a)(1) certification to restore the PNP power operations renewed facility operating license." The supplemental information provided clarifies that TS 3.7.14, 3.7.15, and 3.7.16 are reinstated to that which was in effect prior to the 10 CFR 50.82(a)(1) certifications.

Item 11 – HDI PNP 2023-030 Enclosure Attachment 1, "Proposed Changes (mark-up) to Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Permanently Defueled Technical Specifications, and Appendix B Environmental Protection Plan Pages"

Section affected:

The following changes are associated with HDI PNP 2023-030 Enclosure Attachment 1, "Proposed Changes (mark-up) to Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Permanently Defueled Technical Specifications, and Appendix B Environmental Protection Plan Pages."

Attachment 1 to this enclosure (HDI PNP 2024-027) contains replacement pages that supersede those provided in HDI PNP 2023-030. The corresponding pages in the HDI PNP 2023-030 Attachment 1 (Reference 1) are to be replaced with the pages in Attachment 1 to this enclosure.

Proposed Changes (mark-up) to Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Permanently Defueled Technical Specifications, and Appendix B Environmental Protection Plan Pages

Remove Pages	Insert Pages
Renewed Facility Operating License (RFOL) Pages 7 and 8	Renewed Facility Operating License (RFOL) Pages 7 and 8

RFOL Appendix A Technical Specifications for TS 5.6.5 Pages 5.0-17, 5.0-18, and 5.0-19	RFOL Appendix A Technical Specifications for TS 5.6.5 Pages 5.0-17, 5.0-18, and 5.0-19

Reason:

These changes provide marked up replacement pages for the added License Conditions 2.H and 2.I (see Item 5) and to consistently indent the title "COLR (continued)" with the indenting approach used in this section to improve reader clarity.

Item 12 – HDI PNP 2023-030 Enclosure Attachment 2, "Page Change Instructions and Retyped Pages for the Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Technical Specifications, and Appendix B Environmental Protection Plan"

Section affected:

The following changes are associated with HDI PNP 2023-030 Enclosure Attachment 2, "Page Change Instructions and Retyped Pages for the Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Technical Specifications, and Appendix B Environmental Protection Plan."

Attachment 2 to this enclosure (HDI PNP 2024-027) contains replacement pages that supersede those provided in HDI PNP 2023-030. The corresponding pages in the HDI PNP 2023-030 Attachment 2 (Reference 1) are to be replaced with the pages in Attachment 2 to this enclosure.

Page Change Instructions and Retyped Pages for the Palisades Plant Renewed Facility Operating License DPR-20, Appendix A Technical Specifications, and Appendix B Environmental Protection Plan

Remove Pages	Insert Pages
Renewed Facility Operating License (RFOL) Page 7 Page 8	Renewed Facility Operating License (RFOL) Page 7 Page 8
RFOL Appendix A Technical Specifications Pages 3.1.4-2 Missing "(continued)" 3.1.4-4 Missing "(continued)" 3.1.6-2 Missing "(continued)" 3.1.7-2 Missing "(continued)" 3.2.1-2 Missing "(continued)" 3.2.1-3 Missing "(continued)"	RFOL Appendix A Technical Specifications Pages 3.1.4-2 3.1.4-4 3.1.6-2 3.1.7-2 3.2.1-2 3.2.1-3

RFOL Appendix A Technical Specifications Pages (continued)	RFOL Appendix A Technical Specifications Pages (continued)
3.2.1-4 Missing “(continued)”	3.2.1-4
3.3.1-2 Missing “(continued)”	3.3.1-2
3.3.1-3 Missing “(continued)”	3.3.1-3
3.3.1-4 Missing “(continued)”	3.3.1-4
3.3.1-5 Missing “(continued)”	3.3.1-5
3.3.2-2 Missing “(continued)”	3.3.2-2
3.3.3-2 Missing “(continued)”	3.3.3-2
3.3.8-3 Tbl 3.3.8-1 “PARAMATER” Spelling	3.3.8-3
3.3.4-2 Missing “(continued)”	3.3.4-2
3.3.5-2 Missing “(continued)”	3.3.5-2
3.3.7-2 Missing “(continued)”	3.3.7-2
3.4.3-2 Missing “(continued)”	3.4.3-2
3.4.5-2 Missing “(continued)”	3.4.5-2
3.4.5-3 Missing “(continued)”	3.4.5-3
3.4.6-2 ACTION indent incorrect placement	3.4.6-2
3.4.8-3 Missing “(continued)”	3.4.8-3
3.4.9-2 Missing “(continued)”	3.4.9-2
3.4.9-3 Missing “(continued)”	3.4.9-3
3.4.11-2 Missing “(continued)”	3.4.11-2
3.4.12-2 Missing “(continued)”	3.4.12-2
3.4.14-2 Missing “(continued)”	3.4.14-2
3.4.14-4 Missing “(continued)”	3.4.14-4
3.4.15-2 Missing “(continued)”	3.4.15-2
3.4.15-3 Missing “(continued)”	3.4.15-3
3.4.16-2 Missing “(continued)”	3.4.16-2
3.4.16-3 Missing “(continued)”	3.4.16-3
3.5.1-1 3.5.1 Hour is missing “s”	3.5.1-1
3.5.2-3 Missing “(continued)”	3.5.2-3
3.6.2-2 Missing “(continued)”	3.6.2-2
3.6.2-3 Missing “(continued)”	3.6.2-3
3.6.3-2 Missing “(continued)”	3.6.3-2
3.6.3-3 Missing “(continued)”	3.6.3-3
3.6.3-5 Missing “(continued)”	3.6.3-5
3.6.6-3 Missing “(continued)”	3.6.6-3
3.7.5-2 Missing “(continued)”	3.7.5-2
3.7.10-2 Missing “(continued)”	3.7.10-2
3.7.10-3 E. Logic Connector Incorrect	3.7.10-3
3.7.11-2 D. Logic Connectors Incorrect	3.7.11-2
3.7.11-3 Missing “(continued)”	3.7.11-3
3.8.1-2 Missing “(continued)”	3.8.1-2
3.8.1-3 Missing “(continued)”	3.8.1-3
3.8.1-4 Missing “(continued)”	3.8.1-4
3.8.1-5 Missing “(continued)”	3.8.1-5

RFOL Appendix A Technical Specifications Pages (continued)	RFOL Appendix A Technical Specifications Pages (continued)
3.8.1-6 Missing “(continued)”	3.8.1-6
3.8.1-7 Missing “(continued)”	3.8.1-7
3.8.1-8 Missing “(continued)”	3.8.1-8
3.8.2-2 Missing “(continued)”	3.8.2-2
3.8.3-2 Missing “(continued)”	3.8.3-2
3.8.4-2 Missing “(continued)”	3.8.4-2
3.8.4-3 Missing “(continued)”	3.8.4-3
3.8.4-4 Missing “(continued)”	3.8.4-4
3.8.5-2 Missing “(continued)”	3.8.5-2
3.8.6-2 Missing “(continued)”	3.8.6-2
3.8.6-3 Missing “(continued)”	3.8.6-3
3.8.9-2 Missing “(continued)”	3.8.9-2
3.8.10-2 Missing “(continued)”	3.8.10-2
3.9.4-2 Missing “(continued)”	3.9.4-2
3.9.5-2 Missing “(continued)”	3.9.5-2
5.0-9 Am 271 in footer incorrect	5.0-9
5.0-12 5.5.8 d. Indent incorrect	5.0-12
5.0.13 5.5.9 Extra Space “ Secondary”	5.0.13
5.0-15 Am 271 in footer incorrect	5.0-15
5.0-16 Am 271 in footer incorrect	5.0-16
5.0-17 5.5.14 Extra Space “ Containment”	5.0-17
5.0-18 5.5.14 d. Para. formatting Incorrect	5.0-18
5.0-20 5.5.16 Extra Space “ Control”	5.0-20
5.0-21 5.5.17 Extra Space “ Surveillance”	5.0-21
5.0-22 5.6.5 Extra Space “ CORE”	5.0-22
5.0-23 5.6.5 COLR Indent Incorrect	5.0-23
5.0-24 5.6.5 COLR Indent Incorrect	5.0-24
5.0-25 5.6.5 COLR Indent Incorrect	5.0-25
5.0-26 5.6.8 Extra Space “ Steam”	5.0-26

Reason:

These changes are being provided to add License Conditions 2.H and 2.I (see Item 5), correct editorial errors, and improve formatting consistency.

Additionally, the ACTIONS tables and SURVEILLANCE REQUIREMENTS tables are sometimes continued on the next page. The “ACTIONS (continued)” or "SURVEILLANCE REQUIREMENTS (continued)" headings have been added, consistent with NUREG-1432 “Standard Technical Specifications Combustion Engineering Plants”, Revision 5.0, Volume 1 guidance.

An abbreviated reason for the change to each page is provided in column one of the above table for clarity as to why the change is included in this LAR Supplement.

Item 13 – HDI PNP 2023-030 Enclosure, Attachment 3

Section affected:

The following changes are associated with HDI PNP 2023-030 Enclosure Attachment 3, "Proposed Technical Specifications Bases Changes (for information only)."

Attachment 3 to this enclosure (HDI PNP 2024-027) contains replacement pages that supersede those provided in HDI PNP 2023-030. The corresponding pages in the HDI PNP 2023-030 Attachment 3 (Reference 1) are to be replaced with the pages in Attachment 3 to this enclosure.

Proposed Technical Specifications Bases Changes (for information only)

Remove Pages	**Insert Pages**
Technical Specification Bases Pages B 3.0-1 B 3.0-2 B 3.0-3 B 3.0-4 B 3.0-5 B 3.1.3-3 B 3.7.16-1	Technical Specification Bases Pages B 3.0-1 B 3.0-2 B 3.0-3 B 3.0-4 B 3.0-5 B 3.1.3-3 B 3.7.16-1

Reason:

These changes are being provided to improve reader clarity, correct editorial errors, and add information to TS Bases 3.7.16 to conform to the TS Basis that existed prior to the 10 CFR 50.82(a)(1) certifications.

References

1. Holtec Decommissioning International, LLC letter to U.S. Nuclear Regulatory Commission (HDI PNP 2023-030), "License Amendment Request to Revise Renewed Facility Operating License and Permanently Defueled Technical Specifications to Support Resumption of Power Operations," dated December 14, 2023 (ADAMS Accession No. ML23348A148)

2. U. S. Nuclear Regulatory Commission letter to Entergy Nuclear Operations, Inc., "Palisades Nuclear Plant - Issuance of Amendment No. 272 re: Permanently Defueled Technical Specifications," dated May 13, 2022 (ADAMS Accession No. ML22039A198)

HDI PNP 2024-027

Enclosure Attachment 1

Updated Proposed Changes (mark-up) to Palisades Plant

Renewed Facility Operating License DPR-20,

Appendix A Permanently Defueled Technical Specifications

Only replacement pages are provided. Please replace the affected pages from HDI PNP 2023-030 (Reference 1) with the attached pages.

Note, references to "HDI" are replaced by bracketed Palisades Energy, LLC, or Palisades Energy (e.g. [Palisades Energy]) to reflect the change in operating authority per license transfer application conforming amendments.

5 pages follow

(8) Amendment 257 authorizes the implementation of 10 CFR 50.61a in lieu of 10 CFR 50.61.[deleted]

D. The facility has been granted certain exemptions from Appendix J to 10 CFR Part 50, "Primary Reactor Containment Leakage Testing for Water Cooled Power Reactors." This section contains leakage test requirements, scheduled and acceptance criteria for tests of the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. These exemptions were granted in a letter dated December 6, 1989.

These exemptions granted pursuant to 10 CFR 50.12, are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. With these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.[deleted]

E. HDI[Palisades Energy] shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Palisades Nuclear Plant Physical Security Plan."

HDI[Palisades Energy] shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Palisades CSP was approved by License Amendment No. 243 as supplemented by changes approved by License Amendment Nos. 248, 253, 259, and 264.

F. [deleted]

G. Holtec Palisades and HDI[Palisades Energy] shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

H. The Updated Safety Analysis Report supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the Updated Safety Analysis Report required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, ENO [Palisades Energy] may make changes to the programs and activities described in the supplement without prior Commission approval, provided that ENO [Palisades Energy] evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.[deleted]

I. The Updated Safety Analysis Report supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. ~~ENO~~ [Palisades Energy] shall complete these activities no later than March 24, 2011, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.~~[deleted]~~

J. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal scheduled, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.~~[deleted]~~

K. This license is effective as of the date of issuance and shall expire at midnight March 24, 2031~~until the Commission notifies the licensee in writing that the license is terminated~~.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A – ~~Permanently Defueled~~ Technical Specifications
2. Appendix B – Environmental Protection Plan

Date of Issuance: January 17, 2007

5.6.5 COLR (Continued)

b. The analytical methods used to determine the core operating limits shall be those approved by the NRC, specifically those described in the latest approved revision of the following documents:

1. EMF-96-029(P)(A) Volumes 1 and 2, “Reactor Analysis System for PWRs,” Siemens Power Corporation. (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

2. ANF-84-73 Appendix B (P)(A), "Advanced Nuclear Fuels Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Advanced Nuclear Fuels Corporation. (Bases report not approved) (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

3. XN-NF-82-21(P)(A), "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company. (LCOs 3.2.1, 3.2.2, & 3.2.4)

4. EMF-84-093(P)(A), “Steam Line Break Methodology for PWRs, “Siemens Power Corporation. (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

5. XN-75-32(P)(A) Supplements 1 through 4, "Computational Procedure for Evaluating Fuel Rod Bowing," Exxon Nuclear Company. (Bases document not approved) (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

6. EMF-2310 (P)(A), Revision 0, Framatome ANP, Inc., May 2001, “SRP Chapter 15 Non-LOCA Methodology for Pressurized Water Reactors.” (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

7. XN-NF-78-44(NP)(A), "A Generic Analysis of the Control Rod Ejection Transient for Pressurized Water Reactors," Exxon Nuclear Company. (LCOs 3.1.6, 3.2.1, & 3.2.2)

8. ANF-89-151(P)(A), "ANF-RELAP Methodology for Pressurized Water Reactors: Analysis of Non-LOCA Chapter 15 Events," Advanced Nuclear Fuels Corporation. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

9. EMF-92-153(P)(A) and Supplement 1, "HTP: Departure from Nucleate Boiling Correlation for High Thermal Performance Fuel," Siemens Power Corporation. (LCOs 3.2.1, 3.2.2, & 3.2.4)

5.6.5 COLR (Continued)

10. XN-NF-621(P)(A), "Exxon Nuclear DNB Correlation for PWR Fuel Designs," Exxon Nuclear Company. (LCOs 3.2.1, 3.2.2, & 3.2.4)

11. XN-NF-82-06(P)(A) and Supplements 2, 4, and 5, "Qualification of Exxon Nuclear Fuel for Extended Burnup," Exxon Nuclear Company. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

12. ANF-88-133(P)(A) and Supplement 1, "Qualification of Advanced Nuclear Fuels' PWR Design Methodology for Rod Burnups of 62 GWD/MTU," Advanced Nuclear Fuels Corporation. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

13. XN-NF-85-92(P)(A), "Exxon Nuclear Uranium Dioxide/Gadolinia Irradiation Examination and Thermal Conductivity Results," Exxon Nuclear Company. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

14. EMF-92-116(P)(A), "Generic Mechanical Design Criteria for PWR Fuel Designs," Siemens Power Corporation. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

15. EMF-2087(P)(A), "SEM/PWR-98: ECCS Evaluation Model for PWR LBLOCA Applications," Siemens Power Corporation. (LCOs 3.1.6, 3.2.1, & 3.2.2)

16. ANF-87-150 Volume 2, "Palisades Modified Reactor Protection System Report: Analysis of Chapter 15 Events," Advanced Nuclear Fuels Corporation. [Approved for use in the Palisades design during the NRC review of license Amendment 118, November 15, 1988] (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.4.1)

17. EMF-1961(P)(A), Revision 0, Siemens Power Corporation, July 2000, "Statistical Setpoint/Transient Methodology for Combustion Engineering Type Reactors." (LCOs 3.1.6, 3.2.1, 3.2.2, 3.2.4, & 3.4.1)

18. EMF-2328 (P)(A), Revision 0, Framatome ANP, Inc., March 2001, "PWR Small Break LOCA Evaluation Model, S-RELAP5 Based." (LCOs 3.1.6, 3.2.1, & 3.2.2)

19. BAW-2489P, "Revised Fuel Assembly Growth Correlation for Palisades." (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

5.6.5 COLR (Continued)

20. EMF-2103(P)(A), "Realistic Large Break LOCA Methodology for Pressurized Water Reactors." (LCOs 3.1.6, 3.2.1, & 3.2.2)

21. BAW-10240(P)-A, "Incorporation of M5 Properties in Framatome ANP Approved Methods." (LCOs 3.1.6, 3.2.1, 3.2.2, 3.2.4, & 3.4.1)

c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems limits, nuclear limits such as shutdown margin, transient analysis limits, and accident analysis limits) of the safety analysis are met.

d. The COLR, including any mid cycle revisions or supplements, shall be provided, upon issuance for each reload cycle, to the NRC.

5.6.6 ~~(Deleted)~~ Post Accident Monitoring Report

When a report is required by LCO 3.3.7, "Post Accident Monitoring Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status.

5.6.7 ~~(Deleted)~~ Containment Structural Integrity Surveillance Report

Reports shall be submitted to the NRC covering Prestressing, Anchorage, and Dome Delamination tests within 90 days after completion of the tests.

5.6.8 ~~(Deleted)~~ Steam Generator Tube Inspection Report

A report shall be submitted within 180 days after the initial entry into MODE 4 following completion of an inspection performed in accordance with the Specification 5.5.8, Steam Generator (SG) Program. The report shall include:

a. The scope of inspections performed on each SG,

b. Active degradation mechanisms found,

c. Nondestructive examination techniques utilized for each degradation mechanism,

HDI PNP 2024-027

Enclosure Attachment 2

Updated Retyped Pages for the Palisades Plant

Renewed Facility License DPR-20,

Appendix A Technical Specifications

Only replacement pages are provided. Please replace the affected pages from (HDI PNP 2023-030) (Reference 1) with the attached pages.

Note, references to "HDI" are replaced by bracketed Palisades Energy, LLC, or Palisades Energy (e.g. [Palisades Energy]) to reflect the change in operating authority per license transfer application conforming amendments.

80 pages follow

(7) [deleted]

(8) Amendment 257 authorizes the implementation of 10 CFR 50.61a in lieu of 10 CFR 50.61.

D. The facility has been granted certain exemptions from Appendix J to 10 CFR Part 50, "Primary Reactor Containment Leakage Testing for Water Cooled Power Reactors." This section contains leakage test requirements, scheduled and acceptance criteria for tests of the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. These exemptions were granted in a letter dated December 6, 1989.

These exemptions granted pursuant to 10 CFR 50.12, are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. With these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

E. [Palisades Energy] shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Palisades Nuclear Plant Physical Security Plan."

[Palisades Energy] shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The Palisades CSP was approved by License Amendment No. 243 as supplemented by changes approved by License Amendment Nos. 248, 253, 259, and 264.

F. [deleted]

G. Holtec Palisades and [Palisades Energy] shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

H. The Updated Safety Analysis Report supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be included in the next scheduled update to the Updated Safety Analysis Report required by 10 CFR 50.71(e)(4) following the issuance of this renewed operating license. Until that update is complete, [Palisades Energy] may make changes to the programs and activities described in the supplement without prior Commission approval, provided that [Palisades Energy] evaluates such changes pursuant to the criteria set forth in 10 CFR 50.59 and otherwise complies with the requirements in that section.

I. The Updated Safety Analysis Report supplement, as revised, describes certain future activities to be completed prior to the period of extended operation. [Palisades Energy] shall complete these activities no later than March 24, 2011, and shall notify the NRC in writing when implementation of these activities is complete and can be verified by NRC inspection.

J. All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. Any changes to the capsule withdrawal scheduled, including spare capsules, must be approved by the NRC prior to implementation. All capsules placed in storage must be maintained for future insertion. Any changes to storage requirements must be approved by the NRC, as required by 10 CFR Part 50, Appendix H.

K. This license is effective as of the date of issuance and shall expire at midnight March 24, 2031.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments:

1. Appendix A –Technical Specifications

2. Appendix B – Environmental Protection Plan

Date of Issuance: January 17, 2007

ACTIONS (continued)

E. Required Action and associated Completion Time not met. OR One or more control rods inoperable for reasons other than Condition D. OR Two or more control rods misaligned by > 8 inches. OR Both rod position indication channels inoperable for one or more control rods.	E.1	Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.1.4.6	Verify each full-length control rod drop time is $\leq$ 2.5 seconds.	Prior to reactor criticality, after each reinstallation of the reactor head

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Regulating rod groups not within sequence or overlap limits.	B.1 Restore regulating rod groups to within appropriate sequence and overlap limits.	2 hours
C. PDIL or CROOS alarm circuit inoperable.	C.1 Perform SR 3.1.6.1 (group position verification).	Once within 15 minutes following any rod motion
D. Required Action and associated Completion Time not met.	D.1 Be in MODE 3.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.6.1	Verify each regulating rod group is within its withdrawal sequence, overlap, and insertion limits.	In accordance with the Surveillance Frequency Control Program
SR 3.1.6.2	Verify PDIL alarm circuit is OPERABLE.	In accordance with the Surveillance Frequency Control Program
SR 3.1.6.3	Verify CROOS alarm circuit is OPERABLE.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1 Suspend PHYSICS TESTS.	1 hour

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.7.1	Verify THERMAL POWER is $\leq$ 2% RTP.	In accordance with the Surveillance Frequency Control Program
SR 3.1.7.2	Verify T_{ave} is $\geq$ 500°F.	In accordance with the Surveillance Frequency Control Program
SR 3.1.7.3	Verify $\geq$ 1% shutdown reactivity is available for trip insertion.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Incore Alarm and Excore Monitoring Systems inoperable for monitoring LHR.	B.1 Reduce THERMAL POWER to ≤ 85% RTP. AND	2 hours
	B.2 Verify LHR is within limits using manual incore readings.	4 hours AND Once per 2 hours thereafter
C. Required Action and associated Completion Time not met.	C.1 Reduce THERMAL POWER to ≤ 25% RTP.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.2.1.1	----------NOTE---------- Only required to be met when the Incore Alarm System is being used to monitor LHR. ----------	
	Verify LHR is within the limits specified in the COLR.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.2.1.2	----------NOTE---------- Only required to be met when the Incore Alarm System is being used to monitor LHR. ----------	
	Adjust incore alarm setpoints based on a measured power distribution.	Prior to operation > 50% RTP after each fuel loading AND In accordance with the Surveillance Frequency Control Program
SR 3.2.1.3	----------NOTE---------- Only required to be met when the Excore Monitoring System is being used to monitor LHR. ----------	
	Verify measured ASI has been within 0.05 of target ASI for last 24 hours.	Prior to each initial use of Excore Monitoring System to monitor LHR
SR 3.2.1.4	----------NOTE---------- Only required to be met when the Excore Monitoring System is being used to monitor LHR. ----------	
	Verify THERMAL POWER is less than the APL.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.2.1.5	----------NOTE---------- Only required to be met when the Excore Monitoring System is being used to monitor LHR. ---------- Verify measured ASI is within 0.05 of target ASI.	In accordance with the Surveillance Frequency Control Program
SR 3.2.1.6	----------NOTE---------- Only required to be met when the Excore Monitoring System is being used to monitor LHR. ---------- Verify $T_q \leq 0.03$.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One Loss of Load trip unit or associated instrument channel inoperable.	C.1 Restore trip unit and associated instrument channel to OPERABLE status.	Prior to increasing THERMAL POWER to ≥ 17% RTP following entry into MODE 3
D. One or more ZPM Bypass Removal channels inoperable.	D.1 Remove the affected ZPM Bypasses. OR D.2 Declare affected trip units inoperable.	Immediately Immediately
E. ----------NOTE---------- Not applicable to ZPM Bypass Removal Function. ---------- One or more Functions with two RPS trip units or associated instrument channels inoperable.	E.1 Place one trip unit in trip. AND ----------NOTE---------- Not applicable to High Startup Rate or Loss of Load Functions. ---------- E.2 Restore one trip unit and associated instrument channel to OPERABLE status.	1 hour 7 days
F. Two power range channels inoperable.	F.1 Restrict THERMAL POWER to ≤ 70% RTP.	2 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
G. Required Action and associated Completion Time not met. OR Control room ambient air temperature > 90°F.	G.1	Be in MODE 3.	6 hours
	AND		
	G.2.1	Verify no more than one full-length control rod is capable of being withdrawn.	6 hours
	OR		
	G.2.2	Verify PCS boron concentration is at REFUELING BORON CONCENTRATION.	6 hours

SURVEILLANCE REQUIREMENTS

----------NOTE----------
Refer to Table 3.3.1-1 to determine which SR shall be performed for each Function.

SURVEILLANCE		FREQUENCY
SR 3.3.1.1	Perform a CHANNEL CHECK.	In accordance with the Surveillance Frequency Control Program
SR 3.3.1.2	Verify control room temperature is ≤ 90°F.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.3	----------NOTE---------- Not required to be performed until 12 hours after THERMAL POWER is ≥ 15% RTP. ---------- Perform calibration (heat balance only) and adjust the power range excore and ΔT power channels to agree with calorimetric calculation if the absolute difference is ≥ 1.5%.	In accordance with the Surveillance Frequency Control Program
SR 3.3.1.4	----------NOTE---------- Not required to be performed until 12 hours after THERMAL POWER is ≥ 25% RTP. ---------- Calibrate the power range excore channels using the incore detectors.	In accordance with the Surveillance Frequency Control Program
SR 3.3.1.5	Perform a CHANNEL FUNCTIONAL TEST and verify the Thermal Margin Monitor Constants.	In accordance with the Surveillance Frequency Control Program
SR 3.3.1.6	Perform a calibration check of the power range excore channels with a test signal.	In accordance with the Surveillance Frequency Control Program
SR 3.3.1.7	Perform a CHANNEL FUNCTIONAL TEST of High Startup Rate and Loss of Load Functions.	Once within 7 days prior to each reactor startup

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.8	----------NOTE---------- Neutron detectors are excluded from the CHANNEL CALIBRATION. ----------	
	Perform a CHANNEL CALIBRATION.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Required Action and associated Completion Time not met. OR One or more Functions with two or more Manual Trip, Matrix Logic or Trip Initiation Logic channels inoperable for reasons other than Condition D.	E.1 Be in MODE 3. AND	6 hours
	E.2.1 Verify no more than one full-length control rod is capable of being withdrawn. OR	6 hours
	E.2.2 Verify PCS boron concentration is at REFUELING BORON CONCENTRATION.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.2.1	Perform a CHANNEL FUNCTIONAL TEST on each RPS Matrix Logic channel and each RPS Trip Initiation Logic channel.	In accordance with the Surveillance Frequency Control Program
SR 3.3.2.2	Perform a CHANNEL FUNCTIONAL TEST on each RPS Manual Trip channel.	Once within 7 days prior to each reactor startup

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One RAS bistable or associated instrument channel inoperable.	C.1 Bypass affected bistable. AND C.2 Restore bistable and associated instrument channel to OPERABLE status.	8 hours 7 days
D. Required Action and associated Completion Time not met for Functions 1, 2, 3, 4, or 7.	D.1 Be in MODE 3. AND D.2 Be in MODE 4.	6 hours 30 hours
E. Required Action and associated Completion Time not met for Functions 5 or 6.	E.1 Be in MODE 3. AND E.2 Be in MODE 5.	6 hours 36 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. One or more Functions with two Manual Initiation, or Actuation Logic channels inoperable for Functions 5 or 6. OR Required Action and associated Completion Time of Condition A not met for Functions 5 or 6.	C.1 Be in MODE 3. AND C.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.4.1	Perform functional test of each SIS actuation channel normal and standby power functions.	In accordance with the Surveillance Frequency Control Program
SR 3.3.4.2	Perform a CHANNEL FUNCTIONAL TEST of each AFAS actuation logic channel.	In accordance with the Surveillance Frequency Control Program
SR 3.3.4.3	Perform a CHANNEL FUNCTIONAL TEST.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.5.2	Perform CHANNEL CALIBRATION on each Loss of Voltage and Degraded Voltage channel with setpoints as follows: a. Degraded Voltage Function ≥ 2187 V and ≤ 2264 V 1. Time delay (degraded voltage sensing relay): ≥ 0.5 seconds and ≤ 0.8 seconds; and 2. Time delay (degraded voltage sensing relay plus time delay relay): ≥ 6.2 seconds and ≤ 7.1 seconds. b. Loss of Voltage Function ≥ 1780 V and ≤ 1940 V Time delay: ≥ 5.45 seconds and ≤ 8.15 seconds at 1400 V.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. (Not Used)			
E. Required Action and associated Completion Time of Condition C not met.	E.1	Enter the Condition referenced in Table 3.3.7-1 for the channel.	Immediately
F. As required by Required Action E.1 and referenced in Table 3.3.7-1.	F.1 AND	Be in MODE 3.	6 hours
	F.2	Be in MODE 4.	30 hours
G. As required by Required Action E.1 and referenced in Table 3.3.7-1.	G.1	Initiate action in accordance with Specification 5.6.6.	Immediately

Table 3.3.8-1 (page 1 of 1)
Alternate Shutdown System Instrumentation and Controls

	FUNCTION, INSTRUMENT OR CONTROL PARAMETER	REQUIRED CHANNELS
1.	Source Range Neutron Flux	1
2.	Pressurizer Pressure	1
3.	Pressurizer Level	1
4.	Primary Coolant System (PCS) #1 Hot Leg Temperature	1
5.	PCS #2 Hot Leg Temperature	1
6.	PCS #1 Cold Leg Temperature	1
7.	PCS #2 Cold Leg Temperature	1
8.	Steam Generator (SG) A Pressure	1
9.	SG B Pressure	1
10.	SG A Wide Range Level	1
11.	SG B Wide Range Level	1
12.	Safety Injection Refueling Water (SIRW) Tank Level	1
13.	Auxiliary Feedwater (AFW) Flow Indication to SG A	1
14.	AFW Flow Indication to SG B	1
15.	AFW Low Suction Pressure Alarm (P-8B)	1
16.	AFW Pump P-8B Steam Supply Valve Control	1
17.	AFW Flow Control to SG A	1
18.	AFW Flow Control to SG B	1

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ----------NOTE---------- Required Action C.2 shall be completed whenever this Condition is entered. ---------- Requirements of LCO not met any time in other than MODE 1, 2, 3, or 4.	C.1 Initiate action to restore parameter(s) to within limits. AND C.2 Determine PCS is acceptable for continued operation.	Immediately Prior to entering MODE 4

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.3.1	----------NOTE---------- Only required to be performed during PCS heatup and cooldown operations. ---------- Verify PCS pressure, PCS temperature, and PCS heatup and cooldown rates are within the limits of Figure 3.4.3-1 and Figure 3.4.3-2.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 4.	24 hours
C. No PCS loop OPERABLE. OR No PCS loop in operation.	C.1 Suspend all operations involving a reduction of PCS boron concentration. AND C.2 Initiate action to restore one PCS loop to OPERABLE status and operation.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.5.1	Verify required PCS loop is in operation.	In accordance with the Surveillance Frequency Control Program
SR 3.4.5.2	Verify secondary side water level in each steam generator $\geq$ -84%.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.4.5.3	Verify correct breaker alignment and indicated power available to the required primary coolant pump that is not in operation.	In accordance with the Surveillance Frequency Control Program

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One PCS loop inoperable. AND Two SDC trains inoperable.	A.1 Initiate action to restore a second PCS loop or one SDC train to OPERABLE status.	Immediately
B. One SDC train inoperable. AND Two PCS loops inoperable.	B.1 Be in MODE 5.	24 hours
C. No PCS loops or SDC trains OPERABLE. OR No PCS loop in operation with SDC flow through the reactor core not within limits.	C.1 Suspend all operations involving reduction of PCS boron concentration. AND C.2.1 Initiate action to restore one PCS loop to OPERABLE status and operation. OR C.2.2 Initiate action to restore one SDC train to OPERABLE status and operation with $\geq$ 2810 gpm flow through the reactor core.	Immediately Immediately Immediately

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.4.8.2	----------NOTE---------- Only required to be met when complying with LCO 3.4.8.b. ---------- Verify one SDC train is in operation with ≥ 650 gpm flow through the reactor core.	In accordance with the Surveillance Frequency Control Program
SR 3.4.8.3	----------NOTE---------- Only required to be met when complying with LCO 3.4.8.b. ---------- Verify two of three charging pumps are incapable of reducing the boron concentration in the PCS below the minimum value necessary to maintain the required SHUTDOWN MARGIN.	In accordance with the Surveillance Frequency Control Program
SR 3.4.8.4	Verify correct breaker alignment and indicated power available to the SDC pump that is not in operation.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. < 375 kW pressurizer heater capacity available from electrical bus 1D, or electrical bus 1E, OR Required pressurizer heater capacity from electrical bus 1E not capable of being powered from an emergency power supply.	B.1 Restore required pressurizer heaters to OPERABLE status.	72 hours
C. ----------NOTE---------- Not applicable when the remaining electrical bus 1D or electrical bus 1E required pressurizer heaters intentionally made inoperable. ---------- < 375 kW pressurizer heater capacity available from electrical bus 1D, and electrical bus 1E, OR < 375 kW pressurizer heater capacity available from electrical bus 1D, and required pressurizer heater capacity from electrical bus 1E not capable of being powered from an emergency power supply.	C.1 Restore at least electrical bus 1D or electrical bus 1E required pressurizer heaters to OPERABLE status.	24 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition B or C not met.	D.1 Be in MODE 3. AND D.2 Be in MODE 4.	6 hours 30 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.9.1	----------NOTE---------- Not required to be met until 1 hour after establishing a bubble in the pressurizer and the pressurizer water level has been lowered to within its normal operating band. ---------- Verify pressurizer water level is < 62.8%.	In accordance with the Surveillance Frequency Control Program
SR 3.4.9.2	Verify the capacity of pressurizer heaters from electrical bus 1D, and electrical bus 1E is ≥ 375 kW.	In accordance with the Surveillance Frequency Control Program
SR 3.4.9.3	Verify the required pressurizer heater capacity from electrical bus 1E is capable of being powered from an emergency power supply.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
C. Two PORVs inoperable.	C.1	Close associated block valves.	1 hour
	AND		
	C.2	Restore at least one PORV to OPERABLE status.	2 hours
D. Two block valves inoperable.	D.1	Place associated PORVs in manual control.	1 hour
	AND		
	D.2	Restore at least one block valve to OPERABLE status.	2 hours
E. Required Action and associated Completion Time not met.	E.1	Be in MODE 3.	6 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One required PORV inoperable and pressurizer water level ≤ 57%.	B.1 Restore required PORV to OPERABLE status.	7 days
C. One required PORV inoperable and pressurizer water level > 57%.	C.1 Restore required PORV to OPERABLE status.	24 hours
D. Two required PORVs inoperable. OR Required Action and associated Completion Time not met. OR LTOP System inoperable for any reason other than Condition A, B, or C.	D.1 Depressurize PCS and establish PCS vent capable of relieving ≥ 167 gpm at a PCS pressure of 315 psia.	8 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.1	Isolate the high pressure portion of the affected system from the low pressure portion by use of one closed manual, deactivated automatic, or check valve.	4 hours
	AND		
	A.2	Restore PCS PIV to within limits.	72 hours
B. Required Action and associated Completion Time for Condition A not met.	B.1	Be in MODE 3.	6 hours
	AND		
	B.2	Be in MODE 5.	36 hours
C. One or both SDC suction valve interlocks inoperable.	C.1	Isolate the affected penetration by use of one closed deactivated valve.	4 hours

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.4.14.3	----------NOTE---------- Only required to be performed in MODES 1 and 2. ---------- Verify each of the four Low Pressure Safety Injection (LPSI) check valves are closed.	Prior to entering MODE 2 after each use of the LPSI check valves for SDC

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.4.15.6	Perform CHANNEL CALIBRATION of the required containment atmosphere gaseous activity monitor.	In accordance with the Surveillance Frequency Control Program
SR 3.4.15.7	Perform CHANNEL CALIBRATION of the required containment atmosphere humidity monitor.	In accordance with the Surveillance Frequency Control Program

3.4 PRIMARY COOLANT SYSTEM (PCS)

3.4.16 PCS Specific Activity

LCO 3.4.16 The specific activity of the primary coolant shall be within limits.

APPLICABILITY: MODES 1 and 2,
MODE 3 with PCS average temperature (T_{ave}) ≥ 500°F.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DOSE EQUIVALENT I-131 > 1.0 µCi/gm.	----------NOTE---------- LCO 3.0.4.c is applicable. ---------- A.1 Verify DOSE EQUIVALENT I-131 < 40 µCi/gm. AND A.2 Restore DOSE EQUIVALENT I-131 to within limit.	Once per 4 hours 48 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. OR DOSE EQUIVALENT I-131 ≥ 40 µCi/gm. OR Gross specific activity of the primary coolant not within limit.	B.1 Be in MODE 3 with T_{ave} < 500°F.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.4.16.1	Verify primary coolant gross specific activity ≤ 100/$\bar{E}$ µCi/gm.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.4.16.2	----------NOTE---------- Only required to be performed in MODE 1. ---------- Verify primary coolant DOSE EQUIVALENT I-131 specific activity ≤ 1.0 µCi/gm.	In accordance with the Surveillance Frequency Control Program AND Once between 2 and 6 hours after THERMAL POWER change of ≥ 15% RTP within a 1 hour period
SR 3.4.16.3	----------NOTE---------- Not required to be performed until 31 days after a minimum of 2 EFPD and 20 days of MODE 1 operation have elapsed since the reactor was last subcritical for ≥ 48 hours. ---------- Determine $\bar{E}$ from a sample taken in MODE 1 after a minimum of 2 EFPD and 20 days of MODE 1 operation have elapsed since the reactor was last subcritical for ≥ 48 hours.	In accordance with the Surveillance Frequency Control Program

3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

3.5.1 Safety Injection Tanks (SITs)

LCO 3.5.1 Four SITs shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SIT inoperable due to boron concentration not within limits. OR One SIT inoperable due to the inability to verify level or pressure.	A.1 Restore SIT to OPERABLE status.	72 hours
B. One SIT inoperable for reasons other than Condition A.	B.1 Restore SIT 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
D. Two or more SITs inoperable.	D.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.2.6	Verify each ECCS pump starts automatically on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.5.2.7	Verify each LPSI pump stops on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.5.2.8	Verify, for each ECCS throttle valve listed below, each position stop is in the correct position. Valve Number — Function MO-3008 — LPSI to Cold leg 1A MO-3010 — LPSI to Cold leg 1B MO-3012 — LPSI to Cold leg 2A MO-3014 — LPSI to Cold leg 2B MO-3082 — HPSI to Hot leg 1 MO-3083 — HPSI to Hot leg 1	In accordance with the Surveillance Frequency Control Program
SR 3.5.2.9	Verify, by visual inspection, the containment sump passive strainer assemblies are not restricted by debris, and the containment sump passive strainer assemblies and other containment sump entrance pathways show no evidence of structural distress or abnormal corrosion.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2 Lock the OPERABLE door closed in the affected air lock. AND ----------NOTE---------- Air lock doors in high radiation areas may be verified locked closed by administrative means. ---------- A.3 Verify the OPERABLE door is locked closed in the affected air lock.	24 hours Once per 31 days
B. One or more containment air locks with containment air lock interlock mechanism inoperable.	----------NOTES---------- 1. Required Actions B.1, B.2, and B.3 are not applicable if both doors in the same air lock are inoperable and Condition C is entered. 2. Entry and exit of containment is permissible under the control of a dedicated individual. ---------- B.1 Verify an OPERABLE door is closed in the affected air lock. AND	1 hour (continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. (continued)	B.2	Lock an OPERABLE door closed in the affected air lock.	24 hours
	AND		
	----------NOTE---------- Air lock doors in high radiation areas may be verified locked closed by administrative means. ----------		
	B.3	Verify an OPERABLE door is locked closed in the affected air lock.	Once per 31 days
C. One or more containment air locks inoperable for reasons other than Condition A or B.	C.1	Initiate action to evaluate overall containment leakage rate per LCO 3.6.1.	Immediately
	AND		
	C.2	Verify a door is closed in the affected air lock.	1 hour
	AND		
	C.3	Restore air lock to OPERABLE status.	24 hours
D. Required Action and associated Completion Time not met.	D.1	Be in MODE 3.	6 hours
	AND		
	D.2	Be in MODE 5.	36 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	----------NOTE---------- Isolation devices in high radiation areas may be verified by use of administrative means. ----------	
	A.2 Verify the affected penetration flow path is isolated.	Once per 31 days for isolation devices outside containment AND Prior to entering MODE 4 from MODE 5 if not performed within the previous 92 days for isolation devices inside containment
B. ----------NOTE---------- Only applicable to penetration flow paths with two containment isolation valves. ---------- One or more penetration flow paths with two containment isolation valves inoperable (except for purge exhaust valve or air room supply valve not locked closed).	B.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange.	1 hour

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ----------NOTE---------- Only applicable to penetration flow paths with only one containment isolation valve and a closed system. ---------- One or more penetration flow paths with one containment isolation valve inoperable.	C.1 Isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange. AND ----------NOTE---------- Isolation devices in high radiation areas may be verified by use of administrative means. ---------- C.2 Verify the affected penetration flow path is isolated.	72 hours Once per 31 days
D. One or more purge exhaust or air room supply valves not locked closed.	D.1 Lock closed the affected valves.	1 hour
E. Required Action and associated Completion Time not met.	E.1 Be in MODE 3. AND E.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.3.4	Verify the isolation time of each automatic power operated containment isolation valve is within limits.	In accordance with the INSERVICE TESTING PROGRAM
SR 3.6.3.5	Verify each containment 8 inch purge exhaust and 12 inch air room supply valve is closed by performance of a leakage rate test.	In accordance with the Surveillance Frequency Control Program
SR 3.6.3.6	Verify each automatic containment isolation valve that is not locked, sealed, or otherwise secured in position, actuates to the isolation position on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.6.6.7	Verify each containment spray pump starts automatically on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.8	Verify each containment cooling fan starts automatically on an actual or simulated actuation signal.	In accordance with the Surveillance Frequency Control Program
SR 3.6.6.9	Verify each spray nozzle is unobstructed.	Following maintenance which could result in nozzle blockage

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. OR Less than 100% of the required AFW flow available to either steam generator. OR Less than two AFW pumps OPERABLE in MODE 1, 2, OR 3.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	6 hours 30 hours
C. Less than 100% of the required AFW flow available, to both steam generators.	----------NOTE---------- LCO 3.0.3 and all other LCO Required Actions requiring MODE changes or power reductions are suspended until at least 100% of the required AFW flow is available. ---------- C.1 Initiate action to restore one AFW train to OPERABLE status.	 Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. ----------NOTE---------- Not applicable when second CRV Filtration train intentionally made inoperable. ---------- Two CRV Filtration trains inoperable in MODE 1, 2, 3, or 4 for reasons other than Condition B.	C.1 Initiate action to implement mitigating actions. AND C.2 Verify LCO 3.4.16, "PCS Specific Activity," is met. AND C.3 Restore at least one CRV Filtration train to OPERABLE status.	Immediately 1 hour 24 hour
D. Required Action and associated Completion Time of Condition A not met during CORE ALTERATIONS, during movement of irradiated fuel assemblies, or during movement of a fuel cask in or over the SFP.	D.1 Place OPERABLE CRV Filtration train in emergency mode. OR D.2.1 Suspend CORE ALTERATIONS. AND D.2.2 Suspend movement of irradiated fuel assemblies. AND D.2.3 Suspend movement of a fuel cask in or over the SFP.	Immediately Immediately Immediately Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
E. Two CRV Filtration trains inoperable during CORE ALTERATIONS, during movement of irradiated fuel assemblies, or during movement of a fuel cask in or over the SFP. OR One or more CRV Filtration trains inoperable due to an inoperable CRE boundary during CORE ALTERATIONS, during movement of irradiated fuel assemblies, or during movement of a fuel cask in or over the SFP.	E.1	Suspend CORE ALTERATIONS. AND	Immediately
	E.2	Suspend movement of irradiated fuel assemblies. AND	Immediately
	E.3	Suspend movement of a fuel cask in or over the SFP.	Immediately
F. Required Action and associated Completion Time of Condition A, B, or C not met in MODE 1, 2, 3, or 4.	F.1	Be in MODE 3. AND	6 hours
	F.2	Be in MODE 5.	36 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4.	C.1 Be in MODE 3. AND C.2 Be in MODE 5.	6 hours 36 hours
D. Required Action and associated Completion Time of Condition A not met during CORE ALTERATIONS, during movement of irradiated fuel assemblies, or movement of a fuel cask in or over the SFP.	D.1 Place OPERABLE CRV Cooling train in operation. OR D.2.1 Suspend CORE ALTERATIONS. AND D.2.2 Suspend movement of irradiated fuel assemblies. AND D.2.3 Suspend movement of a fuel cask in or over the SFP.	Immediately Immediately Immediately Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
E. Two CRV Cooling trains inoperable during CORE ALTERATIONS, during movement of irradiated fuel assemblies, or movement of a fuel cask in or over the SFP.	E.1	Suspend CORE ALTERATIONS.	Immediately
	AND		
	E.2	Suspend movement of irradiated fuel assemblies.	Immediately
	AND		
	E.3	Suspend movement of a fuel cask in or over the SFP.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.11.1	Verify each CRV Cooling train has the capability to remove the assumed heat load.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. One DG inoperable.	B.1	Perform SR 3.8.1.1 (offsite source check) for the OPERABLE offsite circuit(s).	1 hour AND Once per 8 hours thereafter
	AND		
	B.2	Declare required feature(s) supported by the inoperable DG inoperable when its redundant required feature(s) is inoperable.	4 hours from discovery of Condition B concurrent with inoperability of redundant required feature(s)
	AND		
	B.3.1	Determine OPERABLE DG is not inoperable due to common cause failure.	24 hours
	OR		
	B.3.2	Perform SR 3.8.1.2 (start test) for OPERABLE DG.	24 hours
	AND		
	B.4	Restore DG to OPERABLE status.	7 days AND 10 days from discovery of failure to meet LCO

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Two offsite circuits inoperable.	C.1 Declare required feature(s) inoperable when its redundant required feature(s) is inoperable. AND C.2 Restore one offsite circuit to OPERABLE status.	12 hours from discovery of Condition C concurrent with inoperability of redundant required feature(s) 24 hours
D. One offsite circuit inoperable. AND One DG inoperable.	----------NOTE---------- Enter applicable Conditions and Required Actions of LCO 3.8.9, "Distribution Systems - Operating," when Condition D is entered with no AC power source to any train. ---------- D.1 Restore offsite circuit to OPERABLE status. OR D.2 Restore DG to OPERABLE status.	 12 hours 12 hours
E. Two DGs inoperable.	E.1 Restore one DG to OPERABLE status.	2 hours

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Required Action and Associated Completion Time of Condition A, B, C, D, or E not met.	F.1 Be in MODE 3. AND F.2 Be in MODE 5.	6 hours 36 hours
G. Three or more AC sources inoperable.	G.1 Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.1.1	Verify correct breaker alignment and voltage for each offsite circuit.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.2	Verify each DG starts from standby conditions and achieves: a. In ≤ 10 seconds, ready-to-load status; and b. Steady state voltage ≥ 2280 V and ≤ 2520 V, and frequency ≥ 59.5 Hz and ≤ 61.2 Hz.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.3	----------NOTES---------- 1. Momentary transients outside the load range do not invalidate this test. 2. This Surveillance shall be conducted on only one DG at a time. 3. This Surveillance shall be preceded by and immediately follow without shutdown a successful performance of SR 3.8.1.2. ---------- Verify each DG is synchronized and loaded, and operates for ≥ 60 minutes: a. For ≥ 15 minutes loaded to greater than or equal to peak accident load; and b. For the remainder of the test at a load ≥ 2300 kW and ≤ 2500 kW.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.4	Verify each day tank contains ≥ 2500 gallons of fuel oil.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.5	Verify each DG rejects a load greater than or equal to its associated single largest post-accident load, and: a. Following load rejection, the frequency is ≤ 68 Hz; b. Within 3 seconds following load rejection, the voltage is ≥ 2280 V and ≤ 2640 V; and c. Within 3 seconds following load rejection, the frequency is ≥ 59.5 Hz and ≤ 61.5 Hz.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.6	Verify each DG, operating at a power factor ≤ 0.9, does not trip, and voltage is maintained ≤ 4000 V during and following a load rejection of ≥ 2300 kW and ≤ 2500 kW.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.7	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. ----------	
	Verify on an actual or simulated loss of offsite power signal: a. De-energization of emergency buses; b. Load shedding from emergency buses; c. DG auto-starts from standby condition and: 1. energizes permanently connected loads in ≤ 10 seconds, 2. energizes auto-connected shutdown loads through automatic load sequencer, 3. maintains steady state voltage ≥ 2280 V and ≤ 2520 V, 4. maintains steady state frequency ≥ 59.5 Hz and ≤ 61.2 Hz, and 5. supplies permanently connected loads for ≥ 5 minutes.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.8	----------NOTE---------- Momentary transients outside the load and power factor ranges do not invalidate this test. ---------- Verify each DG, operating at a power factor ≤ 0.9, operates for ≥ 24 hours: a. For ≥ 100 minutes loaded ≥ its peak accident loading; and b. For the remaining hours of the test loaded ≥ 2300 kW and ≤ 2500 kW.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.9	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. Verify each DG: a. Synchronizes with offsite power source while supplying its associated 2400 V bus upon a simulated restoration of offsite power; b. Transfers loads to offsite power source; and c. Returns to ready-to-load operation.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.1.10	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. ---------- Verify the time of each sequenced load is within ± 0.3 seconds of design timing for each automatic load sequencer.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.11	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. ---------- Verify on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated safety injection signal: a. De-energization of emergency buses; b. Load shedding from emergency buses; c. DG auto-starts from standby condition and: 1. energizes permanently connected loads in ≤ 10 seconds, 2. energizes auto-connected emergency loads through its automatic load sequencer, 3. achieves steady state voltage ≥ 2280 V and ≤ 2520 V, 4. achieves steady state frequency ≥ 59.5 Hz and ≤ 61.2 Hz, and 5. supplies permanently connected loads for ≥ 5 minutes.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2.2 Suspend movement of irradiated fuel assemblies. AND	Immediately
	A.2.3 Initiate action to suspend operations involving positive reactivity additions. AND	Immediately
	A.2.4 Initiate action to restore required offsite power circuit to OPERABLE status.	Immediately
B. The required DG inoperable.	B.1 Suspend CORE ALTERATIONS. AND	Immediately
	B.2 Suspend movement of irradiated fuel assemblies. AND	Immediately
	B.3 Initiate action to suspend operations involving positive reactivity additions. AND	Immediately
	B.4 Initiate action to restore required DG to OPERABLE status.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Both fuel transfer systems inoperable.	E.1 Restore one fuel transfer system to OPERABLE status.	8 hours
F. Fuel oil properties other than viscosity, and water and sediment, not within limits.	F.1 Restore stored fuel oil properties to within limits.	30 days
G. Required Action and associated Completion Time not met. OR Stored diesel fuel oil, lube oil, or starting air subsystem not within limits for reasons other than Condition A, B, or F.	G.1 Declare associated DG(s) inoperable.	Immediately

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3. AND C.2 Be in MODE 5.	6 hours 36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.4.1	Verify battery terminal voltage is ≥ 125 V on float charge.	In accordance with the Surveillance Frequency Control Program
SR 3.8.4.2	Verify no visible corrosion at battery terminals and connectors. OR Verify battery connection resistance is ≤ 50 μohm for inter-cell connections, ≤ 360 μohm for inter-rack connections, and ≤ 360 μohm for inter-tier connections.	In accordance with the Surveillance Frequency Control Program
SR 3.8.4.3	Inspect battery cells, cell plates, and racks for visual indication of physical damage or abnormal deterioration that could degrade battery performance.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.4.4	Remove visible terminal corrosion and verify battery cell to cell and terminal connections are coated with anti-corrosion material.	In accordance with the Surveillance Frequency Control Program
SR 3.8.4.5	Verify battery connection resistance is ≤ 50 µohm for inter-cell connections, ≤ 360 µohm for inter-rack connections, and ≤ 360 µohm for inter-tier connections.	In accordance with the Surveillance Frequency Control Program
SR 3.8.4.6	Verify each required battery charger supplies ≥ 180 amps at ≥ 125 V for ≥ 8 hours.	In accordance with the Surveillance Frequency Control Program
SR 3.8.4.7	----------NOTES---------- 1. The modified performance discharge test in SR 3.8.4.8 may be performed in lieu of the service test in SR 3.8.4.7. 2. This Surveillance shall not be performed in MODE 1, 2, 3, or 4. Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.4.8	----------NOTE---------- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. ----------	
	Verify battery capacity is ≥ 80% of the manufacturer's rating when subjected to a performance discharge test or a modified performance discharge test.	In accordance with the Surveillance Frequency Control Program AND 12 months when battery shows degradation or has reached 85% of the expected life with capacity < 100% of manufacturer's rating AND 24 months when battery has reached 85% of the expected life with capacity ≥ 100% of manufacturer's rating

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.2.4	Initiate action to restore required DC electrical power source(s) to OPERABLE status.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.5.1	For DC sources required to be OPERABLE, the following SRs are applicable: SR 3.8.4.1 SR 3.8.4.3 SR 3.8.4.5 SR 3.8.4.2 SR 3.8.4.4 SR 3.8.4.6.	In accordance with applicable SRs

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time of Condition A not met. OR One or more batteries with average electrolyte temperature of the representative cells < 70°F. OR One or more batteries with one or more battery cell parameters not within Category C limits.	B.1 Declare associated battery inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.6.1	Verify battery cell parameters meet Table 3.8.6-1 Category A limits.	In accordance with the Surveillance Frequency Control Program
SR 3.8.6.2	Verify average electrolyte temperature of representative cells is ≥ 70°F.	In accordance with the Surveillance Frequency Control Program

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.8.6.3	Verify battery cell parameters meet Table 3.8.6-1 Category B limits.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. Required Action and associated Completion Time not met.	D.1	Be in MODE 3.	6 hours
	AND		
	D.2	Be in MODE 5.	36 hours
E. Two or more inoperable distribution subsystems that result in a loss of function.	E.1	Enter LCO 3.0.3.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.9.1	Verify correct breaker alignments and voltage to required AC, DC, and Preferred AC bus electrical power distribution subsystems.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. (continued)	A.2.4 Initiate actions to restore required AC, DC, and Preferred AC bus electrical power distribution subsystems to OPERABLE status. AND A.2.5 Declare associated required shutdown cooling train inoperable and not in operation.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.10.1	Verify correct breaker alignments and voltage to required AC, DC, and Preferred AC bus electrical power distribution subsystems.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.3	Suspend loading irradiated fuel assemblies in the core.	Immediately
	AND		
	A.4	Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.	4 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.4.1	Verify one SDC train is in operation and circulating primary coolant at a flow rate of ≥ 1000 gpm.	In accordance with the Surveillance Frequency Control Program

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
B. No SDC train OPERABLE or in operation.	B.1	Suspend operations involving a reduction in primary coolant boron concentration.	Immediately
	AND		
	B.2	Initiate action to restore one SDC train to OPERABLE status and to operation.	Immediately
	AND		
	B.3	Initiate action to close all containment penetrations providing direct access from containment atmosphere to outside atmosphere.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.9.5.1	Verify one SDC train is in operation and circulating primary coolant at a flow rate of $\geq$ 1000 gpm.	In accordance with the Surveillance Frequency Control Program
SR 3.9.5.2	Verify correct breaker alignment and indicated power available to the required SDC pump that is not in operation.	In accordance with the Surveillance Frequency Control Program

5.5 Programs and Manuals

5.5.4 Radioactive Effluent Controls Program (continued)

g. Limitations on the annual and quarterly doses to a member of the public from Iodine-131, Iodine-133, tritium and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each plant to areas beyond the site boundary conforming to 10 CFR 50, Appendix I,

h. Limitations on the annual doses or dose commitment to any member of the public, beyond the site boundary, due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR 190.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluent Controls Program surveillance frequency.

5.5.5 Containment Structural Integrity Surveillance Program

This program provides controls for monitoring any tendon degradation in pre-stressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measurements prior to initial operations. The Containment Structural Integrity Surveillance Program, inspection frequencies, and acceptance criteria shall be in accordance with ASME Boiler and Pressure Vessel Code, Section XI, Subsection IWE and IWL.

If, as a result of a tendon inspection, corrective retensioning of five percent (8) or more of the total number of dome tendons is necessary to restore their liftoff forces to within the limits, a dome delamination inspection shall be performed within 90 days following such corrective retensioning. The results of this inspection shall be reported to the NRC in accordance with Specification 5.6.7, “Containment Structural Integrity Surveillance Report.”

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Containment Structural Integrity Surveillance Program inspection frequencies.

5.5.6 Primary Coolant Pump Flywheel Surveillance Program

a. Surveillance of the primary coolant pump flywheels shall consist of a 100% volumetric inspection of the upper flywheels each 10 years.

b. The provisions of SR 3.0.2 are not applicable to the Flywheel Testing Program

5.5 Programs and Manuals

5.5.8 Steam Generator (SG) Program

d. Provisions for SG tube inspections. (continued)

location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.

1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.

2. Inspect 100% of the tubes at sequential periods of 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. No SG shall operate for more than 24 effective full power months or one refueling outage (whichever is less) without being inspected.

3. If crack indications are found in any SG tube from 12.5 inches below the bottom of the hot-leg expansion transition or top of the hot-leg tubesheet, whichever is lower, to 13.67 inches below the bottom of the cold-leg expansion transition or top of the cold-leg tubesheet, whichever is lower, then the next inspection for each SG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.

4. When the alternate repair criteria of TS 5.5.8c.1 are implemented, inspect 100% of the inservice tubes to the hot-leg tubesheet region with the objective of detecting flaws that may satisfy the applicable tube repair criteria of TS 5.5.8c.1 every 24 effective full power months, or one refueling outage, whichever is less.

e. Provisions for monitoring operational primary to secondary LEAKAGE.

5.5 Programs and Manuals

5.5.9 Secondary Water Chemistry Program

A program shall be established, implemented and maintained for monitoring of secondary water chemistry to inhibit steam generator tube degradation and shall include:

a. Identification of a sampling schedule for the critical variables and control points for these variables,

b. Identification of the procedures used to measure the values of the critical variables,

c. Identification of process sampling points, which shall include monitoring the discharge of the condensate pumps for evidence of condenser in-leakage,

d. Procedures for the recording and management of data,

e. Procedures defining corrective actions for all off-control point chemistry conditions, and

f. A procedure identifying (a) the authority responsible for the interpretation of the data, and (b) the sequence and timing of administrative events required to initiate corrective actions.

5.5.10 Ventilation Filter Testing Program

A program shall be established to implement the following required testing of Control Room Ventilation (CRV) and Fuel Handling Area Ventilation (FHAV) systems at the frequencies specified in Regulatory Guide 1.52, Revision 2 (RG 1.52), and in accordance with RG 1.52 and ASME N510-1989, at the system flowrates and tolerances specified below*:

a. Demonstrate for each of the ventilation systems that an inplace test of the High Efficiency Particulate Air (HEPA) filters shows a penetration and system bypass < 0.05% for the CRV system and < 1.00% for the FHAV system when tested in accordance with RG 1.52 and ASME N510-1989:

Ventilation System	Flowrate (CFM)
FHAV (single fan operation)	7300 ± 20%
FHAV (dual fan operation)	10,000 ± 20%
CRV	3,200 +10% -5%

5.5 Programs and Manuals

5.5.11 Fuel Oil Testing Program

A fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling requirements, testing requirements, and acceptance criteria, based on the diesel manufacturer's specifications and applicable ASTM Standards. The program shall establish the following:

a. Acceptability of new fuel oil prior to addition to the Fuel Oil Storage Tank, and acceptability of fuel oil stored in the Fuel Oil Storage Tank, by determining that the fuel oil has the following properties within limits:

   1. API gravity or an absolute specific gravity,

   2. Kinematic viscosity, and

   3. Water and sediment content.

b. Other properties of fuel oil stored in the Fuel Oil Storage Tank, specified by the diesel manufacturers or specified for grade 2D fuel oil in ASTM D 975, are within limits.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Fuel Oil Testing Program.

5.5.12 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.

b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:

   1. A change in the TS incorporated in the license; or

   2. A change to the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.

5.5 Programs and Manuals

5.5.12 Technical Specifications (TS) Bases Control Program (continued)

c. The Bases Control Program shall contain provisions to ensure that the Bases are maintained consistent with the FSAR.

d. Proposed changes that meet the criteria of Specification 5.5.12.b. above shall be reviewed and approved by the NRC prior to implementation. Changes to the Bases implemented without prior NRC approval shall be provided to the NRC on a frequency consistent with 10 CFR 50.71(e).

5.5.13 Safety Functions Determination Program (SFDP)

This program ensures loss of safety function is detected and appropriate actions taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other appropriate limitations and remedial or compensatory actions may be identified to be taken as a result of the support system inoperability and corresponding exception to entering supported system Condition and Required Actions. This program implements the requirements of LCO 3.0.6. The SFDP shall contain the following:

a. Provisions for cross train checks to ensure a loss of the capability to perform the safety function assumed in the accident analysis does not go undetected;

b. Provisions for ensuring the plant is maintained in a safe condition if a loss of function condition exists;

c. Provisions to ensure that an inoperable supported system's Completion Time is not inappropriately extended as a result of multiple support system inoperabilities; and

d. Other appropriate limitations and remedial or compensatory actions.

A loss of safety function exists when, assuming no concurrent single failure, no concurrent loss of offsite power or no concurrent loss of onsite diesel generator(s), a safety function assumed in the accident analysis cannot be performed. For the purpose of this program, a loss of safety function may exist when a support system is inoperable, and:

a. A required system redundant to system(s) supported by the inoperable support system is also inoperable; or

b. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or

c. A required system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable.

5.5 Programs and Manuals

5.5.13 Safety Functions Determination Program (SFDP) (Continued)

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered. When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate Conditions and Required Actions to enter are those of the support system.

5.5.14 Containment Leak Rate Testing Program

a. A program shall establish the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with NEI 94-01, Revision 2-A, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," dated October 2008, with the following exceptions:

1. Leakage rate testing is not necessary after opening the Emergency Escape Air Lock doors for post-test restoration or post-test adjustment of the air lock door seals. However, a seal contact check shall be performed instead.

   Emergency Escape Airlock door opening, solely for the purpose of strongback removal and performance of the seal contact check, does not necessitate additional pressure testing.

2. Leakage rate testing at P_a is not necessary after adjustment of the Personnel Air Lock door seals. However, a between-the-seals test shall be performed at $\geq$10 psig instead.

3. Leakage rate testing frequency for the Containment 4 inch purge exhaust valves, the 8 inch purge exhaust valves, and the 12 inch air room supply valves may be extended up to 60 months based on component performance.

b. The calculated peak containment internal pressure for the design basis loss of coolant accident, P_a, is 54.2 psig. The containment design pressure is 55 psig.

c. The maximum allowable containment leakage rate, L_a, at P_a, shall be 0.1% of containment air weight per day.

5.5 Programs and Manuals

5.5.14 Containment Leak Rate Testing Program (Continued)

d. Leakage rate acceptance criteria are:

1. Containment leakage rate acceptance criteria is $\leq 1.0\ L_a$. During the first plant startup following testing in accordance with this program, the leakage rate acceptance criteria are $< 0.60\ L_a$ for the Type B and Type C tests and $\leq 0.75\ L_a$ for Type A tests.

2. Air lock testing acceptance criteria are:

a) Overall air lock leakage is $\leq 1.0\ L_a$ when tested at $\geq P_a$ and combined with all penetrations and valves subjected to Type B and C tests. However, during the first unit startup following testing performed in accordance with this program, the leakage rate acceptance criteria is $< 0.6\ L_a$ when combined with all penetrations and valves subjected to Type B and C tests.

b) For each Personnel Air Lock door, leakage is $\leq 0.023\ L_a$ when pressurized to ≥ 10 psig.

c) For each Emergency Escape Air Lock door, a seal contact check , consisting of a verification of continuous contact between the seals and the sealing surfaces, is acceptable.

e. “Containment OPERABILITY” is equivalent to "Containment Integrity" for the purposes of the testing requirements.

f. The provisions of SR 3.0.3 are applicable to the Containment Leak Rate Testing Program requirements.

g. Nothing in these Technical Specifications shall be construed to modify the testing Frequencies required by 10 CFR 50, Appendix J.

5.5 Programs and Manuals

5.5.16 Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Ventilation (CRV) Filtration, CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem whole body or its equivalent to any part of the body for the duration of the accident. The program shall include the following elements:

a. The definition of the CRE and the CRE boundary.

b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.

c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

d. Measurement, at designated locations, of the CRE pressure relative to all external areas adjacent to the CRE boundary during the pressurization mode of operation by one train of the CRV Filtration, operating at the flow rate required by the Ventilation Filter Testing Program, at a Frequency of 18 months on a STAGGERED TEST BASIS. The results shall be trended and used as part of the 18 month assessment of the CRE boundary.

e. The quantitative limits on unfiltered air inleakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air inleakage measured by the testing described in paragraph c. The unfiltered air inleakage limit for radiological challenges is the inleakage flow rate assumed in the licensing basis analyses of DBA consequences. Unfiltered air inleakage limits for hazardous chemicals must ensure that exposure of CRE occupants to these hazards will be within the assumptions in the licensing basis.

f. The provisions of SR 3.0.2 are applicable to the Frequencies for assessing CRE habitability, determining CRE unfiltered inleakage, and measuring CRE pressure and assessing the CRE boundary as required by paragraphs c and d, respectively.

5.5 Programs and Manuals

5.5.17 Surveillance Frequency Control Program

This program provides controls for Surveillance Frequencies. The program shall ensure that Surveillance Requirements specified in the Technical Specifications are performed at intervals sufficient to assure the associated Limiting Conditions for Operation are met.

a. The Surveillance Frequency Control Program shall contain a list of Frequencies of those Surveillance Requirements for which the Frequency is controlled by the program.

b. Changes to the Frequencies listed in the Surveillance Frequency Control Program shall be made in accordance with NEI 04-10, "Risk-Informed Method for Control of Surveillance Frequencies," Revision 1.

c. The provisions of Surveillance Requirements 3.0.2 and 3.0.3 are applicable to the Frequencies established in the Surveillance Frequency Control Program.

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 (Deleted)

5.6.2 Radiological Environmental Operating Report

The Radiological Environmental Operating Report covering the operation of the plant during the previous calendar year shall be submitted before May 15 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the radiological environmental monitoring program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

5.6.3 Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering operation of the plant in the previous year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the plant. The material provided shall be consistent with the objectives outlined in the Offsite Dose Calculation Manual and Process Control Program, and shall be in conformance with 10 CFR 50.36a and 10 CFR 50, Appendix I, Section IV.B.1.

5.6.4 (Deleted)

5.6.5 CORE OPERATING LIMITS REPORT (COLR)

a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:

3.1.1	Shutdown Margin
3.1.6	Regulating Rod Group Position Limits
3.2.1	Linear Heat Rate Limits
3.2.2	Radial Peaking Factor Limits
3.2.4	ASI Limits
3.4.1	DNB Limits

5.6 Reporting Requirements

5.6.5 COLR (Continued)

b. The analytical methods used to determine the core operating limits shall be those approved by the NRC, specifically those described in the latest approved revision of the following documents:

1. EMF-96-029(P)(A) Volumes 1 and 2, “Reactor Analysis System for PWRs,” Siemens Power Corporation.
(LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

2. ANF-84-73 Appendix B (P)(A), "Advanced Nuclear Fuels Methodology for Pressurized Water Reactors: Analysis of Chapter 15 Events," Advanced Nuclear Fuels Corporation. (Bases report not approved) (LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

3. XN-NF-82-21(P)(A), "Application of Exxon Nuclear Company PWR Thermal Margin Methodology to Mixed Core Configurations," Exxon Nuclear Company.
(LCOs 3.2.1, 3.2.2, & 3.2.4)

4. EMF-84-093(P)(A), “Steam Line Break Methodology for PWRs, “Siemens Power Corporation.
(LCOs 3.1.1, 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

5. XN-75-32(P)(A) Supplements 1 through 4, "Computational Procedure for Evaluating Fuel Rod Bowing," Exxon Nuclear Company. (Bases document not approved)
(LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

6. EMF-2310 (P)(A), Revision 0, Framatome ANP, Inc., May 2001, “SRP Chapter 15 Non-LOCA Methodology for Pressurized Water Reactors.” (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

7. XN-NF-78-44(NP)(A), "A Generic Analysis of the Control Rod Ejection Transient for Pressurized Water Reactors," Exxon Nuclear Company. (LCOs 3.1.6, 3.2.1, & 3.2.2)

8. ANF-89-151(P)(A), "ANF-RELAP Methodology for Pressurized Water Reactors: Analysis of Non-LOCA Chapter 15 Events," Advanced Nuclear Fuels Corporation. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

9. EMF-92-153(P)(A) and Supplement 1, "HTP: Departure from Nucleate Boiling Correlation for High Thermal Performance Fuel," Siemens Power Corporation. (LCOs 3.2.1, 3.2.2, & 3.2.4)

5.6 Reporting Requirements

5.6.5 COLR (Continued)

10. XN-NF-621(P)(A), “Exxon Nuclear DNB Correlation for PWR Fuel Designs,” Exxon Nuclear Company. (LCOs 3.2.1, 3.2.2, & 3.2.4)

11. XN-NF-82-06(P)(A) and Supplements 2, 4, and 5, “Qualification of Exxon Nuclear Fuel for Extended Burnup,” Exxon Nuclear Company. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

12. ANF-88-133(P)(A) and Supplement 1, “Qualification of Advanced Nuclear Fuels’ PWR Design Methodology for Rod Burnups of 62 GWD/MTU,” Advanced Nuclear Fuels Corporation. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

13. XN-NF-85-92(P)(A), “Exxon Nuclear Uranium Dioxide/Gadolinia Irradiation Examination and Thermal Conductivity Results,” Exxon Nuclear Company. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

14. EMF-92-116(P)(A), “Generic Mechanical Design Criteria for PWR Fuel Designs,” Siemens Power Corporation. (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

15. EMF-2087(P)(A), “SEM/PWR-98: ECCS Evaluation Model for PWR LBLOCA Applications,” Siemens Power Corporation. (LCOs 3.1.6, 3.2.1, & 3.2.2)

16. ANF-87-150 Volume 2, “Palisades Modified Reactor Protection System Report: Analysis of Chapter 15 Events,” Advanced Nuclear Fuels Corporation. [Approved for use in the Palisades design during the NRC review of license Amendment 118, November 15, 1988] (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.4.1)

17. EMF-1961(P)(A), Revision 0, Siemens Power Corporation, July 2000, “Statistical Setpoint/Transient Methodology for Combustion Engineering Type Reactors.” (LCOs 3.1.6, 3.2.1, 3.2.2, 3.2.4, & 3.4.1)

18. EMF-2328 (P)(A), Revision 0, Framatome ANP, Inc., March 2001, “PWR Small Break LOCA Evaluation Model, S-RELAP5 Based.” (LCOs 3.1.6, 3.2.1, & 3.2.2)

19. BAW-2489P, “Revised Fuel Assembly Growth Correlation for Palisades.” (LCOs 3.1.6, 3.2.1, 3.2.2, & 3.2.4)

20. EMF-2103(P)(A), “Realistic Large Break LOCA Methodology for Pressurized Water Reactors.” (LCOs 3.1.6, 3.2.1, & 3.2.2)

5.6 Reporting Requirements

5.6.5 COLR (Continued)

21. BAW-10240(P)-A, “Incorporation of M5 Properties in Framatome ANP Approved Methods.” (LCOs 3.1.6, 3.2.1, 3.2.2, 3.2.4, & 3.4.1)

c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems limits, nuclear limits such as shutdown margin, transient analysis limits, and accident analysis limits) of the safety analysis are met.

d. The COLR, including any mid cycle revisions or supplements, shall be provided, upon issuance for each reload cycle, to the NRC.

5.6.6 Post Accident Monitoring Report

When a report is required by LCO 3.3.7, "Post Accident Monitoring Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method of monitoring, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels to OPERABLE status.

5.6.7 Containment Structural Integrity Surveillance Report

Reports shall be submitted to the NRC covering Prestressing, Anchorage, and Dome Delamination tests within 90 days after completion of the tests.

5.6.8 Steam Generator Tube Inspection Report

A report shall be submitted within 180 days after the initial entry into MODE 4 following completion of an inspection performed in accordance with the Specification 5.5.8, Steam Generator (SG) Program. The report shall include:

a. The scope of inspections performed on each SG,

b. Active degradation mechanisms found,

c. Nondestructive examination techniques utilized for each degradation mechanism,

d. Location, orientation (if linear), and measured sizes (if available) of service induced indications,

e. Number of tubes plugged during the inspection outage for each active degradation mechanism,

5.6 Reporting Requirements

5.6.8 Steam Generator Tube Inspection Report (continued)

f. Total number and percentage of tubes plugged to date,

g. The results of condition monitoring, including the results of tube pulls and in-situ testing, and

h. The effective plugging percentage for all plugging in each SG.

i The results of monitoring for tube axial displacement (slippage). If slippage is discovered, the implications of the discovery and corrective action shall be provided.

HDI PNP 2024-027

Enclosure Attachment 3

Updated Proposed Technical Specifications Bases Changes

(for information only)

Only replacement pages are provided. Please replace the affected pages from Reference 1 with the attached pages.

7 pages follow

BASES

B 3.0 LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY

BASES

LCO	LCO 3.0.1 ~~and~~ LCO 3.0.2 ~~establish~~ the general requirements applicable to all Specifications and apply at all times unless otherwise stated.
LCO 3.0.1	LCO 3.0.1 establishes the Applicability statement within each individual Specification as the requirement for when the LCO is required to be met (i.e., when the ~~facility~~ is in the specified conditions of the Applicability statement of each Specification).
LCO 3.0.2	LCO 3.0.2 establishes that upon discovery of a failure to meet an LCO, the associated ACTIONS shall be met. The Completion Time of each Required Action for an ACTIONS Condition is applicable from the point in time that an ACTIONS Condition is entered. The Required Actions establish those remedial measures that must be taken within specified Completion Times when the requirements of an LCO are not met. This Specification establishes that: a. Completion of the Required Actions within the specified Completion Times constitutes compliance with a Specification; and b. Completion of the Required Actions is not required when an LCO is met within the specified Completion Time, unless otherwise specified. ~~Completing the Required Actions is not required when an LCO is met or is no longer applicable, unless otherwise stated in the individual Specifications.~~

through

9

MODES or other

plant

, unless otherwise specified

LCO 3.0.2 INSERT

BASES

B 3.0 SURVEILLANCE REQUIREMENT (SR) APPLICABILITY

BASES

SRs

SR 3.0.1 through SR 3.0.4 establish the general requirements applicable to all Specifications and apply at all times, unless otherwise stated. SR 3.0.2 and SR 3.0.3 apply in Chapter 5 only when invoked by a Chapter 5 specification.

MODES or other

the OPERABILITY of systems and components, and

SR 3.0.1

SR 3.0.1 establishes the requirement that SRs must be met during the specified conditions in the Applicability for which the requirements of the LCO apply, unless otherwise specified in the individual SRs. This Specification is to ensure that Surveillances are performed to verify that variables are within specified limits. Failure to meet a Surveillance within the specified Frequency, in accordance with SR 3.0.2, constitutes a failure to meet an LCO. Surveillances may be performed by means of any series of sequential, overlapping, or total steps provided the entire Surveillance is performed within the specified Frequency.

INSERT SR 3.0.1.A

~~The LCO is assumed to be met when the SRs have been met. Nothing in this Specification, however, is to be construed as implying that the LCO is met when the Surveillance(s) are known to be not met between Surveillance performances.~~

MODE or other

plant

, unless otherwise specified

Surveillances do not have to be performed when the ~~facility~~ is in a specified condition for which the requirements of the associated LCO are not applicable.

INSERT SR 3.0.1.B

INSERT SR 3.0.1.C

~~Surveillances do not have to be performed on variables that are outside their specified limits because the ACTIONS define the remedial measures that apply. Surveillances have to be met and performed in accordance with SR 3.0.2, to restore variables within their specified limits.~~

SR 3.0.2

SR 3.0.2 establishes the requirements for meeting the specified Frequency for Surveillances.

plant operating

SR 3.0.2 permits a 25% extension of the interval specified in the Frequency. This extension facilitates Surveillance scheduling and considers ~~facility~~ conditions that may not be suitable for conducting the Surveillance (e.g., ongoing Surveillance or maintenance activities).

transient conditions or other

and any Required Action with a Completion Time that requires the periodic performance of the Required Action on a "Once per . . ." interval

BASES

SR 3.0.2 (continued)

When a Section 5.5, "Programs and Manuals," specification states that the provisions of SR 3.0.2 are applicable, a 25% extension of the testing interval, whether stated in the specification or incorporated by reference, is permitted.

The 25% extension does not significantly degrade the reliability that results from performing the Surveillance at its specified Frequency. This is based on the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the SRs.

INSERT SR 3.0.2.A

(other than those consistent with refueling intervals)

The provisions of SR 3.0.2 are not intended to be used repeatedly to extend Surveillance intervals or periodic Completion Time intervals beyond those specified.

affected equipment inoperable or

SR 3.0.3

SR 3.0.3 establishes the flexibility to defer declaring an affected variable outside the specified limits when a Surveillance has not been performed within the specified Frequency. A delay period of up to 24 hours or up to the limit of the specified Frequency, whichever is greater, applies from the point in time that it is discovered that the Surveillance has not been performed in accordance with SR 3.0.2, and not at the time that the specified Frequency was not met.

When a Section 5.5, "Programs and Manuals," specification states that the provisions of SR 3.0.3 are applicable, it permits the flexibility to defer declaring the testing requirement not met in accordance with SR 3.0.3 when the testing has not been completed within the testing interval (including the allowance of SR 3.0.2 if invoked by the Section 5.5 specification).

This delay period provides an adequate time to perform Surveillances that have been missed. This delay period permits the performance of a Surveillance before complying with Required Actions or other remedial measures that might preclude performance of the Surveillance.

BASES

plant

SR 3.0.3
(continued)

The basis for this delay period includes consideration of ~~facility~~ conditions, adequate planning, availability of personnel, the time required to perform the Surveillance, the safety significance of the delay in completing the required Surveillance, and the recognition that the most probable result of any particular Surveillance being performed is the verification of conformance with the requirements. When a Surveillance with a Frequency based not on time intervals, but upon specified ~~facility~~ conditions, is discovered to not have been performed when specified, SR 3.0.3 allows for the full delay period of up to the specified Frequency to perform the Surveillance. However, since there is not a time interval specified, the missed Surveillance should be performed at the first reasonable opportunity.

unit

, operating situations, or requirements of regulations (e.g., prior to entering MODE 1 after each fuel loading, or in accordance with 10 CFR 50, Appendix J, as modified by approved exemptions, etc.)

equipment is OPERABLE or that

SR 3.0.3 is only applicable if there is a reasonable expectation the associated variables are within limits, and it is expected that the Surveillance will be met when performed. Many factors should be considered, such as the period of time since the Surveillance was last performed, or whether the Surveillance, or a portion thereof, has ever been performed, and any other indications, tests, or activities that might support the expectation that the Surveillance will be met when performed.

INSERT SR 3.0.3.A

SR 3.0.3 provides a time limit for, and allowances for the performance of, Surveillances that become applicable as a consequence of MODE changes imposed by Required Actions.

Failure to comply with specified Frequencies for SRs is expected to be an infrequent occurrence. Use of the delay period established by SR 3.0.3 is a flexibility which is not intended to be used repeatedly to extend Surveillance intervals.

plant

plant

While up to 24 hours or the limit of the specified Frequency is provided to perform the missed Surveillance, it is expected that the missed Surveillance will be performed at the first reasonable opportunity. The determination of the first reasonable opportunity should include consideration of the impact on ~~facility~~ risk (from delaying the Surveillance as well as any ~~facility~~ configuration changes required to perform the Surveillance) and impact on any analysis assumptions, in addition to ~~facility~~ conditions, planning, availability of personnel, and the time required to perform the Surveillance. All missed Surveillances will be placed in the licensee's Corrective Action Program.

unit

INSERT SR 3.0.3.B

equipment is considered inoperable or the

If a Surveillance is not completed within the allowed delay period, then the variable is considered outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon expiration of the delay period. If a Surveillance is failed within the delay period, then the variable is outside the specified limits and the Completion Times of the Required Actions for the applicable LCO Conditions begin immediately upon the failure of the Surveillance.

equipment is inoperable, or the

BASES

SR 3.0.3 (continued)

Completion of the Surveillance within the delay period allowed by this Specification, or within the Completion Time of the ACTIONS, restores compliance with SR 3.0.1.

SR 3.0.4

SR 3.0.4 establishes the requirement that all applicable SRs must be met before entry into a specified Condition in the Applicability.

This Specification ensures that variable limits are met before entry into specified conditions in the Applicability for which these ~~variables ensure safe handling and storage of spent fuel~~.

~~The provisions of this Specification should not be interpreted as endorsing the failure to exercise the good practice of restoring variables within specified limits before entering an associated specified condition in the Applicability.~~

However, in certain circumstances, failing to meet an SR will not result in SR 3.0.4 restricting a MODE change or other specified condition change. When a variable is outside its specified limits, the associated SR(s) are not required to be performed, per SR 3.0.1, which states that surveillances do not have to be performed on ~~variables that are outside their specified limits~~. When ~~a variable is outside its specified limit~~, SR 3.0.4 does not apply to the associated SR(s) since the requirement for the SR(s) to be performed is removed. Therefore, failing to perform the Surveillance(s) within the specified Frequency does not result in an SR 3.0.4 restriction to changing specified conditions of the Applicability. However, since the LCO is not met in this instance, LCO 3.0.4 will govern any restrictions that may (or may not) apply to specified condition changes.

SR 3.0.4 does not restrict changing specified conditions of the Applicability when a Surveillance has not been performed within the specified Frequency, providing the requirement to declare the LCO not met has been delayed in accordance with SR 3.0.3.

system and component OPERABILITY requirements and

MODE or other

MODES or other

INSERT SR 3.0.4.A

systems and components ensure safe operation of the plant

system, subsystem, division, component, device, or

inoperable or

equipment is inoperable

MODES or other

MODES or other

inoperable equipment

MODE or other

INSERT SR 3.0.4.B

BASES

LCO

LCO 3.1.3 requires the MTC to be < 0.5 E-4 $\Delta\rho/°F$ at $\leq$ 2% RTP to ensure the core operates within the assumptions of the accident analysis. During the reload core safety evaluation, the MTC is analyzed to determine that its values remain within the bounds of the original accident analysis during operation. The limit on a positive MTC ensures that core overheating accidents will not violate the accident analysis assumptions.

MTC is a core physics parameter determined by the fuel and fuel cycle design and cannot be easily controlled once the core design is fixed. During operation, therefore, the LCO can only be ensured through measurement. The surveillance check at BOC on the MTC provide confirmation that the MTC is behaving as anticipated, so that the acceptance criteria are met.

APPLICABILITY

In MODE 1, the MTC must be maintained to ensure that any accident initiated from THERMAL POWER operation will not violate the design assumptions of the accident analysis. In MODE 2, the limits must also be maintained to ensure startup and subcritical accidents, such as the uncontrolled full-length control rod or group withdrawal, will not violate the assumptions of the accident analysis. The measurement of MTC in MODE 2 prior to exceeding 2% RTP is used to confirm that the core is behaving as analyzed. This ensures that the MTC will remain within the analyzed range while operating in MODES 1 and 2. In MODES 3, 4, 5, and 6, this LCO is not applicable, since no Design Basis Accidents (DBAs) using the MTC as an analysis assumption are initiated from these MODES. However, the variation of the MTC, with temperature in MODES 3, 4, and 5, for DBAs initiated in MODES 1 and 2, is accounted for in the subject accident analysis. The variation of the MTC, with temperature assumed in the safety analysis, is accepted as valid once the BOC measurement is used for normalization.

either new (nonirradiated) nuclear fuel assemblies, or

BACKGROUND

The fuel storage facility is designed to store used (irradiated) fuel assemblies in a vertical configuration underwater. The storage pool is sized to store 892 fuel assemblies, which includes storage for failed fuel canisters. The fuel storage racks are grouped into two regions, Region I and Region II per Figure B 3.7.16-1. The racks are designed as a Seismic Category I structure able to withstand seismic events.

Region I contains Metamic equipped racks in the spent fuel pool having a 10.25 inch center-to-center spacing and a single Carborundum equipped rack in the north tilt pit having an 11.25 inch by 10.69 inch center-to-center spacing. The Region I Carborundum equipped rack has restrictive loading patterns to address degradation of neutron absorbing material in the rack. The loading patterns accommodate some face-adjacent fuel assemblies with consideration of burnup credit in Sub-Regions 1D and 1E. The Region 1 Metamic equipped racks are only restricted by maximum planar U^{235} enrichment. The Region I Carborundum equipped rack also has provisions for storing non-fissile bearing components.

Region II contains racks in both the spent fuel pool and the north tilt pit having a 9.17 inch center-to-center spacing. Because of the smaller spacing and an analyzed solid poison concentration of zero (Boraflex), Region II also has limitations for fuel storage. Further information on limitations can be found in Section 4.0, “Design Features.” These limitations (e.g., enrichment, burnup, loading patterns) are sufficient to maintain a keff of ≤ 0.95 when flooded with borated water and keff < 1.0 when flooded with unborated water.

APPLICABLE SAFETY ANALYSES

The fuel storage facility was originally designed for noncriticality by use of adequate spacing, and "flux trap" construction, whereby the fuel assemblies are inserted into neutron absorbing stainless steel cans. The current criticality calculations also take credit for soluble boron to prevent criticality.

The spent fuel pool storage meets the requirements specified in “Guidance on the Regulatory Requirements for Criticality Analysis of Fuel Storage at Light-Water Reactor Power Plants”, Laurence I. Kopp, U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Reactor Systems Branch, February 1998. This document