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GNRO-2014/00057

August 29, 2014

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

SUBJECT: Technical Requirement Manual
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

REFERENCE: Entergy Letter GNRO-2012/00146, Technical Requirements Manual and Technical Specification Bases Update (ML12361A330)

Dear Sir or Madam:

Pursuant to the Grand Gulf Nuclear Station (GGNS) Technical Requirements Manual (TRM) Section 1.04 and 10 CFR 50.71(e), Entergy Operations Inc. (Entergy) herby submits an update of all changes made to the GGNS TRM since the last submittal (GNRO-2012/00146, dated December 21, 2012).

This letter contains no new commitments. If you have any questions or require additional information, please contact James Nadeau at 601-437-2103.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 29th day of August 2014.

Sincerely,

KJM/ram

Attachment(s): 1. Technical Requirements Manual Change Summary
2. Technical Requirements Manual Changes

cc: without Attachment(s)

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Attachment 1

GNRO-2014/00057

Technical Requirements Manual Change Summary

LBDCR Number	Topic of Change	Affected TRM Pages
12051	Revision of operating license manual to include the pressure and temperature limits report (Amendment 191).	3.4-30-I, 3.4-31-I, 3.4-32-I, 3.4-33-I, 3.4-34-I
13007	Revision of the technical requirements manual (TRM) TRM 6.7.5 and TRM Bases 6.7.5 for update required by GGNS re-evaluation of localized intense precipitation for near term task force 2.1 for Fukushima on flooding.	6.7-10, 6.7-11
13013	Revision of the TRM for 24 month fuel cycle (EC 42885).	3.1-18-I, 3.1-18-II, 3.1-18-III, 3.3-18-V, 3.3-43-IV, 3.4-15-II, 3.5-5-I, 3.5-5-III, 3.5-9-II, 3.6-26-I, 3.6-29-II, 3.6-30-II, 3.6-39-IV, 3.6-57-I, 3.6-57-II, 3.7-4-II, 3.7-5-I, 3.8-17-I, 3.8-17-II, 3.9-7-I, 3.9-7-II, 6.3-7, 6.3-16, 6.3-18, 6.3-21, 6.8-3, 6.8-26, 7-6
13020	Correction of typographical errors in TRM Bases section B6.3.1 through B7.6.3.10.	TRB-1, TRB-2, TRB-3, TRB-4, TRB-5, TRB-6, TRB-7
13032	Revision of TRM 7.2.1.f to include Assistant Operations Manager – Support as an Operations Middle Manager.	7-1
13037	Revision of TRM 7.6.3.10.1 to include Code Case OMN-13.	7-8
14019	Editorial change to revert TRM SR3.3.6.1.4 that was inappropriately revise to 24 month frequency back to 18 month frequency (EC 42885)	3.3-58-VIII

Attachment 2

GNRO-2014/00057

Technical Requirements Manual Changes

----------NOTES----------
The following surveillance requirement applies to LCO 3.1.5. Failure to meet this surveillance requirement requires entry into LCO 3.1.5.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR TR3.1.5.1	Measure and record the time, for up to 10 minutes, that each individual accumulator check valve maintains the associated accumulator pressure above the alarm set point, starting at normal system operating pressure, with no control rod drive pump pressurizing the tested accumulator.	24 months

TR3.1 REACTIVITY CONTROL SYSTEMS

TR3.1.5 Control Rod Scram Accumulator Alarms

LCO TR3.1.5 Each control rod scram accumulator alarm shall be OPERABLE.

APPLICABILITY: When associated control rod scram accumulator is OPERABLE per LCO 3.1.5.

ACTIONS

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

1. LCO 3.0.3 is not applicable.

2. Separate Condition entry is allowed for each control rod scram accumulator alarm.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more accumulator pressure detectors or alarms inoperable.	A.1 Verify the affected accumulator pressure ≥ 1520 psig.	Once per 24 hours
B. One or more accumulator leak detectors or alarms inoperable.	B.1 Verify the affected accumulator water drained.	Once per 48 hours AND Within 24 hours prior to reactor startup.
C. Required Action and associated Completion Time not met.	C.1 Declare the associated accumulator inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.1.5.2	Perform a CHANNEL FUNCTIONAL TEST on the leak detector and associated alarm for each control rod scram accumulator.	24 months

SR TR3.1.5.3	Perform a CHANNEL CALIBRATION of the pressure detector for each control rod scram accumulator and verify an alarm setpoint ≥ 1520 psig on decreasing pressure.	24 months |

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR TR3.3.2.1.6	Perform a CHANNEL FUNCTIONAL TEST.	366 days
SR TR3.3.2.1.7	Perform a CHANNEL FUNCTIONAL TEST.	184 days
SR TR3.3.2.1.8	Perform a CHANNEL FUNCTIONAL TEST.	Within 7 days prior to startup
SR TR3.3.2.1.9	----------NOTE---------- Neutron detectors may be excluded. ---------- Perform a CHANNEL CALIBRATION.	 92 days
SR TR3.3.2.1.10	----------NOTES---------- 1. Neutron detectors are excluded. 2. APRM recirculation flow transmitters are excluded. 3. For Function 1.a, the digital components of the flow control trip reference cards are excluded. ---------- Perform a CHANNEL CALIBRATION.	 24 months
SR TR3.3.2.1.11	Perform a CHANNEL CALIBRATION.	24 months
SR TR3.3.2.1.12	Perform APRM recirculation flow transmitter calibration.	24 months
SR TR3.3.2.1.13	Deleted	

TR3.3 INSTRUMENTATION

TR3.3.5.1 Emergency Core Cooling System (ECCS), Manual Inhibit, Instrumentation

LCO TR3.3.5.1 Automatic Depressurization System (ADS) Trip System A and B, Manual Inhibit Function shall be OPERABLE.

APPLICABILITY: MODE 1,
MODE 2 and 3, with reactor steam dome pressure > 150 psig.

ACTIONS

----------NOTES----------
1. LCO 3.0.3 is not applicable.

2. Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more manual inhibit channel(s) inoperable.	A.1 Restore channel to OPERABLE status.	96 hours from discovery of inoperable channel concurrent with HPCS or RCIC inoperable AND 8 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Declare the associated supported ADS valves inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.3.5.1.1	Perform CHANNEL FUNCTIONAL TEST.	18 months
SR TR3.3.5.1.2	Perform LOGIC SYSTEM FUNCTIONAL TEST.	24 months

SURVEILLANCE REQUIREMENTS

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

1. Refer to Table TR3.3.6.1-2 to determine which SRs apply for each Function.

2. When a channel 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 associated Function maintains isolation capability.

SURVEILLANCE		FREQUENCY
SR TR3.3.6.1.1	Perform a CHANNEL CHECK.	12 hours
SR TR3.3.6.1.2	Perform a CHANNEL FUNCTIONAL TEST.	92 days
SR TR3.3.6.1.3	Deleted	Not applicable
SR TR3.3.6.1.4	Perform CHANNEL CALIBRATION.	18 months

TR3.4 REACTOR COOLANT SYSTEM (RCS)

TR3.4.6 RCS Pressure Isolation Valve (PIV) Leakage, Pressure Monitors and Interlocks.

LCO TR3.4.6 The high/low pressure interface valve pressure monitors and interlocks shall be OPERABLE.

APPLICABILITY: MODES 1 and 2,
MODE 3, except valves in the residual heat removal (RHR) shutdown cooling flowpath when in, or during the transition to or from, the shutdown cooling mode of operation.

ACTIONS

----------NOTES----------
1. LCO 3.0.3 is not applicable.

2. Separate Condition entry is allowed for each channel.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more pressure monitors or interlocks inoperable.	A.1 Restore channel to OPERABLE status.	30 days
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

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.4.6.1	Perform CHANNEL FUNCTIONAL TEST on the high/low pressure interface valves leakage pressure monitor alarm and interlock setpoints per Table TR3.4.6-2 and Table TR3.4.6-3.	366 days
SR TR3.4.6.2	Perform CHANNEL CALIBRATION on the high/low pressure interface valves leakage pressure monitor alarm and interlock setpoints per Table TR3.4.6-2 and Table TR3.4.6-3.	24 months

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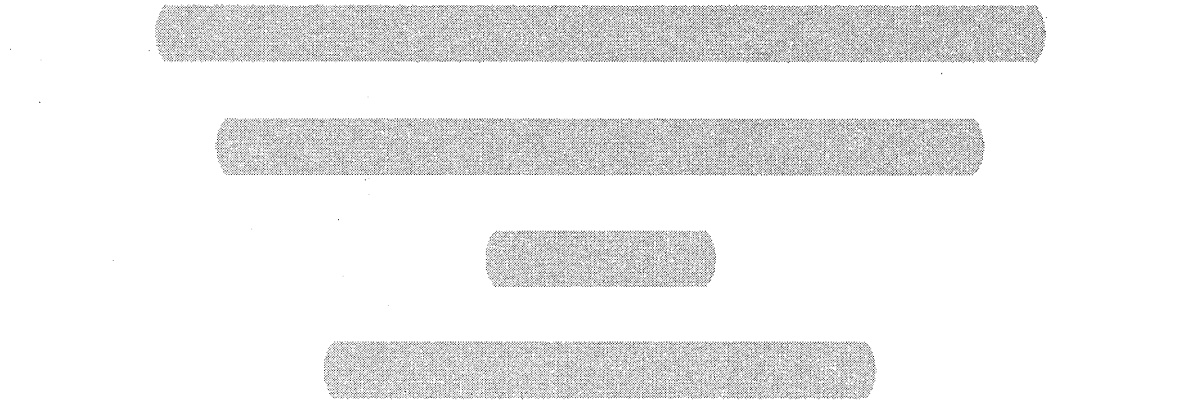

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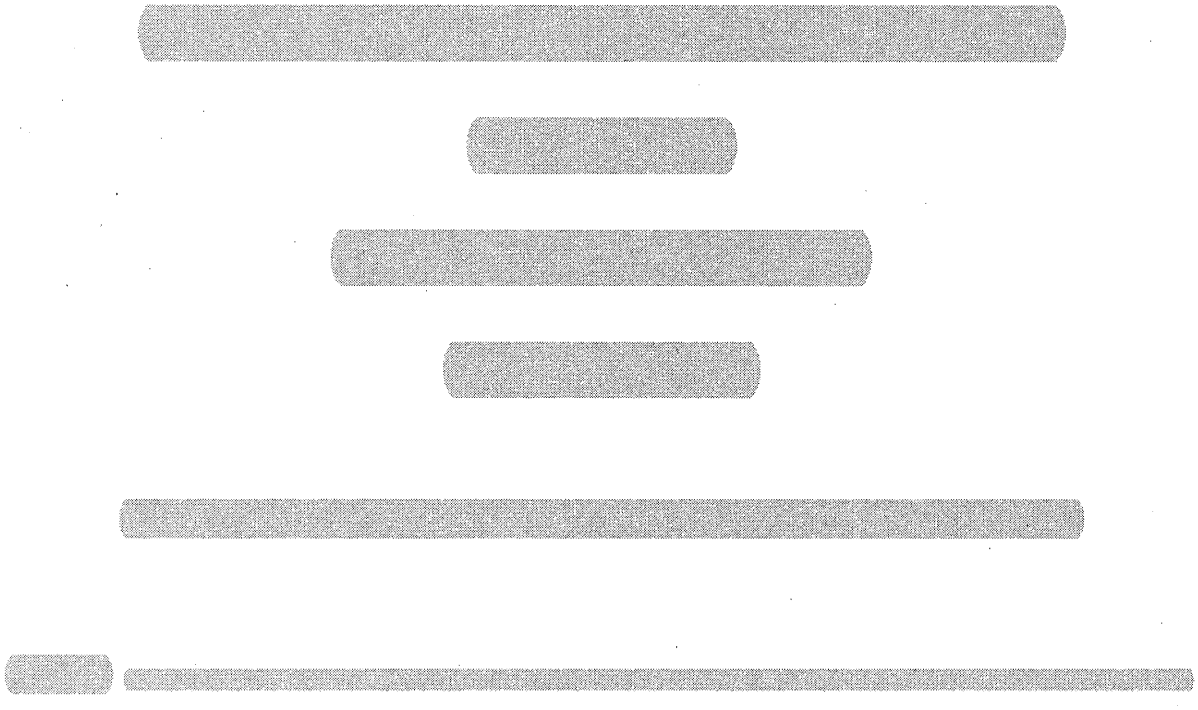

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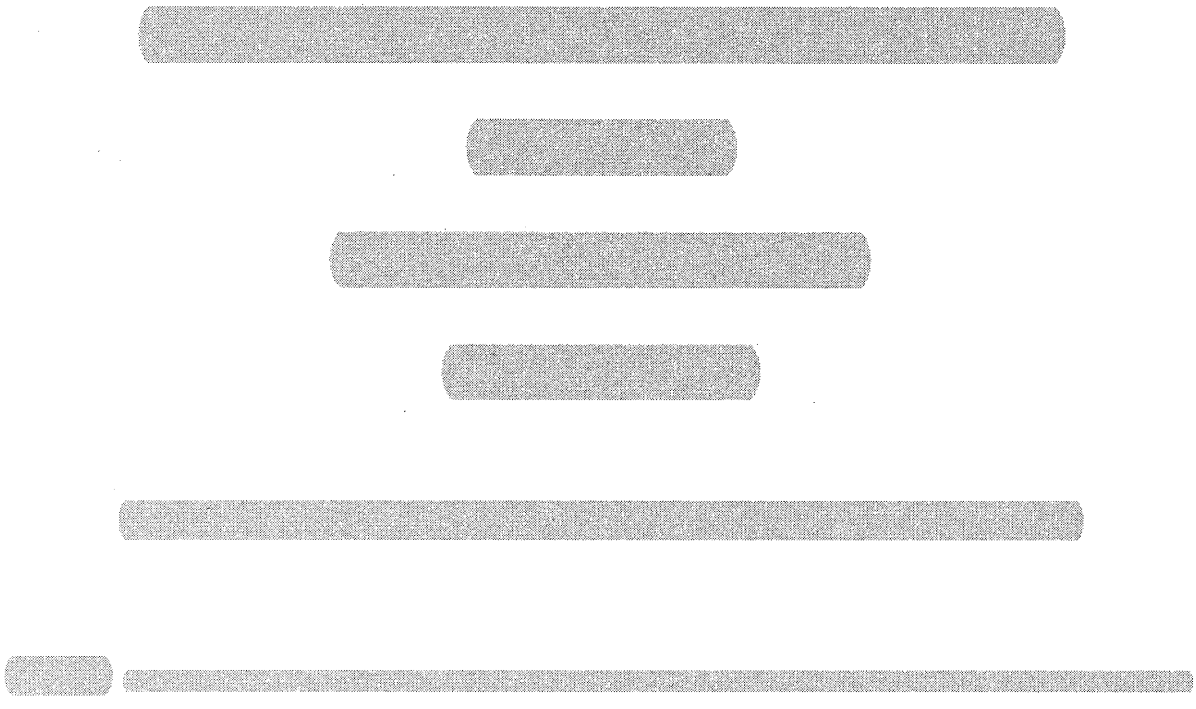

---NOTE---

The following surveillance requirement applies to LCO 3.5.1. Failure to met this surveillance requirement requires entry into LCO 3.5.1.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR TR3.5.1.1	Verify that the time required for each LPCI and LPCS injection valve to travel from fully closed to fully open is ≤ 29 seconds.	In accordance with the Inservice Testing Program
SR TR3.5.1.2	Perform an extrapolated pressure decay test on the air system to demonstrate system pressure will be maintained for 7 days at a value ≥ 110 psig without makeup air available.	24 months

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR TR3.5.1.3	Perform a CHANNEL FUNCTIONAL TEST of the discharge line "keep filled" pressure alarm instrumentation.	366 days
SR TR3.5.1.4	Deleted	
SR TR3.5.1.5	Perform a CHANNEL FUNCTIONAL TEST of the accumulator low pressure alarm channels.	366 days
SR TR3.5.1.6	Perform a CHANNEL CALIBRATION of the discharge line high pressure alarm instrumentation. Verify the high pressure setpoints; a. LPCS system to be $\leq$ 575 psig, and b. LPCI subsystems to be $\leq$ 475 psig.	24 months
SR TR3.5.1.7	Deleted	
SR TR3.5.1.8	Perform a CHANNEL CALIBRATION of the accumulator low pressure alarm channels. Verify an alarm setpoint of $\geq$ 150 psig on decreasing pressure.	24 months
SR TR3.5.1.9	Perform a CHANNEL CALIBRATION of "keep filled" low pressure alarm instrumentation. Verify the low pressure setpoint; a. LPCI A and B subsystem to be $\geq$ 38 psig, b. LPCI C subsystem and LPCS system to be $\geq$ 22 psig, and c. HPCS system to be $\geq$ 18 psig.	24 months

TRM

TR3.5.2 - SUPPRESSION POOL LEVEL ALARM INSTRUMENTATION - SHUTDOWN

LCO TR3.5.2 - Two suppression pool low water level alarm channels shall be OPERABLE with the low water level alarm ≥ 12'8".

APPLICABILITY: When ECCS systems are required OPERABLE per LCO 3.5.2.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One low level alarm inoperable.	A.1 Restore the inoperable division to OPERABLE status.	7 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Verify the suppression pool water level ≥ 12' 8" by at least one alternate indicator.	Once per 12 hours
C. Both suppression pool low water level alarms inoperable.	C.1 Verify the suppression pool water level ≥ 12' 8" by at least one alternate indicator.	Once per 12 hours

SURVEILLANCE REQUIREMENTS

----------NOTE----------
A channel may be placed in an inoperable status for up to 6 hours during periods of required surveillance provided at least one other OPERABLE channel in the same system is monitoring that parameter.

SURVEILLANCE		FREQUENCY
SR TR3.5.2.1	Perform a CHANNEL CHECK.	24 hours
SR TR3.5.2.2	Perform a CHANNEL FUNCTIONAL TEST.	92 days
SR TR3.5.2.3	Perform a CHANNEL CALIBRATION.	24 months

----------NOTE----------
The following surveillance requirements apply to LCO 3.6.1.9. Failure to meet these surveillance requirements requires entry into LCO 3.6.1.9.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR TR3.6.1.9.1	Perform a CHANNEL CHECK of the inboard and outboard pressure instrumentation.	24 hours
SR TR3.6.1.9.2	Perform a CHANNEL FUNCTIONAL TEST of the inboard and outboard pressure instrumentation.	366 days
SR TR3.6.1.9.3	DELETED	Not Applicable
SR TR3.6.1.9.4	DELETED	Not Applicable
SR TR3.6.1.9.5	----------NOTE---------- Not required to be performed in MODES 1, 2 or 3. ---------- Cycle each motor operated valve through at least one complete cycle of full travel.	92 days
SR TR3.6.1.9.6	----------NOTE---------- The following test is not performed with the MSIV LCS subsystems lined up to the main steam lines and is normally performed as part of SR 3.6.1.9.3. ---------- Verify that each blower develops, at the rated capacity, ≥15" H_2O vacuum at ≥200 scfm on the outboard subsystem.	24 months
SR TR3.6.1.9.7	Perform a CHANNEL CALIBRATION of the inboard and outboard pressure instrumentation.	24 months

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.6.2.1.1	Perform a CHANNEL CHECK.	24 hours
SR TR3.6.2.1.2	Perform a CHANNEL FUNCTIONAL TEST.	366 days
SR TR3.6.2.1.3	Perform a CHANNEL CALIBRATION.	24 months

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.6.2.2.1	Perform a CHANNEL CHECK.	24 hours
SR TR3.6.2.2.2	Perform a CHANNEL FUNCTIONAL TEST.	366 days
SR TR3.6.2.2.3	Perform a CHANNEL CALIBRATION.	24 months

TR3.6.3.2 Primary Containment Hydrogen Recombiner

LCO TR3.6.3.2 One Primary Containment Hydrogen Recombiner shall be OPERABLE.

APPLICABILITY: When both divisions of hydrogen igniters are inoperable, requiring entry to TS 3.6.3.2 Condition B

----------NOTE----------
Refer to Technical Specification B 3.6.3.2 Actions B.1 and B.2 regarding recombiner function.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. With no hydrogen recombiner OPERABLE.	A.1 Enter TS 3.6.3.2 Condition C.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.6.3.2.1	Perform a FUNCTIONAL TEST for the hydrogen recombiner.	24 months
SR TR3.6.3.2.2	Visually examine the Primary Containment Hydrogen Recombiner enclosure and verify there is no evidence of abnormal conditions.	24 months
SR TR3.6.3.2.3	Perform a resistance to ground test for each heater phase.	24 months
SR TR3.6.3.2.4	Perform a CHANNEL CALIBRATION on control room recombiner indication instrumentation and control circuits.	24 months

---NOTE---

The following surveillance requirement applies to LCO 3.6.5.2. Failure to met this surveillance requirement requires entry into LCO 3.6.5.2.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR TR3.6.5.2.1	Deleted	NA
SR TR3.6.5.2.2	Verify drywell air lock seal flask pressure is $\geq$ 90 psig.	7 days
SR TR3.6.5.2.3	Verify from an initial presure of 90 psig, the drywell air lock seal pneumatic system pressure does not decay at a rate equivalent to > 30 psig for a period of 24 hours.	24 months
SR TR3.6.5.2.4	Deleted	NA

TRM

TR3.6 CONTAINMENT SYSTEMS

TR3.6.5.2 Drywell Air Lock Instrumentation

LCO TR3.6.5.2 Two drywell airlock inflatable seal system seal pressure instrumentation channels per airlock door shall be OPERABLE.

APPLICABILITY: When associated air lock is OPERABLE per LCO 3.6.5.2.

ACTIONS

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

1. Separate Condition entry is allowed for each airlock door.

2. LCO 3.0.3 is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One drywell airlock inflatable seal system pressure instrumentation channel inoperable.	A.1 Restore required channel to OPERABLE status.	7 days
B. Required Action and associated Completion Time of Condition A not met.	B.1 Verify the associated inflatable seal pressure to be ≥ 60 psig.	Once per 12 Hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.6.5.2.5	Perform a CHANNEL FUNCTIONAL TEST.	24 months
SR TR3.6.5.2.6	Perform a CHANNEL CALIBRATION with a low pressure setpoint of ≥ 60 psig.	24 months

D. Required Action and associated Completion Time of Condition A or C not met. OR One or two required SSW subsystem inoperable. OR UHS basin inoperable for reasons other than Condition C.	D.1 Enter the Conditions and Required Actions for associated component or subsystem made inoperable, as applicable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.7.1.1	Verify the water level of each required UHS basin is ≥ 7.25 ft.	24 hours
SR TR3.7.1.2	Operate each SSW cooling tower fan for ≥ 15 minutes.	31 days
SR TR3.7.1.3	Verify each required SSW subsystem manual, power operated, and automatic valve in the flow path servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR TR3.7.1.4	Verify each SSW subsystem actuates on an actual or simulated initiation signal.	24 months
SR TR3.7.1.5	----------NOTE---------- An OPERABLE basin shall have a 30 day supply of water either self-contained or by means of an OPERABLE siphon. ---------- Verify the operability of the SSW siphon line	24 months

TR3.7 PLANT SYSTEMS

TR3.7.2 High Pressure Core Spray (HPCS) Service Water System (SWS) - Shutdown

LCO TR3.7.2 The HPCS SWS shall be OPERABLE. The system is considered OPERABLE when:

a. The HPCS service water pump is operable, and

b. The associated piping, valves, instrumentation, and controls required to perform required support functions are OPERABLE.

APPLICABILITY: MODES 4 and 5, when the HPCS system is required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. HPCS SWS inoperable.	A.1 Declare the HPCS System inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.7.2.1	Verify each required HPCS SWS manual, power operated, and automatic valve in the flow path servicing safety related systems or components, that is not locked, sealed, or otherwise secured in position, is in the correct position.	31 days
SR TR3.7.2.2	Verify, during shutdown, the HPCS SWS actuates on an actual or simulated initiation signal.	24 months

---NOTE---

The following surveillance requirements apply to LCO 3.8.1. Failure to meet these surveillance requirements requires entry into LCO 3.8.1.

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR TR3.8.1.1	Verify the diesel generator is aligned to provide standby power to the associated emergency busses.	31 days
SR TR3.8.1.2	---NOTE--- Inspections that require a retest that cannot be performed on-line, shall not be performed in MODE 1, or 2. --- Subject the diesels to an inspection, commensurate for nuclear standby service, that takes into consideration the following factors: the manufacturer's recommendations, diesel owners group recommendations, engine run time, calendar time, and the GGNS comprehensive maintenance inspection program.	Inspection frequencies for the various inspections are identified in the approved maintenance program.
SR TR3.8.1.3	---NOTE--- This Surveillance shall not be performed in MODE 1 or 2. "(Not applicable to DG 13)" --- Verify that the auto-connected loads to each diesel generator do not exceed 5740 kW for diesel generators 11 and 12 and 3300 kW for diesel generator 13.	24 months

(continued)

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR TR3.8.1.4	----------NOTES---------- 1. This Surveillance shall not be performed in MODE 1, 2 or 3. 2. All DG starts may be preceded by an engine prelube period. ---------- Verify, when started simultaneously from standby condition, each DG achieves: a. in ≤ 10 seconds, voltage ≥ 3744 V and frequency ≥ 58.8 Hz; and b. steady state voltage ≥ 3744 V and ≤ 4576 V and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	After any modifications which could affect DG interdependence
SR TR3.8.1.5	Perform a pressure test of those portions of the diesel fuel oil system designed to Section III, subsection ND of the ASME Code in accordance with ASME Code Section XI, Article IWD-5000.	10 years
SR TR3.8.1.6	Verify each DG automatic critical protective functions trip the DG (Reference: GNRO-2005/00056, GNRI-2006/00006). The critical protective functions are Engine Overspeed and Generator Differential Current (Reference: UFSAR 8.3.1.1.4.1.f(2) and 8.3.1.2.1.b.5.(g)).	24 months

TR3.9 REFUELING OPERATIONS

TR3.9.5 Control Rod Scram Accumulator Alarms

LCO TR3.9.5 Each control rod scram accumulator alarm shall be OPERABLE.

APPLICABILITY: When associated control rod scram accumulator is OPERABLE per LCO 3.9.5.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each control rod scram accumulator alarm.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more accumulator pressure detectors or alarms inoperable.	A.1 Verify the affected accumulator pressure ≥ 1520 psig.	Once per 24 hours
B. One or more accumulator leak detectors or alarms inoperable.	B.1 Verify the affected accumulator water drained.	Once per 48 hours AND Within 24 hours prior to reactor startup.
C. Required Action and associated Completion Time not met.	C.1 Declare the associated accumulator inoperable.	Immediately

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR TR3.9.5.1	Perform a CHANNEL FUNCTIONAL TEST on the leak detector and associated alarm for each control rod scram accumulator.	24 months

SURVEILLANCE		FREQUENCY
SR TR3.9.5.2	Perform a CHANNEL CALIBRATION of the pressure detector for each control rod scram accumulator and verify an alarm setpoint ≥ 1520 psig on decreasing pressure.	24 months

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 6.3.2.1	Perform a CHANNEL CHECK on required triaxial strong motion accelerometers, triaxial seismic switches, vertical seismic trigger and horizontal seismic trigger.	92 days
SR 6.3.2.2	Perform a CHANNEL FUNCTIONAL TEST on required triaxial strong motion accelerometers, triaxial seismic switches, vertical seismic trigger and horizontal seismic trigger.	6 months
SR 6.3.2.3	Perform a CHANNEL CALIBRATION on all required seismic monitoring instruments.	24 months
SR 6.3.2.4	----------NOTE---------- Not required to be performed until intrument is actuated by a seismic event ≥ 0.01 g. ----------	
	Restore to operable.	24 hours
	AND	
	Perform a CHANNEL CALIBRATION.	5 days
	AND	
	Initiate action to prepare and submitt a Special Report to the Commission within 10 days describing the magnitude, frequency spectrum and resultant effect upon unit features important to safety.	Immediately

SURVEILLANCE REQUIREMENTS

----------NOTE----------
When a channel 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 2 hours, provided that the trip Function capability is maintained.

	SURVEILLANCE	FREQUENCY
SR 6.3.7.1	Perform a CHANNEL CHECK.	12 hours
SR 6.3.7.2	Perform a CHANNEL FUNCTIONAL TEST.	366 days
SR 6.3.7.3	Perform a CHANNEL CALIBRATION. The Allowable Value shall be $\leq$ 56.7 inches and $\geq$ 55.3 inches. The Trip Setpoint shall be 56.0 inches, nominal. The Trip Output Relay Time Delay shall be $\leq$ 1.1 seconds and $\geq$ 0.90 seconds with a nominal setting of 1.0 second.	24 months
SR 6.3.7.4	Perform a LOGIC SYSTEM FUNCTIONAL TEST and simulated automatic operation of all channels.	24 months

SURVEILLANCE REQUIREMENTS

----------NOTE----------
The provisions of SR 3.0.4 are not applicable.

	SURVEILLANCE	FREQUENCY
SR 6.3.8.1	Cycle each of the following valves through at least one complete cycle from the running position using the manual test or Automatic Turbine Tester (ATT): 1) Four high pressure turbine stop valves, 2) Four high pressure turbine control valves, 3) Six low pressure turbine stop valves, and 4) Six low pressure turbine control valves.	92 days EC 48550 approves a one time extension of surveillance 6.3.8.1. The extension is for 131 days from 10/1/13. The testing frequency will return to the 92 day interval following this one time extension.
SR 6.3.8.2	Test the two mechanical overspeed devices using the Automatic Turbine Tester or manual test.	8 weeks
SR 6.3.8.3	Disassemble at least one of each type of the following valves and performing a visual and surface inspection of valve seats, disks and stems and verifying no unacceptable flaws. If unacceptable flaws are found, all other valves of that type shall be inspected. 1) Four high pressure turbine stop valves, 2) Four high pressure turbine control valves, 3) Six low pressure turbine stop valves, and 4) Six low pressure turbine control valves.	48 months

SURVEILLANCE REQUIREMENTS

----------NOTE----------
Refer to Table 6.3.11-1 to determine which SRs apply to each channel.

	SURVEILLANCE	FREQUENCY
SR 6.3.11.1	Perform CHANNEL CHECK.	31 days
SR 6.3.11.2	Perform a CHANNEL FUNCTIONAL TEST.	92 days
SR 6.3.11.3	Perform a CHANNEL CALIBRATION.	12 months
SR 6.3.11.4	----------NOTE---------- The allowable value for calibration of Function 7, safety/relief valve tail pipe pressure switch position indication, will be 30 ± 5 psig. --- Perform a CHANNEL CALIBRATION	24 months
SR 6.3.11.5	Perform a CHANNEL CALIBRATION	92 days

6.7. PLANT SYSTEMS

6.7.5 FLOOD PROTECTION

LCO 6.7.5 The downstream access road slope at Culvert No. 1 and the drainage basin slopes shall remain stable. Blockage of Culvert No. 1 shall be ≤ 45% of its cross-sectional area. Blockage of Culverts No. 8A, 9A, and 11 shall be less than or equal to 45% of its cross-sectional area.

APPLICABILITY: At all times.

ACTIONS

----------NOTES----------
LCO 3.0.3 and LCO 3.0.4 are not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more of the above requirements not met.	A.1 Clean the Culvert. AND A.2 Verify the slope embankments stable.	7 days 7 days
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

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 6.7.5.1	Perform a visual inspection of the embankments and Culvert No. 1 to verify within above limits. Perform a visual inspection of Culverts 8A, 9A, and 11 to verify within above limits.	1 year AND Following the occurrence of earthquakes, hurricanes, tornados, or intense local rainfalls.
SR 6.7.5.2	Perform a survey to confirm no significant degradation to the base-line slope stability data. On Culvert 1.	5 years AND Following a visual inspection in which there is evidence of change.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 6.8.1.1	----------NOTE---------- For each circuit breaker found inoperable during the performance of SR 6.8.1.1b, an additional representative sample of at least 15% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested. ---------- Select, on a rotating basis, a sample of at least 15% of the 6.9 kV circuit breakers and perform: a. A CHANNEL CALIBRATION of the associated protective relays. AND b. An integrated system functional test which includes simulated automatic actuation of the system and verifying that each relay and associated circuit breakers and overcurrent control circuits function as designed and as specified in Table 6.8.1-1.	24 months
SR 6.8.1.2	----------NOTE---------- For each circuit breaker found inoperable during these functional tests, an additional representative sample of at least 15% of all the circuit breakers of the inoperable type shall also be functionally tested until no more failures are found or all circuit breakers of that type have been functionally tested. ---------- Functionally test on a rotating basis, a representative sample of at least 15% of each type of lower voltage circuit breakers. Testing of these circuit breakers shall consist of injecting a current in excess of 120% of each breaker's nominal setpoint and measuring the response time. The measured response time will be compared to the manufacturer's data to insure that it is less than or equal to a value specified by the manufacturer. Circuit breakers found inoperable during functional testing shall be restored to OPERABLE status prior to resuming operation of the affected equipment.	24 months

(continued

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 6.8.2.1	----------NOTE---------- Only applicable to thermal overload protection which is continuously bypassed and temporarily placed in force only when the valve motor is undergoing periodic or maintenance testing. ---------- Verify that the thermal overload protection is bypassed.	Following periodic or maintenance testing during which the thermal overload protection was temporarily placed in force.
SR 6.8.2.2	----------NOTE---------- Only applicable to thermal overload protection which is not bypassed ---------- Perform a CHANNEL CALIBRATION on a representative sample of at least 33.3% of all thermal overloads for the above required valves.	48 months
SR 6.8.2.3	----------NOTE---------- Only applicable to thermal overload protection which is continuously bypassed and temporarily placed in force only when the valve motor is undergoing periodic or maintenance testing. ---------- Verifying by performance of a functional check that the thermal overload protection is bypassed.	Following maintenance on the motor starter. (Work requiring the lifting of MOV control circuit wires at the Motor Control Center)
SR 6.8.2.4	----------NOTE---------- Only applicable to thermal overload protection which is normally in force during plant operation and bypassed under accident conditions. ---------- Perform a CHANNEL FUNCTIONAL TEST of the individual valve portion of the bypass circuitry.	24 months AND Following maintenance on the motor starter. (Work requiring the lifting of MOV control circuit wires at the Motor Control Center)
SR 6.8.2.5	----------NOTE---------- Only applicable to thermal overload protection which is normally in force during plant operation and bypassed under accident conditions. ---------- Perform a CHANNEL FUNCTIONAL TEST of the ECCS portion of the bypass circuitry.	18 months AND Following maintenance on the motor starter. (Working requiring the lifting of MOV control circuit wires at the Motor Control Center)

7.0 ADMINISTRATIVE CONTROLS

7.1 Deleted

7.2 ORGANIZATION

7.2.1 The following are the plant specific titles for the personnel fulfilling responsibilities of positions delineated in Technical Specifications:

a. The corporate executive responsible for overall plant nuclear safety is the Vice President, Operations.

b. The Plant manager is the General Manager, Plant Operations.

c. The shift superintendent is the Shift Manager (SM).

d. A non-licensed operator is a Nuclear Operator B.

e. The operations manager is the Manager, Operations.

f. The operations middle managers are the Assistant Operations Manager, Shift and Assistant Operations Manager, Support.

g. The radiation protection manager is the Manager, Radiation Protection.

h. A health physics technician is an individual certified as a Senior Health Physicist.

i. Health Physics supervision is Radiation Protection personnel, Specialist and above.

7.2.2 As required by 10 CFR 50.54 and Technical Specifications 5.2.2.a and 5.2.2.g except as allowed by Technical Specification 5.2.2.c, each on duty shift shall be composed of at least minimum shift crew composition shown in Table 7.2.2-1. Licensed Personnel shall meet or exceed the criteria of the accredited license training program.

7.2.3 As required by 10 CFR 50.54, all CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.

7.2.4 The Shift Managers, and Control Room Supervisors, shall each hold a Senior Reactor Operators License.

7.2.5 Not Used

7.2.6 INDEPENDENT SAFETY ENGINEERING GROUP (ISEG)

Deleted

g. The following are clarifications of the required testing frequency and other requirements:

1. Deleted

2. At least once per 18 months, during plant or system shutdown, demonstrate the SBLC pump relief valve opens within 3% of the system design pressure and verify that the SBLC relief valve does not actuate during recirculation to the test tank.

7.6.3.4 FILTER TESTING PROGRAM

In addition to the requirements of Technical Specification 5.5.7 the following requirements apply to the filter testing program:

a. The testing requirements of Technical Specification 5.5.7.a will be performed at least once per 24 months or (1) after any structural maintenance on the HEPA filter (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem, or (3) after each complete or partial replacement of a HEPA filter bank.

b. The testing requirements of Technical Specification 5.5.7.b will be performed at least once per 24 months or (1) after any structural maintenance on the charcoal adsorber housings, (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem, or (3) following each complete or partial replacement of a charcoal adsorber bank.

c. The testing requirements of Technical Specification 5.5.7.c will be performed at least once per 24 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem, or (3) every 720 hours of charcoal adsorber operation. The representative carbon sample will be tested within 31 days following removal.

d. The testing requirements of Technical Specification 5.5.7.d will be performed at least once per 24 months.

e. The testing requirements of Technical Specification 5.5.7.e will be performed at least once per 18 months.

b. a determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.

Shall become effective upon review and acceptance by the OSRC and the approval of the General Manager, Plant Operations.

7.6.3.9 OFFSITE DOSE CALCULATION MANUAL (ODCM)

Licensee initiated changes to the ODCM shall become effective upon review and acceptance by the OSRC.

7.6.3.10 SNUBBER PROGRAM

7.6.3.10.1 Snubber testing and visual examinations will be performed in accordance with the ASME OM Code Subsection ISTD and applicable addenda as required. Code Case OMN-13 may be used to extend the visual examination interval allowed by Table ISTD-4252-1 provided additional service life monitoring requirements are met.

7.6.3.10.2 Deleted

7.6.3.10.3 Deleted

7.6.3.11 INSTRUMENT SETPOINTS AS-FOUND AND AS-LEFT TOLERANCES

Entergy Nuclear Management Manual (NMM) Procedure EN-DC-200, "I&C Uncertainties / Setpoint Calculations & Determinations," establishes direction for the performance of instrument uncertainty / setpoint calculations including determining the as-found tolerance (AFT) and as-left tolerance (ALT). NMM Procedure EN-IC-S-010-MULTI, "Instrument Uncertainty and Setpoint Calculation Methodology," provides examples using a standard methodology for determination of instrument uncertainties, loop uncertainties, instrument setpoints and instrument setpoint attributes (As-Left Tolerance, As-Found Tolerance, Allowable Value, etc.).

GGNS TRM BASES

BASES FOR RELOCATED TECHNICAL SPECIFICATION REQUIREMENTS (TRM)

This Section contains bases discussions for the Technical Requirements Manual.

B 6.3.1 RADIATION MONITORING INSTRUMENTATION

The OPERABILITY of the radiation monitoring instrumentation ensures that:

1. the radiation levels are continually measured in the areas served by the individual channels;
2. the alarm or automatic action is initiated when the radiation level trip setpoint is exceeded; and
3. sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with General Electric Report GENE-770-06-1, "Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," February 1991.

B 6.3.2 SEISMIC MONITORING INSTRUMENTATION

The OPERABILITY of the seismic monitoring instrumentation ensures that sufficient capability is available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. This capability is required to permit comparison of the measured response to that used in the design basis for the unit.

B 6.3.3 METEOROLOGICAL MONITORING INSTRUMENTATION

The OPERABILITY of the meteorological monitoring instrumentation ensures that sufficient meteorological data are available for estimating potential radiation doses to the public as a result of routine or accidental release of radioactive materials to the atmosphere. This capability is required to evaluate the need for initiating protective measures to protect the health and safety of the public. This instrumentation is consistent with the recommendations of Regulatory Guide 1.23 "Onsite Meteorological Programs," February 1972.

B 6.3.4 TRAVERSING IN-CORE PROBE SYSTEM

The OPERABILITY of the traversing in-core probe system with the specified minimum complement of equipment ensures that the measurements obtained from use of this equipment accurately represent the spatial neutron flux distribution of the reactor core.

The TIP system OPERABILITY is demonstrated by normalizing all operable probes (i.e., detectors) prior to performing an LPRM calibration function. The core monitoring system can also calculate LPRM gain adjustment factors for LPRM strings not scanned by the TIP system (one TIP machine out of service or up to the number of strings equivalent to one TIP machine out of service).

B 6.3.5 LOOSE PART DETECTION SYSTEM - Deleted

B 6.3.6 MAIN CONDENSER OFFGAS TREATMENT SYSTEM - EXPLOSIVE GAS MONITORING SYSTEM INSTRUMENTATION

The explosive gas monitoring system instrumentation of the main condenser off gas treatment system is provided to monitor the concentrations of potentially explosive gas mixtures in the main condenser off gas treatment system. This instrumentation is calibrated in accordance with plant procedures.

B 6.3.8 TURBINE OVERSPEED PROTECTION

This specification is provided to ensure that the turbine overspeed protection instrumentation and the turbine speed control valves are OPERABLE and will protect the turbine from excessive overspeed. Protection from turbine excessive overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety-related components, equipment or structures. For any valves which become INOPERABLE UFSAR section 3.5.1.3 shall be reviewed for affect on the probability analysis to ensure risk is appropriately addressed.

B 6.3.12 Ultrasonic Flowmeter - Deleted

B 6.3.12 Deleted

B 6.4.1 CHEMISTRY

The water chemistry limits of the reactor coolant system are established to prevent damage to the reactor materials in contact with the coolant. Chloride limits are specified to prevent stress corrosion cracking of the stainless steel. The effect of chloride is not as great when the oxygen concentration in the coolant is low, thus the 0.2 ppm limit on chlorides is permitted during power operation. During shutdown and refueling operations, the temperature necessary for stress corrosion to occur is not present so a 0.5 ppm concentration of chlorides is not considered harmful during these periods.

Conductivity measurements are required on a continuous basis since changes in this parameter are an indication of abnormal conditions. When the conductivity is within limits, the pH, chlorides and other impurities affecting conductivity must also be within their acceptable limits. With the conductivity meter inoperable, additional samples must be analyzed to ensure that the chlorides are not exceeding the limits.

The surveillance requirements provide adequate assurance that concentrations in excess of the limits will be detected in sufficient time to take corrective action.

B 6.7.2 SEALED SOURCE CONTAMINATION

The limitation on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values. Sealed sources are classified into three groups according to their use, with surveillance requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism, i.e., sealed sources within radiation monitoring or boron measuring devices, are considered to be stored and need not be tested unless they are removed from the shielded mechanism.

B 6.7.3 AREA TEMPERATURE MONITORING

The area temperature limitations ensure that safety-related equipment will not be subjected to temperatures in excess of their environmental qualification temperatures. Exposure to excessive temperatures may degrade equipment and can cause loss of its OPERABILITY. The temperature limits include allowance for instrument error.

B 6.7.4 SPENT FUEL STORAGE POOL TEMPERATURE

The temperature limit in the spent fuel storage pool ensures proper pool cooling to maintain building accessibility and prevents unacceptable radiological releases particularly during those times of increased fuel pool cooling heat loads, such as a fuel core offload, when supplemental fuel pool cooling utilizing the RHR system is required.

B 6.7.5 FLOOD PROTECTION

The required stability of the downstream slope of the access road embankment and the limit on the maximum permissible blockage of Culvert No. 1 are intended to ensure that Culvert No. 1 is always functional, because, in the event the culvert is blocked, flooding of the plant and safety-related facilities could occur during a PMP event.

The limit on the maximum permissible blockage of Culverts No. 8A, 9A, and 11 are intended to ensure that Culverts No. 8A, 9A, and 11 are always functional, because, in the event the culverts are blocked, flooding of the plant and safety-related facilities could occur during a Localized Intense Precipitation event.

B 6.7.6 STRUCTURAL INTEGRITY

The inspection programs for ASME Code Class 1, 2, and 3 components ensure that the structural integrity of these components will be maintained at an acceptable level throughout the life of the plant.

Components of the reactor coolant system were designed to provide access to permit inservice inspections in accordance with Section XI of the ASME Boiler and Pressure Vessel Code, 1977 Edition, and Addenda through Summer 1978.

The inservice inspection program for ASME Code Class 1, 2 and 3 components will be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR Part 50.55a(g) except where specific written relief has been granted by the NRC pursuant to 10 CFR Part 50.55a(g)(6)(i).

B 6.8.1 PRIMARY CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTIVE DEVICES

Primary containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance.

The surveillance requirements applicable to lower voltage circuit breakers provide assurance of breaker reliability by testing at least one representative sample of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The OPERABILITY or bypassing of the motor operated valve thermal overload protection continuously or under accident conditions by integral bypass devices ensures that the thermal overload protection during accident conditions will not prevent safety-related valves from performing their function. The surveillance requirements for demonstrating the OPERABILITY or bypassing of the thermal overload protection continuously and or during accident conditions are in accordance with Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.

B 6.8.2 MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

The OPERABILITY or bypassing of the motor operated valve thermal overload protection continuously or under accident conditions by integral bypass devices ensures that the thermal overload protection during accident conditions will not prevent safety-related valves from performing their function. The surveillance requirements for demonstrating the OPERABILITY or bypassing of the thermal overload protection continuously and or during accident conditions are in accordance with Regulatory Guide 1.106, "Thermal Overload Protection for Electric Motors on Motor Operated Valves," Revision 1, March 1977.

B 6.9.1 DECAY TIME

The minimum requirement for reactor subcriticality prior to fuel movement ensures that sufficient time has elapsed to allow the radioactive decay of the short lived fission products. This decay time is consistent with the assumptions used in the accident analyses.

B 6.9.2 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity condition during movement of fuel within the reactor pressure vessel.

B 6.9.3 REFUELING PLATFORM

The OPERABILITY requirements in conjunction with 6.9.4 and 6.9.5 ensure that:

1. only the main hoist of the refueling platform or the main hoist of the fuel handling platform will be used for handling fuel assemblies within the reactor pressure vessel,
2. platform hoists have sufficient load capacity for handling fuel assemblies and/or control rods,
3. the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations, and
4. a fuel bundle is protected from excessive lifting force in the event it becomes stuck during lifting operations.

B 6.9.4 AUXILIARY PLATFORM

See the discussion for 6.9.3.

B 6.9.5 FUEL HANDLING PLATFORM

See the discussion for 6.9.3.

B 6.9.6 CRANE TRAVEL - SPENT FUEL AND UPPER CONTAINMENT FUEL STORAGE POOLS

The restriction on the movement of a non-fuel load defined as a heavy load in NUREG-0612 over fuel assemblies in the storage pools ensures that in the event this load is dropped:

1. the activity release will be bounded by the activity release in the safety analysis, and
2. any possible distortion of fuel in the storage racks will not result in a critical array.

B 6.9.7 HORIZONTAL FUEL TRANSFER SYSTEM

The purpose of the horizontal fuel transfer system specification is to control personnel access to those potentially high radiation areas immediately adjacent to the system and to assure safe operation of the system.

B 7.6.3.3 INSERVICE INSPECTION AND TESTING PROGRAMS

This specification establishes the requirement that inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. These requirements apply except when relief has been provided in writing by the Commission.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda. This clarification is provided to ensure consistency in surveillance intervals throughout the technical specifications and to remove any ambiguities relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the technical specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable addenda. The requirements of the technical specifications to perform surveillance activities before entry into a MODE or other specified condition takes precedence over the ASME Boiler and Pressure Vessel Code provision that allows pumps to be tested up to one week after return to normal operation. The technical specification definition of OPERABLE does not allow a grace period before a component, which is not capable of performing its specified function, is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision that allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.

B 7.6.3.10 SNUBBERS

The snubber testing and visual inspection program will be performed in accordance with ASME OM Code Subsection ISTD and applicable addenda as required by 10 CFR 50.55a.