Niagara Mohawk

John H. Mueller
Senior Vice President and
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March 29, 2001
NMP2L 2016

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U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Re: Nine Mile Point Unit 2
Docket No. 50-410
NPF-69
TAC Nos. MB1478, MB1479, and MB1480

Subject: ***Proposed Technical Specification Changes – Incorporation of NRC-Approved Generic Changes TSTF-51, TSTF-204, and TSTF-287***

Gentlemen:

Niagara Mohawk Power Corporation (NMPC) hereby transmits an application for amendment to Nine Mile Point Unit 2 (NMP2) Operating License NPF-69. Enclosed are proposed changes to the Technical Specifications (TS) set forth in Appendix A of the above mentioned license. The proposed TS changes contained herein represent adoption of three NRC approved Technical Specification Task Force (TSTF) items. This submittal includes TSTF-51, "Revise Containment Requirements During Handling Irradiated Fuel and Core Alterations," Revision 2; TSTF-204, "Revise DC Sources – Shutdown and Inverters – Shutdown to Address Specific Subsystem Requirements," Revision 3; and TSTF-287, "Ventilation System Envelope Allowed Outage Time," Revision 5. Attachment A provides retyped TS pages with marginal bars to show areas of proposed changes for all three TSTFs. Supporting information and analyses demonstrating that the proposed changes involve no significant hazards considerations pursuant to 10 CFR 50.92 are included as Attachment B with each TSTF evaluated in a separate enclosure to Attachment B. Each TSTF enclosure in Attachment B includes a description and justification for each proposed TS change, a comparison of the change with the NRC approved TSTF, and the no significant hazards consideration determination. Attachment C provides a "marked-up" copy of the revised TS and Bases pages showing the proposed revisions with a separate enclosure in Attachment C for each TSTF. The Bases pages are provided for information only and do not require issuance by the NRC. NMPC's determination that the proposed changes meet the criteria for categorical exclusion from performing an environmental assessment is based on the evaluation included as Attachment D.

The subject TSTF items were approved by the Boiling Water Reactor Owner's Group Technical Specifications Issues Coordination Committee, which reviews and endorses proposed generic changes to the BWR/4 Standard Technical Specification (STS),

A001

NUREG-1433, Revision 1, and the BWR/6 STS, NUREG-1434, Revision 1 to clarify usage, correct errors, and make other improvements deemed beneficial to licensees who utilize Improved Technical Specifications (ITS). The TS of NMP2 (a BWR/5 reactor type) are based mainly on NUREG-1434 with some sections based on NUREG-1433. All of the TS sections affected by these changes are based on NUREG-1434.

All TSTFs in this submittal package have been previously reviewed and approved by the NRC. Following approval by the NRC, it is intended that the TSTFs be incorporated by individual licensees as changes to their respective ITS. Adoption of TSTFs has the added benefit of maintaining the NMP2 TS consistent with the latest approved changes to the STS.

NMPC is requesting approval of this change by December 31, 2001 and that it be made effective within 60 days of issuance to allow an orderly implementation of any needed plant procedure or training.

Pursuant to 10 CFR 50.91(b)(1), NMPC has provided a copy of this license amendment request and the associated analyses regarding no significant hazard considerations to the appropriate state representative.

Sincerely,

John H. Mueller
Senior Vice President and
Chief Nuclear Officer

JHM/TRB/cld
Attachments

xc: Mr. H. J. Miller, NRC Regional Administrator Region 1
Ms. M. K. Gamberoni, Section Chief PD-I, Section 1, NRR
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UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
NIAGARA MOHAWK POWER CORPORATION	)	**Docket No. 50-410**
	)	
Nine Mile Point Nuclear Station Unit 2	)	

APPLICATION FOR AMENDMENT TO OPERATING LICENSE

Pursuant to Section 50.90 of the Regulations of the Nuclear Regulatory Commission, Niagara Mohawk Power Corporation, holder of the Facility Operating License No. NPF-69, hereby requests that Sections 3.3.6.2, 3.3.7.1, 3.3.8.2, 3.6.4.1, 3.6.4.2, 3.6.4.3, 3.7.2, 3.7.3, 3.8.2, 3.8.5, and 3.8.9 of the Technical Specifications set forth in Appendix A to the License be amended. This proposed change has been reviewed in accordance with the Quality Assurance Program Topical Report.

The proposed Technical Specification change is set forth in Attachment A to this application. The proposed Technical Specification changes contained herein represent adoption of three NRC approved Technical Specification Task Force (TSTF) items. This submittal includes TSTF-51, Revision 2; TSTF-204, Revision 3; and TSTF-287, Revision 5.

The proposed change will not authorize any change in the types of effluents or in the authorized power level of the facility in conjunction with this Application for License Amendment. Supporting information and analysis which demonstrate that the proposed change involves no significant hazards considerations pursuant to 10 CFR 50.92, is included as Attachment B.

Wherefore, the Applicant respectfully requests that Appendix A to Facility Operating License No. NPF-69 be amended in the form attached hereto as Attachment A.

NIAGARA MOHAWK POWER CORPORATION

SANDRA A. OSWALD
Notary Public, State of New York
No. 01OS6032276
Qualified in Oswego County
Commission Expires 10/25/01

By

John H. Mueller
Senior Vice President and Chief Nuclear Officer

Subscribed and sworn to before
me on this 29th day of March, 2001

Sandra A. Oswald
NOTARY PUBLIC

ATTACHMENT A

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

Proposed Changes To Technical Specifications

Replace existing pages listed below with the attached revised pages.

Remove	Insert
3.3.6.2-4	3.3.6.2-4
3.3.7.1-4	3.3.7.1-4
3.3.8.2-1	3.3.8.2-1
3.3.8.2-2	3.3.8.2-2
3.6.4.1-1	3.6.4.1-1
3.6.4.1-2	3.6.4.1-2
3.6.4.2-1	3.6.4.2-1
3.6.4.2-3	3.6.4.2-3
3.6.4.3-1	3.6.4.3-1
3.6.4.3-2	3.6.4.3-2
3.6.4.3-3	3.6.4.3-3
3.7.2-1	3.7.2-1
3.7.2-2	3.7.2-2
3.7.2-3	3.7.2-3
3.7.3-1	3.7.3-1
3.7.3-2	3.7.3-2
3.7.3-3	3.7.3-3
3.8.2-1	3.8.2-1
3.8.2-2	3.8.2-2
3.8.2-3	3.8.2-3
3.8.5-1	3.8.5-1
3.8.9-1	3.8.9-1

These pages have been retyped in their entirety with marginal markings to indicate the changes to the text.

Table 3.3.6.2-1 (page 1 of 1)
Secondary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES AND OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level – Low Low, Level 2	1,2,3,(a)	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 SR 3.3.6.2.5	≥ 101.8 inches
2. Drywell Pressure – High	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 1.88 psig
3. Reactor Building Above the Refuel Floor Exhaust Radiation – High	1,2,3, (a),(b)	1	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 2.46×10^{-3} µCi/cc
4. Reactor Building Below the Refuel Floor Exhaust Radiation – High	1,2,3, (a),(b)	1	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 2.46×10^{-3} µCi/cc

(a) During operations with a potential for draining the reactor vessel.

(b) During movement of recently irradiated fuel assemblies in the secondary containment.

Table 3.3.7.1-1 (page 1 of 1)
Control Room Envelope Filtration System Instrumentation

	FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1.	Reactor Vessel Water Level – Low Low, Level 2	1,2,3, (a)	2	B	SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.3 SR 3.3.7.1.4 SR 3.3.7.1.5	≥ 101.8 inches
2.	Drywell Pressure – High	1,2,3	2	C	SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.3 SR 3.3.7.1.4 SR 3.3.7.1.5	≤ 1.88 psig
3.	Main Control Room Ventilation Radiation Monitor – High	1,2,3, (a),(b)	2	B	SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.4 SR 3.3.7.1.5	≤ 5.92×10^{-6} µCi/cc

(a) During operations with a potential for draining the reactor vessel.

(b) During movement of recently irradiated fuel assemblies in the secondary containment.

3.3 INSTRUMENTATION

3.3.8.2 Reactor Protection System (RPS) Electric Power Monitoring—Logic

LCO 3.3.8.2 Two RPS electric power monitoring assemblies shall be OPERABLE for each RPS logic bus.

APPLICABILITY: MODES 1, 2, and 3,
MODES 4 and 5 with both residual heat removal (RHR) shutdown cooling (SDC) suction isolation valves open,
MODE 5 with any control rod withdrawn from a core cell containing one or more fuel assemblies,
During movement of recently irradiated fuel assemblies in the secondary containment,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or both RPS logic buses with one electric power monitoring assembly inoperable.	A.1	Restore electric power monitoring assembly(s) to OPERABLE status.	72 hours
B. One or both RPS logic buses with both electric power monitoring assemblies inoperable.	B.1	Restore electric power monitoring assemblies to OPERABLE status.	1 hour
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 AND C.2	Be in MODE 3. Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A or B not met in MODE 4 or 5 with both RHR SDC suction isolation valves open.	D.1 Initiate action to restore one electric power monitoring assembly to OPERABLE status for each RPS logic bus. OR D.2 Initiate action to isolate the RHR SDC System.	Immediately Immediately
E. Required Action and associated Completion Time of Condition A or B not met in MODE 5 with any control rod withdrawn from a core cell containing one or more fuel assemblies.	E.1 Initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies.	Immediately
F. Required Action and associated Completion Time of Condition A or B not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	F.1.1 Isolate the associated secondary containment penetration flow path(s). OR F.1.2 Declare associated secondary containment isolation valves inoperable. AND	Immediately Immediately (continued)

3.6 CONTAINMENT SYSTEMS

3.6.4.1 Secondary Containment

LCO 3.6.4.1 The secondary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Secondary containment inoperable in MODE 1, 2, or 3.	A.1 Restore secondary containment to OPERABLE status.	4 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Secondary containment inoperable during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	C.1 --------NOTE-------- LCO 3.0.3 is not applicable. ---------- Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND	Immediately
	C.2 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.1.1	Verify secondary containment vacuum is ≥ 0.25 inch of vacuum water gauge.	24 hours
SR 3.6.4.1.2	Verify all secondary containment equipment hatches are closed and sealed.	31 days

(continued)

3.6 CONTAINMENT SYSTEMS

3.6.4.2 Secondary Containment Isolation Valves (SCIVs)

LCO 3.6.4.2 Each SCIV shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

----------NOTES----------
1. Penetration flow paths may be unisolated intermittently under administrative controls.
2. Separate Condition entry is allowed for each penetration flow path.
3. Enter applicable Conditions and Required Actions for systems made inoperable by SCIVs.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more penetration flow paths with one SCIV inoperable.	A.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	8 hours (continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. Required Action and associated Completion Time of Condition A or B not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	D.1	--------NOTE-------- LCO 3.0.3 is not applicable. ---------- Suspend movement of recently irradiated fuel assemblies in the secondary containment.	Immediately
	AND		
	D.2	Initiate action to suspend OPDRVs.	Immediately

3.6 CONTAINMENT SYSTEMS

3.6.4.3 Standby Gas Treatment (SGT) System

LCO 3.6.4.3 Two SGT subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SGT subsystem inoperable.	A.1 Restore SGT subsystem to OPERABLE status.	7 days
B. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, or 3.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours
C. Required Action and associated Completion Time of Condition A not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- C.1 Place OPERABLE SGT subsystem in operation. OR	Immediately (continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. (continued)	C.2.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND C.2.2 Initiate action to suspend OPDRVs.	Immediately Immediately
D. Two SGT subsystems inoperable in MODE 1, 2, or 3.	D.1 Enter LCO 3.0.3.	Immediately
E. Two SGT subsystems inoperable during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	E.1 --------NOTE-------- LCO 3.0.3 is not applicable. ---------- Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND E.2 Initiate action to suspend OPDRVs.	 Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each SGT subsystem for ≥ 10 continuous hours with heaters operating.	31 days
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each SGT subsystem actuates on an actual or simulated initiation signal.	24 months
SR 3.6.4.3.4	Verify each SGT decay heat removal air inlet valve can be opened.	24 months

3.7 PLANT SYSTEMS

3.7.2 Control Room Envelope Filtration (CREF) System

LCO 3.7.2 Two CREF subsystems shall be OPERABLE.

---NOTE---
The control room envelope boundary may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One CREF subsystem inoperable. OR Two CREF subsystems inoperable with safety function maintained.	A.1	Restore CREF subsystem(s) to OPERABLE status.	7 days
B. Two CREF subsystems inoperable due to inoperable control room envelope boundary in MODES 1, 2, and 3.	B.1	Restore control room envelope boundary to OPERABLE status.	24 hours
C. Required Action and Associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 AND C.2	Be in MODE 3. Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- D.1 Place OPERABLE components of CREF subsystem(s) equivalent to a single CREF subsystem in emergency pressurization mode. OR D.2.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND D.2.2 Initiate action to suspend OPDRVs.	Immediately Immediately Immediately
E. Two CREF subsystems inoperable with safety function not maintained in MODE 1, 2, or 3 for reasons other than Condition B.	E.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
F. Two CREF subsystems inoperable with safety function not maintained during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- F.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND F.2 Initiate action to suspend OPDRVs.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.2.1	Operate each CREF subsystem for ≥ 1 continuous hour.	31 days
SR 3.7.2.2	Perform required CREF System filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.2.3	Verify each CREF subsystem actuates on an actual or simulated initiation signal.	24 months

(continued)

3.7 PLANT SYSTEMS

3.7.3 Control Room Envelope Air Conditioning (AC) System

LCO 3.7.3 Two control room envelope AC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One control room envelope AC subsystem inoperable. OR Two control room envelope AC subsystems inoperable with safety function maintained.	A.1 Restore control room envelope AC subsystem(s) to OPERABLE status.	30 days
B. Required Action and Associated Completion Time of Condition A not met in MODE 1, 2, or 3.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A not met during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- C.1 Place OPERABLE components of control room envelope AC subsystem(s) equivalent to a single control room envelope AC subsystem in operation. OR C.2.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND C.2.2 Initiate action to suspend OPDRVs.	Immediately Immediately Immediately
D. Two control room envelope AC subsystems inoperable with safety function not maintained in MODE 1, 2, or 3.	D.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Two control room envelope AC subsystems inoperable with safety function not maintained during movement of recently irradiated fuel assemblies in the secondary containment or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- E.1 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND E.2 Initiate action to suspend OPDRVs.	Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Verify each control room envelope AC subsystem has the capability to remove the assumed heat load.	24 months

3.8 ELECTRICAL POWER SYSTEMS

3.8.2 AC Sources—Shutdown

LCO 3.8.2 The following AC electrical power sources shall be OPERABLE:

a. One qualified circuit between the offsite transmission network and the onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.9, "Distribution Systems—Shutdown"; and

b. One diesel generator (DG) capable of supplying one division of the Division 1 or 2 onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.9; and

c. One qualified circuit, other than the circuit in LCO 3.8.2.a, between the offsite transmission and the Division 3 onsite Class 1E electrical power distribution subsystem, or the Division 3 DG capable of supplying the Division 3 onsite Class 1E AC electrical power distribution subsystem, when the Division 3 onsite Class 1E electrical power distribution subsystem is required by LCO 3.8.9.

APPLICABILITY: MODES 4 and 5,
During movement of recently irradiated fuel assemblies in the secondary containment.

ACTIONS

---NOTE---
LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. LCO Item a. not met.	---NOTE--- Enter applicable Condition and Required Actions of LCO 3.8.9, when any required division is de-energized as a result of Condition A. --- A.1 Declare affected required feature(s) with no offsite power available inoperable. OR A.2.1 Suspend CORE ALTERATIONS. AND A.2.2 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND A.2.3 Initiate action to suspend operations with a potential for draining the reactor vessel (OPDRVs). AND	Immediately Immediately Immediately Immediately

(continued)

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.2.4	Initiate action to restore required offsite power circuit to OPERABLE status.	Immediately
B. LCO Item b. not met.	B.1	Suspend CORE ALTERATIONS.	Immediately
	AND		
	B.2	Suspend movement of recently irradiated fuel assemblies in secondary containment.	Immediately
	AND		
	B.3	Initiate action to suspend OPDRVs.	Immediately
	AND		
	B.4	Initiate action to restore required DG to OPERABLE status.	Immediately
C. LCO Item c. not met.	C.1	Declare High Pressure Core Spray System inoperable.	72 hours

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 DC Sources—Shutdown

LCO 3.8.5 The following DC electrical power subsystems shall be OPERABLE:

a. One Division 1 or Division 2 DC electrical power subsystem; and
b. The Division 3 DC electrical power subsystem, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, "Distribution Systems - Shutdown."

APPLICABILITY: MODES 4 and 5,
During movement of recently irradiated fuel assemblies in the secondary containment.

ACTIONS

----------NOTE----------
LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required DC electrical power subsystems inoperable.	A.1 Declare affected required feature(s) inoperable.	Immediately
	OR	
	A.2.1 Suspend CORE ALTERATIONS.	Immediately
	AND	
	A.2.2 Suspend movement of recently irradiated fuel assemblies in the secondary containment.	Immediately
	AND	(continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 Distribution Systems—Shutdown

LCO 3.8.9 The necessary portions of the Division 1, Division 2, and Division 3 AC and DC and the Division 1 and Division 2 120 VAC uninterruptible electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE.

APPLICABILITY: MODES 4 and 5,
During movement of recently irradiated fuel assemblies in the secondary containment.

ACTIONS

---NOTE---
LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required AC, DC, or 120 VAC uninterruptible electrical power distribution subsystems inoperable.	A.1 Declare associated supported required feature(s) inoperable. OR A.2.1 Suspend CORE ALTERATIONS. AND A.2.2 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND	Immediately Immediately Immediately (continued)

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

Supporting Information And No Significant Hazards Considerations Analysis

I. Description of the Proposed Changes

Niagara Mohawk Power Corporation (NMPC) is revising the Nine Mile Point Unit 2 (NMP2) Improved Technical Specifications (ITS) to adopt three generic changes to NUREG-1434, Revision 1, BWR/6 Standard Technical Specifications (STS). NMP2 converted to ITS in February 2000 in license amendment 91 and implemented the ITS in December 2000. The NMP2 ITS is based on NUREG-1433, Revision 1, BWR/4 STS, and NUREG-1434. All of the Technical Specification (TS) sections affected by these changes are based on NUREG-1434.

This submittal proposes the adoption of the following Technical Specification Task Force (TSTF) items:

1. TSTF-51, Revision 2

   Subject: Revise Containment Requirements during Handling Irradiated Fuel and Core Alterations

   TSTF-51, Revision 2 removes the TS requirements for engineered safeguards features (ESF) (e.g., secondary containment, standby gas treatment, control room envelope filtration) to be Operable after sufficient radioactive decay has occurred to ensure offsite doses remain below the Standard Review Plan (SRP) limits (a small fraction of 10 CFR 100 limits). Associated with this change is the deletion of Operability requirements during Core Alterations for ESF mitigation features.

2. TSTF-204, Revision 3

   Subject: Revise DC Sources – Shutdown and Inverters – Shutdown to Address Specific Subsystem Requirements

   TSTF-204, Revision 3 allows the re-adoption of NMP2's original Operability requirements of Technical Specification (TS) 3.8.2.2, "DC Sources – Shutdown", prior to ITS conversion into TS 3.8.5, "DC Sources – Shutdown". TS 3.8.5 is proposed to state that either the Division 1 or Division 2 DC electric power subsystem, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, "Distribution Systems – Shutdown", be Operable while in Modes 4 and 5 and during movement of irradiated fuel assemblies in the secondary

containment. The NUREG-1434, Revision 1 requirements do not allow plants converting to ITS the option to retain their current Operability requirements for DC Sources – Shutdown.

3. TSTF-287, Revision 5

Subject: Ventilation System Envelope Allowed Outage Time

TSTF-287, Revision 5 provides specific Conditions and Required Actions for control room barrier degradation (as opposed to ventilation train degradation). This change allows 24 hours in MODES 1, 2, and 3 to restore the capability to maintain proper control room pressure by restoring the control room barrier before requiring an orderly shutdown. Additionally, this TSTF allows intermittent opening of the control room barrier under administrative control.

II. Reason for the Proposed Changes

As part of a continuing effort to maintain and improve use of the ITS, generic changes to NUREG-1433 and NUREG-1434 are initiated by the reactor owners. These proposed changes to the BWR STS are submitted to the BWR Owners' Group (BWROG) Technical Specifications Issues Coordination Committee (TSICC), which reviews and endorses these generic changes. The pressurized water reactor owners' groups, who have analogous Technical Specifications committees, also propose changes to the STS. Following approval by the owners' groups Technical Specifications committees, the proposed changes are issued as TSTFs and submitted to the NRC for comment, review, and approval. All TSTFs in this submittal have been previously reviewed and approved by the NRC.

Following approval by the NRC, it is intended that individual licensees may incorporate the generic changes into their TS. NMPC has reviewed the TSTFs provided in this submittal and determined that it is appropriate to adopt these TSTFs into the NMP2 TS. In proposing incorporation of these changes, NMP2 is maintaining consistency with the latest approved changes and improvements to the STS.

III. Consistency With TSTFs

Whenever possible, the TSTFs are incorporated into the NMP2 TS using the same format and requirements provided in the NRC-approved TSTFs. In some cases, due to plant specific differences or variations between the NMP2 TS and the STS made during the ITS conversion process, minor modifications to the TSTFs are necessary to properly incorporate the TSTF into the NMP2 TS. In the attached enclosures for the individual TSTFs, a comparison between the TSTF as approved by the NRC and NMP2's proposed change is provided, and differences, if any, are discussed and justified. In all cases, the intent of the TSTF is maintained.

Any interfaces or conflicts between the three TSTFs (e.g., Required Action renumbering differences between TSTFs that make changes to the same TS, or deletion by one TSTF of Bases information changed by another TSTF) have been examined and resolved with no changes to the intent of the TSTFs. Any cases of interfacing or conflicts between the three TSTFs are noted in the TS and Bases markups in Attachment C.

IV. Justification for Change

In the attached enclosures to this attachment, a justification for adopting each TSTF is provided, including plant specific information as appropriate.

V. No Significant Hazards Consideration Determination

According to 10 CFR 50.91, at the time a licensee requests an amendment, it must provide to the Commission its analysis, using the standards in 10 CFR 50.92, concerning the issue of no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or

2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or

3. Involve a significant reduction in a margin of safety.

NMPC has evaluated this proposed amendment pursuant to 10 CFR 50.91 and has determined that it involves no significant hazards considerations. Refer to the enclosures of this attachment for the details of this determination for each TSTF.

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

Incorporation of Generic Technical Specification Changes
Supporting Information and No Significant Hazards Considerations Analysis
TSTF Enclosure Index

Enclosure	TSTF	Revision	Subject
1	TSTF-51	2	Revise Containment Requirements during Handling Irradiated Fuel and Core Alterations
2	TSTF-204	3	Revise DC Sources – Shutdown and Inverters – Shutdown to Address Specific Subsystem Requirements
3	TSTF-287	5	Ventilation System Envelope Allowed Outage Time

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

ENCLOSURE 1
Supporting Information and No Significant Hazards Considerations Analysis

TSTF-51, Revision 2
Revise Containment Requirements during Handling Irradiated Fuel and Core Alterations

ATTACHMENT B
Enclosure 1

TSTF-51, Revision 2

Description of Change

TSTF-51, Revision 2 removes the Technical Specification (TS) requirements for engineered safeguards features (ESF) (e.g., secondary containment, standby gas treatment, control room envelope filtration) to be Operable after sufficient radioactive decay has occurred to ensure offsite doses remain below the Standard Review Plan (SRP) limits (a small fraction of 10 CFR 100 limits). Associated with this change is the deletion of Operability requirements during Core Alterations for ESF mitigation features.

The following TS are affected:

TS 3.3.6.2, "Secondary Containment Isolation Instrumentation"
TS 3.3.7.1, "Control Room Envelope Filtration (CREF) System Instrumentation"
TS 3.3.8.2, "Reactor Protection System (RPS) Electric Power Monitoring – Logic"
TS 3.6.4.1, "Secondary Containment"
TS 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)"
TS 3.6.4.3, "Standby Gas Treatment (SGT) System"
TS 3.7.2, "Control Room Envelope Filtration (CREF) System"
TS 3.7.3, "Control Room Air Conditioning (AC) System"
TS 3.8.2, "AC Sources – Shutdown"
TS 3.8.5, "DC Sources – Shutdown"
TS 3.8.9, "Distribution Systems – Shutdown"

Comparison to TSTF

TSTF-51 is adopted with minor variances.

No changes are proposed for TS 3.3.6.1, "Primary Containment Isolation Instrumentation," as recommended by TSTF-51 since the SGT System Exhaust Radiation – High Function (Nine Mile Point Unit 2 (NMP2) TS Table 3.3.6.1-1 Function 2.c; NUREG-1434 Table 3.3.6.1-1 Function 2.g) is not currently required nor needed for primary containment isolation in MODES other than MODES 1, 2, and 3. Therefore, TSTF-51 is not applicable to NMP2's adaptation of NUREG-1434 TS 3.3.6.1.

Niagara Mohawk Power Corporation (NMPC) proposes to change TS 3.3.8.2 to support the changes recommended by TSTF-51 to TS 3.3.6.2, 3.3.7.1, 3.6.4.2, 3.6.4.3, and 3.7.2. The RPS Electric Power Monitoring assemblies (RPS logic bus) are required to support instrumentation that provides the secondary containment isolation, SGT System initiation, and CREF System initiation signals. Therefore, the Applicability and Conditions of TS 3.3.8.2 must be consistent with those of the other instrumentation and system TS affected by TSTF-51.

No changes are proposed for TS 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)", as recommended by TSTF-51 since NUREG-1434 Conditions G and H are not applicable to NMP2. Therefore, TSTF-51 is not applicable to NMP2's adaptation of NUREG-1434 TS 3.6.1.3.

No changes are proposed for NUREG-1434 TS 3.8.8, "Inverters – Shutdown", as recommended by TSTF-51 since this TS was not adopted by NMP2 in its conversion to the Improved Technical Specifications (ITS). Current licensing basis does not require the inverter to supply the associated loads while shutdown.

Justification for Change

Incorporation of TSTF-51, Revision 2 allows NMP2 to remove the TS requirements for ESF features (e.g., secondary containment, standby gas treatment, control room envelope filtration) to be Operable after sufficient radioactive decay has occurred to ensure offsite doses remain below the Standard Review Plan (SRP) limits (a small fraction of 10 CFR 100 limits). Associated with this change is the deletion of Operability requirements during Core Alterations for ESF mitigation features.

This proposed amendment to the NMP2 TS revises those TS associated with handling irradiated fuel in the secondary containment. The purpose is to establish a point where operability of those systems typically used to mitigate the consequences of a fuel handling accident (FHA) is no longer required to meet the current license basis offsite dose limitations (75 rem thyroid, 6 rem whole body) and General Design Criteria (GDC) 19 operator limits of 30 rem thyroid and 5 rem whole body. Specifically, the proposal adds new information for irradiated fuel to each associated TS Bases that contains sufficient fission products to require operability of accident mitigation systems to meet the accident analysis assumptions. The enhanced information revises the Operability requirements for Secondary Containment Isolation Instrumentation, CREF System Instrumentation, RPS Electric Power Monitoring – Logic, Secondary Containment, SCIVs, SGT System, CREF System, Control Room Envelope Air Conditioning System and AC Sources, DC Sources, and Distribution Systems during shutdown. Additional information was included in the Bases for the above TS.

The new information for recently irradiated fuel provides a mechanism for applying a cutoff in fission product decay to various TS where the concept applies. The decay period has been shown by analysis to provide sufficient decay such that, assuming the design basis FHA, radiological consequences are within the acceptance criteria of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants", Section 15.7.4 and GDC 19.

TS Applicability statements are revised with "recently irradiated" replacing "irradiated." Also, Action statements are revised, as appropriate, to reflect the proposed changes. Note that the markup for the proposed changes is consistent with the ITS terminology and NUREG-1434.

The revised Applicability and Actions incorporate the new term of recently irradiated to establish operational conditions where specific activities represent situations where significant radioactive releases can be postulated. During MODES 4 or 5, these are: 1) when handling recently irradiated fuel; and 2) during operations with a potential for draining the reactor vessel. The Applicability and Actions for electrical power systems only address fuel handling because the other conditions are implicitly included by the requirement that these systems be operable in MODES 4 and 5.

The revised Applicability redefines the Limiting Condition for Operability (LCO) Applicability for instrumentation/devices that isolate containment, and provides for filtration systems, including support systems, that mitigate the radiological impact of FHAs. The proposed Applicability is consistent with the FHA assumptions. The applicability to recently irradiated fuel bounds events where this fuel is dropped onto other recently irradiated fuel. As described in the NMP2 Updated Safety Analysis Report (USAR), the accidents postulated to occur during Core Alterations are control rod withdrawal error during refueling and the inadvertent loading and operation of a fuel assembly in an improper location. These events are not postulated to result in fuel cladding integrity damage during shutdown. Since the only accident postulated to occur during Core Alterations that results in a significant radioactive release is the FHA, the relationship to Core Alterations is not appropriate. Therefore, the proposed LCO Applicability for handling recently irradiated fuel assemblies is justified. The Applicability related to operations with a potential for draining the reactor vessel is unaffected by the proposed changes.

During the decay period for recently irradiated fuel, selected ESF systems are required to limit the radiological consequences of a FHA to within regulatory limits. These decay times are consistent with the assumptions used in the accident analyses. The Bases of each TS is revised to include the basis for the decay period used in the new definition for recently irradiated fuel. This location in the Bases to describe the concept and limits for recently irradiated fuel was chosen to minimize TS changes in the future.

Following reactor shutdown, decay of the short-lived fission products greatly reduces the fission product inventory present in irradiated fuel. The current restriction of a 24-hour period of reactor subcriticality prior to any fuel movement in the vessel, an assumption in the existing FHA analysis, is maintained in the NMP2 Technical Requirements Manual (TRM), Section 3.9.2, "Decay Time". The proposed changes are based on fuel cycles through 2001 and a longer decay period, which take advantage of the reduced radionuclide inventory available for release in the event of a FHA. The longer decay period is currently calculated to be 2 days for Secondary Containment Isolation Instrumentation, Secondary Containment, SCIVs, and the SGT System, and 28 days for CREF System Instrumentation, RPS Electric Power Monitoring – Logic, CREF System, Control Room Envelope Air Conditioning System and AC Sources, and DC Sources, and Distribution Systems during shutdown. The previous limits remain in effect prior to reaching this decay time. The proposed changes redefine the operability requirements for selected engineered safety feature (ESF) systems such that these systems are only required to be operable during the calculated decay period.

This proposed change will have minimal impact to shutdown risk. This is based on: 1) the proposed changes will not remove requirements for systems to mitigate potential vessel drain-down events (Emergency Core Cooling Systems (ECCS)); 2) the proposed changes will not remove requirements for systems required for decay heat removal (Residual Heat Removal (RHR)); 3) the loss of RHR has been identified as a concern prior to reaching high water level over the vessel; and 4) the proposed changes continue to require this high water level during fuel movement. Therefore, the proposed changes can be implemented and not preclude effective actions to address shutdown risk concerns.

Implementation of the proposed changes will have a significant impact on outage activities at NMP2 resulting in reduced outage costs and increased flexibility while maintaining an acceptable safety margin. Currently, moving large pieces of equipment into secondary containment must be scheduled to minimize lost time and is expected to affect the critical path of the next outage several times. This results in work being delayed or rescheduled to less efficient times in an outage. Because of the high level of modification, maintenance, and repair activities during outages, increased wear on the two airlock doors to secondary containment can occur, resulting in increased repair cost. These repairs would also create a bottleneck situation for processing personnel and equipment in and out of the secondary containment, including rerouting through the remaining door further delaying work. In addition, the actual establishment of the containment boundary several times per outage further restricts access and requires additional resources.

Analysis

This request will revise the original design basis of the plant by evaluating new limiting events: the drop of a recently irradiated fuel assembly with secondary containment inoperable and the drop of a recently irradiated fuel assembly with secondary containment and CREF System inoperable. The cause of these events remains a failure of the fuel assembly lifting mechanism, resulting in the dropping of a raised recently irradiated fuel assembly onto a recently irradiated fuel bundle in the core.

Method

The FHA model used is the same as that found in Section 15.7.4 of the NMP2 USAR with the exception of the assumptions of inoperable secondary containment or inoperable CREF. The accident modeled uses the direction given in the SRP and Regulatory Guide 1.25, "Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility for Boiling Water and Pressurized Water Reactors". Core activity at the end of an operating cycle is decayed for various times following reactor shutdown. Using Regulatory Guide 1.25 guidance, gap activity in the damaged fuel pins is then released to the fuel pool water. Per Regulatory Guide 1.25, the water provides a decontamination factor (DF) of 100 for halogens and 1 for noble gas. The activity is then released to the refuel floor airspace and then to the environment through either the combined Reactor Building/Radwaste

Building Vent or the secondary containment siding. No credit is taken for a filtered or elevated release in this calculation. In all cases, the activity is assumed to be released over a two hour time period, consistent with the guidance given in Regulatory Guide 1.25.

For the cases where the NMP2 CREF System is assumed to be Operable, filtration is assumed to start at T=30 seconds. For the case where the NMP2 CREF System is assumed not to be Operable, normal ventilation is assumed for the duration of the accident (no filtered recirculation flow is assumed as well). The results are then compared to the dose limits given in GDC 19.

For the following cases, the DRAGON Computer Code, Dose and Radioactivity from Nuclear Facility Gaseous Outflows, SWEC Number NU-115, Version 5, Level 0, is used:

For the case of inoperable secondary containment and Operable CREF System: The gap activity in the fuel pins assumed to be damaged by the dropped fuel bundle is assumed to be released to the fuel pool 48 hours after shutdown. A period of 48 hours was used since it is the earliest time post shutdown that fuel could realistically be moved. Note that the delayed release option of DRAGON is used. 100% of the noble gas activity and 1% of the halogen activity released to the fuel pool is assumed to be instantaneously transported to the secondary containment air space. The activity of the secondary containment air space is then assumed to be released from the secondary containment over a period of 2 hours.

For the case of inoperable secondary containment and inoperable CREF System: Activities are assumed to be released to the fuel pool 672 hours (28 days) after shutdown. The value of 672 hours was selected since it resulted in doses within the GDC 19 guidelines.

General Assumptions

The following release parameters as defined in Regulatory Guide 1.25 are assumed:

- The fuel pool water has an effective DF of 1 for noble gas and 100 for halogens.
- Radial peaking factor of 1.5 is assumed in the rods that are damaged.
- 10% of a fuel rod's activity is in the gap, with the exception of Kr-85 which is assumed to be 30% and I-131 which is assumed to be 12% (discussed below).
- Breathing rate of 3.47E-04 m^3/sec. This value is assumed for the duration of the accident.
- All activity released to the fuel pool is released from the secondary containment in 2 hours.
- Reactor power level is 3467 MWt with assumed power measurement inaccuracy of 2%

- 124 of a total of 47,368 fuel pins are damaged in the accident. It is conservative to assume an 8x8 fuel bundle is dropped. 124 damaged 8x8 fuel pins results in more released activity than that released by fuel bundles with more fuel pins.

The amount of fuel pin activity assumed to be in the gap is 10% of both halogens and noble gas with the exception of Kr-85 which is assumed to be 30% and I-131 which is assumed to be 12%. This assumption, except for I-131, is consistent with the guidance provided in Regulatory Guide 1.25. The I-131 gap activity is increased from 10% to 12% per Table 3.6 of NUREG/CR-5009, Assumptions for the Use of Extended Burnup Fuel in Light Water Reactors". This increase is required to account for the fact that NMP2 is using high burnup fuel which negates the guidance given in Section C.1.d of Regulatory Guide 1.25. In accordance with Regulatory Guide 1.25, all of the gap activity in the damaged fuel pins is assumed to be released to the fuel pool.

Conclusions

The following table reports the NMPC results of the analysis of the FHA occurring after 2 days and 28 days of decay:

FHA Control Room Doses (Rem)			
	Thyroid	Gamma	Beta
Secondary Containment Inoperable, CREF System Operable 48 hours post shutdown	1.10E+01	1.05E-01	4.55E+00
Secondary Containment Inoperable, CREF System Inoperable 672 hours post shutdown	2.56E+01	2.07E-03	1.80E-01

Assuming that an FHA is the most limiting accident which can occur when the plant is in Modes 4 or 5, fuel (and other irradiated components) can be moved at the following times post shutdown without exceeding GDC 19 Control Room dose limits:

Secondary Containment inoperable – 48 hours = 2 days
Secondary Containment and CREF System inoperable – 672 hours = 28 days

Current analysis (i.e., with secondary containment inoperable) does not assume a release via the SGT System filters and the NMP2 stack. The assumption is a ground level unfiltered release with all the activity released in two hours. Assuming that secondary containment is inoperable would not change the release assumptions. Therefore, offsite doses are not changed by assuming that the secondary containment or CREF System is inoperable.

Margins and Conservatisms

A Reviewer's Note in TSTF-51 states that licensees adding the term "recently" must make the following commitment which is consistent with draft NUMARC 93-01,

Revision 3, Section 11.2.6, "Safety Assessment for Removal of Equipment from Service During Shutdown Conditions, subheading "Containment – Primary (PWR)/Secondary (BWR)":

The following guidelines are included in the assessment of systems removed from service during movement of irradiated fuel:

- During fuel handling/core alterations, ventilation system and radiation monitor availability (as defined in NUMARC 91-06) should be assessed, with respect to filtration and monitoring of releases from the fuel. Following shutdown, radioactivity in the fuel decays fairly rapidly. The basis of the Technical Specification operability amendment is the reduction in doses due to such decay. The goal of maintaining ventilation system and radiation monitor availability is to reduce doses even further below that provided by the natural decay, and to avoid unmonitored releases.

- A single normal or contingency method to promptly close primary or secondary containment penetrations should be developed. Such prompt methods need not completely block the penetration or be capable of resisting pressure. The purpose of the "prompt methods" mentioned above is to enable ventilation systems to draw the release from a postulated fuel handling accident in the proper direction such that it can be treated and monitored.

In addition to conservatisms in the analysis, NMPC has implemented NUMARC 91-06, "Guidelines for Industry Actions to Assess Shutdown Management", and NUMARC 93-01 for shutdown operations at NMP2. The NMPC Shutdown Safety procedure presently includes guidance on equipment availability during shutdown and contingency planning, in addition to the requirements contained in the license and design basis. As part of the implementation of this amendment, NMPC will incorporate the following information into its Shutdown Safety procedure:

- Add a statement specifying that during fuel handling/Core Alterations, the ability to filter and monitor any release should be maintained. In particular, the SGT System and its associated radiation monitors should be available (but are not required to be Operable).

- Add a statement specifying that the ability to restore secondary containment capability during fuel handling/Core Alterations should be maintained. A contingency method to immediately close any external openings in the secondary containment should be developed.

- Add a statement specifying that, when necessary, the Station Shift Supervisor will ensure the necessary actions are taken to close all external openings in the secondary containment.

The closing of these openings is not credited in the FHA analysis, and is not required to meet the dose release limits of the SRP. However, NMP2 will have programmatic controls in place to effectively close the containment resulting in additional protection prior to implementation of this amendment.

In addition, fuel pool and reactor vessel water levels are adequately controlled by TS 3.7.6, 3.9.6, and 3.9.7 to ensure that the FHA analysis assumptions are maintained. These TS requirements remain unchanged, so the water levels will continue to be maintained during the handling of any irradiated fuel bundles, regardless of the radiation decay period.

Loads in excess of 1000 pounds (heavy loads) are controlled by load restrictions in the TRM from traveling over spent fuel assemblies in the spent fuel storage pool. With administrative controls in place, loads weighing less than 1000 pounds (light loads) will not result in exceeding the SRP dose guidelines if dropped on irradiated fuel assemblies. Presently established administrative controls impose height/weight limits to control the impact energy of light loads. These limits assure that, in the unlikely event of a drop of less than 1000 pounds over irradiated fuel, offsite radiological consequences will not exceed SRP guidelines and onsite consequences will not exceed GDC 19 guidelines. This proposed amendment does not change this restriction or the effects of previously evaluated events.

No Significant Hazards Considerations Determination

This proposed amendment to the Nine Mile Point Unit 2 Technical Specifications (TS) revises those TS sections associated with handling irradiated fuel in the primary or secondary containment and Core Alterations. Specifically, the proposal adds additional information to the Bases for irradiated fuel that contains sufficient fission products to require operability of accident mitigation systems to meet the accident analysis assumptions and revises the operability requirements for Secondary Containment Isolation Instrumentation, Control Room Emergency Filtration System Instrumentation, Reactor Protection System Electric Power Monitoring – Logic, Secondary Containment, Secondary Containment Isolation Valves, Standby Gas Treatment System, Control Room Emergency Filtration System, Control Room Envelope Air Conditioning System and AC Sources, DC Sources, and Distribution Systems during shutdown. Additional information was included in the Bases for the above TS.

The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves a no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Niagara Mohawk Power Corporation has evaluated the no significant hazards considerations in this request for a license amendment. In accordance with 10 CFR 50.91(a), Niagara Mohawk Power

ATTACHMENT B
Enclosure 1

Corporation is providing the analysis of the proposed amendment against the three standards in 10 CFR 50.92(c). A description of the no significant hazards considerations determination follows:

1. **The proposed changes do not significantly increase the probability or consequences of an accident previously evaluated.**

   The proposed limits on recently irradiated fuel are used to establish operational conditions where specific activities represent situations where significant radioactive releases can be postulated. These operational conditions are consistent with the design basis analysis. Because the equipment affected by the revised operational conditions is not considered an initiator to any previously analyzed accident, inoperability of the equipment cannot increase the probability of any previously evaluated accident.

   Loads in excess of 1000 pounds (heavy loads) are controlled by load restrictions in the Technical Requirements Manual from traveling over spent fuel assemblies in the spent fuel storage pool. The proposed applicability, in conjunction with existing administrative controls on light loads (loads weighing less than 1000 pounds), bounds the conditions of the current design basis Fuel Handling Accident analysis. The analysis also concludes the limiting offsite and onsite radiological consequences are well within the acceptance criteria of NUREG-0800, Section 15.7.4, 10 CFR 100, and General Design Criterion 19. The analysis is also conducted in a conservative manner containing margins in the calculation of mechanical analysis, iodine inventory and iodine decontamination factor. Therefore, the proposed changes do not significantly increase the probability or consequences of any previously evaluated accident.

2. **The proposed changes would not create the possibility of a new or different kind of accident from any previous analyzed.**

   The proposed limits on recently irradiated fuel are used to establish operational conditions where specific activities represent situations where significant radioactive releases can be postulated. In addition, the changes to operation are consistent with previous limits - only allowing increased flexibility after the radiological consequences are assured to remain within accepted limits. Therefore, these operational conditions are consistent with the design basis analysis. The proposed changes do not introduce any new modes of plant operation and do not involve physical modifications to the plant. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previous analyzed.

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

   The proposed limits on recently irradiated fuel are used to establish operational conditions where specific activities represent situations where significant radioactive

releases can be postulated. These operational conditions are consistent with the design basis analysis and are established such that the radiological consequences are at or below the current Nine Mile Point Unit 2 licensing limits. Safety margins and analytical conservatisms have been evaluated and are well understood. Conservative methods of analysis are maintained through the use of accepted methodology and benchmarking the proposed methods to previous analysis. Margins are retained to ensure that the analysis adequately bounds all postulated event scenarios. The proposed change only eliminates some excess conservatism from the analysis.

Acceptance limits for the Fuel Handling Accident are provided in 10 CFR 100 with additional guidance provided in NUREG-0800, Section 15.7.4. Excess margin is the difference between the postulated doses and the corresponding licensing limit. In the initial review of Nine Mile Point Unit 2 for operation (NUREG-1047, "Safety Evaluation Report Related to the Operation of Nine Mile Point Nuclear Station Unit No. 2", Section 15.7.4), the NRC accepted the design and analysis based on meeting the guideline dose limits of 10 CFR 100 and NUREG-0800, Section 15.7.4. The proposed applicability continues to ensure that the whole-body and thyroid doses at the exclusion area and low population zone boundaries, as well as control room doses, are well below the corresponding licensing limit. These margins to the limits are not significantly decreased; therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based on the above evaluation, operation in accordance with the proposed amendment involves no significant hazards considerations.

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

ENCLOSURE 2
Supporting Information and No Significant Hazards Considerations Analysis

TSTF-204, Revision 3
Revise DC Sources – Shutdown and Inverters – Shutdown to Address Specific Subsystem Requirements

ATTACHMENT B
Enclosure 2

TSTF-204, Revision 3

Description of Change

TSTF-204, Revision 3 allows the re-adoption of the Nine Mile Point Unit 2 (NMP2) original Operability requirements of Technical Specification (TS) 3.8.2.2, "DC Sources – Shutdown", prior to Improved Technical Specification (ITS) conversion into TS 3.8.5, "DC Sources – Shutdown". TS 3.8.5 is proposed to state that either the Division 1 or Division 2 DC electric power subsystem, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, "Distribution Systems – Shutdown", be Operable while in Modes 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment. The NUREG-1434, Revision 1 requirements do not allow plants converting to ITS the option to retain their current Operability requirements for DC Sources – Shutdown.

Comparison to TSTF

TSTF-204 is adopted with minor variances. NMP2 is adopting TSTF-204 with modifications serving to accommodate its three DC electric power subsystems, so as to restore NMP2's original Operability requirements (prior to conversion to ITS).

The LCO statement is being changed to accommodate NMP2's three DC electric power systems, requiring that either the Division 1 or Division 2 DC electric power subsystem be Operable. The Division 3 DC electric power system is further required to be Operable when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9.

No changes are proposed for NUREG-1434 TS 3.8.8, "Inverters – Shutdown", as recommended by TSTF-204 since this TS was not adopted by NMP2 in its conversion to the ITS. Current licensing basis does not require the inverter to supply the associated loads while shutdown.

Justification for Change

In converting NMP2 to ITS, Niagara Mohawk Power Corporation (NMPC) adopted the Operability requirements of NUREG-1434 TS 3.8.5 for DC Sources when in MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment. LCO 3.8.5 currently states:

> "DC electrical power subsystem(s) shall be OPERABLE to support the electrical power distribution subsystem(s) required by LCO 3.8.9, "Distribution Systems – Shutdown".

This was considered to be a more restrictive change since, prior to ITS conversion, TS 3.8.2.2 stated:

> "As a minimum, Division I or Division II, and, when the HPCS System is required to be OPERABLE, Division III, of the DC electrical power sources shall be OPERABLE,..."

with a description of the requirements for an Operable Division I, II, and III DC power source that followed this statement. Revision 1 of NUREG-1434 and the current NMP2 TS imply that a full complement of batteries and chargers are required for all divisions of DC power when in MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment.

TSTF-204, Revision 3 recognizes that the Operability requirements for DC sources during shutdown conditions, implied by NUREG-1434, Revision 1, were more restrictive than the current licensing bases for most plants. The approved TSTF-204 provides consistent ITS format and presentation for plants converting to ITS, while retaining current Operability requirements associated with DC sources. The proposed change revises the Operability requirements for the DC sources, during shutdown conditions, to be consistent with the TS requirements, as they existed prior to conversion to ITS, and the guidance of TSTF-204, Revision 3.

The 125 VDC electrical power system consists of three independent Class 1E DC electrical power subsystems, Divisions 1, 2, and 3. Each subsystem consists of a battery, two 100% capacity battery chargers, and all the associated control equipment and interconnecting cabling. Each of the Division 1 and 2 electrical power subsystems provides the protection and control power for its associated Class 1E AC power load group, 4.16 kV emergency switchgear, and 600 V load centers. Also, these DC subsystems provide DC electrical power to the associated diesel generator (DG) control panels, DG field flashing, and the emergency uninterruptible power supply (UPS) inverters, which in turn power the 120 VAC uninterruptible panels. In addition, the Division 1 DC electrical power subsystem provides power to the Reactor Core Isolation Cooling System loads. The Division 3 DC electrical power subsystem provides power for High Pressure Core Spray (HPCS) DG field flashing control logic and control and switching function of 4.16 kV Division 3 breakers. It also provides motive and control power for the HPCS System logic, HPCS DG control and protection, and all Division 3 related control. Therefore, loss of any DC electrical power subsystem does not prevent the minimum safety function from being performed.

The Operability of the minimum DC electrical power sources during MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment ensures that:

a. The facility can be maintained in the shutdown or refueling condition for extended periods;

b. Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status; and

c. Adequate DC electrical power is provided to mitigate events postulated during shutdown, such as an inadvertent draindown of the vessel or a fuel handling accident.

As stated in TSTF-204, Revision 3, worst case design basis accidents, which are analyzed for operating MODES, are not as significant a concern during shutdown MODES due to lower energy levels. The TS, therefore, require a lesser complement of electrical equipment to be available during shutdown that is required during operating MODES. Specifically, assuming a single failure concurrent with a loss of all offsite or all onsite power is not required. This concept is consistent with the NMP2 TS, prior to conversion to ITS, in that TS 3.8.2.2 required either Division 1 or Division 2 and, when HPCS is required to be Operable, Division 3 DC electric power systems be Operable when in MODES 4 and 5 and when handling irradiated fuel in the secondary containment. This proposed change returns the Operability requirements of LCO 3.8.5 to the pre-ITS requirements for the DC sources when in MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment. In addition, NMP2 has adopted NUMARC 91-06, "Guidelines for Industry Actions to Assess Shutdown Management", to maintain shutdown risk at an acceptable low level.

The proposed change revises the Operability requirements for the DC sources, during shutdown conditions, to be consistent with the TS requirements, as they existed prior to conversion to ITS, and the guidance of TSTF-204, Revision 3. A required inoperable Division 1, Division 2, or Division 3 DC electrical power subsystem would result in Condition A being entered. The Required Actions of Condition A require that either 1) affected required feature(s) be declared inoperable in Required Action A.1; or 2) Core Alterations be suspended in Required Action A.2.1, movement of irradiated fuel assemblies in the secondary containment be suspended in Required Action A.2.2, action be initiated to suspend operations with a potential for draining the reactor vessel in Required Action A.2.3, and action be initiated to restore the required DC electrical power subsystem to Operable status in Required Action A.2.4. All Required Actions in TS 3.8.5 have a Completion Time of "Immediately". These Required Actions and Completion Times for inoperable DC electrical power subsystems are consistent with the guidance of NUREG-1434, the original TS requirements prior to conversion to ITS, and TSTF-204, Revision 3.

As stated above, the Division 3 DC electrical power subsystem provides power for HPCS-related logic and control. Therefore, the Division 3 DC electrical power subsystem is required to be Operable when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9. This is consistent with NMP2's original Operability requirements (prior to conversion to ITS) for DC Sources – Shutdown which state that the Division 3 DC electrical power subsystem must be Operable when HPCS is required to be Operable.

In summary, the proposed change revises LCO 3.8.5 to require that either the Division 1 or Division 2 DC electric power system, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, to be Operable when the plant is in MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment. This is acceptable due to the lower energy levels involved with potential accidents occurring during shutdown MODES and because assuming a single failure concurrent with a loss of all offsite or onsite power during such events is not required. This is consistent with the TS requirements, as they existed prior to conversion to ITS, and with TSTF-204, Revision 3, which was approved by the NRC on February 16, 2000.

No Significant Hazards Considerations Determination

The proposed change revises the Operability requirements for the DC sources in Technical Specification (TS) 3.8.5, during shutdown conditions, to be consistent with the TS requirements, as they existed prior to conversion to Improved Technical Specifications (ITS), and the guidance of TSTF-204, Revision 3. TSTF-204, Revision 3 allows the re-adoption of Nine Mile Point Unit 2's original Operability requirements of TS 3.8.2.2 prior to ITS conversion into TS 3.8.5. TS 3.8.5 is proposed to state that either the Division 1 or Division 2 DC electric power subsystem, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, be Operable while in Modes 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment. The NUREG-1434, Revision 1 requirements do not allow plants converting to ITS the option to retain their current Operability requirements for DC Sources – Shutdown.

The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves a no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Niagara Mohawk Power Corporation has evaluated the no significant hazards considerations in this request for a license amendment. In accordance with 10 CFR 50.91(a), Niagara Mohawk Power Corporation is providing the analysis of the proposed amendment against the three standards in 10 CFR 50.92(c). A description of the no significant hazards considerations determination follows:

1. **The proposed changes do not significantly increase the probability or consequences of an accident previously evaluated.**

   The Operability of the DC electric power sources during MODES 4 and 5 and during movement of irradiated fuel in the secondary containment ensures that:

a. The facility can be maintained in the shutdown or refueling condition for extended periods;

b. Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status; and

c. Adequate DC electrical power is provided to mitigate events postulated during shutdown, such as an inadvertent draindown of the vessel or a fuel handling accident.

As stated in TSTF-204, Revision 3, worst case design basis accidents which are analyzed for operating MODES are not as significant of a concern during shutdown MODES due to lower energy levels. The TS, therefore, require a lesser complement of electrical equipment to be available during shutdown than is required during operating MODES. Specifically, assuming a single failure concurrent with a loss of all offsite or all onsite power is not required. This concept is consistent with the Nine Mile Point Unit 2 TS, prior to conversion to ITS, in that TS 3.8.2.2 required either Division 1 or Division 2 and, when High Pressure Core Spray is required to be Operable, Division 3 DC electric power systems be Operable when in MODES 4 and 5 and when handling irradiated fuel in the secondary containment. The Operability requirements of the DC electrical power sources in MODES 1, 2, and 3 are not affected by the proposed amendments. Therefore, revising the Operability requirements for the DC Sources during shutdown conditions to require either the Division 1 or Division 2 DC electric power system, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required per Limiting Condition for Operation (LCO) 3.8.9, be Operable when in MODES 4 and 5 and when handling irradiated fuel in the secondary containment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed changes would not create the possibility of a new or different kind of accident from any previous analyzed.

Revising the Operability requirements of TS 3.8.5 does not involve physical modification to the plant and does not introduce a new mode of operation. There is no possibility of an accident of a new or different type. Therefore, revising the Operability requirements for the DC Sources during shutdown conditions to require either the Division 1 or Division 2 DC electric power system, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, be Operable when in MODES 4 and 5 and when handling irradiated fuel in the secondary containment will not create the possibility of a new or different type of accident from any accident previously evaluated.

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

The proposed change revises TS 3.8.5 to state that either the Division 1 or Division 2 DC electric power subsystem, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, be Operable while in Modes 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment. This is acceptable due to the lower energy levels involved with potential accidents occurring during shutdown MODES and because assuming a single failure concurrent with a loss of all offsite or onsite power during such events is not required. This is consistent with the TS requirements, as they existed prior to conversion to ITS, and with TSTF-204, Revision 3, which was approved by the NRC on February 16, 2000. Therefore, revising the Operability requirements for the DC Sources during shutdown conditions to require either the Division 1 or Division 2 DC electric power system, and the Division 3 DC electric power system, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required per LCO 3.8.9, be Operable when in MODES 4 and 5 and when handling irradiated fuel in the secondary containment does not involve a significant reduction in a margin of safety.

Based on the above evaluation, operation in accordance with the proposed amendment involves no significant hazards considerations.

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

ENCLOSURE 3
Supporting Information and No Significant Hazards Considerations Analysis

TSTF-287, Revision 5
Ventilation System Envelope Allowed Outage Time

ATTACHMENT B
Enclosure 3

TSTF-287, Revision 5

Description of Change

TSTF-287, Revision 5 provides specific Conditions and Required Actions in Technical Specification (TS) 3.7.2 for control room barrier degradation (as opposed to ventilation train degradation). This change allows 24 hours in MODES 1, 2, and 3 to restore the capability to maintain proper control room pressure by restoring the control room barrier before requiring an orderly shutdown. Additionally, this TSTF allows intermittent opening of the control room barrier under administrative control.

Comparison to TSTF

TSTF-287, Revision 5 is adopted with no technical variance. The term "control room boundary" is changed to "control room envelope boundary" to match the Nine Mile Point Unit 2 (NMP2) system design and terminology.

Justification for Change

The Control Room Envelope Filtration (CREF) System at NMP2 consists of two independent and redundant high efficiency air filtration subsystems for treatment of recirculated air and outside supply air. Each subsystem includes a control room outdoor air special filter (CROASFT), which consists of an electric heater, a prefilter, a high efficiency particulate air (HEPA) filter, an activated charcoal adsorber section, a second HEPA filter, a filter booster fan, and the associated ductwork and dampers. Each subsystem is capable of filtering the control room atmosphere using the HEPA filters and charcoal adsorbers.

During normal operation, unfiltered outside air is introduced into the control room. Upon receipt of initiation signals (indicative of conditions that could result in radiation exposure to control room envelope personnel), the CREF System automatically switches to the emergency pressurization mode of operation to prevent infiltration of contaminated air into the control room envelope. A system of valves and dampers redirects all control room envelope outside airflow through the two CROASFTs. In addition, a portion of the control room air is recirculated through the CROASFTs. The air conditioning units (fan portion only) maintain the 1/8 inch positive pressure; the CROASFT booster fan only provides the motive force to overcome the added resistance of the CROASFT being in service.

The addition of the Note specifying that the control room envelope boundary can be opened intermittently under administrative control and the new Condition B allowing 24 hours to restore the integrity of the control room envelope boundary in Modes 1, 2 and 3 addresses the impact that a loss of control room envelope boundary integrity has on the Operability of the CREF System. Using administrative controls to restore the integrity of the control room envelope boundary, when required, will ensure that the accident

mitigation equipment will be able to function as assumed to protect control room personnel. This will address routine operations, such as normal entry and egress, and other minor evolutions that result in a short-term loss of control room envelope boundary integrity. A 24 hour Completion Time to restore the integrity of the control room envelope boundary will allow time to diagnose, plan and possibly repair, and test most problems with the control room envelope boundary.

TSTF-287, Revision 5 requires that licensees desiring to adopt the provisions of TSTF-287 commit to have written procedures available describing compensatory measures to be taken in the event of an intentional or unintentional entry into TS Condition 3.7.2.B. As part of this commitment, the following compensatory measures will be added to procedures:

a. Verify self-contained breathing apparatus (SCBA) equipment is available for the operating crew to use if determined necessary by the Station Shift Supervisor (SSS) in the unlikely event that a hazardous environment arises.

b. Notify the Security Department of any impairment affecting security access control and applicable sections of the Security Plan implemented.

c. If an impairment exists that precludes maintaining acceptable temperature in the control room, verify that TS Condition 3.7.3 D has been entered for inoperable control building chillers.

d. If an impairment exists that affects fire protection features, verify that applicable requirements of the Fire Protection Program are implemented.

No Significant Hazards Considerations Determination

This proposed amendment to the Nine Mile Point Unit 2 Technical Specifications (TS) revises TS 3.7.2 with changes provided in TSTF-287, Revision 5. This TSTF provides specific Conditions and Required Actions for control room barrier degradation (as opposed to ventilation train degradation). This change allows 24 hours in MODES 1, 2, and 3 to restore the capability to maintain proper control room pressure by restoring the control room barrier before requiring an orderly shutdown. Additionally, this TSTF allows intermittent opening of the control room barrier under administrative control. Additional information was included in the Bases for the described changes.

The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves a no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Niagara Mohawk Power Corporation has evaluated the no significant hazards considerations in this request

for a license amendment. In accordance with 1O CFR 50.91(a), Niagara Mohawk Power Corporation is providing the analysis of the proposed amendment against the three standards in 10 CFR 50.92(c). A description of the no significant hazards considerations determination follows:

1. **The proposed changes do not significantly increase the probability or consequences of an accident previously evaluated.**

   The Action requirements for the Control Room Emergency Filtration System are proposed to be changed to address the impact that a loss of control room envelope boundary integrity has on the associated system. The proposed changes to the Action requirements will not cause an accident. Allowing the control room envelope boundary to be opened intermittently under administrative controls will have no adverse impact on the consequences of the design basis accidents since the administrative controls will be able to rapidly restore control room envelope boundary integrity when required. Allowing 24 hours to restore the integrity of the control room envelope boundary in MODES 1, 2, and 3 could result in an increase in the consequences of a design basis accident to the control room personnel. However, considering the low probability of a design basis accident occurring during this time, the proposed Completion Time is reasonable to allow the control room envelope boundary integrity to be restored prior to requiring a plant shutdown. These changes are consistent with the generic industry guidance contained in TSTF-287, Revision 5.

   The proposed TS changes will have no adverse effect on plant operation or the operation of accident mitigation equipment, and will not significantly impact the availability of accident mitigation equipment. The plant response to the design basis accidents will not change. In addition, the accident mitigation equipment affected by the proposed changes is not an accident initiator and cannot cause an accident. Therefore, the proposed changes will not result in a significant increase in the probability or consequences of an accident previously evaluated.

2. **The proposed changes would not create the possibility of a new or different kind of accident from any previous analyzed.**

   The proposed changes to TS 3.7.2 do not impact any system or component that could cause an accident. The proposed changes will not alter the plant configuration (no new or different type of equipment will be installed) or require any unusual operator actions. The proposed changes will not alter the way any structure, system, or component functions, and will not significantly alter the manner in which the plant is operated. The proposed changes do not introduce any new failure modes. Also, the response of the plant and the operators following an accident will not be significantly different as a result of these changes. In addition, the accident mitigation equipment affected by the proposed changes is not an accident initiator. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any previous analyzed.

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

   The proposed changes to TS 3.7.2 are consistent with generic industry guidance provided in TSTF-287, Revision 5. If the control room envelope boundary is not Operable, the proposed action requirements will require timely restoration of the control room envelope boundary or the plant will be placed in a configuration where there is no adverse impact associated with the loss of control room envelope boundary integrity. The proposed Completion Time provides a reasonable time for repairs before requiring a plant shutdown, and reflects the low probability of an event occurring while the control room envelope boundary is inoperable. The proposed shutdown Completion Time, which is consistent with the Completion Times already contained in the Nine Mile Point Unit 2 TS and with generic industry guidance (NUREG-1433 and NUREG-1434), will allow an orderly shutdown to be performed.

   The proposed changes will have no adverse effect on plant operation or equipment important to safety. The plant response to the design basis accidents will not change and the accident mitigation equipment will continue to function as assumed in the design basis accident analyses. Therefore, there will be no significant reduction in a margin of safety.

Based on the above evaluation, operation in accordance with the proposed amendment involves no significant hazards considerations.

ATTACHMENT C

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

Technical Specifications And Bases Markup

ATTACHMENT C

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

Incorporation of Generic Technical Specification Changes
Technical Specifications and Bases Markup
TSTF Enclosure Index

Enclosure	TSTF	Revision	Subject
1	TSTF-51	2	Revise Containment Requirements during Handling Irradiated Fuel and Core Alterations
2	TSTF-204	3	Revise DC Sources – Shutdown and Inverters – Shutdown to Address Specific Subsystem Requirements
3	TSTF-287	5	Ventilation System Envelope Allowed Outage Time

ATTACHMENT C

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

ENCLOSURE 1
Technical Specifications and Bases Markup

TSTF-51, Revision 2
Revise Containment Requirements during Handling Irradiated Fuel and Core Alterations

Table 3.3.6.2-1 (page 1 of 1)
Secondary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES AND OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level – Low Low, Level 2	1,2,3,(a)	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 SR 3.3.6.2.5	≥ 101.8 inches
2. Drywell Pressure – High	1,2,3	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 1.88 psig
3. Reactor Building Above the Refuel Floor Exhaust Radiation – High	1,2,3, (a),(b)	1	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 2.46×10^{-3} µCi/cc
4. Reactor Building Below the Refuel Floor Exhaust Radiation – High	1,2,3, (a),(b)	1	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.4 SR 3.3.6.2.5	≤ 2.46×10^{-3} µCi/cc

(a) During operations with a potential for draining the reactor vessel.

(b) During ~~CORE ALTERATIONS, and during~~ movement of irradiated fuel assemblies in the secondary containment.

recently

Table 3.3.7.1-1 (page 1 of 1)
Control Room Envelope Filtration System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level – Low Low, Level 2	1,2,3, (a)	2	B	SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.3 SR 3.3.7.1.4 SR 3.3.7.1.5	≥ 101.8 inches
2. Drywell Pressure – High	1,2,3	2	C	SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.3 SR 3.3.7.1.4 SR 3.3.7.1.5	≤ 1.88 psig
3. Main Control Room Ventilation Radiation Monitor – High	1,2,3, (a),(b)	2	B	SR 3.3.7.1.1 SR 3.3.7.1.2 SR 3.3.7.1.4 SR 3.3.7.1.5	≤ 5.92×10^{-6} μCi/cc

(a) During operations with a potential for draining the reactor vessel.

(b) During ~~CORE ALTERATIONS, and during~~ movement of recently irradiated fuel assemblies in the secondary containment.

3.3 INSTRUMENTATION

3.3.8.2 Reactor Protection System (RPS) Electric Power Monitoring—Logic

LCO 3.3.8.2 Two RPS electric power monitoring assemblies shall be OPERABLE for each RPS logic bus.

APPLICABILITY: MODES 1, 2, and 3,
MODES 4 and 5 with both residual heat removal (RHR) shutdown cooling (SDC) suction isolation valves open,
MODE 5 with any control rod withdrawn from a core cell containing one or more fuel assemblies,
During movement of recently irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. One or both RPS logic buses with one electric power monitoring assembly inoperable.	A.1	Restore electric power monitoring assembly(s) to OPERABLE status.	72 hours
B. One or both RPS logic buses with both electric power monitoring assemblies inoperable.	B.1	Restore electric power monitoring assemblies to OPERABLE status.	1 hour
C. Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, or 3.	C.1 AND C.2	Be in MODE 3. Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A or B not met in MODE 4 or 5 with both RHR SDC suction isolation valves open.	D.1 Initiate action to restore one electric power monitoring assembly to OPERABLE status for each RPS logic bus. OR D.2 Initiate action to isolate the RHR SDC System.	Immediately Immediately
E. Required Action and associated Completion Time of Condition A or B not met in MODE 5 with any control rod withdrawn from a core cell containing one or more fuel assemblies.	E.1 Initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies.	Immediately
F. Required Action and associated Completion Time of Condition A or B not met during movement of recently irradiated fuel assemblies in the secondary containment during CORE ALTERATIONS, or during OPDRVs.	F.1.1 Isolate the associated secondary containment penetration flow path(s). OR F.1.2 Declare associated secondary containment isolation valves inoperable. AND	Immediately Immediately (continued)

3.6 CONTAINMENT SYSTEMS

3.6.4.1 Secondary Containment

LCO 3.6.4.1 The secondary containment shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
~~During~~ CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. Secondary containment inoperable in MODE 1, 2, or 3.	A.1	Restore secondary containment to OPERABLE status.	4 hours
B. Required Action and associated Completion Time of Condition A not met.	B.1	Be in MODE 3.	12 hours
	AND		
	B.2	Be in MODE 4.	36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Secondary containment inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	C.1 --------NOTE-------- LCO 3.0.3 is not applicable. ---------- Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND C.2 Suspend CORE ALTERATIONS.	Immediately
	AND C.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.1.1	Verify secondary containment vacuum is ≥ 0.25 inch of vacuum water gauge.	24 hours
SR 3.6.4.1.2	Verify all secondary containment equipment hatches are closed and sealed.	31 days

(continued)

3.6 CONTAINMENT SYSTEMS

3.6.4.2 Secondary Containment Isolation Valves (SCIVs)

LCO 3.6.4.2 Each SCIV shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

----------NOTES----------

1. Penetration flow paths may be unisolated intermittently under administrative controls.
2. Separate Condition entry is allowed for each penetration flow path.
3. Enter applicable Conditions and Required Actions for systems made inoperable by SCIVs.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more penetration flow paths with one SCIV inoperable.	A.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	8 hours (continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
D. Required Action and associated Completion Time of Condition A or B not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	D.1 --------NOTE-------- LCO 3.0.3 is not applicable. ---------- Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND D.2 Suspend CORE ALTERATIONS.	Immediately
	AND D.3 Initiate action to suspend OPDRVs.	Immediately

3.6 CONTAINMENT SYSTEMS

3.6.4.3 Standby Gas Treatment (SGT) System

LCO 3.6.4.3 Two SGT subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One SGT subsystem inoperable.	A.1 Restore SGT subsystem to OPERABLE status.	7 days
B. Required Action and associated Completion Time of Condition A not met in MODE 1, 2, or 3.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours
C. Required Action and associated Completion Time of Condition A not met during movement of recently irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- C.1 Place OPERABLE SGT subsystem in operation. OR	Immediately

(continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. (continued)	C.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND C.2.2 Suspend CORE ALTERATIONS.	Immediately
	AND C.2.3 Initiate action to suspend OPDRVs.	Immediately
D. Two SGT subsystems inoperable in MODE 1, 2, or 3.	D.1 Enter LCO 3.0.3.	Immediately
E. Two SGT subsystems inoperable during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	E.1 --------NOTE-------- LCO 3.0.3 is not applicable. ---------- Suspend movement of irradiated fuel assemblies in the secondary containment. AND	Immediately (continued)

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (continued)	E.2 Suspend CORE ALTERATIONS.	Immediately
	AND	
	E.3 (2) Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.6.4.3.1	Operate each SGT subsystem for ≥ 10 continuous hours with heaters operating.	31 days
SR 3.6.4.3.2	Perform required SGT filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.6.4.3.3	Verify each SGT subsystem actuates on an actual or simulated initiation signal.	24 months
SR 3.6.4.3.4	Verify each SGT decay heat removal air inlet valve can be opened.	24 months

3.7 PLANT SYSTEMS

3.7.2 Control Room Envelope Filtration (CREF) System

LCO 3.7.2 Two CREF subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CREF subsystem inoperable. OR Two CREF subsystems inoperable with safety function maintained.	A.1 Restore CREF subsystem(s) to OPERABLE status.	7 days
B. Required Action and Associated Completion Time of Condition A not met in MODE 1, 2, or 3.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment during CORE ALTERATIONS, or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- C.1 Place OPERABLE components of CREF subsystem(s) equivalent to a single CREF subsystem in emergency pressurization mode. OR C.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment. AND C.2.2 Suspend CORE ALTERATIONS. AND C.2.3 Initiate action to suspend OPDRVs.	Immediately Immediately Immediately Immediately
D. Two CREF subsystems inoperable with safety function not maintained in MODE 1, 2, or 3.	D.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Two CREF subsystems inoperable with safety function not maintained during movement of irradiated fuel assemblies in the secondary containment during CORE ALTERATIONS, or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ----------	
	E.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND E.2 Suspend CORE ALTERATIONS.	Immediately
	AND E.3 Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.2.1	Operate each CREF subsystem for ≥ 1 continuous hour.	31 days
SR 3.7.2.2	Perform required CREF System filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.2.3	Verify each CREF subsystem actuates on an actual or simulated initiation signal.	24 months

(continued)

3.7 PLANT SYSTEMS

3.7.3 Control Room Envelope Air Conditioning (AC) System

LCO 3.7.3 Two control room envelope AC subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3,
During movement of recently irradiated fuel assemblies in the secondary containment,
~~During~~ CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One control room envelope AC subsystem inoperable. OR Two control room envelope AC subsystems inoperable with safety function maintained.	A.1 Restore control room envelope AC subsystem(s) to OPERABLE status.	30 days
B. Required Action and Associated Completion Time of Condition A not met in MODE 1, 2, or 3.	B.1 Be in MODE 3. AND B.2 Be in MODE 4.	12 hours 36 hours

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- C.1 Place OPERABLE components of control room envelope AC subsystem(s) equivalent to a single control room envelope AC subsystem in operation. OR C.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment. AND C.2.2 Suspend CORE ALTERATIONS. AND C.2.3 Initiate action to suspend OPDRVs.	Immediately Immediately Immediately Immediately
D. Two control room envelope AC subsystems inoperable with safety function not maintained in MODE 1, 2, or 3.	D.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. Two control room envelope AC subsystems inoperable with safety function not maintained during movement of irradiated fuel assemblies in the secondary containment during CORE ALTERATIONS, or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ---------- E.1 Suspend movement of irradiated fuel assemblies in the secondary containment. AND E.2 Suspend CORE ALTERATIONS. AND E.3 Initiate action to suspend OPDRVs.	Immediately Immediately Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.3.1	Verify each control room envelope AC subsystem has the capability to remove the assumed heat load.	24 months

3.8 ELECTRICAL POWER SYSTEMS

3.8.2 AC Sources—Shutdown

LCO 3.8.2 The following AC electrical power sources shall be OPERABLE:

a. One qualified circuit between the offsite transmission network and the onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.9, "Distribution Systems—Shutdown"; and

b. One diesel generator (DG) capable of supplying one division of the Division 1 or 2 onsite Class 1E AC electrical power distribution subsystem(s) required by LCO 3.8.9; and

c. One qualified circuit, other than the circuit in LCO 3.8.2.a, between the offsite transmission and the Division 3 onsite Class 1E electrical power distribution subsystem, or the Division 3 DG capable of supplying the Division 3 onsite Class 1E AC electrical power distribution subsystem, when the Division 3 onsite Class 1E electrical power distribution subsystem is required by LCO 3.8.9.

APPLICABILITY: MODES 4 and 5,
During movement of recently irradiated fuel assemblies in the secondary containment.

ACTIONS

---NOTE---

LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. LCO Item a. not met.	---NOTE--- Enter applicable Condition and Required Actions of LCO 3.8.9, when any required division is de-energized as a result of Condition A. ---	
	A.1 Declare affected required feature(s) with no offsite power available inoperable.	Immediately
	OR	
	A.2.1 Suspend CORE ALTERATIONS.	Immediately
	AND	
	A.2.2 Suspend movement of recently irradiated fuel assemblies in the secondary containment.	Immediately
	AND	
	A.2.3 Initiate action to suspend operations with a potential for draining the reactor vessel (OPDRVs).	Immediately
	AND	
		(continued)

ACTIONS

CONDITION	REQUIRED ACTION		COMPLETION TIME
A. (continued)	A.2.4	Initiate action to restore required offsite power circuit to OPERABLE status.	Immediately
B. LCO Item b. not met.	B.1	Suspend CORE ALTERATIONS.	Immediately
	AND		
	B.2	Suspend movement of recently irradiated fuel assemblies in secondary containment.	Immediately
	AND		
	B.3	Initiate action to suspend OPDRVs.	Immediately
	AND		
	B.4	Initiate action to restore required DG to OPERABLE status.	Immediately
C. LCO Item c. not met.	C.1	Declare High Pressure Core Spray System inoperable.	72 hours

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 DC Sources—Shutdown

LCO 3.8.5 DC electrical power subsystem(s) shall be OPERABLE to support the electrical power distribution subsystem(s) required by LCO 3.8.9, "Distribution Systems—Shutdown."

APPLICABILITY: MODES 4 and 5,
During movement of recently irradiated fuel assemblies in the secondary containment.

ACTIONS

NOTE
LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required DC electrical power subsystems inoperable.	A.1 Declare affected required feature(s) inoperable. OR A.2.1 Suspend CORE ALTERATIONS. AND A.2.2 Suspend movement of recently irradiated fuel assemblies in the secondary containment. AND	Immediately Immediately Immediately (continued)

3.8 ELECTRICAL POWER SYSTEMS

3.8.9 Distribution Systems—Shutdown

LCO 3.8.9 The necessary portions of the Division 1, Division 2, and Division 3 AC and DC and the Division 1 and Division 2 120 VAC uninterruptible electrical power distribution subsystems shall be OPERABLE to support equipment required to be OPERABLE.

APPLICABILITY: MODES 4 and 5,
During movement of recently irradiated fuel assemblies in the secondary containment.

ACTIONS

---NOTE---
LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required AC, DC, or 120 VAC uninterruptible electrical power distribution subsystems inoperable.	A.1 Declare associated supported required feature(s) inoperable.	Immediately
	OR	
	A.2.1 Suspend CORE ALTERATIONS.	Immediately
	AND	
	A.2.2 Suspend movement of recently irradiated fuel assemblies in the secondary containment.	Immediately
	AND	

(continued)

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

3, 4. Reactor Building Above the Refuel Floor and Reactor Building Below the Refuel Floor Exhaust Radiation—High (continued)

Reactor Building Above the Refuel Floor Exhaust Radiation—High signals are initiated from gaseous radiation detectors that are located on the ventilation exhaust ducting coming from the refuel floor. Reactor Building Below the Refuel Floor Exhaust Radiation—High signals are initiated from gaseous radiation detectors that are located on the ventilation exhaust ducting coming from the different areas of the secondary containment below the refuel floor. The signal from each detector is input to an individual monitor whose trip outputs are assigned to an isolation channel. Two channels of Reactor Building Above the Refuel Floor Exhaust Radiation—High Function and two channels of Reactor Building Below the Refuel Floor Exhaust Radiation—High Function are available and are required to be OPERABLE to ensure that no single instrument failure can preclude the isolation function.

The Allowable Values are chosen to promptly detect gross failure of the fuel cladding.

The Exhaust Radiation—High Functions are required to be OPERABLE in MODES 1, 2, and 3 where considerable energy exists; thus, there is a probability of pipe breaks resulting in significant releases of radioactive steam and gas. In MODES 4 and 5, the probability and consequences of these events are low due to the RCS pressure and temperature limitations of these MODES; thus, these Functions are not required. In addition, the Functions are required to be OPERABLE during ~~CORE ALTERATIONS,~~ OPDRVs and movement of irradiated fuel assemblies in the secondary containment because the capability of detecting radiation releases due to fuel failures (due to fuel uncovery or dropped fuel assemblies) must be provided to ensure that offsite dose limits are not exceeded. ← Insert 1

recently →

ACTIONS

A Note has been provided to modify the ACTIONS related to secondary containment isolation instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition discovered to be inoperable or not within limits

(continued)

INSERT 1

Due to radioactive decay, this Function is only required to isolate secondary containment during fuel handling accidents involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 2 days).

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY (continued)

2. Drywell Pressure—High

High pressure in the drywell could indicate a break in the reactor coolant pressure boundary (RCPB). A high drywell pressure signal could indicate a LOCA and will automatically initiate the CREF System, since this could be a precursor to a potential radiation release and subsequent radiation exposure to control room personnel.

Drywell Pressure—High signals are initiated from four pressure transmitters that sense drywell pressure. Four channels of Drywell Pressure—High Function are available (two channels per trip system) and are required to be OPERABLE to ensure that no single instrument failure can preclude CREF System initiation.

The Drywell Pressure—High Allowable Value was chosen to be the same as the Secondary Containment Isolation Drywell Pressure—High Allowable Value (LCO 3.3.6.2).

The Drywell Pressure—High Function is required to be OPERABLE in MODES 1, 2, and 3 to ensure that control room personnel are protected during a LOCA. In MODES 4 and 5, the Drywell Pressure—High Function is not required since there is insufficient energy in the reactor to pressurize the drywell to the Drywell Pressure—High setpoint.

3. Main Control Room Ventilation Radiation Monitor—High

High radiation within the common intake duct of the main control room outside air intakes is an indication of possible gross failure of the fuel cladding. The release may have originated from the primary containment due to a break in the RCPB or the refueling floor due to a fuel handling accident. When main control room ventilation high radiation is detected (above measured background), the CREF System is automatically initiated in the emergency pressurization mode since this radiation release could result in radiation exposure to control room personnel.

Insert 2

The Main Control Room Ventilation Radiation Monitor—High Function consists of four independent monitors. Four channels of Main Control Room Ventilation Radiation Monitor—High Function are available and are required to be

(continued)

INSERT 2

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days)...

BASES

APPLICABLE SAFETY ANALYSES, LCO, and APPLICABILITY

3. Main Control Room Ventilation Radiation Monitor—High (continued)

OPERABLE to ensure that no single instrument failure can preclude CREF System initiation. The Allowable Value was selected to ensure protection of the control room personnel.

The Main Control Room Ventilation Radiation Monitor—High Function is required to be OPERABLE in MODES 1, 2, and 3, and during CORE ALTERATIONS, OPDRVs, and movement of irradiated fuel in the secondary containment to ensure that control room personnel are protected during a LOCA, fuel handling event, or a vessel draindown event. During MODES 4 and 5, when these specified conditions are not in progress (e.g., CORE ALTERATIONS), the probability of a LOCA or fuel damage is low; thus, the Function is not required.

recently → Insert 3

OPDRVs

Insert 4

ACTIONS

A Note has been provided to modify the ACTIONS related to CREF System instrumentation channels. Section 1.3, Completion Times, specifies that once a Condition has been entered, subsequent divisions, subsystems, components, or variables expressed in the Condition discovered to be inoperable or not within limits will not result in separate entry into the Condition. Section 1.3 also specifies that Required Actions of the Condition continue to apply for each additional failure, with Completion Times based on initial entry into the Condition. However, the Required Actions for inoperable CREF System instrumentation channels provide appropriate compensatory measures for separate inoperable channels. As such, a Note has been provided that allows separate Condition entry for each inoperable CREF System instrumentation channel.

A.1

Required Action A.1 directs entry into the appropriate Condition referenced in Table 3.3.7.1-1. The applicable Condition specified in the Table is Function dependent. Each time an inoperable channel is discovered, Condition A is entered for that channel and provides for transfer to the appropriate subsequent Condition.

(continued)

INSERT 3

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days)...

INSERT 4

Also, due to radioactive decay, this Function is only required to initiate the CREF System during fuel handling accidents involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days).

BASES

APPLICABILITY (continued)

Power Monitoring—Logic System OPERABILITY being required in MODES 1, 2, and 3, MODES 4 and 5 with both residual heat removal (RHR) shutdown cooling suction isolation valves open, MODE 5 with any control rod withdrawn from a core cell containing one or more fuel assemblies, during movement of recently irradiated fuel assemblies in the secondary containment, ~~during CORE ALTERATIONS,~~ and during operations with a potential for draining the reactor vessel (OPDRVs). ← Insert 5

ACTIONS

A.1

If one RPS electric power monitoring assembly for an RPS logic bus is inoperable, or one RPS electric power monitoring assembly for each RPS logic bus is inoperable, the OPERABLE assembly will still provide protection to the RPS logic bus powered components under degraded voltage or frequency conditions. However, the reliability and redundancy of the RPS Electric Power Monitoring—Logic System are reduced and only a limited time (72 hours) is allowed to restore the inoperable assembly(s) to OPERABLE status. If the inoperable assembly(s) cannot be restored to OPERABLE status, Condition C, D, E, or F, as applicable, must be entered and its Required Actions taken.

The 72 hour Completion Time takes into account the remaining OPERABLE electric power monitoring assembly and the low probability of an event requiring RPS Electric Power Monitoring—Logic protection occurring during this period. It also allows time for plant operations personnel to take corrective actions.

B.1

If both power monitoring assemblies for an RPS logic bus are inoperable, or both power monitoring assemblies for each RPS logic bus are inoperable, the system protective function is lost. In this condition, 1 hour is allowed to restore one assembly to OPERABLE status for each RPS logic bus. If one inoperable assembly for each RPS logic bus cannot be restored to OPERABLE status, Condition C, D, E, or F, as applicable, must be entered and its Required Actions taken. The 1 hour Completion Time is sufficient for the plant operations personnel to take corrective actions and is acceptable because it minimizes risk while allowing time for restoration.

(continued)

INSERT 5

Due to radioactive decay, the RPS Electric Power Monitoring – Logic System is only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days).

BASES

ACTIONS (continued)

F.1.1, F.1.2, F.2.1, F.2.2, F.3.1, and F.3.2

If any Required Action and associated Completion Time of Condition A or B are not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, the ability to isolate the secondary containment and start the Standby Gas Treatment (SGT) and Control Room Envelope Filtration (CREF) Systems cannot be ensured. Therefore, actions must be immediately performed to ensure the ability to maintain the secondary containment and CREF System functions. Isolating the affected penetration flow path(s) and starting the associated SGT and CREF subsystems (Required Actions F.1.1, F.2.1, and F.3.1) performs the intended function of the instrumentation the RPS electric power monitoring assemblies is protecting, and allows operations to continue.

Alternatively, immediately declaring the associated secondary containment isolation valves, SGT subsystem, or CREF subsystem inoperable (Required Actions F.1.2, F.2.2, and F.3.2) is also acceptable since the Required Actions of the respective LCOs (LCO 3.6.4.2, LCO 3.6.4.3, and LCO 3.7.2) provide appropriate actions for the inoperable components.

SURVEILLANCE REQUIREMENTS

The Surveillances are modified by a Note to indicate that when an RPS electric power monitoring assembly is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed for up to 6 hours provided the other RPS electric power monitoring assembly for the associated RPS logic bus maintains trip capability. Upon completion of the Surveillance, or expiration of the 6 hour allowance, the assembly must be returned to OPERABLE status or the applicable Condition entered and Required Actions taken. This 6 hour allowance is acceptable since it does not significantly reduce the probability that the RPS electric power monitoring assembly function will initiate when necessary.

(continued)

B 3.6 CONTAINMENT SYSTEMS

B 3.6.4.1 Secondary Containment

BASES

BACKGROUND

The function of the secondary containment is to contain, dilute, and hold up fission products that may leak from primary containment following a Design Basis Accident (DBA). In conjunction with operation of the Standby Gas Treatment (SGT) System and closure of certain valves whose lines penetrate the secondary containment, the secondary containment is designed to reduce the activity level of the fission products prior to release to the environment and to isolate and contain fission products that are released during certain operations that take place inside primary containment, when primary containment is not required to be OPERABLE, or that take place outside primary containment.

The secondary containment (consisting of the reactor building and auxiliary bay structures) is a structure that completely encloses the primary containment and those components that may be postulated to contain primary system fluid, with the exception of the ASME III Code Class 1 piping and valves in the steam tunnel (Ref. 1). This structure forms a control volume that serves to hold up and dilute the fission products. It is possible for the pressure in the control volume to rise relative to the environmental pressure (e.g., due to pump/motor heat load additions). To prevent ground level exfiltration while allowing the secondary containment to be designed as a conventional structure, the secondary containment requires support systems to maintain the control volume pressure at less than the external pressure. Requirements for these systems are specified separately in LCO 3.6.4.2, "Secondary Containment Isolation Valves (SCIVs)," and LCO 3.6.4.3, "Standby Gas Treatment (SGT) System."

APPLICABLE SAFETY ANALYSES

There are two principal accidents for which credit is taken for secondary containment OPERABILITY. These are a loss of coolant accident (LOCA) (Ref. 2), and a fuel handling accident (Ref. 3). The secondary containment performs no active function in response to each of these limiting events; however, its leak tightness is required to ensure that the release of radioactive materials from the primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis,

Insert 6

(continued)

INSERT 6

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 2 days)...

BASES

APPLICABLE SAFETY ANALYSES (continued)

and that fission products entrapped within the secondary containment structure will be treated by the SGT System prior to discharge to the environment.

Secondary containment satisfies Criterion 3 of Reference 4.

LCO

An OPERABLE secondary containment provides a control volume into which fission products that bypass or leak from primary containment, or are released from the reactor coolant pressure boundary components located in secondary containment, can be diluted and processed prior to release to the environment. For the secondary containment to be considered OPERABLE, it must have adequate leak tightness to ensure that the required vacuum can be established and maintained.

APPLICABILITY

In MODES 1, 2, and 3, a LOCA could lead to a fission product release to primary containment that leaks to secondary containment. Therefore, secondary containment OPERABILITY is required during the same operating conditions that require primary containment OPERABILITY.

In MODES 4 and 5, the probability and consequences of the LOCA are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining secondary containment OPERABLE is not required in MODE 4 or 5 to ensure a control volume, except for other situations for which significant releases of radioactive material can be postulated, such as during operations with a potential for draining the reactor vessel (OPDRVs), during CORE ALTERATIONS, or during movement of recently irradiated fuel assemblies in the secondary containment.

Insert 7 →

ACTIONS

A.1

If secondary containment is inoperable, it must be restored to OPERABLE status within 4 hours. The 4 hour Completion Time provides a period of time to correct the problem that is commensurate with the importance of maintaining secondary

(continued)

INSERT 7

Due to radioactive decay, secondary containment is only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 2 days).

BASES

ACTIONS

A.1 (continued)

containment during MODES 1, 2, and 3. This time period also ensures that the probability of an accident (requiring secondary containment OPERABILITY) occurring during periods where secondary containment is inoperable is minimal.

B.1 and B.2

If the secondary containment cannot be restored to OPERABLE status within the required Completion Time, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

C.1 C.2 and C.3

Movement of irradiated fuel assemblies in the secondary containment, CORE ALTERATIONS, and OPDRVs can be postulated to cause fission product release to the secondary containment. In such cases, the secondary containment is the only barrier to release of fission products to the environment. CORE ALTERATIONS and movement of irradiated fuel assemblies must be immediately suspended if the secondary containment is inoperable.

Suspension of these activities shall not preclude completing an action that involves moving a component to a safe position. Also, action must be immediately initiated to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until OPDRVs are suspended.

Required Action C.1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of

(continued)

BASES

ACTIONS

C.1 C.2 and C.3 (continued) recently

reactor operations. Therefore, in either case, inability to suspend movement of irradiated fuel assemblies would not be a sufficient reason to require a reactor shutdown.

SURVEILLANCE REQUIREMENTS

SR 3.6.4.1.1

This SR ensures that the secondary containment boundary is sufficiently leak tight to preclude exfiltration. The 24 hour Frequency of this SR was developed based on operating experience related to secondary containment vacuum variations during the applicable MODES and the low probability of a DBA occurring between surveillances.

Furthermore, the 24 hour Frequency is considered adequate in view of other indications available in the control room, including alarms, to alert the operator to an abnormal secondary containment vacuum condition.

SR 3.6.4.1.2 and SR 3.6.4.1.3

Verifying that secondary containment equipment hatches and one access door in each access opening are closed ensures that the infiltration of outside air of such a magnitude as to prevent maintaining the desired negative pressure does not occur. Verifying that all such openings are closed provides adequate assurance that exfiltration from the secondary containment will not occur. In this application, the term "sealed" has no connotation of leak tightness. Maintaining secondary containment OPERABILITY requires verifying one door in the access opening is closed. An access opening contains one inner and one outer door. In some cases, a secondary containment barrier contains multiple inner or multiple outer doors. For these cases, the access openings share the inner door or the outer door, i.e., the access openings have a common inner door or outer door. The intent is not to breach the secondary containment at any time when secondary containment is required. This is achieved by maintaining the inner or outer portion of the barrier closed at all times; i.e., all inner doors closed or all outer doors closed. Thus, each access opening has one door closed. However all secondary containment access doors are normally kept closed, except when the access opening is being used for entry and exit or when maintenance is being

(continued)

B 3.6 CONTAINMENT SYSTEMS

B 3.6.4.2 Secondary Containment Isolation Valves (SCIVs)

BASES

BACKGROUND

The function of the SCIVs, in combination with other accident mitigation systems, is to limit fission product release during and following postulated Design Basis Accidents (DBAs) (Refs. 1 and 2). Secondary containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that fission products that leak from primary containment following a DBA, that are released during certain operations when primary containment is not required to be OPERABLE, or that take place outside primary containment, are maintained within the secondary containment boundary.

The OPERABILITY requirements for SCIVs help ensure that an adequate secondary containment boundary is maintained during and after an accident by minimizing potential paths to the environment. These isolation devices are either passive or active (automatic). Manual valves, de-activated automatic valves secured in their closed position (including check valves with flow through the valve secured), and blind flanges are considered passive devices.

Automatic SCIVs (i.e., dampers) close on a secondary containment isolation signal to establish a boundary for untreated radioactive material within secondary containment following a DBA or other accidents.

Other penetrations are isolated by the use of valves in the closed position or blind flanges (which includes plugs and caps as listed in Reference 3).

APPLICABLE SAFETY ANALYSES

The SCIVs must be OPERABLE to ensure the secondary containment barrier to fission product releases is established. The principal accidents for which the secondary containment boundary is required are a loss of coolant accident (Ref. 1) and a fuel handling accident (Ref. 2). The secondary containment performs no active function in response to each of these limiting events, but the boundary established by SCIVs is required to ensure that leakage from the primary containment is processed by the Standby Gas Treatment (SGT) System before being released to the environment.

Insert 8

(continued)

INSERT 8

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 2 days)...

BASES

APPLICABLE SAFETY ANALYSES (continued)

Maintaining SCIVs OPERABLE with isolation times within limits ensures that fission products will remain trapped inside secondary containment so that they can be treated by the SGT System prior to discharge to the environment.

SCIVs satisfy Criterion 3 of Reference 4.

LCO

SCIVs form a part of the secondary containment boundary. The SCIV safety function is related to control of offsite radiation releases resulting from DBAs.

The power operated, automatic isolation valves are considered OPERABLE when their isolation times are within limits and the valves actuate on an automatic isolation signal. The valves covered by this LCO, along with their associated stroke times, are listed in Reference 3.

The normally closed manual SCIVs are considered OPERABLE when the valves are closed and blind flanges in place, or open under administrative controls. These passive isolation valves or devices are listed in Reference 3.

APPLICABILITY

In MODES 1, 2, and 3, a DBA could lead to a fission product release to the primary containment that leaks to the secondary containment. Therefore, OPERABILITY of SCIVs is required.

In MODES 4 and 5, the probability and consequences of these events are reduced due to pressure and temperature limitations in these MODES. Therefore, maintaining SCIVs OPERABLE is not required in MODE 4 or 5, except for other situations under which significant releases of radioactive material can be postulated, such as during operations with a potential for draining the reactor vessel (OPDRVs), during CORE ALTERATIONS, or during movement of recently irradiated fuel assemblies in the secondary containment.

Insert 9

ACTIONS

The ACTIONS are modified by three Notes. The first Note allows penetration flow paths to be unisolated intermittently under administrative controls. These controls consist of stationing a dedicated operator, who is

(continued)

INSERT 9

Due to radioactive decay, SCIVs are only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 2 days).

BASES

ACTIONS

C.1 and C.2 (continued)

reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

D.1, D.2, and D.3

If any Required Action and associated Completion Time cannot be met, the plant must be placed in a condition in which the LCO does not apply. If applicable, CORE ALTERATIONS and the movement of irradiated fuel assemblies in the secondary containment must be immediately suspended. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, action must be immediately initiated to suspend OPDRVs in order to minimize the probability of a vessel draindown and the subsequent potential for fission product release. Actions must continue until OPDRVs are suspended.

Required Action D.1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, in either case, inability to suspend movement of irradiated fuel assemblies would not be a sufficient reason to require a reactor shutdown.

SURVEILLANCE REQUIREMENTS

SR 3.6.4.2.1

This SR verifies each secondary containment isolation manual valve and blind flange that is not locked, sealed, or otherwise secured and is required to be closed during accident conditions is closed. The SR helps to ensure that post accident leakage of radioactive fluids or gases outside of the secondary containment boundary is within design limits. This SR does not require any testing or valve manipulation. Rather, it involves verification that those SCIVs in secondary containment that are capable of being mispositioned are in the correct position.

Since these SCIVs are readily accessible to personnel during normal unit operation and verification of their position is relatively easy, the 31 day Frequency was chosen to provide

(continued)

BASES

BACKGROUND (continued)

protect the charcoal from fouling. The charcoal adsorber removes gaseous elemental iodine and organic iodides, and the final HEPA filter is provided to collect any carbon fines exhausted from the charcoal adsorber.

The SGT System automatically starts and operates in response to actuation signals indicative of conditions or an accident that could require operation of the system. Following initiation, both fans will start and the associated train inlet and fan discharge valves will open. Negative pressure in the reactor building is automatically controlled by the SGT System filter train recirculation line pressure control valves.

APPLICABLE SAFETY ANALYSES

The design basis for the SGT System is to mitigate the consequences of a loss of coolant accident and fuel handling accidents (Refs. 3 and 4). For all events analyzed, the SGT System is shown to be automatically initiated to reduce, via filtration and adsorption, the radioactive material released to the environment.

Insert 10

The SGT System satisfies Criterion 3 of Reference 5.

LCO

Following a DBA, a minimum of one SGT subsystem is required to maintain the secondary containment at a negative pressure with respect to the environment and to process gaseous releases. Meeting the LCO requirements for two OPERABLE subsystems ensures operation of at least one SGT subsystem in the event of a single active failure.

APPLICABILITY

In MODES 1, 2, and 3, a DBA could lead to a fission product release to primary containment that leaks to secondary containment. Therefore, SGT System OPERABILITY is required during these MODES.

In MODES 4 and 5, the probability and consequences of these events are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining the SGT System OPERABLE is not required in MODE 4 or 5, except for other situations under which significant releases of radioactive material can be postulated, such as during operations with a potential for draining the reactor vessel (OPDRVs), during CORE ALTERATIONS, or during movement of irradiated fuel assemblies in the secondary containment.

recently

Insert 10

(continued)

INSERT 10

Due to radioactive decay, the SGT System is only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 2 days).

BASES (continued)

ACTIONS

A.1

With one SGT subsystem inoperable, the inoperable subsystem must be restored to OPERABLE status within 7 days. In this condition, the remaining OPERABLE SGT subsystem is adequate to perform the required radioactivity release control function. However, the overall system reliability is reduced because a single failure in the OPERABLE subsystem could result in the radioactivity release control function not being adequately performed. The 7 day Completion Time is based on consideration of such factors as the availability of the OPERABLE redundant SGT subsystem and the low probability of a DBA occurring during this period.

B.1 and B.2

If the SGT subsystem cannot be restored to OPERABLE status within the required Completion Time in MODE 1, 2, or 3, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

C.1, C.2.1, C.2.2 and C.2.3

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, when Required Action A.1 cannot be completed within the required Completion Time, the OPERABLE SGT subsystem should be immediately placed in operation. This Required Action ensures that the remaining subsystem is OPERABLE, that no failures that could prevent automatic actuation will occur, and that any other failure would be readily detected.

An alternative to Required Action C.1 is to immediately suspend activities that represent a potential for releasing radioactive material to the secondary containment, thus placing the unit in a condition that minimizes risk. If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies must be immediately suspended. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable,

(continued)

BASES

ACTIONS

C.1, C.2.1, C.2.2, and C.2.3 (continued)

action must be immediately initiated to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until OPDRVs are suspended.

The Required Actions of Condition C have been modified by a Note stating that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, in either case, inability to suspend movement of irradiated fuel assemblies would not be a sufficient reason to require a reactor shutdown.

D.1

If both SGT subsystems are inoperable in MODE 1, 2, or 3, the SGT system may not be capable of supporting the required radioactivity release control function. Therefore, actions are required to enter LCO 3.0.3 immediately.

E.1, E.2, and E.3

When two SGT subsystems are inoperable, if applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be immediately suspended. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, action must be immediately initiated to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until OPDRVs are suspended.

Required Action E.1 has been modified by a Note stating that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Therefore, in either case, inability to suspend movement of irradiated fuel assemblies would not be sufficient reason to require a reactor shutdown.

(continued)

BASES

BACKGROUND (continued)

intakes for the CREF System). Alternately, if MSIV leakage is > 15 scfh for any MSIV, an additional analysis may be performed to determine the "effective" MSIV leakage. The "effective" MSIV leakage is the individual MSIV leak rate when all four main steam lines are assumed to leak at the same rate, and the doses in the control room envelope are equivalent to those when the individual "as-left" valve leak rates are used. If the "effective" MSIV leakage is ≤ 15 scfh, then only one outside air intake is necessary.

The CROASFT portion of the safety related CREF System is normally in standby, but the remaining portions of the CREF System (the outside air intakes and fan portion of the air conditioning units) are operated to maintain the control room envelope environment during normal operation. Upon receipt of the initiation signal(s) (indicative of conditions that could result in radiation exposure to control room envelope personnel), the CREF System automatically switches to the emergency pressurization mode of operation to prevent infiltration of contaminated air into the control room envelope. A system of valves and dampers redirects all control room envelope outside air flow through the two CROASFTs. In addition, a portion of the control room air is recirculated through the CROASFTs. The air conditioning units (fan portion only) maintain the 1/8 inch positive pressure; the CROASFT booster fan only provides the motive force to overcome the added resistance of the CROASFT being in service.

The CREF System is designed to maintain the control room envelope environment for a 30 day continuous occupancy (i.e., considering the occupancy factors of NUREG-0800, Table 6.4-1, Ref. 2) after a DBA, while limiting the dosage to personnel to not more than 5 rem whole body or its equivalent to any part of the body. CREF System operation in maintaining the control room envelope habitability is discussed in the USAR, Sections 6.4.1 and 9.4.1 (Refs. 3 and 4, respectively).

APPLICABLE SAFETY ANALYSES

The ability of the CREF System to maintain the habitability of the control room envelope is an explicit assumption for the safety analyses presented in the USAR, Chapters 6 and 15 (Refs. 5 and 6, respectively). The emergency pressurization mode of the CREF System is assumed to operate following a loss of coolant accident, main steam line break, fuel handling accident, and control rod drop accident. The radiological doses to control room envelope personnel as a

Insert 11

(continued)

INSERT 11

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days)...

BASES

LCO (continued)

ceilings, ductwork, and access doors, such that the pressurization limit of SR 3.7.2.4 can be met. However, it is acceptable for access doors to be open for normal control room envelope entry and exit and not consider it to be a failure to meet the LCO.

APPLICABILITY

In MODES 1, 2, and 3, the CREF System must be OPERABLE to control operator exposure during and following a DBA, since the DBA could lead to a fission product release.

In MODES 4 and 5, the probability and consequences of a DBA are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining the CREF System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

a. During movement of recently irradiated fuel assemblies in the secondary containment;

b. ~~During CORE ALTERATIONS;~~ and

c. During operations with a potential for draining the reactor vessel (OPDRVs).

Insert 12 →

ACTIONS

A.1

With one CREF subsystem inoperable, or with both CREF subsystems inoperable but the CREF System safety function maintained, the inoperable CREF subsystem(s) must be restored to OPERABLE status within 7 days. The CREF System safety function is maintained when the CREF System components equivalent to one CREF subsystem are OPERABLE. With the unit in this condition, the remaining OPERABLE CREF subsystem (or OPERABLE components in both subsystems) is adequate to perform the control room envelope radiation protection function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem (or remaining OPERABLE portions of the subsystems, as applicable) could result in loss of CREF System function. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and that the remaining subsystem (or components in both subsystems) can provide the required capabilities.

(continued)

INSERT 12

Due to radioactive decay, the CREF System is only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days).

BASES

ACTIONS (continued)

B.1 and B.2

In MODE 1, 2, or 3, if the inoperable CREF subsystem(s) cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

C.1, C.2.1, C.2.2 and C.2.3

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition C are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, if the inoperable CREF subsystem(s) cannot be restored to OPERABLE status within the required Completion Time, the OPERABLE components of the CREF subsystem(s) equivalent to a single CREF subsystem (e.g., the CROASFT and fan portion of the air conditioning units do not have to be powered from the same electrical division) may be placed in the emergency pressurization mode. This action ensures that the remaining subsystem (or components in both subsystems equivalent to a single CREF subsystem) is OPERABLE, that no failures that would prevent automatic actuation will occur, and that any active failure will be readily detected.

An alternative to Required Action C.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS

C.1, C.2.1, C.2.2, and C.2.3 (continued)

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, action must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until the OPDRVs are suspended.

D.1

If both CREF subsystems are inoperable with the CREF System safety function not maintained in MODE 1, 2, or 3, the CREF System may not be capable of performing the intended function and the unit is in a condition outside of the accident analyses. Therefore, LCO 3.0.3 must be entered immediately.

E.1, E.2, and E.3

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition E are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, with two CREF subsystems inoperable with the CREF System safety function not maintained, action must be taken immediately to suspend activities that present a potential for releasing radioactivity that might require isolation of the control room envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS

E.1, E.2, and E.3 (continued)

If applicable, CORE ALTERATIONS and movement of recently irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. If applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

SURVEILLANCE REQUIREMENTS

SR 3.7.2.1

Operating (from the control room) each CREF subsystem for $\geq$ 1 continuous hour ensures that both subsystems are OPERABLE and that all associated controls are functioning properly. It also ensures that blockage, filter booster or air conditioning unit fan or motor failure, or excessive vibration can be detected for corrective action. In addition, it is not necessary to operate all components of a single subsystem simultaneously for the 1 hour period. It is acceptable to operate the fan portion of the air conditioning unit(s) of one subsystem with the CROASFT of the other subsystem, such that the CROASFTs and fan portion of the air conditioning units are each operated for 1 continuous hour. The 31 day Frequency was developed in consideration of the known reliability of fan motors and controls and the redundancy available in the system.

SR 3.7.2.2

This SR verifies that the required CROASFT testing is performed in accordance with Specification 5.5.7, "Ventilation Filter Testing Program (VFTP)." The CROASFT filter tests are in accordance with Regulatory Guide 1.52 (Ref. 8). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

(continued)

BASES

APPLICABLE SAFETY ANALYSES (continued)

components in the control room envelope. A single active failure of a component of the Control Room Envelope AC System, assuming a loss of offsite power, does not impair the ability of the system to perform its design function. Redundant detectors and controls are provided for control room envelope temperature control. The Control Room Envelope AC System is designed in accordance with Seismic Category I requirements. The Control Room Envelope AC System is capable of removing sensible and latent heat loads from the control room envelope, including consideration of equipment heat loads and personnel occupancy requirements to ensure equipment OPERABILITY.

The Control Room Envelope AC System satisfies Criterion 3 of Reference 3.

LCO

Two independent and redundant subsystems of the Control Room Envelope AC System are required to be OPERABLE to ensure that at least one is available, assuming a single failure disables the other subsystem. Total system failure could result in the equipment operating temperature exceeding limits.

The Control Room Envelope AC System is considered OPERABLE when the individual components necessary to maintain the control room envelope temperature are OPERABLE in both subsystems. These components include the control room and relay room air conditioning units (cooling coils and fans only), the control building chilled water subsystems, ductwork, dampers, and associated instrumentation and controls. In addition, during conditions in MODES other than MODES 1, 2, and 3 when the Control Room Envelope AC System is required to be OPERABLE (e.g., during CORE ALTERATIONS), the necessary portions of the SW System and Ultimate Heat Sink capable of providing cooling to the hermetic centrifugal water chillers are part of the OPERABILITY requirements covered by this LCO.

operations with a potential for draining the reactor vessel (OPDRVs)

APPLICABILITY

In MODE 1, 2, or 3, the Control Room Envelope AC System must be OPERABLE to ensure that the control room envelope temperature will not exceed equipment OPERABILITY limits following control room envelope isolation.

In MODES 4 and 5, the probability and consequences of a Design Basis Accident are reduced due to the pressure and

(continued)

BASES

APPLICABILITY (continued)

temperature limitations in these MODES. Therefore, maintaining the Control Room Envelope AC System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

a. During movement of recently irradiated fuel assemblies in the secondary containment;

b. During CORE ALTERATIONS; and

c. During operations with a potential for draining the reactor vessel (OPDRVs).

Insert 13 →

ACTIONS

A.1

With one control room envelope AC subsystem inoperable, or with both control room envelope AC subsystems inoperable but the Control Room Envelope AC System safety function maintained, the inoperable control room envelope AC subsystem(s) must be restored to OPERABLE status within 30 days. The Control Room Envelope AC System safety function is maintained when the Control Room Envelope AC System components equivalent to one control room envelope AC subsystem are OPERABLE. With the unit in this condition, the remaining OPERABLE control room envelope AC subsystem (or OPERABLE components in both subsystems) is adequate to perform the control room envelope air conditioning function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem (or remaining OPERABLE portions of the subsystems, as applicable) could result in loss of the control room envelope air conditioning function. The 30 day Completion Time is based on the low probability of an event occurring requiring control room envelope isolation, the consideration that the remaining subsystem (or components in both subsystems) can provide the required protection, and the availability of alternate cooling methods.

B.1 and B.2

In MODE 1, 2, or 3, if the inoperable control room envelope AC subsystem(s) cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status the unit

(continued)

INSERT 13

Due to radioactive decay, the Control Room Envelope AC System is only required to be OPERABLE during fuel handling involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days).

BASES

ACTIONS

B.1 and B.2 (continued)

must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

C.1, C.2.1, C.2.2, and C.2.3

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition C are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, if Required Action A.1 cannot be completed within the required Completion Time, the OPERABLE components of the control room envelope AC subsystem(s) equivalent to a single control room envelope AC subsystem (e.g., the control building chilled water subsystem and air conditioning units do not have to be powered from the same electrical division) may be placed immediately in operation. This action ensures that the remaining subsystem (or components in both subsystems equivalent to a single control room envelope AC subsystem) is OPERABLE, that no failures that would prevent actuation will occur, and that any active failure will be readily detected.

An alternative to Required Action C.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS

C.1, C.2.1, C.2.2, and C.2.3 (continued)

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, action must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until the OPDRVs are suspended.

D.1

If both control room envelope AC subsystems are inoperable with the Control Room Envelope AC System safety function not maintained in MODE 1, 2, or 3, the Control Room Envelope AC System may not be capable of performing the intended function. Therefore, LCO 3.0.3 must be entered immediately.

E.1, E.2, and E.3

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition E are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs with two control room envelope AC subsystems inoperable with the Control Room Envelope AC System safety function not maintained, action must be taken to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS

E.1 E.2 and E.3 (continued)

If applicable, CORE ALTERATIONS and handling of irradiated fuel in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, action must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until the OPDRVs are suspended.

SURVEILLANCE REQUIREMENTS

SR 3.7.3.1

This SR verifies that the heat removal capability of the system is sufficient to remove the control room envelope heat load assumed in the safety analyses. The SR consists of a combination of testing and calculation. The 24 month Frequency is appropriate since significant degradation of the Control Room Envelope AC System is not expected over this time period.

REFERENCES

1. USAR, Section 6.4.
2. USAR, Section 9.4.1.
3. 10 CFR 50.36(c)(2)(ii).

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.2 AC Sources—Shutdown

BASES

BACKGROUND

A description of the AC sources is provided in the Bases for LCO 3.8.1, "AC Sources—Operating."

APPLICABLE SAFETY ANALYSES

The OPERABILITY of the minimum AC sources during MODES 4 and 5, and during movement of irradiated fuel assemblies in the secondary containment ensures that: recently

a. The unit can be maintained in the shutdown or refueling condition for extended periods;

b. Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status; and

c. Adequate AC electrical power is provided to mitigate events postulated during shutdown, such as an inadvertent draindown of the vessel or a fuel handling accident.

Insert 14

In general, when the unit is shutdown the Technical Specifications (TS) requirements ensure that the unit has the capability to mitigate the consequences of postulated accidents. However, assuming a single failure and concurrent loss of all offsite or loss of all onsite power is not required. The rationale for this is based on the fact that many Design Basis Accidents (DBAs) that are analyzed in MODES 1, 2, and 3 have no specific analyses in MODES 4 and 5. Worst case bounding events are deemed not credible in MODES 4 and 5 because the energy contained within the reactor pressure boundary, reactor coolant temperature and pressure, and the corresponding stresses result in the probabilities of occurrence significantly reduced or eliminated, and minimal consequences. These deviations from DBA analysis assumptions and design requirements during shutdown conditions are allowed by the LCO for required systems.

During MODES 1, 2, and 3, various deviations from the analysis assumptions and design requirements are allowed within the ACTIONS. This allowance is in recognition that

(continued)

INSERT 14

...involving handling recently irradiated fuel. Due to radioactive decay, AC electrical power is only required to mitigate fuel handling accidents involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days).

BASES

LCO (continued)

a separate offsite circuit to the Division 3 Class 1E onsite electrical power distribution subsystem, or an OPERABLE Division 3 DG, ensures an additional source of power for the HPCS. This additional source for Division 3 is not necessarily required to be connected to be OPERABLE. Either the circuit required by LCO Item a., or a circuit required to meet LCO Item c. may be connected, with the second source available for connection. Together, OPERABILITY of the required offsite circuit(s) and DG(s) ensure the availability of sufficient AC sources to operate the plant in a safe manner and to mitigate the consequences of postulated events during shutdown (e.g., fuel handling accidents, reactor vessel draindown).

Insert 15

The qualified offsite circuit(s) must be capable of maintaining rated frequency and voltage while connected to their respective emergency bus(es), and of accepting required loads during an accident. Qualified offsite circuits are those that are described in the USAR and are part of the licensing basis for the plant. The offsite circuit from the 345 kV/115 kV Scriba Substation consists of the incoming breaker and disconnect to the respective reserve station service transformers 2RTX-XSR1A and 2RTX-XSR1B and auxiliary boiler transformer 2ABS-X1, the respective 2RTX-XSR1A, 2RTX-XSR1B, and 2ABS-X1 transformers, and the respective circuit path including feeder breakers to all 4.16 kV emergency buses required by LCO 3.8.9.

The required DG must be capable of starting, accelerating to rated speed and voltage, and connecting to its respective emergency bus on detection of bus undervoltage, and accepting required loads. This sequence must be accomplished within 13.20 seconds. The start time includes the 3.20 second Loss of Voltage—Time Delay Function Allowable Value specified in LCO 3.3.8.1, "Loss of Power (LOP) Instrumentation." Each DG must also be capable of accepting required loads within the assumed loading sequence intervals, and must continue to operate until offsite power can be restored to the emergency buses. These capabilities are required to be met from a variety of initial conditions such as: DG in standby with the engine hot and DG in standby with the engine at ambient conditions. Additional DG capabilities must be demonstrated to meet required Surveillances, e.g., capability of the DG to revert to standby status on an ECCS signal while operating in parallel test mode.

(continued)

INSERT 15

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days)...

BASES

LCO (continued)

Proper sequencing of loads, including tripping of nonessential loads, is a required function for DG OPERABILITY. The necessary portions of the Service Water System and Ultimate Heat Sink capable of providing cooling to the required DG(s) are also required. In addition, proper sequencing of loads is a required function for offsite circuit OPERABILITY.

It is acceptable for divisions to be cross tied during shutdown conditions, permitting a single offsite power circuit to supply all required divisions.

APPLICABILITY

The AC sources required to be OPERABLE in MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment provide assurance that: (recently)

a. Systems to provide adequate coolant inventory makeup are available for the irradiated fuel in the core in case of an inadvertent draindown of the reactor vessel;

Insert 16 →

b. Systems needed to mitigate a fuel handling accident are available;

c. Systems necessary to mitigate the effects of events that can lead to core damage during shutdown are available; and

d. Instrumentation and control capability is available for monitoring and maintaining the unit in a cold shutdown condition or refueling condition.

The AC power requirements for MODES 1, 2, and 3 are covered in LCO 3.8.1.

ACTIONS

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since (recently) irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the ACTIONS have been modified by a Note stating that LCO 3.0.3 is not applicable. If moving (recently) irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving (recently) irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require

(continued)

INSERT 16

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days)...

BASES

ACTIONS (continued)

immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

A.1

An offsite circuit is considered inoperable if it is not available to one required 4.16 kV emergency bus. If two or more 4.16 kV emergency buses are required per LCO 3.8.9, division(s) with offsite power available may be capable of supporting sufficient required features to allow continuation of CORE ALTERATIONS, fuel movement, and operations with a potential for draining the reactor vessel. By the allowance of the option to declare required features inoperable that are not powered from offsite power, appropriate restrictions can be implemented in accordance with the required feature(s) LCOs' ACTIONS. Required features remaining powered from a qualified offsite circuit, even if that circuit is considered inoperable because it is not powering other required features, are not declared inoperable by this Required Action.

A.2.1, A.2.2, A.2.3, A.2.4, B.1, B.2, B.3, and B.4

With the offsite circuit not available to all required divisions, the option still exists to declare all required features inoperable per Required Action A.1. Since this option may involve undesired administrative efforts, the allowance for sufficiently conservative actions is made. With the required DG inoperable, the minimum required diversity of AC power sources is not available. It is, therefore, required to suspend CORE ALTERATIONS, movement of irradiated fuel assemblies in the secondary containment, and activities that could potentially result in inadvertent draining of the reactor vessel.

Suspension of these activities shall not preclude completion of actions to establish a safe conservative condition. These actions minimize probability of the occurrence of postulated events. It is further required to initiate action immediately to restore the required AC sources and to

(continued)

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.5 DC Sources—Shutdown

BASES

BACKGROUND

A description of the DC sources is provided in the Bases for LCO 3.8.4, "DC Sources—Operating."

APPLICABLE SAFETY ANALYSES

The initial conditions of Design Basis Accident and transient analyses in the USAR, Chapter 6 (Ref. 1) and Chapter 15 and Appendix A (Ref. 2), assume that Engineered Safety Feature systems are OPERABLE. The DC electrical power system provides normal and emergency DC electrical power for the diesel generators, emergency auxiliaries, and control and switching during all MODES of operation and during movement of recently irradiated fuel assemblies in the secondary containment.

The OPERABILITY of the DC subsystems is consistent with the initial assumptions of the accident analyses and the requirements for the supported systems' OPERABILITY.

The OPERABILITY of the minimum DC electrical power sources during MODES 4 and 5 and during movement of recently irradiated fuel assemblies in the secondary containment ensures that:

a. The facility can be maintained in the shutdown or refueling condition for extended periods;

b. Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status; and

c. Adequate DC electrical power is provided to mitigate events postulated during shutdown, such as an inadvertent draindown of the vessel or a fuel handling accident.

Insert 17

The DC sources satisfy Criterion 3 of Reference 3.

LCO

The DC electrical power subsystems, each consisting of one battery, one battery charger, and the corresponding control equipment and interconnecting cabling supplying power to the associated buses within the division, are required to be OPERABLE to support required Distribution System divisions

(continued)

INSERT 17

...involving handling recently irradiated fuel. Due to radioactive decay, DC electrical power is only required to mitigate fuel handling accidents involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days).

BASES

LCO (continued)

required OPERABLE by LCO 3.8.9, "Distribution Systems—Shutdown." This ensures the availability of sufficient DC electrical power sources to operate the unit in a safe manner and to mitigate the consequences of postulated events during shutdown (e.g., fuel handling accidents and inadvertent reactor vessel draindown).

Insert 18

APPLICABILITY

The DC electrical power sources required to be OPERABLE in MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment provide assurance that:

recently

a. Required features to provide adequate coolant inventory makeup are available for the irradiated fuel assemblies in the core in case of an inadvertent draindown of the reactor vessel;

b. Required features needed to mitigate a fuel handling accident are available;

Insert 18

c. Required features necessary to mitigate the effects of events that can lead to core damage during shutdown are available; and

d. Instrumentation and control capability is available for monitoring and maintaining the unit in a cold shutdown condition or refueling condition.

The DC electrical power requirements for MODES 1, 2, and 3 are covered in LCO 3.8.4.

ACTIONS

recently

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the ACTIONS have been modified by a Note stating recently that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

recently

recently

recently

recently

(continued)

INSERT 18

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days)...

BASES

ACTIONS (continued)

A.1, A.2.1, A.2.2, A.2.3, and A.2.4

Sentence deleted by TSTF-204

If more than one DC distribution subsystem is required according to LCO 3.8.9, the DC electrical power subsystems remaining OPERABLE with one or more DC electrical power subsystems inoperable may be capable of supporting sufficient required features to allow continuation of CORE ALTERATIONS, fuel movement, and operations with a potential for draining the reactor vessel. By allowing the option to declare required features inoperable with associated DC electrical power subsystem(s) inoperable, appropriate restrictions are implemented in accordance with the affected system LCOs' ACTIONS. However, in many instances this option may involve undesired administrative efforts. Therefore, the allowance for sufficiently conservative actions is made (i.e., to suspend CORE ALTERATIONS, movement of irradiated fuel assemblies in the secondary containment, and any activities that could result in inadvertent draining of the reactor vessel).

recently irradiated

recently

Suspension of these activities shall not preclude completion of actions to establish a safe conservative condition. These actions minimize the probability of the occurrence of postulated events. It is further required to immediately initiate action to restore the required DC electrical power subsystems and to continue this action until restoration is accomplished in order to provide the necessary DC electrical power to the plant safety systems.

The Completion Time of immediately is consistent with the required times for actions requiring prompt attention. The restoration of the required DC electrical power subsystems should be completed as quickly as possible in order to minimize the time during which the plant safety systems may be without sufficient power.

SURVEILLANCE REQUIREMENTS

SR 3.8.5.1

SR 3.8.5.1 requires all Surveillances required by SR 3.8.4.1 through SR 3.8.4.8 to be applicable. Therefore, see the corresponding Bases for LCO 3.8.4 for a discussion of each SR.

This SR is modified by a Note. The reason for the Note is to preclude requiring the OPERABLE DC sources from being discharged below their capability to provide the required

(continued)

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.9 Distribution Systems—Shutdown

BASES

BACKGROUND

A description of the AC, DC, and 120 VAC uninterruptible electrical power distribution systems is provided in the Bases for LCO 3.8.8, "Distribution Systems—Operating."

APPLICABLE SAFETY ANALYSES

The initial conditions of Design Basis Accident and transient analyses in the USAR, Chapter 6 (Ref. 1) and Chapter 15 and Appendix A (Ref. 2), assume Engineered Safety Feature (ESF) systems are OPERABLE. The AC, DC, and 120 VAC uninterruptible electrical power distribution systems are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that the fuel, Reactor Coolant System, and containment design limits are not exceeded.

The OPERABILITY of the AC, DC, and 120 VAC uninterruptible electrical power distribution system is consistent with the initial assumptions of the accident analyses and the requirements for the supported systems' OPERABILITY.

The OPERABILITY of the minimum AC, DC, and 120 VAC uninterruptible electrical power sources and associated power distribution subsystems during MODES 4 and 5, and during movement of irradiated fuel assemblies in the secondary containment ensures that:

recently

a. The facility can be maintained in the shutdown or refueling condition for extended periods;

b. Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status; and

Insert 19

c. Adequate power is provided to mitigate events postulated during shutdown, such as an inadvertent draindown of the vessel or a fuel handling accident.

The AC, DC, and 120 VAC uninterruptible electrical power distribution systems satisfy Criterion 3 of Reference 3.

(continued)

INSERT 19

...involving handling recently irradiated fuel. Due to radioactive decay, AC and DC electrical power is only required to mitigate fuel handling accidents involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days).

BASES (continued)

LCO

Various combinations of subsystems, equipment, and components are required OPERABLE by other LCOs, depending on the specific plant condition. Implicit in those requirements is the required OPERABILITY of necessary support features. This LCO explicitly requires energization of the portions of the electrical distribution system necessary to support OPERABILITY of Technical Specifications' required systems, equipment, and components—both specifically addressed by their own LCOs, and implicitly required by the definition of OPERABILITY.

Maintaining these portions of the distribution system energized ensures the availability of sufficient power to operate the plant in a safe manner to mitigate the consequences of postulated events during shutdown (e.g., fuel handling accidents and inadvertent reactor vessel draindown).

Insert 20

APPLICABILITY

The AC, DC, and 120 VAC uninterruptible electrical power distribution subsystems required to be OPERABLE in MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment provide assurance that:

recently

a. Systems to provide adequate coolant inventory makeup are available for the irradiated fuel in the core in case of an inadvertent draindown of the reactor vessel;

b. Systems needed to mitigate a fuel handling accident are available;

Insert 20

c. Systems necessary to mitigate the effects of events that can lead to core damage during shutdown are available; and

d. Instrumentation and control capability is available for monitoring and maintaining the unit in a cold shutdown or refueling condition.

The AC, DC, and 120 VAC uninterruptible electrical power distribution subsystem requirements for MODES 1, 2, and 3 are covered in LCO 3.8.8.

(continued)

INSERT 20

...involving handling recently irradiated fuel (i.e., fuel that has occupied part of a critical reactor core within the previous 28 days)...

BASES (continued)

ACTIONS

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the ACTIONS have been modified by a Note stating that LCO 3.0.3 is not applicable. If moving irradiated fuel assemblies while in MODE 4 or 5, LCO 3.0.3 would not specify any action. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

A.1, A.2.1, A.2.2, A.2.3, A.2.4, and A.2.5

Although redundant required features may require redundant divisions of electrical power distribution subsystems to be OPERABLE, one OPERABLE distribution subsystem division may be capable of supporting sufficient required features to allow continuation of CORE ALTERATIONS, fuel movement, and operations with a potential for draining the reactor vessel. By allowing the option to declare required features associated with an inoperable distribution subsystem inoperable, appropriate restrictions are implemented in accordance with the affected distribution subsystem LCO's Required Actions. In many instances, this option may involve undesired administrative efforts. Therefore, the allowance for sufficiently conservative actions is made (i.e., to suspend CORE ALTERATIONS, movement of irradiated fuel assemblies in the secondary containment and any activities that could result in inadvertent draining of the reactor vessel).

Suspension of these activities shall not preclude completion of actions to establish a safe conservative condition. These actions minimize the probability of the occurrence of postulated events. It is further required to immediately initiate action to restore the required AC and DC electrical power distribution subsystems and to continue this action until restoration is accomplished in order to provide the necessary power to the plant safety systems.

(continued)

ATTACHMENT C

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

ENCLOSURE 2
Technical Specifications and Bases Markup

TSTF-204, Revision 3
Revise DC Sources – Shutdown and Inverters – Shutdown to Address Specific Subsystem Requirements

3.8 ELECTRICAL POWER SYSTEMS

3.8.5 DC Sources—Shutdown

LCO 3.8.5 DC electrical power subsystem(s) shall be OPERABLE to support the electrical power distribution subsystem(s) required by LCO 3.8.9, "Distribution Systems—Shutdown."

Insert 1

APPLICABILITY: MODES 4 and 5,
During movement of irradiated fuel assemblies in the secondary containment.

ACTIONS

NOTE
LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more required DC electrical power subsystems inoperable.	A.1 Declare affected required feature(s) inoperable.	Immediately
	OR	
	A.2.1 Suspend CORE ALTERATIONS.	Immediately
	AND	
	A.2.2 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND	

(continued)

INSERT 1

The following DC electrical power subsystems shall be OPERABLE:

a. One Division 1 or Division 2 DC electrical power subsystem; and
b. The Division 3 DC electrical power subsystem, when the Division 3 onsite Class 1E DC electrical power distribution subsystem is required by LCO 3.8.9, "Distribution Systems – Shutdown."

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.5 DC Sources—Shutdown

BASES

BACKGROUND

A description of the DC sources is provided in the Bases for LCO 3.8.4, "DC Sources—Operating."

APPLICABLE SAFETY ANALYSES

The initial conditions of Design Basis Accident and transient analyses in the USAR, Chapter 6 (Ref. 1) and Chapter 15 and Appendix A (Ref. 2), assume that Engineered Safety Feature systems are OPERABLE. The DC electrical power system provides normal and emergency DC electrical power for the diesel generators, emergency auxiliaries, and control and switching during all MODES of operation and during movement of irradiated fuel assemblies in the secondary containment.

The OPERABILITY of the DC subsystems is consistent with the initial assumptions of the accident analyses and the requirements for the supported systems' OPERABILITY.

The OPERABILITY of the minimum DC electrical power sources during MODES 4 and 5 and during movement of irradiated fuel assemblies in the secondary containment ensures that:

a. The facility can be maintained in the shutdown or refueling condition for extended periods;

b. Sufficient instrumentation and control capability is available for monitoring and maintaining the unit status; and

c. Adequate DC electrical power is provided to mitigate events postulated during shutdown, such as an inadvertent draindown of the vessel or a fuel handling accident.

Insert 2 →

The DC sources satisfy Criterion 3 of Reference 3.

LCO

The DC electrical power subsystems, each (required subsystem) consisting of one battery, one battery charger, and the corresponding control equipment and interconnecting cabling supplying power to the associated buses within the division, are required to be OPERABLE to support (some of the) required (DC) Distribution System divisions

(continued)

INSERT 2

In general, when the unit is shutdown, the Technical Specifications requirements ensure that the unit has the capability to mitigate the consequences of postulated accidents. However, assuming a single failure and concurrent loss of all offsite or all onsite power is not required. The rationale for this is based on the fact that many Design Basis Accidents (DBAs) that are analyzed in MODES 1, 2, and 3 have no specific analyses in MODES 4 and 5. Worst case bounding events are deemed not credible in MODES 4 and 5 because the energy contained within the reactor pressure boundary, reactor coolant temperature and pressure, and the corresponding stresses result in the probabilities of occurrence being significantly reduced or eliminated, and in minimal consequences. These deviations from DBA analysis assumptions and design requirements during shutdown are allowed by the LCO for required systems.

The shutdown Technical Specification requirements are designed to ensure that the unit has the capability to mitigate the consequences of certain postulated accidents. Worst case Design Basis Accidents which are analyzed for operating MODES are generally viewed not to be a significant concern during shutdown MODES due to the lower energies involved. The Technical Specifications therefore require a lesser complement of electrical equipment to be available during shutdown than is required during operating MODES. More recent work completed on the potential risks associated with shutdown, however, has found significant risk associated with certain shutdown evolutions. As a result, in addition to the requirements established in the Technical Specifications, the industry has adopted NUMARC 91-06, "Guidelines for Industry Actions to Assess Shutdown Management", as an industry initiative to manage shutdown tasks and associated electrical equipment support to maintain risk at an acceptable low level. This may require the availability of additional equipment beyond that required by the shutdown Technical Specifications.

BASES

ACTIONS (continued)

A.1, A.2.1, A.2.2, A.2.3, and A.2.4

If more than one DC distribution subsystem is required according to LCO 3.8.9, the DC electrical power subsystems remaining OPERABLE with one or more DC electrical power subsystems inoperable may be capable of supporting sufficient required features to allow continuation of CORE ALTERATIONS, fuel movement, and operations with a potential for draining the reactor vessel. By allowing the option to declare required features inoperable with associated DC electrical power subsystem(s) inoperable, appropriate restrictions are implemented in accordance with the affected system LCOs' ACTIONS. However, in many instances this option may involve undesired administrative efforts. Therefore, the allowance for sufficiently conservative actions is made (i.e., to suspend CORE ALTERATIONS, movement of irradiated fuel assemblies in the secondary containment, and any activities that could result in inadvertent draining of the reactor vessel).

Suspension of these activities shall not preclude completion of actions to establish a safe conservative condition. These actions minimize the probability of the occurrence of postulated events. It is further required to immediately initiate action to restore the required DC electrical power subsystems and to continue this action until restoration is accomplished in order to provide the necessary DC electrical power to the plant safety systems.

The Completion Time of immediately is consistent with the required times for actions requiring prompt attention. The restoration of the required DC electrical power subsystems should be completed as quickly as possible in order to minimize the time during which the plant safety systems may be without sufficient power.

SURVEILLANCE REQUIREMENTS

SR 3.8.5.1

SR 3.8.5.1 requires all Surveillances required by SR 3.8.4.1 through SR 3.8.4.8 to be applicable. Therefore, see the corresponding Bases for LCO 3.8.4 for a discussion of each SR.

This SR is modified by a Note. The reason for the Note is to preclude requiring the OPERABLE DC sources from being discharged below their capability to provide the required

(continued)

ATTACHMENT C

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

ENCLOSURE 3
Technical Specifications and Bases Markup

TSTF-287, Revision 5
Ventilation System Envelope Allowed Outage Time

3.7 PLANT SYSTEMS

3.7.2 Control Room Envelope Filtration (CREF) System

LCO 3.7.2 Two CREF subsystems shall be OPERABLE.

← Insert 1

APPLICABILITY: MODES 1, 2, and 3,
During movement of irradiated fuel assemblies in the secondary containment,
During CORE ALTERATIONS,
During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One CREF subsystem inoperable. OR Two CREF subsystems inoperable with safety function maintained.	A.1 Restore CREF subsystem(s) to OPERABLE status.	7 days
C B. Required Action and Associated Completion Time of Condition A not met in MODE 1, 2, or 3. (or B)	C B.1 Be in MODE 3. AND C B.2 Be in MODE 4.	12 hours 36 hours

(continued)

B. Two CREF subsystems inoperable due to inoperable control room envelope boundary in MODES 1, 2, and 3. | B.1 Restore control room envelope boundary to OPERABLE status. | 24 hours

INSERT 1

---NOTE---

The control room envelope boundary may be opened intermittently under administrative control.

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
C. Required Action and associated Completion Time of Condition A not met during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ----------	
	C.1 Place OPERABLE components of CREF subsystem(s) equivalent to a single CREF subsystem in emergency pressurization mode.	Immediately
	OR	
	C.2.1 Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND	
Action deleted by TSTF-51 and Actions renumbered →	C.2.2 Suspend CORE ALTERATIONS.	Immediately
	AND	
	C.2.3 Initiate action to suspend OPDRVs.	Immediately
D. Two CREF subsystems inoperable with safety function not maintained in MODE 1, 2, or 3 for reasons other than Condition B.	D.1 Enter LCO 3.0.3.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
E. (F) Two CREF subsystems inoperable with safety function not maintained during movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs.	----------NOTE---------- LCO 3.0.3 is not applicable. ----------	
	E.1 (F) Suspend movement of irradiated fuel assemblies in the secondary containment.	Immediately
	AND	
Action deleted by TSTF-51 and Actions renumbered	E.2 (F) Suspend CORE ALTERATIONS.	Immediately
	AND	
	E.3 (F) Initiate action to suspend OPDRVs.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.2.1	Operate each CREF subsystem for ≥ 1 continuous hour.	31 days
SR 3.7.2.2	Perform required CREF System filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.2.3	Verify each CREF subsystem actuates on an actual or simulated initiation signal.	24 months

(continued)

BASES

LCO (continued)

ceilings, ductwork, and access doors, such that the pressurization limit of SR 3.7.2.4 can be met. However, it is acceptable for access doors to be open for normal control room envelope entry and exit and not consider it to be a failure to meet the LCO.

Insert 2 →

APPLICABILITY

In MODES 1, 2, and 3, the CREF System must be OPERABLE to control operator exposure during and following a DBA, since the DBA could lead to a fission product release.

In MODES 4 and 5, the probability and consequences of a DBA are reduced due to the pressure and temperature limitations in these MODES. Therefore, maintaining the CREF System OPERABLE is not required in MODE 4 or 5, except for the following situations under which significant radioactive releases can be postulated:

a. During movement of irradiated fuel assemblies in the secondary containment;

b. During CORE ALTERATIONS; and

c. During operations with a potential for draining the reactor vessel (OPDRVs).

ACTIONS

A.1

With one CREF subsystem inoperable, or with both CREF subsystems inoperable but the CREF System safety function maintained, the inoperable CREF subsystem(s) must be restored to OPERABLE status within 7 days. The CREF System safety function is maintained when the CREF System components equivalent to one CREF subsystem are OPERABLE. With the unit in this condition, the remaining OPERABLE CREF subsystem (or OPERABLE components in both subsystems) is adequate to perform the control room envelope radiation protection function. However, the overall reliability is reduced because a single failure in the OPERABLE subsystem (or remaining OPERABLE portions of the subsystems, as applicable) could result in loss of CREF System function. The 7 day Completion Time is based on the low probability of a DBA occurring during this time period, and that the remaining subsystem (or components in both subsystems) can provide the required capabilities.

Insert 3 →

(continued)

INSERT 2

The LCO is modified by a Note allowing the control room envelope boundary to be opened intermittently under administrative controls. For entry and exit through the doors, the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for control room isolation is indicated.

INSERT 3

B.1

If the control room envelope boundary is inoperable in MODES 1, 2, and 3, the CREF trains cannot perform their intended functions. Actions must be taken to restore an OPERABLE control room envelope boundary within 24 hours. During the period that the control room envelope boundary is inoperable, appropriate compensatory measures (consistent with the intent of GDC 19) should be utilized to protect control room operators from potential hazards such as radioactive contamination, smoke, temperature, and physical security. Preplanned measures should be available to address these concerns for intentional and unintentional entry into this condition. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of compensatory measures. The 24 hour Completion Time is a typically reasonable time to diagnose, plan and possibly repair, and test most problems with the control room envelope boundary.

BASES

ACTIONS (continued)

C.1 and C.2

or control room envelope boundary

In MODE 1, 2, or 3, if the inoperable CREF subsystem(s) cannot be restored to OPERABLE status within the associated Completion Time, the unit must be placed in a MODE that minimizes risk. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours and in MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

D.1, D.2.1, D.2.2, and D.2.3

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition D are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, if the inoperable CREF subsystem(s) cannot be restored to OPERABLE status within the required Completion Time, the OPERABLE components of the CREF subsystem(s) equivalent to a single CREF subsystem (e.g., the CROASFT and fan portion of the air conditioning units do not have to be powered from the same electrical division) may be placed in the emergency pressurization mode. This action ensures that the remaining subsystem (or components in both subsystems equivalent to a single CREF subsystem) is OPERABLE, that no failures that would prevent automatic actuation will occur, and that any active failure will be readily detected.

D.1

An alternative to Required Action D.1 is to immediately suspend activities that present a potential for releasing radioactivity that might require isolation of the control room envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS

D.1, D.2.1, D.2.2, and D.2.3 (continued)

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. Also, if applicable, action must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Action must continue until the OPDRVs are suspended.

E.1

If both CREF subsystems are inoperable with the CREF System safety function not maintained in MODE 1, 2, or 3 for reasons other than an inoperable control room envelope boundary (i.e., Condition B), the CREF System may not be capable of performing the intended function and the unit is in a condition outside of the accident analyses. Therefore, LCO 3.0.3 must be entered immediately.

F.1, F.2, and F.3

LCO 3.0.3 is not applicable while in MODE 4 or 5. However, since irradiated fuel assembly movement can occur in MODE 1, 2, or 3, the Required Actions of Condition F are modified by a Note indicating that LCO 3.0.3 does not apply. If moving irradiated fuel assemblies while in MODE 1, 2, or 3, the fuel movement is independent of reactor operations. Entering LCO 3.0.3 while in MODE 1, 2, or 3 would require the unit to be shutdown, but would not require immediate suspension of movement of irradiated fuel assemblies. The Note to the ACTIONS, "LCO 3.0.3 is not applicable," ensures that the actions for immediate suspension of irradiated fuel assembly movement are not postponed due to entry into LCO 3.0.3.

During movement of irradiated fuel assemblies in the secondary containment, during CORE ALTERATIONS, or during OPDRVs, with two CREF subsystems inoperable with the CREF System safety function not maintained, action must be taken immediately to suspend activities that present a potential for releasing radioactivity that might require isolation of the control room envelope. This places the unit in a condition that minimizes risk.

(continued)

BASES

ACTIONS F.1, F.2, and F.3 (continued)

If applicable, CORE ALTERATIONS and movement of irradiated fuel assemblies in the secondary containment must be suspended immediately. Suspension of these activities shall not preclude completion of movement of a component to a safe position. If applicable, actions must be initiated immediately to suspend OPDRVs to minimize the probability of a vessel draindown and subsequent potential for fission product release. Actions must continue until the OPDRVs are suspended.

SURVEILLANCE REQUIREMENTS

SR 3.7.2.1

Operating (from the control room) each CREF subsystem for $\geq$ 1 continuous hour ensures that both subsystems are OPERABLE and that all associated controls are functioning properly. It also ensures that blockage, filter booster or air conditioning unit fan or motor failure, or excessive vibration can be detected for corrective action. In addition, it is not necessary to operate all components of a single subsystem simultaneously for the 1 hour period. It is acceptable to operate the fan portion of the air conditioning unit(s) of one subsystem with the CROASFT of the other subsystem, such that the CROASFTs and fan portion of the air conditioning units are each operated for 1 continuous hour. The 31 day Frequency was developed in consideration of the known reliability of fan motors and controls and the redundancy available in the system.

SR 3.7.2.2

This SR verifies that the required CROASFT testing is performed in accordance with Specification 5.5.7, "Ventilation Filter Testing Program (VFTP)." The CROASFT filter tests are in accordance with Regulatory Guide 1.52 (Ref. 8). The VFTP includes testing HEPA filter performance, charcoal adsorber efficiency, system flow rate, and the physical properties of the activated charcoal (general use and following specific operations). Specific test frequencies and additional information are discussed in detail in the VFTP.

(continued)

ATTACHMENT D

NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

Environmental Considerations

The proposed Technical Specification (TS) changes do not involve a significant hazards consideration, a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or a significant increase in individual or cumulative occupational radiation exposure. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), Niagara Mohawk has determined that no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment. This applies to all Technical Specification Task Force (TSTF) items proposed in this package.