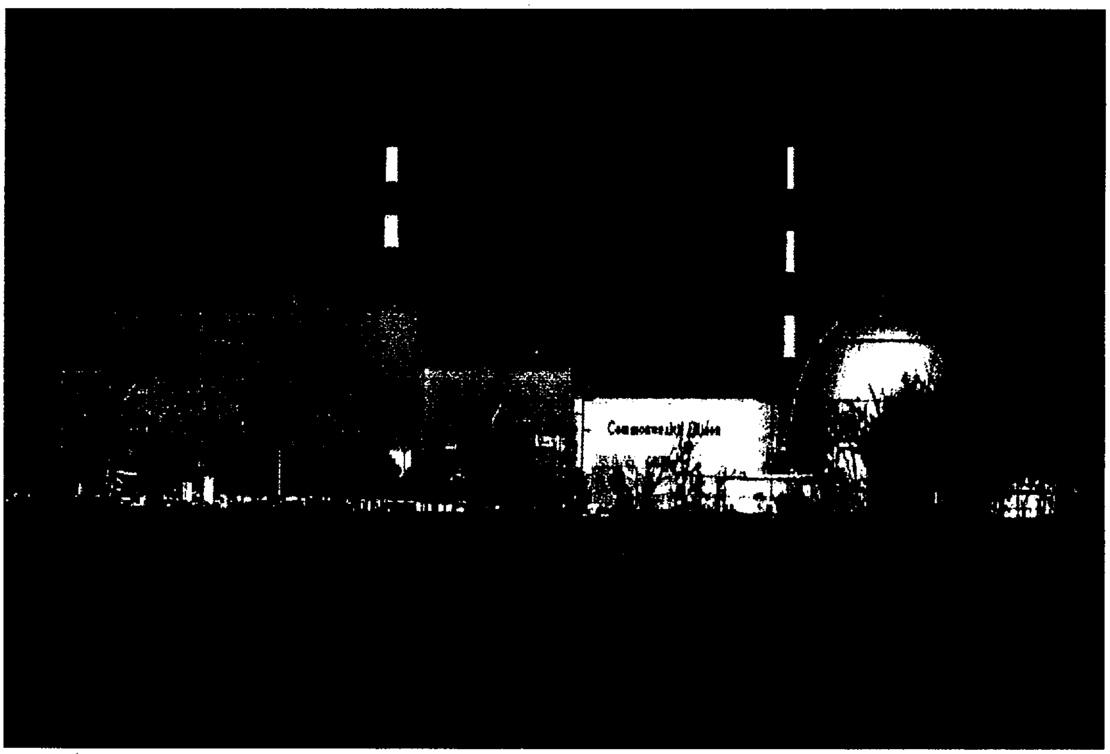
Improved Technical Specifications



Dresden Station

Volume 12:
CTS Markup in CTS order

ComEd

1.1 1.0 DEFINITIONS

Note to Definitions

The following terms are defined so that uniform interpretation of these specifications may be achieved. The defined terms of this Section appear in capitalized type and shall be are applicable throughout these Technical Specifications and Bases.

A.1

ACTIONS

ACTIONS shall be that part of a Specification which that prescribes remedial measures Actions to be taken required under designated conditions within specified Completion Times.

AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)

The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) shall be applicable to a specific planar height and is equal to the sum of the LINEAR HEAT GENERATION RATEs LHGRs for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle at the height.

A.2

CHANNEL

A CHANNEL shall be an arrangement of a sensor and associated components used to evaluate plant variables and generate a single protective action signal. A CHANNEL terminates and loses its identity where single action signals are combined in a TRIP SYSTEM or logic system.

A.1

CHANNEL CALIBRATION

A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the CHANNEL output such that it responds within the necessary range and accuracy to known values of the parameter which that the CHANNEL monitors. The CHANNEL CALIBRATION shall encompass the entire CHANNEL including the required sensor and alarm and/or display, A.3 and trip functions, and shall include the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total CHANNEL steps such so that the entire CHANNEL is calibrated.

A.4 INSERT 1

CHANNEL CHECK

A CHANNEL CHECK shall be the qualitative assessment, by observation, of CHANNEL behavior during operation by observation. This determination shall include, where possible, comparison of the CHANNEL indication and/or status with to other indications and/or status derived from independent instrument CHANNELs measuring the same parameter.

A.1

ITS Chapter 1.0

1.1 1.0 DEFINITIONS

CHANNEL FUNCTIONAL TEST

A CHANNEL FUNCTIONAL TEST shall be:

A.1

a. Analog CHANNEL(s) - the injection of a simulated or actual signal into the CHANNEL as close to the sensor as practicable to verify OPERABILITY including required alarm, interlock, display, and/or trip functions and CHANNEL failure trips. A.1 A.3

b. Bistable CHANNEL(s) - the injection of a simulated signal into the sensor to verify OPERABILITY including required alarm and/or trip functions. A.3 L.1

The CHANNEL FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total CHANNEL steps such so that the entire CHANNEL is tested. A.1

CORE ALTERATION

CORE ALTERATION shall be the movement of any fuel, sources, or reactivity control components, within the reactor vessel with the vessel head removed and fuel in the vessel. The following exceptions are not considered to be CORE ALTERATIONS:

a. Movement of source range monitors, local power range monitors, intermediate range monitors, traversing incore probes, or special movable detectors (including undervessel replacement); and

b. Control rod movement, provided there are no fuel assemblies in the associated control core cell. A.1

Suspension of CORE ALTERATIONS shall not preclude completion of movement of a component to a safe position.

CORE OPERATING LIMITS REPORT (COLR)

The CORE OPERATING LIMITS REPORT (COLR) shall be is the unit specific document that provides core operating cycle specific parameter limits for the current operating reload cycle. These cycle specific core operating limits shall be determined for each operating reload cycle in accordance with Specification 6.9 5.6.5. Plant operation within these operating limits is addressed in individual Specifications. A.1

CRITICAL POWER RATIO (CPR)

The CRITICAL POWER RATIO (CPR) shall be the ratio of is that power in the assembly which that is calculated by application of the applicable NRC approved critical power appropriate correlation(s) to cause some point in the assembly to experience transition boiling, divided by the actual assembly operating power. A.5 Insert into MCPR definition on page 1-4.

DOSE EQUIVALENT I-131

DOSE EQUIVALENT I-131 shall be that concentration of I-131 (microcuries/gram) which that alone would produce the same thyroid dose as the quantity and isotopic mixture of I-131, I-132, I-133, I-134, and I-135 actually present. The thyroid dose conversion factors used for this calculation shall be those listed in Table III of TID-14844, AEC, 1962, "Calculation of Distance Factors For Power and Test Reactor Sites." add the two additional thyroid dose conversion factor methods L.2

A.1

1.1 **1.0 DEFINITIONS**

FRACTION OF RATED THERMAL POWER (FRTP)
The FRACTION OF RATED THERMAL POWER (FRTP) shall be the measured THERMAL POWER divided by the RATED THERMAL POWER. LA.1

FREQUENCY NOTATION
The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1-1. A.6

FUEL DESIGN LIMITING RATIO (FDLRX)
The FUEL DESIGN LIMITING RATIO (FDLRX) shall be the limit used to assure that the fuel operates within the end-of-life steady-state design criteria by, among other items, limiting the release of fission gas to the cladding plenum. A.2

1.2 times the LHGR existing at a given location divided by the product of the transient LHGR and the fraction of RTP.

FUEL DESIGN LIMITING RATIO for CENTERLINE MELT (FDLRC)
The FUEL DESIGN LIMITING RATIO for CENTERLINE MELT (FDLRC) shall be the limit used to assure that the fuel will neither experience centerline melt nor exceed 1% plastic cladding strain for transient overpower events beginning at any power and terminating at 120% of RATED THERMAL POWER. A.1

A.7 a. Identified LEAKAGE

IDENTIFIED LEAKAGE
IDENTIFIED LEAKAGE shall be: 1) leakage into primary containment/collection systems, such as pump seal or valve packing leaks, that is captured and conducted to a sump or collecting tank, or 2) leakage into the primary containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of the leakage detection systems or not to be PRESSURE BOUNDARY LEAKAGE. A.8 the drywell / drywell / that from / A.1 / A.7

LIMITING CONTROL ROD PATTERN (LCRP)
A LIMITING CONTROL ROD PATTERN (LCRP) shall be a pattern which results in the core being on a thermal hydraulic limit, i.e., operating on a limiting value for APLHGR, LHGR, or MCPR. A.2

LINEAR HEAT GENERATION RATE (LHGR)
The LINEAR HEAT GENERATION RATE (LHGR) shall be the heat generation rate per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length. A.1

LOGIC SYSTEM FUNCTIONAL TEST (LSFT)
A LOGIC SYSTEM FUNCTIONAL TEST (LSFT) shall be a test of all required logic components, i.e., all required relays and contacts, trip units, solid state logic elements, etc. of a logic circuit, from as close to the sensor as practicable up to, but not including the actuated device, to verify OPERABILITY. The LOGIC SYSTEM FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping or total system steps so that the entire logic system is tested. A.1

A.1

ITS Chapter 1.0

1.1 **1.0 DEFINITIONS**

MINIMUM CRITICAL POWER RATIO (MCPR)

The ~~MINIMUM CRITICAL POWER RATIO (MCPR)~~ critical power ratio (MCPR) shall be the smallest CPR ~~which~~ that exists in the core for each class of fuel. Insert definition of CPR from page 1-2 — A.5 — A.1

~~OFFSITE DOSE CALCULATION MANUAL (ODCM)~~

~~The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring Alarm/Trip Setpoints, and in the conduct of the Environmental Radiological Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Specification 6.8 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specification 6.9.~~ — A.9 moved to Specification 5.5

OPERABLE - OPERABILITY

A system, subsystem, ~~train~~ division, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling ~~or~~ and seal water, lubrication, ~~or~~ and other auxiliary equipment that are required for the system, subsystem, ~~train~~ division, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s). — A.1

~~OPERATIONAL~~ MODE

~~An OPERATIONAL MODE, i.e.,~~ MODE, shall ~~be~~ correspond to any one inclusive combination of mode switch position, ~~and~~ average reactor coolant temperature, ~~as~~ and reactor vessel head closure bolt tensioning specified in Table ~~1.2~~ 1.1-1 with fuel in the reactor vessel. — A.10

~~PHYSICS TESTS~~

~~PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and 1) described in Chapter 14 of the UFSAR, 2) authorized under the provisions of 10 CFR 50.59, or 3) otherwise approved by the Commission.~~ — A.2

(d) ~~PRESSURE BOUNDARY~~ LEAKAGE

~~PRESSURE BOUNDARY~~ LEAKAGE ~~shall be leakage~~ through a nonisolable fault in a reactor coolant system (RCS) component body, pipe wall, or vessel wall. — A.7

Page 5 of 12

1.0 DEFINITIONS

MINIMUM CRITICAL POWER RATIO (MCPR)

The MINIMUM CRITICAL POWER RATIO (MCPR) shall be the smallest CPR which exists in the core.

See ITS Chapter 1.0

5.5.1 OFFSITE DOSE CALCULATION MANUAL (ODCM)

5.5.1.a The OFFSITE DOSE CALCULATION MANUAL (ODCM) shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring Alarm/Trip Setpoints, and in the conduct of the Environmental Radiological Monitoring Program. ~~The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental~~

5.5.1.b Monitoring Programs required by Specification 6.8 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Annual Radioactive Effluent Release Reports required by Specification 6.9.

OPERABLE - OPERABILITY

A system, subsystem, train, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling or seal water, lubrication or other auxiliary equipment that are required for the system, subsystem, train, component or device to perform its specified safety function(s) are also capable of performing their related support function(s).

OPERATIONAL MODE

An OPERATIONAL MODE, i.e., MODE, shall be any one inclusive combination of mode switch position and average reactor coolant temperature as specified in Table 1-2.

PHYSICS TESTS

PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and 1) described in Chapter 14 of the UFSAR, 2) authorized under the provisions of 10 CFR 50.59, or 3) otherwise approved by the Commission.

PRESSURE BOUNDARY LEAKAGE

PRESSURE BOUNDARY LEAKAGE shall be leakage through a non-isolable fault in a reactor coolant system component body, pipe wall or vessel wall.

A.1

1.1 **1.0 DEFINITIONS**

PRIMARY CONTAINMENT INTEGRITY (PCI)

PRIMARY CONTAINMENT INTEGRITY (PCI) shall exist when: A.11

a. All primary containment penetrations required to be closed during accident conditions are either:

1) Capable of being closed by an OPERABLE primary containment automatic isolation valve system, or LA.3

2) Closed by at least one manual valve, blind flange, or deactivated automatic valve secured in its closed position, except for valves that are open under administrative control as permitted by Specification 3.7.D.

b. All primary containment equipment hatches are closed and sealed.

c. Each primary containment air lock is in compliance with the requirements of Specification 3.7.C.

d. The primary containment leakage rates are maintained within the limits of Specification 3.7.A.

e. The suppression chamber is in compliance with the requirements of Specification 3.7.K.

f. The sealing mechanism associated with each primary containment penetration; e.g., welds, bellows or O-rings, is OPERABLE. LA.3

PROCESS CONTROL PROGRAM (PCP)

The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analysis, test, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste. A.12 moved to Chapter 5.0

RATED THERMAL POWER (RTP)

~~RATED THERMAL POWER (RTP)~~ shall be a total reactor core heat transfer rate to the reactor coolant of 2527 MWT. A.1

REACTOR PROTECTION SYSTEM (RPS) RESPONSE TIME

The ~~REACTOR PROTECTION SYSTEM (RPS)~~ RESPONSE TIME shall be ~~the~~ that time interval ~~for each~~ ~~trip function~~ from the opening of the sensor contact ~~up to and including~~ until the opening of the trip actuator. A.1

The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. A.19

<See ITS Chapter 1.0>

1.0 DEFINITIONS

PRIMARY CONTAINMENT INTEGRITY (PCI)

PRIMARY CONTAINMENT INTEGRITY (PCI) shall exist when:

a. All primary containment penetrations required to be closed during accident conditions are either:

   1) Capable of being closed by an OPERABLE primary containment automatic isolation valve system, or

   2) Closed by at least one manual valve, blind flange, or deactivated automatic valve secured in its closed position, except for valves that are open under administrative control as permitted by Specification 3.7.D.

b. All primary containment equipment hatches are closed and sealed.

c. Each primary containment air lock is in compliance with the requirements of Specification 3.7.C.

d. The primary containment leakage rates are maintained within the limits of Specification 3.7.A.

e. The suppression chamber is in compliance with the requirements of Specification 3.7.K.

f. The sealing mechanism associated with each primary containment penetration; e.g., welds, bellows or O-rings, is OPERABLE.

PROCESS CONTROL PROGRAM (PCP)

The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analysis, test, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste. LA.1

RATED THERMAL POWER (RTP)

RATED THERMAL POWER (RTP) shall be a total reactor core heat transfer rate to the reactor coolant of 2527 MWT.

REACTOR PROTECTION SYSTEM (RPS) RESPONSE TIME

REACTOR PROTECTION SYSTEM (RPS) RESPONSE TIME shall be the time interval for each trip function from the opening of the sensor contact up to and including the opening of the trip actuator.

<See ITS Chapter 1.0>

A.1

1.1 1.0 DEFINITIONS

REPORTABLE EVENT
A REPORTABLE EVENT shall be any of those conditions specified in Section 50.73 to 10 CFR Part 50. A.2

SECONDARY CONTAINMENT INTEGRITY (SCI)
SECONDARY CONTAINMENT INTEGRITY (SCI) shall exist when:

a. All secondary containment penetrations required to be closed during accident conditions are either:

1) Capable of being closed by an OPERABLE secondary containment automatic isolation valve system, or

2) Closed by at least one manual valve, blind flange, or deactivated automatic damper secured in its closed position, except as permitted by Specification 3.7.O. A.11

b. All secondary containment hatches and blowout panels are closed and sealed. LA.3

c. The standby gas treatment system is in compliance with the requirements of Specification 3.7.P.

d. At least one door in each access to the secondary containment is closed.

e. The sealing mechanism associated with each secondary containment penetration; e.g., welds, bellows or O-rings, is OPERABLE. LA.3

f. The pressure within the secondary containment is less than or equal to the value required by Specification 4.7.N.1.

SHUTDOWN MARGIN (SDM)
that: Y ~~SHUTDOWN MARGIN (SDM)~~ shall be the amount of reactivity by which the reactor is subcritical or would be subcritical assuming (c) all control rods are fully inserted except for the (b) single control rod of highest reactivity worth which is assumed to be fully withdrawn ~~and the reactor is in the shutdown condition; cold, i.e.~~ 68°F; and xenon free. (a) (b) A.1

a. The reactor is b. The moderator temperature is INSERT 2 A.13

SOURCE CHECK
A SOURCE CHECK shall be the qualitative assessment of CHANNEL response when the CHANNEL sensor is exposed to a radioactive source. A.2

STEADY STATE LINEAR HEAT GENERATION RATE (SLHGR)
The STEADY STATE LINEAR HEAT GENERATION RATE (SLHGR) shall be the limit which protects against exceeding the fuel end-of-life steady state design criteria. LA.2

Add proposed definition of STAGGERED TEST BASIS A.14

A.1

1.1 **1.0 DEFINITIONS**

THERMAL POWER

THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

~~TRANSIENT LINEAR HEAT GENERATION RATE (TLHGR)~~

~~The TRANSIENT LINEAR HEAT GENERATION RATE (TLHGR) shall be the limit which protects against fuel centerline melting and 1% plastic cladding strain during transient conditions throughout the life of the fuel.~~ LA.1

~~TRIP SYSTEM~~

~~A TRIP SYSTEM shall be an arrangement of instrument CHANNEL trip signals and auxiliary equipment required to initiate action to accomplish a protective trip function. A TRIP SYSTEM may require one or more instrument CHANNEL trip signals related to one or more plant parameters in order to initiate TRIP SYSTEM action. Initiation of protective action may require the tripping of a single TRIP SYSTEM or the coincident tripping of two TRIP SYSTEMs.~~ A.2

b. ~~UNIDENTIFIED~~ LEAKAGE

A11 ~~UNIDENTIFIED~~ LEAKAGE ~~shall be all leakage in the primary containment which~~ into the drywell that is not ~~IDENTIFIED~~ LEAKAGE; A.8 A.7

Add proposed definition of TURBINE BYPASS SYSTEM RESPONSE TIME. A.14

c. Total LEAKAGE Sum of the identified and unidentified LEAKAGE; and

A.1

TABLE 1-1

SURVEILLANCE FREQUENCY NOTATION

	NOTATION	FREQUENCY
1. Shift	S	At least once per 12 hours
2. Day	D	At least once per 24 hours
3. Week	W	At least once per 7 days
4. Month	M	At least once per 31 days
5. Quarter	Q	At least once per 92 days
6. Semiannual	SA	At least once per 184 days
7. Annual	A	At least once per 366 days
8. Sesquiannual	E	At least once per 18 months (550 days)
9. Startup	S/U	Prior to each reactor startup
10. Not Applicable	NA	Not applicable

A.6

A.1

1.1-1

TABLE ~~1-2~~ — A.1

~~OPERATIONAL~~ MODES

MODE	TITLE	REACTOR MODE SWITCH POSITION[d]	AVERAGE REACTOR COOLANT TEMPERATURE (°F)
	1. POWER OPERATION	Run	~~Any temperature~~ — NA
M.1	2. STARTUP	Refuel[(a)] or Startup/Hot Standby	~~Any temperature~~ — NA
	3. HOT SHUTDOWN (a)	Shutdown[(a)]	> 212°F[(d)] — A.16
	4. COLD SHUTDOWN (a)	Shutdown[(a)(e)]	≤ 212°F — A.1
A.17	5. REFUELING[(b)] (b)	Shutdown or Refuel[(b)(e)]	~~≤ 140°F~~ — NA — M.1

A.1 | A.15

All reactor vessel head closure bolts fully tensioned.

~~TABLE NOTATIONS~~ — A.1

(a) The reactor mode switch may be placed in the Run, Startup/Hot Standby or Refuel position to test the switch interlock functions provided the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified individual. — A.15 moved to LCO 3.10.1

(b) The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.10.I. — A.15 moved to LCO 3.10.3

A.17 — ~~(c)~~ (b) ~~Fuel in the reactor vessel~~ ~~with~~ ~~one~~ one or more reactor vessel head closure bolts less than fully tensioned ~~or with the head removed.~~ — A.1

(d) ~~See Special Test Exceptions 3.12.A, 3.12.B and 3.12.C.~~ — A.16

(e) The reactor mode switch may be placed in the Refuel position while a single control rod is being moved provided the one-rod-out interlock is OPERABLE. — A.15 moved to LCO 3.10.2 and LCO 3.10.3

(f) ~~When there is no fuel in the reactor vessel, the reactor is considered not to be in any OPERATIONAL MODE. The reactor mode switch may then be in any position or may be inoperable.~~ — A.1

Add proposed Sections 1.2, 1.3, and 1.4 — A.18

See ITS Chapter 1.0

TABLE 1-2

OPERATIONAL MODES

MODE	MODE SWITCH POSITION[f]	AVERAGE REACTOR COOLANT TEMPERATURE
1. POWER OPERATION	Run	Any temperature
2. STARTUP	Startup/Hot Standby	Any temperature
3. HOT SHUTDOWN	Shutdown[a,e]	> 212°F[d]
4. COLD SHUTDOWN	Shutdown[a,b,e]	≤ 212°F
5. REFUELING[c]	Shutdown or Refuel[a,d]	≤ 140°F

L.1

in Core cells containing one or more fuel assemblies

add proposed LCO 3.10.1.b

TABLE NOTATIONS

Applicability of MODES 3, 4, and 5

LCO 3.10.1

(a) The reactor mode switch may be placed in the Run, Startup/Hot Standby or Refuel position to test the switch interlock functions provided the control rods ~~are verified to~~ remain fully inserted ~~by a second licensed operator or other technically qualified individual.~~

LA.1

(b) The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.10.I.

(c) Fuel in the reactor vessel with one or more vessel head closure bolts less than fully tensioned or with the head removed.

(d) See Special Test Exceptions 3.12.A, 3.12.B and 3.12.C.

(e) The reactor mode switch may be placed in the Refuel position while a single control rod is being moved provided the one-rod-out interlock is OPERABLE.

(f) When there is no fuel in the reactor vessel, the reactor is considered not to be in any OPERATIONAL MODE. The reactor mode switch may then be in any position or may be inoperable.

add proposed ACTION and Surveillance Requirements

M.1

A.1

TABLE 1-2

OPERATIONAL MODES

MODE	MODE SWITCH POSITION[f]	AVERAGE REACTOR COOLANT TEMPERATURE
1. POWER OPERATION	Run	Any temperature
2. STARTUP	Startup/Hot Standby	Any temperature
3. HOT SHUTDOWN	Shutdown[a,e]	> 212°F[d]
4. COLD SHUTDOWN	Shutdown[a,b,e]	≤ 212°F
5. REFUELING[c]	Shutdown or Refuel[a,e]	≤ 140°F

See ITS Chapter 1.0

TABLE NOTATIONS

(a) The reactor mode switch may be placed in the Run, Startup/Hot Standby or Refuel position to test the switch interlock functions provided the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified individual.

(b) The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.10.I.

(c) Fuel in the reactor vessel with one or more vessel head closure bolts less than fully tensioned or with the head removed.

Applicability of MODE 3

(d) See Special Test Exceptions 3.12.A, 3.12.B and 3.12.C.

LCO 3.10.2

(e) The reactor mode switch may be placed in the Refuel position while a single control rod is being moved provided the one-rod-out interlock is OPERABLE.

LCO 3.10.2.a

(f) When there is no fuel in the reactor vessel, the reactor is considered not to be in any OPERATIONAL MODE. The reactor mode switch may then be in any position or may be inoperable.

add proposed LCO 3.10.2.b, c, and d

M.1

add proposed ACTION and SRs 3.10.2.2 and 3.10.2.3

TABLE 1-2

OPERATIONAL MODES

MODE	MODE SWITCH POSITION[m]	AVERAGE REACTOR COOLANT TEMPERATURE
1. POWER OPERATION	Run	Any temperature
2. STARTUP	Startup/Hot Standby	Any temperature
3. HOT SHUTDOWN	Shutdown[a,e]	> 212°F[d]
4. COLD SHUTDOWN	Shutdown[a,b,e]	≤ 212°F
5. REFUELING[c]	Shutdown or Refuel[a,d]	≤ 140°F

See ITS Chapter 1.0

TABLE NOTATIONS

(a) The reactor mode switch may be placed in the Run, Startup/Hot Standby or Refuel position to test the switch interlock functions provided the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified individual.

Applicability of MODE 4

LCO 3.10.3

LCO 3.10.3.b.1

(b) The reactor mode switch may be placed in the Refuel position while a single control rod drive is being removed from the reactor pressure vessel per Specification 3.10.I.

(c) Fuel in the reactor vessel with one or more vessel head closure bolts less than fully tensioned or with the head removed.

(d) See Special Test Exceptions 3.12.A, 3.12.B and 3.12.C.

LCO 3.10.3

LCO 3.10.3.b.1

(e) The reactor mode switch may be placed in the Refuel position while a single control rod is being moved provided the one-rod-out interlock is OPERABLE.

(f) When there is no fuel in the reactor vessel, the reactor is considered not to be in any OPERATIONAL MODE. The reactor mode switch may then be in any position or may be inoperable.

add proposed LCO 3.10.3.b.2

add proposed LCO 3.10.3.b.1, control rod position indication requirement

L.2

M.2

A.1

2.0 SAFETY LIMITS ~~AND LIMITING SAFETY SYSTEM SETTINGS~~ A.2

moved to ITS 3.3.1.1

2.1 SAFETY LIMITS

THERMAL POWER, Low Pressure or Low Flow

2.1.1.1 2.1.A THERMAL POWER shall not exceed 25% of RATED THERMAL POWER with the reactor vessel steam dome pressure less than 785 psig or core flow less than 10% of rated flow.

APPLICABILITY: OPERATIONAL MODE(s) 1 and 2. M.1

ACTION:

2.2 With THERMAL POWER exceeding 25% of RATED THERMAL POWER and the reactor vessel steam dome pressure less than 785 psig or core flow less than 10% of rated flow, be in at least HOT SHUTDOWN within 2 hours ~~and comply with the requirements of Specification 6.7.~~ A.3

the following:
Unit 2: 1.09 for cycle exposures less than or equal to 13,800 MWd/MTU
1.12 for cycle exposures greater than 13,800 MWd/MTU, and
Unit 3: 1.10 A.4

THERMAL POWER, High Pressure and High Flow

2.1.1.2 2.1.B The MINIMUM CRITICAL POWER RATIO (MCPR) shall not be less than ~~1.10 for Unit 3 and 1.09 for Unit 2~~ with the reactor vessel steam dome pressure greater than or equal to 785 psig and core flow greater than or equal to 10% of rated flow. During single recirculation loop operation, this MCPR limit shall be increased by 0.01.

APPLICABILITY: OPERATIONAL MODE(s) 1 and 2. M.1

ACTION:

2.2 With MCPR less than the above applicable limit and the reactor vessel steam dome pressure greater than or equal to 785 psig and core flow greater than or equal to 10% of rated flow, be in at least HOT SHUTDOWN within 2 hours ~~and comply with the requirements of Specification 6.7.~~ A.3

2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

A.2 moved to ITS 3.3.1.1

Reactor Coolant System Pressure

2.1.2 2.1.C The reactor coolant system pressure, as measured in the reactor vessel steam dome, shall not exceed 1345 psig.

APPLICABILITY: OPERATIONAL MODE(s) 1, 2, 3 and 4. M.1

ACTION:

2.2 With the reactor coolant system pressure, as measured in the reactor vessel steam dome, above 1345 psig, be in at least HOT SHUTDOWN with reactor coolant system pressure less than or equal to 1345 psig within 2 hours ~~and comply with the requirements of Specification 6.7~~. A.3

Reactor Vessel Water Level

2.1.1.3 2.1.D The reactor vessel water level shall be ~~greater than or equal to twelve inches~~ above the top of active irradiated fuel[a]. L.1

APPLICABILITY: OPERATIONAL MODE(s) 3, 4 and 5. M.1

L.1

ACTION: within 2 hours L.2

2.2 With the reactor vessel water level at or below ~~twelve inches above~~ the top of the active irradiated fuel, ~~manually initiate the ECCS to~~ restore the water level, ~~after depressurizing the reactor vessel, if required,~~ ~~and comply with the requirements of Specification 6.7~~. A.3

L.1

~~a The top of active irradiated fuel is defined to be 360 inches above vessel zero.~~

A.1

2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.2 LIMITING SAFETY SYSTEM SETTINGS

A.2

moved to ITS 3.3.1.1

Reactor Protection System (RPS) Instrumentation Setpoints

2.2.A The reactor protection system instrumentation setpoints shall be set consistent with the Trip Setpoint values shown in Table 2.2.A-1.

APPLICABILITY: As shown in Table 3.1.A-1.

ACTION:

With a reactor protection system instrumentation setpoint less conservative than the value shown in the Trip Setpoint column of Table 2.2.A-1, declare the CHANNEL inoperable and apply the applicable ACTION statement requirement of Specification 3.1.A until the CHANNEL is restored to OPERABLE status with its setpoint adjusted consistent with the Trip Setpoint value.

2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.2 LIMITING SAFETY SYSTEM SETTINGS

Reactor Protection System (RPS) Instrumentation Setpoints

LCO 3.3.1.1 **2.2.A** The reactor protection system instrumentation setpoints shall be set consistent with the Trip Setpoint values shown in Table 2.2.A-1.

Allowable Value A.10

A.14

APPLICABILITY: As shown in Table 3.1.A-1.

ACTION:

With a reactor protection system instrumentation setpoint less conservative than the value shown in the Trip Setpoint column of Table 2.2.A-1, declare the CHANNEL inoperable and apply the applicable ACTION statement requirement of Specification 3.1.A until the CHANNEL is restored to OPERABLE status ~~with its~~ setpoint adjusted consistent with the Trip Setpoint value.

Allowable A.10

A.1

TABLE 2.2.A-1

A.2 moved to ITS 3.3.1.1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS

Functional Unit	Trip Setpoint
1. Intermediate Range Monitor:	
a. Neutron Flux - High	≤120/125 divisions of full scale
b. Inoperative	NA
2. Average Power Range Monitor:	
a. Setdown Neutron Flux - High	≤15% of RATED THERMAL POWER
b. Flow Biased Neutron Flux - High	
1) Dual Recirculation Loop Operation	
a) Flow Biased	≤0.58W[a] + 62%, with a maximum of
b) High Flow Maximum	≤120% of RATED THERMAL POWER
2) Single Recirculation Loop Operation	
a) Flow Biased	≤0.58W[a] + 58.5%, with a maximum of
b) High Flow Maximum	≤116.5% of RATED THERMAL POWER
c. Fixed Neutron Flux - High	≤120% of RATED THERMAL POWER
d. Inoperative	NA
3. Reactor Vessel Steam Dome Pressure - High	≤1060 psig
4. Reactor Vessel Water Level - Low	≥144 inches above top of active fuel[b]
5. Main Steam Line Isolation Valve - Closure	≤10% closed
6. Deleted	

a W shall be the recirculation loop flow expressed as a percentage of the recirculation loop flow which produces a rated core flow of 98 million lbs/hr.

b The top of active fuel is defined to be 360 inches above vessel zero.

LSSS 2.2

3.3.1.1-1
TABLE ~~2.2.A-1~~

REACTOR PROTECTION SYSTEM INSTRUMENTATION ~~SETPOINTS~~

Functional ~~Unit~~	~~Trip Setpoint~~ Allowable Value A.10	
1. 1. Intermediate Range Monitor:		
1.a a. Neutron Flux - High	≤120/125 divisions of full scale LF.1	[OI-159]
1.b b. Inoperative	NA	
2. 2. Average Power Range Monitor:		
2.a a. Setdown Neutron Flux - High	≤15% of RATED THERMAL POWER LF.1	[OI-160]
2.b b. Flow Biased Neutron Flux - High		[OI-161]
1) Dual Recirculation Loop Operation		
a) Flow Biased	≤0.58W[a] + 62%, LF.1 with a maximum of LA.4	
b) High Flow Maximum	≤120% of RATED THERMAL POWER LF.1	
2.b 2) Single Recirculation Loop Operation		
a) Flow Biased	≤0.58W[a] + 58.5%, LF.1 with a maximum of LA.4	
b) High Flow Maximum	≤116.5% of RATED THERMAL POWER LF.1	
2.c c. Fixed Neutron Flux - High	≤120% of RATED THERMAL POWER LF.1	[OI-162]
2.d d. Inoperative	NA	
3. 3. Reactor Vessel Steam Dome Pressure - High	≤1060 psig LF.1	<OI-162>
4. 4. Reactor Vessel Water Level - Low	≥144 inches ~~above top of active fuel[b]~~ LA.5 LF.1	[illegible]
5. 5. Main Steam Line Isolation Valve - Closure	≤10% closed LF.1	
6. Deleted		

LA.4

a ~~W shall be the recirculation loop flow expressed as a percentage of the recirculation loop flow which produces a rated core flow of 98 million lbs/hr.~~

b ~~The top of active fuel is defined to be 360 inches above vessel zero.~~ LA.5

$\boxed{A.1}$

TABLE 2.2.A-1 (Continued) $\boxed{A.2}$ moved to ITS 3.3.1.1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SETPOINTS

Functional Unit	Trip Setpoint
7. Drywell Pressure - High	≤2 psig
8. Scram Discharge Volume Water Level - High	≤40.4 gallons (Unit 2) ≤41 gallons (Unit 3)
9. Turbine Stop Valve - Closure	≤10% closed
10. Turbine EHC Control Oil Pressure - Low	≥900 psig
11. Turbine Control Valve Fast Closure	≥460 psig EHC fluid pressure
12. Turbine Condenser Vacuum - Low	≥21 inches Hg vacuum
13. Reactor Mode Switch Shutdown Position	NA
14. Manual Scram	NA

A.1

LSSS 2.2

TABLE ~~2.2.A-1~~ 3.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION ~~SETPOINTS~~ A.10

Function~~al Unit~~	~~Trip Setpoint~~ Allowable Value		
6. 7. Drywell Pressure - High	≤2 psig	LF.1	[DI-166]
7. 8. Scram Discharge Volume Water Level - High	≤40.4 gallons (Unit 2) ≤41 gallons (Unit 3)	LF.1 LF.1	[DI-167]
8. 9. Turbine Stop Valve - Closure	≤10% closed	LF.1	
~~10. Turbine EHC Control Oil Pressure - Low~~	~~≥900 psig~~	A.8	
9. 11. Turbine Control Valve Fast Closure	≥460 psig EHC fluid pressure	LF.1	[DI-169]
10. 12. Turbine Condenser Vacuum - Low	≥21 inches Hg vacuum	LF.1	[DI-170]
11. 13. Reactor Mode Switch Shutdown Position	NA		
12. 14. Manual Scram	NA		

A.1

Applicability 3/4.0 A.2

3.0 - LIMITING CONDITIONS FOR OPERATION (LCO)

LCO 3.0.1 A.2 A. ~~Compliance with the Limiting Conditions for Operation contained in the succeeding Specifications is required during the OPERATIONAL MODE(s) or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met, except as provided in Specification 3.0.E.~~ A.3 Insert 1

LCO 3.0.2 B. ~~Noncompliance with a Specification shall exist when the requirements of the Limiting Condition for Operation and associated ACTION requirements are not met within the specified time interval, except as provided in Specification 3.0.E. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.~~ A.4 Insert 2

A.2

LCO 3.0.3 C. ~~When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within one hour ACTION shall be initiated to place the unit in an OPERATIONAL MODE in which the Specification does not apply by placing it, as applicable, in:~~ A.5 Insert 3

1. ~~At least HOT SHUTDOWN within the next 12 hours, and~~
2. ~~At least COLD SHUTDOWN within the subsequent 24 hours.~~

~~Where corrective measures are completed that permit operation under the ACTION requirements, the ACTION may be taken in accordance with the specified time limits as measured from the time of failure to meet the Limiting Condition for Operation. Exceptions to these requirements are stated in the individual Specifications.~~

~~This Specification is not applicable in OPERATIONAL MODE 4 or 5.~~

A.6 or that part of a shutdown of the unit

A.2

LCO 3.0.4 D. When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time. This Specification shall not prevent changes in MODES or other specified conditions in the Applicability that are required to comply with ACTIONS. Exceptions to ~~these requirements~~ this Specification A.4 are stated in the individual Specifications.

LCO 3.0.5 A.2 E. Equipment removed from service or declared inoperable to comply with ACTIONS may be returned to service under administrative control solely to perform testing required to demonstrate its OPERABILITY or the OPERABILITY of other equipment. This is an exception to Specification ~~3.0.A and~~ A.3 3.0.B for the system returned to service under administrative control to perform the testing required to demonstrate OPERABILITY.

add proposed LCO 3.0.6 A.7

add proposed LCO 3.0.7 A.8

add proposed LCO 3.0.8 A.13

A.6 LCO 3.0.4 is only applicable for entry into a MODE or other specified condition in the Applicability in MODES 1, 2, and 3.

A.1

A.2

3.0 4.0 - SURVEILLANCE REQUIREMENTS (SR)

SRs — in the Applicability — LCOs — A.9

SR 3.0.1 A. Surveillance Requirements shall be met during the ~~reactor~~ OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement. Insert 4

A.10 — Insert 5

SR 3.0.2 B. Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the surveillance interval. L.1 M.1

SR 3.0.3 C. Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.B, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Surveillance requirements do not have to be performed on inoperable equipment.

A.9 moved to SR 3.0.1 — Insert 6 — L.2 — A.9 moved to SR 3.0.1

SR 3.0.4 D. Entry into an OPERATIONAL MODE or other specified applicable condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the applicable surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODE(s) as required to comply with ACTION requirements.

Insert 7 — A.11

E. Surveillance Requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components shall be applicable as follows:

1. 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 Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR Part 50, Section 50.55a(g) and 50.55a(f), respectively, except where specific written relief has been granted by the Commission pursuant to 10 CFR Part 50, Section 50.55a(g)(6)(i) or 50.55a(f)(6)(i), respectively.

A.12 moved to ITS Section 5.5

add proposed SR 3.0.5 — A.13

4.0 - SURVEILLANCE REQUIREMENTS

See ITS Section 3.0

A. Surveillance Requirements shall be met during the reactor OPERATIONAL MODE(s) or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

B. Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the surveillance interval.

C. Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.B, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Surveillance requirements do not have to be performed on inoperable equipment.

D. Entry into an OPERATIONAL MODE or other specified applicable condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the applicable surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODE(s) as required to comply with ACTION requirements.

5.5.6 E. Surveillance Requirements for ~~inservice inspection and~~ testing of ASME Code Class 1, 2, and 3 ~~components~~ pumps and valves shall be applicable as follows: LA.2

1. ~~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 Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR Part 50, Section 50.55a(g) and 50.55a(f), respectively, except where specific written relief has been granted by the Commission pursuant to 10 CFR Part 50, Section 50.55a(g)(6)(i) or 50.55a(f)(6)(i), respectively. LA.3 LA.2

A.2

3.0 4.0 - SURVEILLANCE REQUIREMENTS (SR)

2. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice inspection and testing activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice inspection and testing activities	Required Frequencies for performing inservice inspection and testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

3. The provisions of Specification 4.0.B are applicable to the above required frequencies for performing inservice inspection and testing activities.

4. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements.

5. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

6. The Inservice Inspection Program for piping identified in NRC Generic Letter 88-01 shall be performed in accordance with the staff positions on schedule, methods, and personnel and sample expansion included in Generic Letter 88-01 or in accordance with alternate measures approved by the NRC staff.

A.12
moved to
ITS
Section 5.5

A.1

ITS 5.5

4.0 - SURVEILLANCE REQUIREMENTS

5.5.6.a 2. Surveillance intervals specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda for the inservice ~~inspection and~~ testing activities required by the ASME Boiler and Pressure Vessel Code and applicable Addenda shall be applicable as follows in these Technical Specifications:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice ~~inspection and~~ testing activities	Required Frequencies for performing inservice ~~inspection and~~ testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days
Every 48 months	At least once per 1461 days

LA.2

A.10

5.5.6.b 3. The provisions of Specification 4.0.B are applicable to the above required frequencies for performing inservice ~~inspection and~~ testing activities.

LA.2

~~4. Performance of the above inservice inspection and testing activities shall be in addition to other specified Surveillance Requirements.~~

A.5

5.5.6.d 5. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

~~6. The Inservice Inspection Program for piping identified in NRC Generic Letter 88-01 shall be performed in accordance with the staff positions on schedule, methods, and personnel and sample expansion included in Generic Letter 88-01 or in accordance with alternate measures approved by the NRC staff.~~

LA.2

5.5.6.c The provisions of SR 3.0.3 are applicable to inservice testing activities; and

A.2

3.1 - LIMITING CONDITIONS FOR OPERATION

A. Reactor Protection System (RPS)

LCO 3.3.1.1 The reactor protection system (RPS) instrumentation CHANNEL(s) shown in Table 3.1.A-1 shall be OPERABLE.

A.2 add proposed ACTIONS NOTE 1

APPLICABILITY:

A.3

As shown in Table 3.1.A-1.

INSERT CTS 3.1.A Actions

ACTION:

1. ~~With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for one TRIP SYSTEM, place the inoperable CHANNEL(s) and/or that TRIP SYSTEM in the tripped condition[a] within 1 hour.~~

2. ~~With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for both TRIP SYSTEM(s), place at least one TRIP SYSTEM in the tripped condition[a] within 1 hour and take the ACTION required by Table 3.1.A-1.~~

4.1 - SURVEILLANCE REQUIREMENTS

A. Reactor Protection System

Note 1 to Surveillance Requirements

1. Each reactor protection system instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.1.A-1.

SR 3.3.1.1.18

2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per ~~18~~ 24 months. LD.1

SR 3.3.1.1.19

3. The response time of ~~each~~ reactor trip functional unit shown in Table 3.1.A-1 shall be demonstrated at least once per ~~18~~ 24 months. ~~Each test shall include at least one CHANNEL per TRIP SYSTEM such that all CHANNEL(s) are tested at least once every N times 18 months where N is the total number of redundant CHANNEL(s) in a specific reactor TRIP SYSTEM.~~ L.10 LD.1

addressed by Definition of Staggered Test Basis, Note 2 and A.7

add proposed Note 1 to SR 3.3.1.1.19 L.1

INSERT CTS 3.1.A Notes (a) and (b) A.3

a ~~An inoperable CHANNEL need not be placed in the tripped condition when this would cause the trip function to occur. In these cases, the inoperable CHANNEL shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.1.A-1 for that trip function shall be taken.~~

b ~~The TRIP SYSTEM need not be placed in the tripped condition if this would cause the trip function to occur. When a TRIP SYSTEM can be placed in the tripped condition without causing the trip function to occur, place the TRIP SYSTEM with the most inoperable CHANNEL(s) in the tripped condition; if both systems have the same number of inoperable CHANNEL(s), place either TRIP SYSTEM in the tripped condition.~~

A.1

3.1 - LIMITING CONDITIONS FOR OPERATION

A. Reactor Protection System (RPS)

LCO 3.10.7.a

A.8

The reactor protection system (RPS) instrumentation CHANNEL(s) shown in Table 3.1.A-1 shall be OPERABLE.

APPLICABILITY:

As shown in Table 3.1.A-1.

ACTION:

ACTION B

1. With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for one TRIP SYSTEM, place the inoperable CHANNEL(s) and/or that TRIP SYSTEM in the tripped condition[a] within 1 hour.

A.10

M.2

2. With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for both TRIP SYSTEM(s), place at least one TRIP SYSTEM in the tripped condition[b] within 1 hour and take the ACTION required by Table 3.1.A-1.

4.1 - SURVEILLANCE REQUIREMENTS

A. Reactor Protection System

A.8

SR 3.10.7.1

1. Each reactor protection system instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.1.A-1.

2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per 18 months.

3. The response time of each reactor trip functional unit shown in Table 3.1.A-1 shall be demonstrated at least once per 18 months. Each test shall include at least one CHANNEL per TRIP SYSTEM such that all CHANNEL(s) are tested at least once every N times 18 months where N is the total number of redundant CHANNEL(s) in a specific reactor TRIP SYSTEM.

See ITS 3.3.1.1

a An inoperable CHANNEL need not be placed in the tripped condition when this would cause the trip function to occur. In these cases, the inoperable CHANNEL shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.1.A-1 for that trip function shall be taken.

b The TRIP SYSTEM need not be placed in the tripped condition if this would cause the trip function to occur. When a TRIP SYSTEM can be placed in the tripped condition without causing the trip function to occur, place the TRIP SYSTEM with the most inoperable CHANNEL(s) in the tripped condition; if both systems have the same number of inoperable CHANNEL(s), place either TRIP SYSTEM in the tripped condition.

A.1

ITS 3.3.1.1

TABLE ~~3.1.A-1~~ (3.3.1.1-1)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

Note 2 to Surveillance Requirements

	Functional Unit	Applicable OPERATIONAL MODE(s)	Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM(a)	ACTION
1.	1. Intermediate Range Monitor:			
1.a	a. Neutron Flux - High	2	3	G 11
	L.3	L.2 ~~3, 4~~	~~2~~	~~12~~
	add proposed Note (a) to Table 3.3.1.1-1	5	3	H 13
1.b	b. Inoperative	2	3	G 11
		L.2 ~~3, 4~~	~~2~~	~~12~~
		5	3	H 13
2.	2. Average Power Range Monitor(b): LA.2			
2.a	a. Setdown Neutron Flux - High	2	2	G 11
		L.2 ~~3~~	~~2~~	~~12~~
		~~5(d)~~	~~2~~	~~13~~
2.b	b. Flow Biased Neutron Flux - High	1	2	F 14
2.c	c. Fixed Neutron Flux - High	1	2	F 14
2.d	d. Inoperative	1, 2	2	G 11
		L.2 ~~3~~	~~2~~	~~12~~
		~~5(d)~~	~~2~~	~~13~~ A.5 moved to ITS 3.10.7
3.	3. Reactor Vessel Steam Dome Pressure - High	1, 2(c) A.6	2	G 11
4.	4. Reactor Vessel Water Level - Low	1, 2	2	G 11

REACTOR PROTECTION SYSTEM

A.1

ITS 3.10.7

TABLE 3.1.A-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION

Functional Unit	Applicable OPERATIONAL MODE(s)	Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM[a]	ACTION
1. Intermediate Range Monitor:			
a. Neutron Flux - High	2 3, 4 5	3 2 3	11 12 13
b. Inoperative	2 3, 4 5	3 2 3	11 12 13
2. Average Power Range Monitor[e]:			
a. Setdown Neutron Flux - High	2 3 5[a]	2 2 2	11 12 13
b. Flow Biased Neutron Flux - High	1	2	14
c. Fixed Neutron Flux - High	1	2	14
d. Inoperative	1, 2 3 5[a]	2 2 2	11 12 13
3. Reactor Vessel Steam Dome Pressure - High	1, 2[f]	2	11
4. Reactor Vessel Water Level - Low	1, 2	2	11

A.8 (LCO 3.10.7.a

(LCO 3.10.7.a

A.9

See ITS 3.3.1.1

DRESDEN - UNITS 2 & 3

3.3.1.1-1

TABLE ~~3.1.A-1~~ (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

Note 2 to Surveillance Requirements

Functional ~~Unit~~	Applicable OPERATIONAL MODE(s)	Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM(a)	ACTION
5. 5. Main Steam Line Isolation Valve - Closure	1, 2(f)	~~4~~ 8 A.7	F 10
~~6. Deleted~~			
6. 7. Drywell Pressure - High	1, 2(h) A.6	2	G 11
7. 8. Scram Discharge Volume Water Level - High			
b. a. ΔP Switch, and	1, 2 5(i)	2 2	G 11 H 13
a. b. Thermal Switch (Unit 2), or Float Switch (Unit 3)	1, 2 5(i)	2 2	G 11 H 13
8. 9. Turbine Stop Valve - Closure	1(d) ≥ 45% RTP	4	E 16
~~10. Turbine EHC Control Oil Pressure - Low~~	~~1(d)~~	~~2~~	~~16~~ A.8
9. 11. Turbine Control Valve Fast Closure	1(d) ≥ 45% RTP	2	E 16
10. 12. Turbine Condenser Vacuum - Low	1, 2(f)	2	F 10

A.9 Note (a) L.4

A.1

REACTOR PROTECTION SYSTEM

RPS 3/4.1.A

ITS 3.3.1.1

(3.3.1.1-1)

TABLE ~~3.1.A-1~~ (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

Note 2 to Surveillance Requirements

Functional ~~Unit~~	Applicable OPERATIONAL MODE(s)	Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM(a)	ACTION
11 13. Reactor Mode Switch Shutdown Position	1, 2	1	G 11
	~~3, 4~~	~~1~~	~~17~~
	5	1	H 13
12 14. Manual Scram	1, 2	1	G 11
	~~3, 4~~	~~1~~	~~18~~
	5	1	H 19

L.3

add proposed Note (a) to Table 3.3.1.1-1

L.2

L.2

A.1

ITS 3.3.1.1

REACTOR PROTECTION SYSTEM 3.3.1.1-1 RPS 3/4.1.A

TABLE ~~3.1.A-1~~ (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

ACTION

F ACTION 10 - Be in at least STARTUP with reactor pressure less than 600 psig within 8 hours.

G ACTION 11 - Be in at least HOT SHUTDOWN within 12 hours.

~~ACTION 12 - Verify all insertable control rods to be fully inserted in the core and lock the reactor mode switch in the Shutdown position within one hour.~~ L.2 L.4 L.3 Initiate action to A.11

H ACTION 13 - ~~Suspend all operations involving CORE ALTERATIONS, and~~ fully insert all insertable control rods ~~within one hour~~. ~~If SRM instrumentation is not OPERABLE per Specification 3.10.B, also suspend replacement of LPRMs.~~ A.11 Immediately L.5

F. ACTION 14 - Be in at least STARTUP within 8 hours.

~~ACTION 15 - Deleted~~

E ACTION 16 - ~~Initiate a reduction in THERMAL POWER within 15 minutes and~~ reduce reactor power to less than 45% of RATED THERMAL POWER within ~~2~~ 4 hours. L.6 L.9

~~ACTION 17 - Verify all insertable control rods to be fully inserted in the core within one hour.~~ L.2

~~ACTION 18 - Lock the reactor mode switch in the Shutdown position within one hour.~~

H ACTION 19 - ~~Suspend all operations involving CORE ALTERATIONS, and~~ fully insert all insertable control rods ~~and lock the reactor mode switch in the Shutdown position within one hour~~. ~~If SRM instrumentation is not OPERABLE per Specification 3.10.B, also suspend replacement of LPRMs.~~ Initiate action to A.11 L.4 L.3 L.5 Immediately A.11

3.3.1.1-1

TABLE ~~3.1.A-1~~ (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

TABLE NOTATION

INSERT CTS Table 3.1.A-1 Note a — A.3

(a) A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the TRIP SYSTEM in the tripped condition provided at least one OPERABLE CHANNEL in the same TRIP SYSTEM is monitoring that parameter.

(b) This function may be bypassed, provided a control rod block is actuated, for reactor protection system logic reset in Refuel and Shutdown positions of the reactor mode switch. — L.4

(c) Deleted — Function 8.9 Applicability

(d) With THERMAL POWER greater than or equal to 45% of RATED THERMAL POWER.

(e) An APRM CHANNEL is inoperable if there are fewer than 2 LPRM inputs per level or there are less than 50% of the normal complement of LPRM inputs to an APRM CHANNEL. — LA.2

(f) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.12.A. — A.6

(g) Required to be OPERABLE only prior to and during required SHUTDOWN MARGIN demonstrations performed per Specification 3.12.B. — A.5 moved to ITS 3.10.7

(h) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required. — A.6

from a core cell containing one or more fuel assemblies — L.4

(i) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.10.I or 3.10.J. — A.9

(j) This function is not required to be OPERABLE when reactor pressure is less than 600 psig.

Table 3.3.1.1-1 footnote (a)

Table 3.3.1.1-1 footnote (c)

TABLE 3.1.A-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION

TABLE NOTATION

(a) A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the TRIP SYSTEM in the tripped condition provided at least one OPERABLE CHANNEL in the same TRIP SYSTEM is monitoring that parameter.

(b) This function may be bypassed, provided a control rod block is actuated, for reactor protection system logic reset in Refuel and Shutdown positions of the reactor mode switch.

(c) Deleted

(d) With THERMAL POWER greater than or equal to 45% of RATED THERMAL POWER.

(e) An APRM CHANNEL is inoperable if there are fewer than 2 LPRM inputs per level or there are less than 50% of the normal complement of LPRM inputs to an APRM CHANNEL.

(f) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.12.A.

LCO 3.10.7.a (g) Required to be OPERABLE only prior to and during required SHUTDOWN MARGIN demonstrations performed per Specification 3.12.B. A.8

(h) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

(i) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.10.I or 3.10.J.

(j) This function is not required to be OPERABLE when reactor pressure is less than 600 psig.

See ITS 3.3.1.1

3.3.1.1-1

TABLE ~~4.1.A-1~~

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

SR 3.3.1.1.1 (CHANNEL CHECK); SR 3.3.1.1.4, SR 3.3.1.1.8, SR 3.3.1.1.11 (CHANNEL FUNCTIONAL TEST); SR 3.3.1.1.2, SR 3.3.1.1.3, SR 3.3.1.1.10, SR 3.3.1.1.12, SR 3.3.1.1.13, SR 3.3.1.1.15, SR 3.3.1.1.17 (CHANNEL CALIBRATION)

Note 1 to SR 3.3.1.1.15, SR 3.3.1.1.17

Functional ~~Unit~~	Applicable OPERATIONAL MODES	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST(e)	CHANNEL CALIBRATION(a)
1. Intermediate Range Monitor:		SR 3.3.1.1.6, SR 3.3.1.1.7	SR 3.3.1.1.5	24 months
1.a a. Neutron Flux - High	2 3, 4, 5	S(b) — 1 S — 1	S/U(b), W(a) — 4 W(a) — 4	E(a) — 17 E(a) — 17
1.b b. Inoperative	2, 3, 4, 5	NA	W(a) — 4	NA
2 2. Average Power Range Monitor(f): SR 3.3.1.1.9		SR 3.3.1.1.7		
2.a a. Setdown Neutron Flux - High	2 3, 5(m)	S(b) — 1 S	S/U(c), W(a) — 4 W(a)	SA(a) — 15 SA(a) 3
2.b b. Flow Biased Neutron Flux - High	1	1 — S, D	W → Q — 11	2 — W(d,e), SA — 15
2.c c. Fixed Neutron Flux - High	1	1 — S	W → Q — 11	2 — W(d), SA — 15
2.d d. Inoperative	1, 2, 3, 5(m)	NA	W → Q — 11	NA
3 3. Reactor Vessel Steam Dome Pressure - High	1, 2(h)	NA	M — 8	Q — 13
4 4. Reactor Vessel Water Level - Low	1, 2	12 hours → D — 1	M → Q — 11	E(h) — 12, 17 24 months
5 5. Main Steam Line Isolation Valve - Closure	1, 2(i)	NA	M → Q — 11	E — 17
~~6. Deleted~~				
6 7. Drywell Pressure - High	1, 2(h)	NA	M → Q — 11	Q — 13

L.3 add proposed Note a to Table 3.3.1.1-1

L.2 L.2 L.2 A.5 A.6 A.6 A.12 A.12 A.3 A.3 A.3 A.13 LE.1 LE.1 M.2

moved to ITS 3.10.7

L.8 add proposed SR 3.3.1.1.17 for flow portion of channel and Note 3 to SR 3.3.1.1.15

A.1

A.1

TABLE 4.1.A-1

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functional Unit	Applicable OPERATIONAL MODES	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL[a] CALIBRATION
1. Intermediate Range Monitor:				
a. Neutron Flux - High	2 3, 4, 5	S[b] S	S/U[c], W[o] W[o]	E[o] E[o]
b. Inoperative	2, 3, 4, 5	NA	W[o]	NA
2. Average Power Range Monitor[f]:				
a. Setdown Neutron Flux - High	2 3, ~~5~~[m]	S[b] ~~S~~	S/U[c], W[o] ~~W[o]~~	SA[o] ~~SA[o]~~
b. Flow Biased Neutron Flux - High	1	S, D	W	W[d,e], SA
c. Fixed Neutron Flux - High	1	S	W	W[d], SA
d. Inoperative	1, 2, 3, ~~5~~[m]	NA	W	NA
3. Reactor Vessel Steam Dome Pressure - High	1, 2[f]	NA	M	Q
4. Reactor Vessel Water Level - Low	1, 2	D	M	E[h]
5. Main Steam Line Isolation Valve - Closure	1, 2[g]	NA	M	E
6. Deleted				
7. Drywell Pressure - High	1, 2[f]	NA	M	Q

LCO 3.10.7.a

3/4.1-7

SR 3.10.7.1

A.8

SR 3.10.7.1

LCO 3.10.7.a

A.9

See ITS 3.3.1.1

3.3.1.1-1

TABLE ~~4.1.A-1~~ (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

SR 3.3.1.1.8 SR 3.3.1.1.11 SR 3.3.1.1.16

SR 3.3.1.1.5 A.3

Note 1 to SR 3.3.1.1.15 SR 3.3.1.1.17

SR 3.3.1.1.13 SR 3.3.1.1.17

Functional ~~Unit~~	Applicable OPERATIONAL MODES	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST (q)	CHANNEL CALIBRATION (m)
7 8. Scram Discharge Volume Water Level - High	L.4			
7.b a. ΔP Switch, and	A.9 1, 2, 5(h) Note (a)	NA	Q- 11	E-17
7.a b. Thermal Switch (Unit 2), or Float Switch (Unit 3)	1, 2, 5(h)	NA	Q- 11	~~NA~~ M.1 add proposed SR 3.3.1.1.17 24 months LE.1
add proposed SR 3.3.1.1.14 M.3				
8 9. Turbine Stop Valve - Closure	1(n) - ≥ 45 %	NA	A.3 ~~M~~ → Q -11	E- 17
~~10. Turbine EHC Control Oil Pressure - Low~~	~~1(n)~~	~~NA~~	~~M~~	~~Q~~ A.8
add proposed SR 3.3.1.1.14 M.3				
9 11. Turbine Control Valve Fast Closure	1(n) - ≥ 45%	NA	A.3 ~~M~~ → Q- 11	E- 17 24 months LE.1
10 12. Turbine Condenser Vacuum - Low	1, 2(n)	NA	M - 8	~~Q~~ → M-10
11 13. Reactor Mode Switch Shutdown Position	L.2 1, 2, ~~3, 4~~ 5	NA	E - 16 LD.1 24 months	NA
12 14. Manual Scram	1, 2, ~~3, 4~~ 5	NA	M-8	NA

L.3 add proposed Note a to Table 3.3.1.1-1

A.1

REACTOR PROTECTION SYSTEM

REACTOR PROTECTION SYSTEM

3.3.1.1-1

TABLE ~~4.1.A-1~~ (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATION

Note 1 SR3.3.1.1.15 SR3.3.1.1.17 (a) Neutron detectors may be excluded from the CHANNEL CALIBRATION.

SR3.3.1.1.6 (b) The IRM and SRM channels shall be determined to overlap (for at least ~~(½)~~ decades) during each startup after entering OPERATIONAL MODE 2 (and the IRM and APRM channels shall be determined to overlap (for at least ~~(½)~~ decades) during each controlled shutdown, if not LA3

SR3.3.1.1.7 — performed within the previous 7 days. A.12

SR3.3.1.1.4 (c) ~~Within 24 hours prior to startup, if not performed within the previous 7 days.~~ The weekly CHANNEL FUNCTIONAL TEST may be used to fulfill this requirement.

SR3.3.1.1.2 (d) This calibration shall consist of the adjustment of the APRM CHANNEL to conform, within 2% of RATED THERMAL POWER, to the power values calculated by a heat balance during OPERATIONAL MODE 1 when THERMAL POWER is ≥25% of RATED THERMAL POWER. This

ACTIONS Note 2 adjustment must be accomplished: a) within 2 hours if the APRM CHANNEL is indicating lower power values than the heat balance, or b) within 12 hours if the APRM CHANNEL is indicating higher power values than the heat balance. ~~Until any required APRM adjustment has been accomplished, notification shall be posted on the reactor control panel.~~ L.11

Any APRM CHANNEL gain adjustment made in compliance with Specification 3.11.B shall not be included in determining the above difference. ~~This calibration is not required when~~ L.7

SR 3.3.1.1.2 Note ~~THERMAL POWER is < 25% of RATED THERMAL POWER. The provisions of Specification 4.0.D are not applicable.~~ not required to be performed until 12 hours after THERMAL POWER ≥ 25% RTP

SR3.3.1.1.3 (e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.

SR3.3.1.1.9 (f) The LPRMs shall be calibrated at least once per 2000 effective full power hours (EFPH).

~~(g) Deleted.~~

92 A.3

SR3.3.1.1.12 SR3.3.1.1.17 (h) Trip units are calibrated at least once per ~~31~~ days and transmitters are calibrated at the frequency identified in the table.

A.6 L.4

~~(i) This function is not required to be OPERABLE when the reactor pressure vessel head is unbolted or removed per Specification 3.12.A.~~ from a core cell containing one or more fuel assemblies

Table 3.3.1.1-1 footnote (a) (j) With any control rod withdrawn ~~Not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~ A.9

~~(k) This function may be bypassed, provided a control rod block is actuated, for reactor protection system reset in Refuel and Shutdown positions of the reactor mode switch.~~ L.4

A.1

TABLE ~~4.1.A-1~~ 3.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functions 8 and 9 Applicability

(l) With THERMAL POWER greater than or equal to 45% of RATED THERMAL POWER.

~~(m) Required to be OPERABLE only prior to and during required SHUTDOWN MARGIN demonstrations performed per Specification 3.12.B.~~ A.5 moved to ITS 3.10.7

~~(n) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.~~ A.6

SR 3.3.1.1.4 (o) The provisions of Specification 4.0.D are not applicable to the CHANNEL FUNCTIONAL TEST
SR 3.3.1.1.15 Note and CHANNEL CALIBRATION surveillances for a period of 24 hours after entering OPERATIONAL MODE 2 or 3 when shutting down from OPERATIONAL MODE 1.

(p) This function is not required to be OPERABLE when reactor pressure is less than 600 psig.

Table 3.3.1.1-1 footnote (c)

(q) ~~Delete~~

INSERT 4.1.A-1 NOTATION A.3

A.1

A.1

TABLE 4.1.A-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

(l) With THERMAL POWER greater than or equal to 45% of RATED THERMAL POWER.

LCO 3.10.7.a A.8 (m) Required to be OPERABLE only prior to and during required SHUTDOWN MARGIN demonstrations performed per Specification 3.12.B.

(n) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

(o) The provisions of Specification 4.0.D are not applicable to the CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION surveillances for a period of 24 hours after entering OPERATIONAL MODE 2 or 3 when shutting down from OPERATIONAL MODE 1.

(p) This function is not required to be OPERABLE when reactor pressure is less than 600 psig.

(q) Delete

See ITS 3.3.1.1

3.2 - LIMITING CONDITIONS FOR OPERATION

A. Isolation Actuation

LCO 3.3.6.1

A.6

Allowable Values

The isolation actuation instrumentation CHANNEL(s) shown in Table 3.2.A-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the ~~Trip Setpoint~~ column.

APPLICABILITY:

As shown in Table 3.2.A-1.

A.2

Add proposed ACTIONS Note

ACTION:

ACTIONS A and B

1. With an isolation actuation instrumentation CHANNEL trip setpoint less conservative than the value shown in the ~~Trip Setpoint~~ column of Table 3.2.A-1, declare the CHANNEL inoperable until the CHANNEL is restored to OPERABLE status with its trip setpoint adjusted consistent with the ~~Trip Setpoint~~ value.

Allowable Values

A.6

2. ~~With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for one TRIP SYSTEM, place the inoperable CHANNEL(s) and/or TRIP SYSTEM in the tripped condition[a] within one hour.~~

A.3

Insert CTS 3.2.A Action 2

4.2 - SURVEILLANCE REQUIREMENTS

A. Isolation Actuation

Note 1 to Surveillance Requirements

1. Each isolation actuation instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.2.A-1.

SR 3.3.6.1.6

2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per ~~18~~ 24 months.

LD.1

~~a An inoperable CHANNEL need not be placed in the tripped condition where this would cause the trip function to occur. In these cases, the inoperable CHANNEL shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.2.A-1 for that trip function shall be taken.~~

A.1

ITS 3.3.6.2

3.2 - LIMITING CONDITIONS FOR OPERATION

A. Isolation Actuation

LCO 3.3.6.2 The isolation actuation instrumentation CHANNEL(s) shown in Table 3.2.A-1 shall be OPERABLE with their ~~trip setpoints~~ Allowable Value A.6 set consistent with the values shown in the ~~Trip Setpoint~~ column.

APPLICABILITY: add proposed ACTIONS Note A.2

As shown in Table 3.2.A-1.

ACTION:

ACTIONS A and B

1. With an isolation actuation instrumentation CHANNEL ~~trip setpoint~~ Allowable Value A.6 less conservative than the value shown in the Trip Setpoint column of Table 3.2.A-1, declare the CHANNEL inoperable until the CHANNEL is restored to OPERABLE status with its ~~trip setpoint~~ adjusted consistent with the ~~Trip Setpoint~~ value.

2. ~~With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for one TRIP SYSTEM, place the inoperable CHANNEL(s) and/or TRIP SYSTEM in the tripped condition[a] within one hour.~~

INSERT CTS 3.2.A Action 2 A.3

4.2 - SURVEILLANCE REQUIREMENTS

A. Isolation Actuation

Note 1 to Surveillance Requirements

1. Each isolation actuation instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.2.A-1.

SR 3.3.6.2.6

2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per 18 24 LD.1 months.

---

a ~~An inoperable CHANNEL need not be placed in the tripped condition where this would cause the trip function to occur. In these cases, the inoperable CHANNEL shall be restored to OPERABLE status within 2 hours or the ACTION required by Table 3.2.A-1 for that trip function shall be taken.~~

ITS 3.3.6.1

A.1

3.2 - LIMITING CONDITIONS FOR OPERATION

4.2 - SURVEILLANCE REQUIREMENTS

3. ~~With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for both TRIP SYSTEMS, place at least one TRIP SYSTEM[b] in the tripped condition[c] within one hour and take the ACTION required by Table 3.2.A-1.~~

A.3 Insert CTS 3.2.A Action 2

b ~~If more CHANNEL(s) are inoperable in one TRIP SYSTEM than in the other, select the TRIP SYSTEM with the greater number of inoperable CHANNEL(s) to place in the tripped condition except when this would cause the trip function to occur; if both TRIP SYSTEM(s) have the same number of inoperable CHANNEL(s), place either TRIP SYSTEM in the tripped condition.~~

c ~~An inoperable CHANNEL need not be placed in the tripped condition where this would cause the trip function to occur. In these cases, the inoperable CHANNEL shall be restored to OPERABLE status within one hour or the ACTION required by Table 3.2.A-1 for that trip function shall be taken.~~

A.1

ITS 3.3.6.2

3.2 - LIMITING CONDITIONS FOR OPERATION

4.2 - SURVEILLANCE REQUIREMENTS

3. ~~With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement for both TRIP SYSTEMS, place at least one TRIP SYSTEM[b] in the tripped condition[c] within one hour and take the ACTION required by Table 3.2.A-1.~~

INSERT CTS 3.2.A Action 2 — A.3

---

b ~~If more CHANNEL(s) are inoperable in one TRIP SYSTEM than in the other, select the TRIP SYSTEM with the greater number of inoperable CHANNEL(s) to place in the tripped condition except when this would cause the trip function to occur; if both TRIP SYSTEM(s) have the same number of inoperable CHANNEL(s), place either TRIP SYSTEM in the tripped condition.~~ LA.1

c ~~An inoperable CHANNEL need not be placed in the tripped condition where this would cause the trip function to occur.~~ In these cases, the inoperable CHANNEL shall be restored to OPERABLE status within one hour or the ACTION required by Table 3.2.A-1 for that trip function shall be taken. LB.1

ACTION B —

Table 3.3.6.1-1

TABLE 3.2.A-1

ISOLATION ACTUATION INSTRUMENTATION

A.6 Allowable Value | LA.2 | Note 2 to Surveillance Requirements

	Function Functional Unit	~~Trip Setpoint~~[a] LF.1	Minimum CHANNEL(s) per TRIP SYSTEM[a]	Applicable OPERATIONAL MODE(s)	ACTION	
2.	1. PRIMARY CONTAINMENT ISOLATION					
2.a	a. Reactor Vessel Water Level - Low	≥144 inches	2	1, 2, 3	20	G
2.b	b. Drywell Pressure - High[a] — A.4	≤2 psig	2	1, 2, 3	20	G
2.c	c. Drywell Radiation - High	≤100 R/hr	1	1, 2, 3	23	F
	2. SECONDARY CONTAINMENT ISOLATION					
	a. Reactor Vessel Water Level - Low[c]	≥144 inches	2	1, 2, 3 & *	24	
	b. Drywell Pressure - High[c,d]	≤2 psig	2	1, 2, 3	24	
	c. Reactor Building Ventilation Exhaust Radiation - High[c]	≤10 mR/hr	2	1, 2, 3 & **	24	
	d. Refueling Floor Radiation - High[c]	≤100 mR/hr	2	1, 2, 3 & **	24	
1.	3. MAIN STEAM LINE (MSL) ISOLATION					
1.a	a. Reactor Vessel Water Level - Low Low	≥84 inches	2	1, 2, 3	21	D
	~~b. Deleted~~					
1.b	c. MSL Pressure - Low	≥825 psig	2	1	22	E
1.d	d. MSL Flow - High	≤120% of rated	2/line	1, 2, 3	21	D
1.e	e. MSL Tunnel Temperature - High	≤200°F	~~2 of 4 in each of 2 sets~~ 2 per trip string — A.10	1, 2, 3	21	D

Add proposed Function 1.c — M.1

Moved to ITS 3.3.6.2 — A.5

A.1

ITS 3.3.6.1

Page 4 of 12

A.1

Table 3.3.6.2-1

TABLE 3.2.A-1

ISOLATION ACTUATION INSTRUMENTATION

A.6 LA.2

	Functional Unit	Allowable Value Trip Setpoint	Minimum CHANNEL(s) per TRIP SYSTEM[a]	Applicable OPERATIONAL MODE(s)	ACTION	
	1. PRIMARY CONTAINMENT ISOLATION					
<See ITS 3.3.6.1>	a. Reactor Vessel Water Level - Low	≥144 inches	2	1, 2, 3	20	
	b. Drywell Pressure - High[d]	≤2 psig	2	1, 2, 3	20	
	c. Drywell Radiation - High	≤100 R/hr	1	1, 2, 3	23	
	2. SECONDARY CONTAINMENT ISOLATION			L.1		
1	a. Reactor Vessel Water Level - Low[c]	[≥144 inches] LF.1	2	1, 2, 3 & *	C 24	<DI 181>
2	b. Drywell Pressure - High[c,d]	[≤2 psig] LF.1	2	1, 2, 3	C 24	M.1 <DI 182>
3	c. Reactor Building Ventilation Exhaust Radiation - High[c]	[≤10 mR/hr] LF.1	2	1, 2, 3 & **	C 24	add CORE ALTERATIONS <DI 157>
4	d. Refueling Floor Radiation - High[c]	[≤100 mR/hr] LF.1	2	1, 2, 3 & **	C 24	add during OPDRVs M.2
<See ITS 3.3.6.1>	**3. MAIN STEAM LINE (MSL) ISOLATION**					
	a. Reactor Vessel Water Level - Low Low	≥84 inches	2	1, 2, 3	21	
	b. Deleted					
	c. MSL Pressure - Low	≥825 psig	2	1	22	
	d. MSL Flow - High	≤120% of rated	2/line	1, 2, 3	21	
	e. MSL Tunnel Temperature - High	≤200°F	2 of 4 in each of 2 sets	1, 2, 3	21	

Table 3.3.6.1-1

TABLE 3.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

A.6 Allowable Value LF.1 LA.2

Note 2 to Surveillance Requirements

	Function Functional Unit	~~Trip Setpoint~~ (a)	Minimum CHANNEL(s) per TRIP SYSTEM (a)	Applicable OPERATIONAL MODE(s)	ACTION
5	4. REACTOR WATER CLEANUP SYSTEM ISOLATION				
5.a	a. Standby Liquid Control System Initiation (k) LA.3	NA	~~NA~~ 1 M.2	1, 2, ~~3~~ L.2	~~23~~ H
5.b	b. Reactor Vessel Water Level - Low	≥ 144 inches	2	1, 2, 3	~~23~~ F
4	5. ISOLATION CONDENSER ISOLATION				
4.a	a. Steam Flow - High	≤ 300% of rated steam flow	1	1, 2, 3	~~23~~ F
4.b	b. Return Flow - High	≤ 32 (Unit 2)/ ≤ 14.8 (Unit 3) inches water diff.	1	1, 2, 3	~~23~~ F
3	6. HIGH PRESSURE COOLANT INJECTION ISOLATION		M.3		
3.a	a. Steam Flow - High	≤ 300% of rated steam flow (l)	1	1, 2, 3	~~23~~ F
3.c	b. ~~Reactor Vessel~~ Steam Supply Line Pressure - Low	≥ 100 psig	2	1, 2, 3	~~23~~ F
3.d	c. Area Temperature - High	≤ 200°F	4(i)	1, 2, 3	~~23~~ F

Add proposed Function 3b

A.1

<DI 221>

ITS 3.3.6.1

A.1

Table 3.3.6.1-1

TABLE 3.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

Note 2 to Surveillance Requirement

A.6 Allowable Value

LA.2

LF.1

Function Functional Unit	~~Trip Setpoint~~(a)	Minimum CHANNEL(s) per TRIP SYSTEM(a)	Applicable OPERATIONAL MODE(s)	ACTION
6 **7. SHUTDOWN COOLING ISOLATION**				
6.b a. Reactor Vessel Water Level - Low	≥144 inches	2 (b)	3, 4, 5	I 23
6.a b. Recirculation Line Water Temperature - High (Cut-in Permissive)	≤350°F	2(a)	1, 2, 3	F 23

L.3

A.9

Add proposed footnote (b)

L.5

Table 3.3.6.1-1

TABLE 3.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

G ACTION 20 - Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

L.4

D ACTION 21 - ~~Be in at least STARTUP~~ with the associated isolation valves closed within ~~8~~ 12 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

E ACTION 22 - Be in at least STARTUP within 8 hours.

L.2 For SLC Initiation Function

F, H, I ACTION 23 - Close the affected system isolation valves within one hour and declare the affected system inoperable.

A.7

ACTION 24 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour.

A.5 Moved to ITS 3.3.6.2

Add proposed ACTION G L.1

A.1

ITS 3.3.6.2

Table 3.3.6.2-1

TABLE 3.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

ACTION

<See ITS 3.3.6.1>

ACTION 20 - Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

ACTION 21 - Be in at least STARTUP with the associated isolation valves closed within 8 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

ACTION 22 - Be in at least STARTUP within 8 hours.

ACTION 23 - Close the affected system isolation valves within one hour and declare the affected system inoperable.

ACTION C

ACTION 24 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within one hour. A.4

add proposed Required Actions C.1.2 and C.2.2 L.2

Table 3.3.6.1-1

TABLE 3.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

Moved to ITS 3.3.6.2

A.5

TABLE NOTATION

A.3

- * During CORE ALTERATIONS or operations with a potential for draining the reactor vessel.
- ** When handling irradiated fuel in the secondary containment.

Insert CTS Table 3.2.A-1 Note

(a) ~~A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the CHANNEL in the tripped condition provided the Functional Unit maintains isolation actuation capability.~~

(b) ~~Deleted~~

(c) Isolates the reactor building ventilation system and actuates the standby gas treatment system. A.5 Moved to ITS 3.3.6.2

(d) ~~This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.~~ A.4

(e) ~~Only one TRIP SYSTEM.~~ A.9

(f) ~~Closes only reactor water cleanup system isolation valves.~~ LA.3

(g) ~~Deleted~~

Allowable Value Function 3b

(h) Includes a time delay of 3 ≤ t ≤ 9 seconds. LF.1

(i) ~~Reactor vessel water level settings are expressed in inches above the top of active fuel (which is 360 inches above vessel zero).~~ LA.2

Note (a) to Table 3.3.6.1-1

(j) All four switches in either of 2 groups for each trip system.

Table 3.3.6.2-1

TABLE 3.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

L.1

TABLE NOTATION

Note (a) to Table 3.3.6.2-1 * During ~~CORE ALTERATIONS~~ or operations with a potential for draining the reactor vessel.

add CORE ALTERATIONS M.1

Note (b) to Table 3.3.6.2-1 ** When handling irradiated fuel in the secondary containment.

INSERT CTS Table 3.2.A-1 Note (a) A.3

~~(a) A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the CHANNEL in the tripped condition provided the Functional Unit maintains isolation actuation capability.~~

~~(b) Deleted~~

~~(c) Isolates the reactor building ventilation system and actuates the standby gas treatment system.~~ LA.3

~~(d) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.~~ A.5

(e) Only one TRIP SYSTEM.

(f) Closes only reactor water cleanup system isolation valves.

~~(g) Deleted~~

(h) Includes a time delay of $3 \leq t \leq 9$ seconds.

See ITS 3.3.6.1

~~(i) Reactor vessel water level settings are expressed in inches above the top of active fuel (which is 360 inches above vessel zero).~~ LA.2

(j) All four switches in either of 2 groups for each trip system.

See ITS 3.3.6.1

Table 3.3.6.1-1

TABLE 4.2.A-1

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

A.1

Function / Functional Unit	SR 3.3.6.1.1 CHANNEL CHECK	SR 3.3.6.1.2 CHANNEL FUNCTIONAL TEST	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.5 CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
2 1. PRIMARY CONTAINMENT ISOLATION		A.3 Q	24 months LE.1	
2.a a. Reactor Vessel Water Level - Low	S-1	M-2	E(a)-3, 5	1, 2, 3
2.b b. Drywell Pressure - High(M) A.4	NA	M-2	Q-4	1, 2, 3
2.c c. Drywell Radiation - High	S-1	M-2	E-5	1, 2, 3
2. SECONDARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level - Low(c)	S	M	E(a)	1, 2, 3 & *
b. Drywell Pressure - High(b,c)	NA	M	Q	1, 2, 3
c. Reactor Building Ventilation Exhaust Radiation - High(c)	S	M	Q	1, 2, 3 & **
d. Refueling Floor Radiation - High(c)	S	M	Q	1, 2, 3 & **
1 3. MAIN STEAM LINE (MSL) ISOLATION		A.3 Q	24 months LE.1	
1.a a. Reactor Vessel Water Level - Low Low	S	M-2	E(a)-3, 5	1, 2, 3
~~b. Deleted~~				
1.b c. MSL Pressure - Low	NA	M-2	Q-4 M.4	1
1.d d. MSL Flow - High	S	M-2	E Q-4	1, 2, 3
1.e e. MSL Tunnel Temperature - High	NA	E (24 months LD.1, A.8)	E-5	1, 2, 3

A.5 Moved to ITS 3.3.6.2

add proposed Function 1.c Surveillances M.1

DRESDEN - UNITS 2 & 3 | INSTRUMENTATION

Table 3.3.6.2-1

TABLE 4.2.A-1

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

SR 3.3.6.2.3
SR 3.3.6.2.4
SR 3.3.6.2.5

A.1

Functional Unit <See ITS 3.3.6.1>	SR 3.3.6.2.1 CHANNEL CHECK	SR 3.3.6.2.2 CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
1. PRIMARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level - Low	S	M	E(a)	1, 2, 3
b. Drywell Pressure - High(k)	NA	M	Q	1, 2, 3
c. Drywell Radiation - High	S	M	E	1, 2, 3
2. SECONDARY CONTAINMENT ISOLATION				
1 a. Reactor Vessel Water Level - Low(d) A.5 LA.3	S- 1	A.3 M Q -2	5 - E(a) -3 (24 months, LE.1)	1, 2, 3 & (*) L.1
2 b. Drywell Pressure - High(k)(d)	NA	M Q -2	Q- 4	1, 2, 3
3 c. Reactor Building Ventilation Exhaust Radiation - High(d)	S- 1	M Q -2	Q- 4	1, 2, 3 & * *
4 d. Refueling Floor Radiation - High(d)	S- 1	M Q -2	Q- 4	1, 2, 3 & * *
3. MAIN STEAM LINE (MSL) ISOLATION				
a. Reactor Vessel Water Level - Low Low	S	M	E(a)	1, 2, 3
b. Deleted				
c. MSL Pressure - Low	NA	M	Q	1
d. MSL Flow - High	S	M	E	1, 2, 3
e. MSL Tunnel Temperature - High	NA	E	E	1, 2, 3

add CORE ALTERATIONS M.1

add during OPDRVs M.2

<See ITS 3.3.6.1>

ITS 3.3.6.2

Table 3.3.6.1-1

TABLE 4.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functional Unit	SR 3.3.6.1.1 CHANNEL CHECK	SR 3.3.6.1.2 CHANNEL FUNCTIONAL TEST	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.5 CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
5 **4. REACTOR WATER CLEANUP SYSTEM ISOLATION**		24 months LD.1		
5.a a. Standby Liquid Control System Initiation	NA	SR3.3.6.1.6 E A.8	5 NA	1, 2, 3 L.2
5.b b. Reactor Vessel Water Level - Low	S-1	A.3 Q M-2	E-3 24 months LE.1	1, 2, 3
4 **5. ISOLATION CONDENSER**				
4.a a. Steam Flow - High	NA	M-2	Q-4	1, 2, 3
4.b b. Return Flow - High	NA	M-2	Q-4	1, 2, 3
3 **6. HIGH PRESSURE COOLANT INJECTION ISOLATION**			5	
3.a a. Steam Flow - High	NA	M-2	E-3	1, 2, 3
3.c b. ~~Reactor Vessel~~ Steam Supply Line Pressure - Low	NA	M-2	E-3 5	1, 2, 3
3.d c. Area Temperature - High	NA	E A.8 24 months LD.1	E-5 24 months LE.1	1, 2, 3
M.3 Add proposed Function 3.b				
7. SHUTDOWN COOLING ISOLATION				
6.b a. Reactor Vessel Water Level - Low	S-1	M-2	E-3 5	3, 4, 5
6.a b. Recirculation Line Water Temperature - High (Cut-in Permissive)	NA	M-2	E-5	1, 2, 3

A.1

A.1

Table 3.3.6.1-1

TABLE 4.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

TABLE NOTATION

A.5 Moved to ITS 3.3.6.2

* During CORE ALTERATIONS or operations with a potential for draining the reactor vessel.

** When handling irradiated fuel in the secondary containment.

92 A.3

SR 3.3.6.1.3
SR 3.3.6.1.5 (a) Trip units are calibrated at least once per ~~31~~ 92 days and transmitters are calibrated at the frequency identified in the table.

A.4

(b) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

A.5 Moved to ITS 3.3.6.2

(c) Isolates the reactor building ventilation system and actuates the standby gas treatment system.

~~(d) Deleted~~

A.1

ITS 3.3.6.2

Table 3.3.6.2-1

TABLE 4.2.A-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

TABLE NOTATION

L.1

Note (a) to Table 3.3.6.2-1 * During CORE ALTERATIONS or operations with a potential for draining the reactor vessel.

Note (b) to Table 3.3.6.2-1 ** When handling irradiated fuel in the secondary containment. add CORE ALTERATIONS M.1

92 A.3

SR 3.3.6.2.3 SR 3.3.6.2.5 (a) Trip units are calibrated at least once per 31 days and transmitters are calibrated at the frequency identified in the table.

(b) ~~This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.~~ A.5

(c) ~~Isolates the reactor building ventilation system and actuates the standby gas treatment system.~~ LA.3

(d) ~~Deleted~~

3.2 - LIMITING CONDITIONS FOR OPERATION

B. Emergency Core Cooling Systems (ECCS) Actuation

LCO 3.3.5.1 The ECCS actuation instrumentation CHANNEL(s) shown in Table 3.2.B-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column. Allowable Value [A.2]

APPLICABILITY:

As shown in Table 3.2.B-1. [A.3]

ACTION: add proposed ACTIONS Note

1. ACTION A With an ECCS actuation instrumentation CHANNEL trip setpoint less conservative than the value shown in the ~~Trip Setpoint~~ column of Table 3.2.B-1, declare the CHANNEL inoperable until the CHANNEL is restored to OPERABLE status with its trip setpoint adjusted consistent with the ~~Trip Setpoint~~ value. Allowable Value [A.2]

2. ACTION A With one or more ECCS actuation instrumentation CHANNEL(s) inoperable, take the ACTION required by Table 3.2.B-1.

~~3. With either ADS TRIP SYSTEM inoperable, restore the inoperable TRIP SYSTEM to OPERABLE status within:~~ [A.8]

~~a. 7 days provided that both the HPCI and IC are OPERABLE, or~~

~~b. 72 hours.~~

~~With the above provisions of this ACTION not met, be in at least HOT~~

4.2 - SURVEILLANCE REQUIREMENTS

B. ECCS Actuation

1. Note 1 to Surveillance Requirements Each ECCS actuation instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.2.B-1.

2. SR 3.3.5.1.6 LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per ~~18~~ 24 months. [LD.1]

A.1

LOP Instrumentation A.2

3.2 - LIMITING CONDITIONS FOR OPERATION

B. ~~Emergency Core Cooling Systems (ECCS) Actuation~~ Loss of Power (LOP) Instrumentation A.2

LCO 3.3.8.1 The ~~ECCS actuation~~ LOP instrumentation CHANNEL(s) shown in Table 3.2.B-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the ~~Trip Setpoint~~ Allowable Value A.3 column.

APPLICABILITY:

As shown in Table 3.2.B-1.

ACTION: Add proposed ACTIONS Note A.4

ACTION A

1. With an ~~ECCS actuation~~ LOP A.2 instrumentation CHANNEL ~~trip setpoint~~ less conservative than the value shown in the ~~Trip Setpoint~~ Allowable Value A.3 column of Table 3.2.B-1, declare the CHANNEL inoperable until the CHANNEL is restored to OPERABLE status with its trip setpoint adjusted consistent with the ~~Trip Setpoint~~ value.
2. With one or more ~~ECCS actuation~~ LOP A.2 instrumentation CHANNEL(s) inoperable, take the ACTION required by Table 3.2.B-1.
3. With either ADS TRIP SYSTEM inoperable, restore the inoperable TRIP SYSTEM to OPERABLE status within:
   a. 7 days provided that both the HPCI and IC are OPERABLE, or
   b. 72 hours.

   With the above provisions of this ACTION not met, be in at least HOT

See ITS 3.3.5.1

4.2 - SURVEILLANCE REQUIREMENTS

B. ~~ECCS Actuation~~ LOP Instrumentation

1. Each ~~ECCS actuation~~ instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the ~~CHANNEL CHECK,~~ CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.2.B-1. See ITS 3.3.5.1

   Note 1 to Surveillance Requirements

SR 3.3.8.1.3 2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per ~~18~~ 24 LD.1 months.

3.2 - LIMITING CONDITIONS FOR OPERATION

~~SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to ≤150 psig within the following 24 hours.~~ A.8

4.2 - SURVEILLANCE REQUIREMENTS

Table 3.3.5.1-1

TABLE 3.2.B-1

EMERGENCY CORE COOLING SYSTEMS ACTUATION INSTRUMENTATION

Allowable Value A.2

LA.1

(Note 2 to Surveillance Requirements

Table 3.3.5.1-1 Note (a)

	Function Functional Unit	Trip Setpoint[b] LF.1	Minimum CHANNEL(s) per Trip Function[a]	Applicable OPERATIONAL MODE(s)	ACTION	
	1. CORE SPRAY (CS) SYSTEM					
1.a	a. Reactor Vessel Water Level - Low Low[b]	≥84 inches	4	1, 2, 3, 4[c], 5[c]	30 B	<DI-211>
1.b	b. Drywell Pressure - High[b](ll) A.6 Note b to Table 3.3.5.1-1	≤2 psig	4	1, 2, 3	30 B	<DI-216>
1.c	c. Reactor Vessel Pressure - Low (Permissive)	≥300 psig & ≤350 psig	2 add Max Allowable Value M.2	1, 2, 3 4[c], 5[c]	31 C 32 B	<DI-222>
<DI-222> <DI-272> 1.d	d. CS Pump Discharge Flow - Low (Bypass)	≥750 gpm	1/loop	1, 2, 3, 4[c], 5[c]	33 E	A.1
	add Core Spray Pump Start-Time Delay Relay (Function 1.e) M.1					
	2. LOW PRESSURE COOLANT INJECTION (LPCI) SUBSYSTEM	LF.1		Table 3.3.5.1-1 Note (a)		
2.a	a. Reactor Vessel Water Level - Low Low	≥84 inches	4	1, 2, 3, 4[c], 5[c]	30 B	<DI-212>
2.b	b. Drywell Pressure - High(ll) A.6	≤2 psig	4	1, 2, 3	30 B	<DI-217>
2.c	c. Reactor Vessel Pressure - Low (Permissive)	≥300 psig & ≤350 psig	2	1, 2, 3 4[c], 5[c]	31 C 32 B	<DI-223>
<DI-273> 2.f	d. LPCI Pump Discharge Flow - Low (Bypass)	≥1000 gpm	1/loop	1, 2, 3, 4[c], 5[c]	33 E	<DI-228>

M.1

add proposed Functions 2.d, 2.e, 2.g, 2.h, 2.i, 2.j and 2.k

2/3A Condensate Storage Tank	≥ 10.8'	2	1,2,3	35
2/3B Condensate Storage Tank	≥ 7.3'	2	1,2,3	35

A.15

DRESDEN - UNITS 2 & 3

3/4.2-14

Amendment Nos. 150 & 145

INSTRUMENTATION

Table 3.3.5.1-1 TABLE 3.2.B-1 (Continued)

ECCS ACTUATION INSTRUMENTATION

A.2 Allowable Value LF.1 LA.1 Note 2 to Surveillance Requirements

Table 3.3.5.1 Note (c)

	Function Functional Unit	Trip Setpoint[(k)]	Minimum CHANNEL(s) per Trip Function[(a)]	Applicable OPERATIONAL MODE(s)	ACTION	
3	3. HIGH PRESSURE COOLANT INJECTION (HPCI) SYSTEM[(d)]					
01-213 3.a	a. Reactor Vessel Water Level - Low Low	≥84 inches	4	1, 2, 3	35	37B
01-218 3.b	b. Drywell Pressure - High[(l)] A.6	≤2 psig	4	1, 2, 3	35	37B
01-227 3.d	c. Condensate Storage Tank Level - Low[(l)] LA.2	~~≥10,000 gal~~	~~2~~	~~1, 2, 3~~	~~35~~	A.15
3.e	d. Suppression Chamber Water Level - High[(l)]	≤15' 5" above bottom of chamber LA.1	2	1, 2, 3	35	D
01-229 3.c	e. Reactor Vessel Water Level - High (Trip)	≤194 inches	~~1~~ 2 M.8	1, 2, 3	31	C
01-226 01-274 3.f	f. HPCI Pump Discharge Flow - Low (Bypass)	≥600 gpm	1	1, 2, 3	33	E
3.g	g. Manual Initiation	NA	1 ~~(system)~~ A.7	1, 2, 3	34	C

A.1

Table 3.3.5.1 Note (c)

4	4. AUTOMATIC DEPRESSURIZATION SYSTEM - TRIP SYSTEM 'A'[(d)]				A.8	
01-214 4.a	a. Reactor Vessel Water Level - Low Low	≥84 inches LF.1	2	1, 2, 3	~~30~~ 38	F
01-219 4.b	b. Drywell Pressure - High[(l)] A.6	≤2 psig	2	1, 2, 3	~~30~~ 38	F
4.c	c. Initiation Timer	≤120 sec	1	1, 2, 3	31	G
4.f	d. Low Low Level Timer	≤10 min	1	1, 2, 3	31	G
01-232 4.d	e. CS Pump Discharge Pressure - High (Permissive)	≥100 psig & ≤150 psig	A.8 ~~1~~ 2/pump	1, 2, 3	31	G
01-233 4.e	f. LPCI Pump Discharge Pressure - High (Permissive)	≥100 psig & ≤150 psig	~~1~~ 2/pump	1, 2, 3	31	G

ECCS Actuation 3/4.2.B

ITS 3.3.5.1

Table 3.3.5.1-1

TABLE 3.2.B-1 (Continued)

ECCS ACTUATION INSTRUMENTATION

A.2 Allowable Value

LA.1

Note 2 to Surveillance Requirements

Table 3.3.5.1-1 Note (c)

Function / Functional Unit	Trip Setpoint[b]	Minimum CHANNEL(s) per Trip Function[a]	Applicable OPERATIONAL MODE(s)	ACTION
5. **5. AUTOMATIC DEPRESSURIZATION SYSTEM - TRIP SYSTEM 'B'[d]**				A.8
(3I-25) 5.a a. Reactor Vessel Water Level - Low Low	≥84 inches LF.1	2	1, 2, 3	~~30~~ 38 F
(3I-220) 5.b b. Drywell Pressure - High[f] A.6	≤2 psig	2	1, 2, 3	~~30~~ F
5.c c. Initiation Timer	≤120 sec	1	1, 2, 3	31 G
5.f d. Low Low Level Timer	≤10 min	1	1, 2, 3	31 G
(3I-236) 5.d e. CS Pump Discharge Pressure - High (Permissive)	≥100 psig & ≤150 psig	A.8 ~~1~~ 2/pump	1, 2, 3	31 G
(3I-237) 5.e f. LPCI Pump Discharge Pressure - High (Permissive)	≥100 psig & ≤150 psig	~~1~~ 2/pump	1, 2, 3	31 G
6. LOSS OF POWER				
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	2930 ± 146 volts decreasing voltage	2/bus	1, 2, 3, 4[e], 5[e]	36
b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	≥ 3784 volts (Unit 2)[g][j] ≥ 3832 volts (Unit 3)[g][j]	2/bus	1, 2, 3, 4[e], 5[e]	36

A.9 moved to ITS 3.3.8.1

A.1

ITS 3.3.5.1

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Table 3.3.8.1-1

A.2 LOP

TABLE 3.2.B-1 (Continued)

ECCS ACTUATION INSTRUMENTATION

A.3 Allowable Value

Note 2 to Surveillance Requirements

FUNCTION Functional Unit	Allowable Value Trip Setpoint[h]	Minimum CHANNEL(s) per Trip Function[a]	Applicable OPERATIONAL MODE(s)	ACTION
5. AUTOMATIC DEPRESSURIZATION SYSTEM - TRIP SYSTEM 'B'[d]				
a. Reactor Vessel Water Level - Low Low	≥84 inches	2	1, 2, 3	30
b. Drywell Pressure - High[f]	≤2 psig	2	1, 2, 3	30
c. Initiation Timer	≤120 sec	1	1, 2, 3	31
d. Low Low Level Timer	≤10 min	1	1, 2, 3	31
e. CS Pump Discharge Pressure - High (Permissive)	≥100 psig & ≤150 psig	1/pump	1, 2, 3	31
f. LPCI Pump Discharge Pressure - High (Permissive)	≥100 psig & ≤150 psig	1/pump	1, 2, 3	31
6. LOSS OF POWER				
1. a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	2930 ± 146 volts decreasing voltage	2/bus	1, 2, 3, 4[e], 5[e]	36
2. b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	≥ 3784 volts (Unit 2)[e][f] ≥ 3832 volts (Unit 3)[e][f]	2/bus	1, 2, 3, 4[e], 5[e]	36

See ITS 3.3.5.1

A.1

LF.1 <OI129>

LA.1

M.1

ACTIONS A and B

<OI130> LF.1

<OI130>

LF.1 2.a)

2.b)

2.a)

LF.1

LOP Instrumentation ~~ECCS Actuation~~ 3/4.2.B

A2

ITS 3.3.8.1

Page 2 of 6

A.1

ECCS ACTUATION INSTRUMENTATION

ACTION

A.8 Insert ACTION 30

~~ACTION 30 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement:~~

~~a. With one CHANNEL inoperable, place the inoperable CHANNEL in the tripped condition within one hour or declare the associated ECCS system(s) inoperable.~~

~~b. With more than one CHANNEL inoperable, declare the associated ECCS system(s) inoperable.~~

A.8 Insert ACTION 31

~~ACTION 31 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement:~~

~~a. For ADS, declare the associated ADS TRIP SYSTEM inoperable.~~

A.13 or declare associated ECCS inoperable

~~b. For CS, LPCI or HPCI, declare the associated ECCS system(s) inoperable.~~

A.8

ACTION 32 - ACTION B - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place the inoperable CHANNEL in the tripped condition within ~~one hour~~ 24 hours A.8

A.8 Insert ACTION 33

~~ACTION 33 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place the inoperable CHANNEL in the tripped condition within one hour; restore the inoperable CHANNEL to OPERABLE status within 7 days or declare the associated ECCS system(s) inoperable.~~

ACTION 34 - ACTION C - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, restore the inoperable CHANNEL to OPERABLE status within ~~8~~ 24 hours A.8 ~~or declare the associated ECCS system(s) inoperable.~~

A.8 ACTION H

A.8 Insert ACTION 35

~~ACTION 35 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place at least one inoperable CHANNEL in the tripped condition within one hour or declare the HPCI system inoperable.~~

A.9 moved to ITS 3.3.8.1

ACTION 36 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place the inoperable CHANNEL in the tripped condition within one hour, or declare the associated emergency diesel generator inoperable and take the ACTION required by Specification 3.9.A or 3.9.B, as appropriate.

A.8 Insert ACTION 37

Insert ACTION 38

A.1

LOP Instrumentation A.2

~~ECCS/Actuation~~ 3/4.2.B

INSTRUMENTATION

Table 3.3.8.1-1

TABLE 3.2.B-1 (Continued)

A.2 LOP ~~ECCS ACTUATION~~ INSTRUMENTATION

<See ITS 3.3.5.1>

ACTION

ACTION 30 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement:

a. With one CHANNEL inoperable, place the inoperable CHANNEL in the tripped condition within one hour or declare the associated ECCS system(s) inoperable.

b. With more than one CHANNEL inoperable, declare the associated ECCS system(s) inoperable.

ACTION 31 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement:

a. For ADS, declare the associated ADS TRIP SYSTEM inoperable.

b. For CS, LPCI or HPCI, declare the associated ECCS system(s) inoperable.

ACTION 32 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place the inoperable CHANNEL in the tripped condition within one hour.

ACTION 33 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place the inoperable CHANNEL in the tripped condition within one hour; restore the inoperable CHANNEL to OPERABLE status within 7 days or declare the associated ECCS system(s) inoperable.

ACTION 34 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, restore the inoperable CHANNEL to OPERABLE status within 8 hours or declare the associated ECCS system(s) inoperable.

ACTION 35 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place at least one inoperable CHANNEL in the tripped condition within one hour or declare the HPCI system inoperable.

ACTION 36 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place the inoperable CHANNEL in the tripped condition within one hour, or declare the associated emergency diesel generator inoperable ~~and take the ACTION required by Specification 3.9.A or 3.9.B, as appropriate.~~ A.5

ACTION A

ACTION B

TABLE 3.2.B-1 (Continued)

ECCS ACTUATION INSTRUMENTATION

A.8

Insert CTS Table 3.2.B-1 Note (a)

TABLE NOTATION

(a) ~~A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the CHANNEL in the tripped condition provided the associated Functional Unit maintains ECCS initiation capability.~~

Note (b) to Table 3.3.5.1-1 (b) Also actuates the associated emergency diesel generator.

Note (c) to Table 3.3.5.1-1 (c) When the system is required to be OPERABLE per Specification 3.5.B.

Note (e) to Table 3.3.5.1-1 (d) Not required to be OPERABLE when reactor steam dome pressure is ≤150 psig.

(e) Required when the associated diesel generator is required to be OPERABLE per Specification 3.9.B. A.9 moved to ITS 3.3.8.1

(f) ~~This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.~~ A.6

(g) With no LOCA signal present, there is an additional time delay of 5±0.25 minutes. A.9 moved to ITS 3.3.8.1

(h) ~~Reactor water level settings are expressed in inches above the top of active fuel (which is 360 inches above vessel zero).~~ LA.1

(i) ~~Provides signal to pump suction valves only.~~ LA.2

(j) There is an inherent time delay of 7 ± 1.4 seconds on degraded voltage. A.9 moved to ITS 3.3.8.1

A.1

LOP Instrumentation A.2

INSTRUMENTATION

Table 3.3.8.1-1

~~ECCS Actuation~~ 3/4.2.B

TABLE 3.2.B-1 (Continued)

A.2 LOP ~~ECCS ACTUATION~~ INSTRUMENTATION

TABLE NOTATION

Note 2 to Surveillance Requirements (a) A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the CHANNEL in the tripped condition provided the associated Functional Unit maintains ~~ECCS~~ LOP initiation capability. A.2

(b) Also actuates the associated emergency diesel generator.

(c) When the system is required to be OPERABLE per Specification 3.5.B.

(d) Not required to be OPERABLE when reactor steam dome pressure is ≤150 psig. See ITS 3.3.5.1

Applicability (e) Required when the associated diesel generator is required to be OPERABLE per Specification 3.9.B.

(f) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

Function 2.b (g) With no LOCA signal present, there is an additional time delay of 5 ± 0.25 minutes. LF.1

(h) Reactor water level settings are expressed in inches above the top of active fuel (which is 360 inches above vessel zero).

See ITS 3.3.5.1

(i) Provides signal to pump suction valves only.

Function 2.a (j) There is an inherent time delay of 7 ± 1.4 seconds on degraded voltage. LF.1

Tab 3.5.1-1

TABL[illegible].2.B-1

DRESDEN - UNITS 2 & 3

INSTRUMENTATION

ECCS ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

M.1 add Core Spray Pump Start-Time Delay Relay (Function 1.e)

	Function Functional Unit	SR 3.3.5.1.1 CHANNEL CHECK	SR 3.3.5.1.2 CHANNEL FUNCTIONAL TEST	SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
1	1. CORE SPRAY (CS) SYSTEM		A.8	(e) LE.1	Table 3.3.5.1-1 Note (a)
1.a	a. Reactor Vessel Water Level - Low Low	S-1	~~M~~ Q-2	5-~~E~~[(d)]-3 24 months	1, 2, 3, 4[(b)], 5[(b)]
1.b	b. Drywell Pressure - High[(d)] A.6	NA	~~M~~ Q-2	Q-4	1, 2, 3
1.c	c. Reactor Vessel Pressure - Low (Permissive)	NA	~~M~~ Q-2	Q-4	1, 2, 3, 4[(b)], 5[(b)]
1.d	d. CS Pump Discharge Flow - Low (Bypass)	NA	Q-2	5-~~E~~[(d)]-3 24 months	1, 2, 3, 4[(b)], 5[(b)]
2	2. LOW PRESSURE COOLANT INJECTION (LPCI) SUBSYSTEM		A.8	(e) LE.1	Table 3.3.5.1-1 Note (a)
2.a	a. Reactor Vessel Water Level - Low Low	S-1	~~M~~ Q-2	5-~~E~~[(d)]-3	1, 2, 3, 4[(b)], 5[(b)]
2.b	b. Drywell Pressure - High[(d)] A.6	NA	~~M~~ Q-2	Q-4	1, 2, 3
2.c	c. Reactor Vessel Pressure - Low (Permissive)	NA	~~M~~ Q-2	Q-4	1, 2, 3, 4[(b)], 5[(b)]
2.f	d. LPCI Pump Discharge Flow - Low (Bypass)	NA	Q-2	5-~~E~~[(d)]-3 24 months LE.1	1, 2, 3, 4[(b)], 5[(b)]

add Functions 2.d, 2.e, 2.g, 2.h, 2.i, 2.j and 2.k M.1

	Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
3	3. HIGH PRESSURE COOLANT INJECTION (HPCI) SYSTEM[(c)]		A.8	(e)	
3.a	a. Reactor Vessel Water Level - Low Low	S-1	~~M~~ Q-2	5-~~E~~[(d)]-3	1, 2, 3
3.b	b. Drywell Pressure - High[(d)] A.6	NA	~~M~~ Q-2	Q-4	1, 2, 3
3.d	c. Condensate Storage Tank Level - Low	NA	~~M~~ Q	~~NA~~ E 24 months A.15	1, 2, 3
3.e	d. Suppression Chamber Water Level - High	NA	~~M~~ Q-2	NA	1, 2, 3
3.c	e. Reactor Vessel Water Level - High (Trip)	A.14 S ~~NA~~-1	~~M~~ Q-2	5-~~E~~-3 LE.1	1, 2, 3
3.f	f. HPCI Pump Discharge Flow - Low (Bypass)	NA	Q-2	(e) Q-4	1, 2, 3
3.g	g. Manual Initiation	NA	E A.11 SR 3.3.5.1.6 24 months LD.1	NA	1, 2, 3

A.1

3/4.2-18

Amendment Nos162 and 157

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ECCS Actuation 3/4.2.B

ITS 3.3.5.1

Table 3.[illegible]-1

TABLE 4.2.[illegible] (Continued)

ECCS ACTUATION INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

Table 3.3.5.1-1 Note (e)

Function Functional Unit	SR 3.3.5.1.1 CHANNEL CHECK	SR 3.3.5.1.2 CHANNEL FUNCTIONAL TEST	SR 3.3.5.1.3 SR 3.3.5.1.4 SR 3.3.5.1.5 CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
4/5 4. AUTOMATIC DEPRESSURIZATION SYSTEM(a)		A.8	(e) LE.1 24 months	
4.a/5.a a. Reactor Vessel Water Level - Low Low	S-1	M Q-2	5-(e) Q-3	1, 2, 3
4.b/5.b b. Drywell Pressure - High(a) A.6	NA	M Q-2	Q-4	1, 2, 3
4.c/5.c c. Initiation Timer	NA	A.12 E 24 months	E-5	1, 2, 3
4.f/5.f d. Low Low Level Timer	NA	E LD.1	E-5	1, 2, 3
4.d/5.d e. CS Pump Discharge Pressure - High (Permissive)	NA	A.8 M Q-2	Q-4	1, 2, 3
4.e/5.e f. LPCI Pump Discharge Pressure - High (Permissive)	NA	M Q-2	Q-4	1, 2, 3
5. LOSS OF POWER				
a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	NA	E	E	1, 2, 3, 4(c), 5(c)
b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	NA	E	E	1, 2, 3, 4(c), 5(c)

A.9 moved to ITS 3.3.8.1

A.1

ITS 3.3.5.1

Table 3.3.8.1-1

TABLE 4.2.B-1 (Continued)

A.2 LOP

~~ECCS ACTUATION~~ INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTION Functional Unit	CHANNEL CHECK (See ITS 3.3.5.1)	SR 3.3.8.1.1 CHANNEL FUNCTIONAL TEST	SR 3.3.8.1.2 CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
4. AUTOMATIC DEPRESSURIZATION SYSTEM[a]				
a. Reactor Vessel Water Level - Low Low	S	M	E[f]	1, 2, 3
b. Drywell Pressure - High[d]	NA	M	Q	1, 2, 3
c. Initiation Timer	NA	E	E	1, 2, 3
d. Low Low Level Timer	NA	E	E	1, 2, 3
e. CS Pump Discharge Pressure - High (Permissive)	NA	M	Q	1, 2, 3
f. LPCI Pump Discharge Pressure - High (Permissive)	NA	M	Q	1, 2, 3
5. LOSS OF POWER		24 months LD.1	24 months LE.1	
1. a. 4.16 kv Emergency Bus Undervoltage (Loss of Voltage)	NA	~~E~~	~~E~~	1, 2, 3, ~~4[c], 5[c]~~
2.a, 2.b b. 4.16 kv Emergency Bus Undervoltage (Degraded Voltage)	NA	~~E~~	~~E~~	1, 2, 3, ~~4[c], 5[c]~~

See ITS 3.3.5.1

A.1

M.1

~~ECCS Actuation~~ LOP Instrumentation 3/4.2.B

A.2

ITS 3.3.8.1

A.1

TABLE 4.2.B-1 (Continued)

ECCS ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATION

Table 3.3.5.1-1 Note (c) (a) Not required to be OPERABLE when reactor steam dome pressure is ≤150 psig.

Table 3.3.5.1-1 Note (a) (b) When the system is required to be OPERABLE per Specification 3.5.B.

A.9 moved to ITS 3.3.8.1

(c) Required when the associated diesel generator is required to be OPERABLE per Specification 3.9.B.

A.6

(d) ~~This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.~~

SR 3.3.5.1.3 SR 3.3.5.1.5 (e) Trip units are calibrated at least once per 92 days and transmitters are calibrated at the frequency identified in the table.

(f) ~~Trip units are calibrated at least once per 92 days and transmitters are calibrated at the frequency indentified in the table.~~

A.8

Table 3.3.8.1-1

TABLE 4.2.B-1 (Continued)

A.2 LOP ~~ECCS ACTUATION~~ INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATION

(a) Not required to be OPERABLE when reactor steam dome pressure is ≤ 150 psig. <See ITS 3.3.5.1>

(b) When the system is required to be OPERABLE per Specification 3.5.B.

Applicability (c) Required when the associated diesel generator is required to be OPERABLE per Specification 3.9.B.

(d) This function is not required to be OPERABLE when PRIMARY CONTAINMENT INTEGRITY is not required.

(e) Trip units are calibrated at least once per 92 days and transmitters are calibrated at the frequency identified in the table.

(f) Trip units are calibrated at least once per 92 days and transmitters are calibrated at the frequency indentified in the table.

<See ITS 3.3.5.1>

ITS 3.3.4.1

A.1

3.2 - LIMITING CONDITIONS FOR OPERATION

C. ATWS - RPT

The anticipated transient without scram recirculation pump trip (ATWS - RPT) instrumentation CHANNEL(s) shown in Table 3.2.C-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column.

A.4 Allowable Value

APPLICABILITY:

OPERATIONAL MODE 1.

A.2 Add proposed ACTIONS Note

ACTION:

ACTIONS A, B and C

1. With an ATWS - RPT instrumentation CHANNEL trip setpoint less conservative than the value shown in the ~~Trip Setpoint~~ column of Table 3.2.C-1, declare the CHANNEL inoperable until the CHANNEL is restored to OPERABLE status with its trip setpoint adjusted consistent with the ~~Trip Setpoint~~ value.

Allowable Value A.4

Allowable A.4

ACTION A

2. With one level CHANNEL or one pressure CHANNEL inoperable in one ~~or both~~ TRIP SYSTEM(s), within 14 days, either restore the inoperable CHANNEL to OPERABLE status or place the inoperable CHANNEL in the tripped condition[a]. Otherwise, be in STARTUP within the next 6 hours.

M.1

ACTION D

M.2 Add proposed Required Action A.2 Note

Add proposed Required Action D.1 L.1

ACTION A

3. With two level CHANNELS or two pressure CHANNELS inoperable in one or both TRIP SYSTEM(s), declare the TRIP SYSTEM(s) inoperable.

L.2

4.2 - SURVEILLANCE REQUIREMENTS

C. ATWS - RPT

SR3.3.4.1.1 through SR3.3.4.1.4

1. Each ATWS - RPT instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.2.C-1.

M.2 including breaker actuation

SR3.3.4.1.5

2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per ~~18~~ 24 months.

LD.1

---

a ~~The inoperable CHANNEL(s) need not be placed in the tripped condition where this would cause the Trip Function to occur.~~

LA.1

Page 1 of 5

3.2 - LIMITING CONDITIONS FOR OPERATION

4.2 - SURVEILLANCE REQUIREMENTS

ACTION A — 4. With one level CHANNEL and one pressure CHANNEL inoperable in one or both TRIP SYSTEM(s), restore at least one inoperable CHANNEL to OPERABLE status within 14 days

ACTION D — or be in STARTUP within the next 6 hours.

M.1

ACTION B — 5. With one TRIP SYSTEM inoperable, restore the inoperable TRIP SYSTEM to OPERABLE status within 72 hours

ACTION D — or be in at least STARTUP within the next 6 hours.

Function

L.3

ACTION C — 6. With both TRIP SYSTEM(s) inoperable, restore at least one TRIP SYSTEM to OPERABLE status within one hour

ACTION D — or be in at least STARTUP within the next 6 hours.

Functions

Function

L.3

L.1

Add proposed Required Action D.1

A.1

ITS 3.3.4.1

TABLE 3.2.C-1

ATWS - RPT INSTRUMENTATION

A.4

Allowable Values

	Functional Unit		Trip Setpoint[c]	Minimum CHANNEL(s) per TRIP SYSTEM[a]
LCO 3.3.4.1.a	1. Reactor Vessel Water Level - Low Low	SR 3.3.4.1.4.a	≥84 inches[b]	LCO 3.3.4.1 2
LCO 3.3.4.1.b	2. Reactor Vessel Pressure - High	SR 3.3.4.1.4.b	≤1250 psig	2

Steam Dome

LF.1

Note to Surveillance Requirements

Insert CTS 3.2.C-1 Note a

A.3

---

a ~~A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the TRIP SYSTEM in the tripped condition provided at least one OPERABLE CHANNEL in the same TRIP SYSTEM is monitoring that parameter.~~

b Includes a time delay of $8 \leq t \leq 10$ seconds.

SR 3.3.4.1.4.a

c ~~Reactor vessel water level settings are expressed in inches above the top of active fuel (which is 360 inches above vessel zero).~~

LA.2

TABLE 4.2.C-1

ATWS - RPT INSTRUMENTATION SURVEILLANCE REQUIREMENTS

	Functional Unit	SR 3.3.4.1.1 CHANNEL CHECK	SR 3.3.4.1.3 CHANNEL FUNCTIONAL TEST	SR 3.3.4.1.2 SR 3.3.4.1.4 CHANNEL CALIBRATION
LCO 3.3.4.1.a	1. Reactor Water Level - Low Low	S	Q	E(a)
LCO 3.3.4.1.b	2. Reactor Vessel Pressure - High	S	Q	E(a)

24 months

LE.1

A.1

SR 3.3.4.1.2
SR 3.3.4.1.4 a Trip units are calibrated at least once per 92 days and transmitters are calibrated at the frequency identified in the table.

3.2 - LIMITING CONDITIONS FOR OPERATION

D. Isolation Condenser Actuation

LCO 3.3.5.2 The isolation condenser actuation instrumentation CHANNEL(s) shown in Table 3.2.D-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the ~~Trip Setpoint~~ column. Allowable Value A.2

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3 with the reactor steam dome pressure >150 psig.

ACTION: add proposed ACTIONS Note A.4

ACTION A 1. With an isolation condenser actuation instrumentation CHANNEL trip setpoint less conservative than the value shown in the ~~Trip Setpoint~~ column of Table 3.2.D-1, declare the CHANNEL inoperable until the CHANNEL is restored to OPERABLE status with its trip setpoint adjusted consistent with the ~~Trip Setpoint~~ value. Allowable Value A.2

ACTION A 2. With one or more isolation condenser system actuation instrumentation CHANNEL(s) inoperable, take the ACTION required by Table 3.2.D-1.

4.2 - SURVEILLANCE REQUIREMENTS

D. Isolation Condenser Actuation

SR 3.3.5.2.1, SR 3.3.5.2.2

1. Each isolation condenser actuation instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the ~~CHANNEL CHECK,~~ A.3 CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.2.D-1.

SR 3.3.5.2.3

2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per ~~18~~ 24 months. LD.1

A.1

TABLE 3.2.D-1

ISOLATION CONDENSER ACTUATION INSTRUMENTATION

SR 3.3.5.2.2

Note to Surveillance Requirements

A.2 Allowable Value

Function

LF.1

M.1 time delay ≤ 17 seconds

A.5

Functional Unit	Trip Setpoint	Minimum CHANNEL(s) per TRIP SYSTEM[a]	ACTION
Reactor Vessel Pressure - High	≤1070 psig	2 4	40 A & B

LCO 3.3.5.2

LCO 3.3.5.2

<DI-204>

ACTION

Insert CTS 3.2.D Action A.6

~~ACTION 40 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per TRIP SYSTEM requirement:~~

~~a. With one CHANNEL inoperable, place the inoperable CHANNEL in the tripped condition within one hour or declare the isolation condenser system inoperable.~~

~~b. With more than one CHANNEL inoperable, declare the isolation condenser system inoperable.~~

Insert CTS 3.2.D Note A.6

~~a A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the TRIP SYSTEM in the tripped condition provided at least one OPERABLE CHANNEL in the same TRIP SYSTEM is monitoring that parameter.~~

ITS 3.3.5.2

A.1

TABLE 4.2.D-1

ISOLATION CONDENSER ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

LCO 3.3.5.2

Functional Unit	A.3 ~~CHANNEL CHECK~~	SR 3.3.5.2.1 CHANNEL FUNCTIONAL TEST	SR 3.3.5.2.2 CHANNEL CALIBRATION
Reactor Vessel Pressure - High	~~NA~~	M	Q

A.1

3.2 - LIMITING CONDITIONS FOR OPERATION

E. Control Rod Block Actuation

LCO 3.3.2.1 The control rod block actuation instrumentation CHANNEL(s) shown in Table 3.2.E-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the ~~Trip Setpoint~~ Allowable Value column.

A.2

APPLICABILITY:

As shown in Table 3.2.E-1.

ACTION:

ACTIONS A and B

1. With a control rod block actuation instrumentation CHANNEL trip setpoint less conservative than the value shown in the ~~Trip Setpoint~~ Allowable Values column of Table 3.2.E-1, declare the CHANNEL inoperable until the CHANNEL is restored to OPERABLE status ~~with its trip setpoint adjusted consistent with the Trip Setpoint value~~.

A.2

ACTIONS. A and B

2. With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, take the ACTION required by Table 3.2.E-1.

4.2 - SURVEILLANCE REQUIREMENTS

E. Control Rod Block Actuation

Each of the required control rod block actuation TRIP SYSTEM(s) and instrumentation CHANNEL(s) shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.2.E-1.

Note 1 to Surveillance Requirements

A.1

Table 3.3.2.1-1

TABLE 3.2.E-1

CONTROL ROD BLOCK INSTRUMENTATION

Allowable Value — A.2

	Function Functional Unit	Allowable Value ~~Trip Setpoint~~	Minimum CHANNEL(s) per Trip Function[i]	Applicable OPERATIONAL MODE(s)	ACTION	
1.	1. ROD BLOCK MONITORS[f] — LA.1					
a.	a. Upscale	As specified in the COLR	2	1[a]	50	A, B
b.	b. Inoperative	NA	2	1[a]	50	A, B
c.	c. Downscale	≥5/125 of full scale	2	1[a]	50	A, B
	LF.1			A.3		
	~~2. AVERAGE POWER RANGE MONITORS~~					
	~~a. Flow Biased Neutron Flux - High~~					
	~~1. Dual Recirculation Loop Operation~~	~~≤(0.58W + 50)[g]~~	~~4~~	~~1~~	~~51~~	R.1
	~~2. Single Recirculation Loop Operation~~	~~≤(0.58W + 46.5)[g]~~	~~4~~	~~1~~	~~51~~	
	~~b. Inoperative~~	~~NA~~	~~4~~	~~1, 2, 5[h]~~	~~51~~	
	~~c. Downscale~~	~~≥3/125 of full scale~~	~~4~~	~~1~~	~~51~~	
	~~d. Startup Neutron Flux - High~~	~~≤12/125 of full scale~~	~~4~~	~~2, 5[h]~~	~~51~~	

Table 3.3.2.1-1

TABLE 3.2.E-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION

Allowable Value

A.2

Functional Unit	Trip Setpoint	Minimum CHANNEL(s) per Trip Function[i]	Applicable OPERATIONAL MODE(s)	ACTION
3. SOURCE RANGE MONITORS				
a. Detector not full in[b]	NA	3 2	2[j] 5[j]	51 51
b. Upscale[c]	≤ 1 x 10^5 cps	3 2	2 5	51 51
c. Inoperative[c]	NA	3 2	2 5	51 51
4. INTERMEDIATE RANGE MONITORS				
a. Detector not full in	NA	6	2, 5	51
b. Upscale	≤ 108/125 of full scale	6	2, 5	51
c. Inoperative	NA	6	2, 5	51
d. Downscale[d]	≥ 5/125 of full scale	6	2, 5	51

A.1

R.1

Table 3.3.2.1-1

TABLE 3.2.E-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION

A.2

Functional Unit	~~Trip Setpoint~~ Allowable Value	~~Minimum CHANNEL(s) per Trip Function[f]~~	~~Applicable OPERATIONAL MODE(s)~~	~~ACTION~~
~~5. SCRAM DISCHARGE VOLUME (SDV)~~				
~~a. Water Level - High~~	~~(Unit 2) ≤29 gal (Unit 3) ≤25 gal~~	~~1 per bank~~	~~1, 2, 5[h]~~	~~52~~
~~b. SDV Switch in Bypass~~	~~NA~~	~~1~~	~~5[h]~~	~~52~~

R.1

Add proposed Function 3, "Reactor Mode Switch - Shutdown Position"

M.1

A.1

Table 3.3.2.1-1

TABLE 3.2.E-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION

ACTION

ACTIONS A and B

ACTION 50 - Declare the rod block monitor inoperable and take the ACTION required by Specification 3.3.M.

R.1

~~ACTION 51 - With the number of OPERABLE CHANNEL(s):~~

~~a. One less than required by the Minimum CHANNEL(s) per Trip Function requirement, restore the inoperable CHANNEL to OPERABLE status within 7 days or place the inoperable CHANNEL in the tripped condition within the next hour.~~

~~b. Two or more less than required by the Minimum CHANNEL(s) per Trip Function requirement, place at least one inoperable CHANNEL in the tripped condition within one hour.~~

~~ACTION 52 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) per Trip Function requirement, place the inoperable CHANNEL in the tripped condition within one hour.~~

12 hours

A.4

A.1

Table 3.3.2.1-1

TABLE 3.2.E-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION

TABLE NOTATION

A.3

(a) ~~The RBM shall be automatically bypassed when a peripheral control rod is selected.~~ LA.1

(b) ~~This function shall be automatically bypassed if the IRM channels are on range 3 or higher~~

(c) ~~This function shall be automatically bypassed when the associated IRM channels are on range 8 or higher.~~

(d) ~~This function shall be automatically bypassed when the IRM channels are on range 1~~ R.1

Table 3.3.2.1-1 Note (a) (e) With THERMAL POWER ≥30% of RATED THERMAL POWER and no peripheral control rod selected A.3

(f) ~~With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~

(g) ~~The Average Power Range Monitor rod block function is varied as a function of recirculation drive flow (W). The trip setting of this function must be maintained in accordance with Specification 3.11.E. W is equal to the percentage of the drive flow required to produce a rated core flow of 98 x 10^6 lbs/hr.~~

(h) ~~Required to be OPERABLE only during SHUTDOWN MARGIN demonstrations performed per Specification 3.12.B.~~ R.1

(i) ~~A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the CHANNEL in the tripped condition provided the Functional Unit maintains control rod block capability.~~

(j) ~~With detector count rate less than or equal to 100 cps.~~ R.1

Insert CTS Table 3.2.E-1 A.4

DRESDEN - UNITS 2 & 3

Table 3.3.2.1-1

TABLE 4.2.E-1

INSTRUMENTATION

CONTROL ROD BLOCK INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

Note to SR 3.3.2.1.4

Function Functional Unit	CHANNEL CHECK	SR 3.3.2.1.1 CHANNEL FUNCTIONAL TEST	SR 3.3.2.1.4 CHANNEL CALIBRATION(a)	Applicable OPERATIONAL MODE(s)
1. 1. ROD BLOCK MONITORS				
a. a. Upscale	NA	~~S/U(b)(c)~~, M(c)	Q	1(d)
b. b. Inoperative	NA	~~S/U(b)(c)~~, M(c)	NA	1(d)
c. c. Downscale	NA	~~S/U(b)(c)~~, M(c)	Q	1(d)
2. AVERAGE POWER RANGE MONITORS				
a. Flow Biased Neutron Flux - High				
1. Dual Recirculation Loop Operation	NA	S/U(b), M	SA	1
2. Single Recirculation Loop Operation	NA	S/U(b), M	SA	1
b. Inoperative	NA	S/U(b), M	NA	1, 2, 5(i)
c. Downscale	NA	S/U(b), M	Q	1
d. Startup Neutron Flux - High	NA	S/U(b), M	SA	2, 5(i)
3. SOURCE RANGE MONITORS				
a. Detector not full in(f)	NA	S/U(b), W	E	2(i)(h), 5(h)
b. Upscale(g)	NA	S/U(b), W	E	2(i), 5
c. Inoperative(g)	NA	S/U(b), W	NA	2(i), 5

L.1

LA.2

A.3

Q

A.4

M.2

Add proposed SR 3.3.2.1.5

A.1

R.1

Q

A.4

3/4.2-34

Amendment Nos. 1

Page 8 of 12

ITS 3.3.2.1

Table 3.3.2.1-1

TABLE 4.2.E-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION[a]	Applicable OPERATIONAL MODE(s)
4. INTERMEDIATE RANGE MONITORS				
a. Detector not full in	NA	S/U[b], W	E	2[i], 5
b. Upscale	NA	S/U[b], W	E	2[i], 5
c. Inoperative	NA	S/U[b], W	NA	2[i], 5
d. Downscale[h]	NA	S/U[b], W	E	2[i], 5
5. SCRAM DISCHARGE VOLUME (SDV)				
a. Water Level - High	NA	Q	NA	1, 2, 5[e]
b. SDV Switch in Bypass	NA	E	NA	5[e]

R.1

Add proposed Function 3, "Reactor Mode Switch - Shutdown Position" surveillance SR 3.3.2.1.7

M.1

A.1

ITS 3.3.2.1

A.1

Table 3.3.2.1-1

TABLE 4.2.E-1 (Continued)

CONTROL ROD BLOCK INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

TABLE NOTATION

Note to SR 3.3.2.1.4 and SR 3.3.2.1.5 (a) Neutron detectors may be excluded from CHANNEL CALIBRATION.

~~(b) Within 7 days prior to startup.~~ L.1

~~(c) Includes reactor manual control "relay select matrix" system input.~~ LA.2

SR 3.3.2.1.4 (d) With THERMAL POWER ≥30% of RATED THERMAL POWER and no peripheral rod is selected A.3

~~(e) With more than one control rod withdrawn. Not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~

~~(f) This function shall be automatically bypassed if the IRM channels are on range 3 or higher.~~

~~(g) This function shall be automatically bypassed when the associated IRM channels are on range 8 or higher.~~

~~(h) This function shall be automatically bypassed when the IRM channels are on range 1.~~

~~(i) The provisions of Specification 4.0.D are not applicable to the CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION surveillances for entry into the applicable OPERATIONAL MODE(s) from OPERATIONAL MODE 1 provided the surveillances are performed within 12 hours after such entry.~~

~~(j) Required to be OPERABLE only during SHUTDOWN MARGIN demonstrations performed per Specification 3.12.B.~~

~~(k) With detector count rate less than or equal to 100 cps.~~ R.1

A.1

3.2 - LIMITING CONDITIONS FOR OPERATION

LCO 3.3.3.1 F. Accident Monitoring

The accident monitoring instrumentation CHANNEL(s) shown in Table 3.2.F-1 shall be OPERABLE.

APPLICABILITY:

As shown in Table 3.2.F-1.

ACTION:

ACTION A – F With one or more of the required number of accident monitoring instrumentation CHANNEL(s) inoperable, take the ACTION shown by Table 3.2.F-1.

Add proposed ACTIONS Note 1 L.1

Add proposed ACTIONS Note 2 A.2

4.2 - SURVEILLANCE REQUIREMENTS

F. Accident Monitoring

SR Note 1 Each of the required accident monitoring instrumentation CHANNEL(s) shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK and CHANNEL CALIBRATION operations for the OPERATIONAL MODE(s) and at the frequencies shown in Table 4.2.F-1.

Add proposed Note 2 L.2

DRESDEN - UNITS 2 & 3

3/4.2-38

Amendment Nos. 150 & 145

Table 3.3.3.1-1

TABLE 3.2.F-1

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENTATION

A.3

	Function INSTRUMENTATION	Required CHANNEL(s)	Minimum CHANNEL(s)	Applicable OPERATIONAL MODE(s)	ACTION	
1	1. Reactor Vessel Pressure	2	1	1, 2	60	A, B, C, D, E
2	2. Reactor Vessel Water Level (a. Fuel Zone (Wide Range) b. Medium Range)	2	1	1, 2	60	A, B, C, D, E
3	3 Torus Water Level	2	1	1, 2	60	A, B, C, D, E
9	4. Torus Water Temperature	2	1	1, 2	60	A, B, C, D, E
4a	5. Drywell Pressure - Wide Range	2	1	1, 2	60	A, B, C, D, E
4b	6. Drywell Pressure - Narrow Range	2	1	1, 2	60	A, B, C, D, E
	~~7. Drywell Air Temperature~~	~~2~~	~~1~~	~~1, 2~~	~~60~~	R.1
8	8. Drywell Oxygen Concentration - Analyzer and Monitor	2	1	1, 2	62	A, B, C, D, E
7	9. Drywell Hydrogen Concentration - Analyzer and Monitor	2	1	1, 2	62	A, B, C, D, E
	~~10. Safety & Relief Valve Position Indicators - Acoustic & Temperature~~	~~2/valve (1 each)~~	~~1/valve~~	~~1, 2~~	~~63~~	R.1
	~~11. (Source Range) Neutron Monitors~~	~~2~~	~~2~~	~~1, 2~~	~~60~~	
5	12. Drywell Radiation Monitors	2	2	1, 2, 3	61	A, B, C, F
	~~13. Torus Pressure~~	~~2[a]~~	~~1~~	~~1, 2~~	~~60~~	

~~a This function is shared with Drywell Pressure-Wide Range and Drywell Pressure-Narrow Range.~~

A.1

L.6

Add proposed ITS 3.3.3.1 Function 6 — M.1

LA.3

Accident Monitors 3/4.2.F

ITS 3.3.3.1

Page 2 of 6

TABLE 3.2.F-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

L.3

Add proposed ACTION B

ACTION

ACTION 60 - ACTION A
a. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Required CHANNEL(s) shown in Table 3.2.F-1, restore the inoperable CHANNEL(s) to OPERABLE status within 30 days ~~or be in at least HOT SHUTDOWN within the next 12 hours.~~

L.4

ACTION C
ACTIONS D and E
b. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Minimum CHANNEL(s) shown in Table 3.2.F-1, restore the inoperable CHANNEL(s) to OPERABLE status within ~~48 hours~~ 7 days or be in at least HOT SHUTDOWN within the next 12 hours. Insert proposed ACTION A

ACTION 61- L.5
~~With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Minimum CHANNEL(s) shown in Table 3.2.F-1,~~ with two required channels inoperable initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours and: LA.1

ACTION C
a. ~~Either~~ restore ~~the inoperable~~ one required CHANNEL~~(s)~~ to OPERABLE status within 7 days of the event, or L.5

ACTIONS B and F
b. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.B within 30 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status. A.4 moved to ITS 5.6

ACTION 62- ACTION A
a. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) one less than the Required CHANNEL(s) shown in Table 3.2.F-1, restore the inoperable CHANNEL(s) to OPERABLE status within 30 days ~~or be in at least HOT SHUTDOWN within the next 12 hours.~~

ACTION C
ACTIONS D and E
b. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Minimum CHANNEL(s) shown in Table 3.2.F-1; restore at least one inoperable CHANNEL to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

A.1

ITS 5.6

TABLE 3.2.F-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

ACTION

<See ITS 3.3.3.1>

ACTION 60 - a. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Required CHANNEL(s) shown in Table 3.2.F-1, restore the inoperable CHANNEL(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Minimum CHANNEL(s) shown in Table 3.2.F-1, restore the inoperable CHANNEL(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

ACTION 61- With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Minimum CHANNEL(s) shown in Table 3.2.F-1, initiate the preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours, and:

a. Either restore the inoperable CHANNEL(s) to OPERABLE status within 7 days of the event, or

5.6.6 b. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.B within ~~30~~ 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status. M.1

ACTION 62- a. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) one less than the Required CHANNEL(s) shown in Table 3.2.F-1, restore the inoperable CHANNEL(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Minimum CHANNEL(s) shown in Table 3.2.F-1; restore at least one inoperable CHANNEL to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours.

<See ITS 3.3.3.1>

TABLE 3.2.F-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

R.1

~~ACTION 63 - a. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Required CHANNEL(s) shown in Table 3.2.F-1, restore the inoperable CHANNEL(s) to OPERABLE status prior to startup from a COLD SHUTDOWN of longer than 72 hours.~~

~~b. With the number of OPERABLE accident monitoring instrumentation CHANNEL(s) less than the Minimum CHANNEL(s) shown in Table 3.2.F-1, restore at least one of the inoperable CHANNEL(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.~~

Table 3.3.3.1-1

TABLE 4.2.F-1

ACCIDENT MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

SR 3.3.3.1.2
SR 3.3.3.1.3
SR 3.3.3.1.4
SR 3.3.3.1.5

Function INSTRUMENTATION	SR 3.3.3.1.1 CHANNEL CHECK	CHANNEL CALIBRATION	Applicable OPERATIONAL MODE(s)
1 1. Reactor Vessel Pressure	M	3- SA -5 SR 3.3.3.1.3 Note	1, 2
2 2. Reactor Vessel Water Level (a. Fuel Zone (Wide Range) b. Medium Range)	M	3- SA(a)	1, 2
3 3 Torus Water Level	M	4 - A	1, 2
9 4. Torus Water Temperature	M	4 - A	1, 2
4a 5. Drywell Pressure - Wide Range	M	5 - E (24 months)	1, 2
4b 6. Drywell Pressure - Narrow Range	M	2 - Q	1, 2
~~7. Drywell Air Temperature~~	~~M~~	~~E~~	~~1, 2~~
8 8. Drywell Oxygen Concentration - Analyzer and Monitor	M	Q - 2	1, 2
7 9. Drywell Hydrogen Concentration - Analyzer and Monitor	M	Q - 2	1, 2
~~10. Safety/Relief Valve Position Indicators - Acoustic & Temperature~~	~~M(b)~~	~~E~~	~~1, 2~~
~~11. (Source Range) Neutron Monitors~~	~~M~~	~~Q(b)~~	~~1, 2~~
5 12. Drywell Radiation Monitors	M	5 E(d) (24 months)	1, 2, 3
~~13. Torus Pressure~~	~~M~~	~~Q~~	~~1, 2~~

Add proposed ITS 3.3.3.1 Function 6 M.1

A.3 LD.1 LE.1 R.1 L.6 LA.3 LA.2 A.1

ITS 3.3.3.1

Page 5 of 6

ITS 3.3.3.1

A.1

TABLE 4.2.F-1 (Continued)

ACCIDENT MONITORING INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

TABLE NOTATION

(a) ~~CHANNEL CALIBRATION shall consist of an electronic calibration of the CHANNEL, not including the detector, for range decades above 10 R/hr and a one point calibration check of the detector below 10 R/hr with an installed or portable gamma source.~~ LA.2

(b) ~~Neutron detectors may be excluded from the CHANNEL CALIBRATION.~~ R.1

(c) ~~CHANNEL CHECK of the Acoustic Monitors shall consist of verifying the instrument threshold levels.~~

SR 3.3.3.1.5 Function 2

(d) Analog transmitters are calibrated every ~~18~~ 24 months. ~~The control room indicator for the analog transmitter is calibrated at the frequency identified in the table.~~ LE.1

SR 3.3.3.1.3 and Note to SR 3.3.3.1.3 for Function 2

Page 6 of 6

A.1

SRM 3/4.2.G

INSTRUMENTATION

3.2 - LIMITING CONDITIONS FOR OPERATION

G. Source Range Monitoring

LCO 3.3.1.2 At least the following source range monitor (SRM) channels shall be OPERABLE:

Table 3.3.1.2-1

a. In OPERATIONAL MODE 2[a], three.

b. In OPERATIONAL MODE 3 and 4, two.

APPLICABILITY:

OPERATIONAL MODE(s) 2[a], 3, and 4.

ACTION:

ACTION A — 1. In OPERATIONAL MODE 2[a] with one or more L.1 of the above required source range monitor CHANNEL(s) inoperable, at least 3 source range monitor CHANNEL(s) shall be restored to OPERABLE status within 4 hours or the

ACTION C — reactor shall be in at least HOT SHUTDOWN within the next 12 hours.

ACTION D — 2. In OPERATIONAL MODE(s) 3 or 4 with one or more of the above required source range monitor CHANNEL(s) inoperable, verify (A.2) all insertable control rods to be fully inserted in the core and lock place (L.2) the reactor mode switch in the Shutdown position within one hour.

add proposed ACTION B — L.1

4.2 - SURVEILLANCE REQUIREMENTS

A.3

G. Source Range Monitoring — add proposed Note to Surveillance Requirements

Each of the required source range monitor CHANNEL(s) shall be demonstrated OPERABLE by:

SR 3.3.1.2.4 1. Verifying, ~~prior to withdrawal of the control rods,~~ (M.1) that the SRM count rate is ≥3 cps or ≥ 0.7 cps with a signal to noise ratio ≥ 20:1 (L.8) ~~with the detector fully inserted~~ (LA.1).

2. Performance of a CHANNEL CHECK at least once per:

SR 3.3.1.2.1 a. 12 hours in OPERATIONAL MODE 2[a], and

SR 3.3.1.2.3 b. 24 hours in OPERATIONAL MODE(s) 3 or 4. M.5

3. Performance of a CHANNEL FUNCTIONAL TEST and determination of signal to noise ratio:

~~a. Within 7 days prior to startup, and~~ L3

SR 3.3.1.2.6 b. At least once per 31 days[b].

SR 3.3.1.2.7 4. Performance of a CHANNEL CALIBRATION[c] at least once per ~~18~~ 24 months[b]. LE.1

Table 3.3.1.2-1 Note a — a With IRM's on range 2 or below.

SR 3.3.1.2.6 Note, SR 3.3.1.2.7 Note 2 — b The provisions of Specification 4.0.D are not applicable for entry into the applicable OPERATIONAL MODE(s) from OPERATIONAL MODE 1, provided the surveillance is performed within 12 hours after such entry.

SR 3.3.1.2.7 Note 1 — c Neutron detectors may be excluded from the CHANNEL CALIBRATION.

CTS 3/4.2.H

R.1

3.2 - LIMITING CONDITIONS FOR OPERATION

H. Explosive Gas Monitoring

The explosive gas monitoring instrumentation CHANNEL(s) shown in Table 3.2.H-1 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.8.H are not exceeded.

APPLICABILITY:

During offgas holdup system operation.

ACTION:

1. With an explosive gas monitoring instrumentation CHANNEL alarm/trip setpoint less conservative than required by the above specification, declare the CHANNEL inoperable and take the ACTION shown in Table 3.2.H-1.
2. With less than the minimum number of explosive gas monitoring instrumentation CHANNEL(s) OPERABLE, take the ACTION shown in Table 3.2.H-1. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.B to explain why this inoperability was not corrected in a timely manner.
3. The provisions of Specification 3.0.C are not applicable.

4.2 - SURVEILLANCE REQUIREMENTS

H. Explosive Gas Monitoring

Each explosive gas monitoring instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.2.H-1.

CTS 3/4.2.H

TABLE 3.2.H-1

EXPLOSIVE GAS MONITORING INSTRUMENTATION

Functional Unit	Minimum CHANNEL(s)	ACTION
MAIN CONDENSER OFFGAS TREATMENT SYSTEM EXPLOSIVE GAS MONITORING SYSTEM		
1. Hydrogen Monitor	1	70

ACTION

ACTION 70 - With the number of OPERABLE CHANNEL(s) less than required by the Minimum CHANNEL(s) OPERABLE requirement, operation of the main condenser offgas treatment system may continue provided grab samples are collected at least once per 4 hours and analyzed within the following 4 hours. If the recombiner(s) temperature remains constant and THERMAL POWER has not changed, the grab sample collection frequency may be changed to 8 hours.

R.1

TABLE 4.2.H-1

EXPLOSIVE GAS MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
MAIN CONDENSER OFFGAS TREATMENT SYSTEM EXPLOSIVE GAS MONITORING SYSTEM			
Hydrogen Monitor	D	M	Q

INSTRUMENTATION

R.1

R.1

3.2 - LIMITING CONDITIONS FOR OPERATION

I. Suppression Chamber and Drywell Spray Actuation

The suppression chamber and drywell spray actuation instrumentation CHANNEL(s) shown in Table 3.2.I-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.2.I-1.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

With a suppression chamber and drywell spray actuation instrumentation CHANNEL trip setpoint less conservative than the value shown in the Trip Setpoint column of Table 3.2.I-1, declare the CHANNEL inoperable and take the ACTION shown in Table 3.2.I-1.

4.2 - SURVEILLANCE REQUIREMENTS

I. Suppression Chamber and Drywell Spray Actuation

1. Each suppression chamber and drywell spray actuation instrumentation CHANNEL shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.2.I-1.

2. LOGIC SYSTEM FUNCTIONAL TEST(s) of all CHANNEL(s) shall be performed at least once per 18 months.

TABLE 3.2.I-1

SUPPRESSION CHAMBER AND DRYWELL SPRAY ACTUATION INSTRUMENTATION

Functional Unit	Trip Setpoint[a]	Minimum CHANNEL(s) per TRIP SYSTEM[c]	ACTION
1. Drywell Pressure - High (Permissive)	0.5≤ p ≤1.5 psig	2	80
2. Reactor Vessel Water Level -Low (Permissive)	≥ -48 inches	1	80

R.1

ACTION

ACTION 80 -

a. With the number of OPERABLE CHANNEL(s) less than required by the Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM requirement for one TRIP SYSTEM, place at least one inoperable CHANNEL in the tripped condition[b] within ~~one hour~~ 24 hours or declare the suppression chamber and drywell sprays inoperable. 34

b. With the number of OPERABLE CHANNEL(s) less than required by the Minimum OPERABLE CHANNEL(s) per TRIP SYSTEM requirement for both TRIP SYSTEM(s), declare the suppression chamber and drywell sprays inoperable.

---

a Reactor vessel water level settings are expressed in inches above the top of active fuel (which is 360 inches above vessel zero).

b If an instrument is inoperable, it shall be placed (or simulated) in a tripped condition so that it will not prevent a containment spray.

c A CHANNEL may be placed in an inoperable status for up to 2 hours for required surveillance without placing the CHANNEL in the tripped condition provided the Functional Unit maintains Suppression Chamber and Drywell Spray Actuation capability.

Replace with Insert 2.4

R.1

CTS 3/4.2.I

TABLE 4.2.I-1

SUPPRESSION CHAMBER AND DRYWELL SPRAY ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
1. Drywell Pressure - High	NA	~~M~~ ← Q	Q
2. Reactor Vessel Water Level -Low	D	~~M~~ ← Q	E[a]

$\boxed{2}$

92 $\boxed{35}$

a Trip units are calibrated at least once per ~~31~~ days and transmitters are calibrated at the frequency indicated in the table.

A.1

3.2 - LIMITING CONDITIONS FOR OPERATION

J. Feedwater ~~Pump Trip~~ M.1 System and main turbine

LCO 3.3.2.2 The feedwater ~~pump~~ trip instrumentation CHANNEL(s) shown in Table 3.2.J-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the ~~Trip Setpoint~~ Allowable Value column of Table 3.2.J-1. A.2

APPLICABILITY:

~~OPERATIONAL MODE 1~~. Thermal Power ≥ 25% RTP L.1

ACTION:

ACTIONS A and B With a feedwater ~~pump~~ System and main turbine M.1 trip instrumentation CHANNEL trip setpoint less conservative than value shown in the ~~Trip Setpoint~~ Allowable Value A.2 column of Table 3.2.J-1, declare the CHANNEL inoperable and take the ACTION shown in Table 3.2.J-1.

4.2 - SURVEILLANCE REQUIREMENTS

J. Feedwater ~~Pump Trip~~ System and Main Turbine High Water Level Trip M.1

1. Each feedwater ~~pump~~ trip instrumentation CHANNEL shall be demonstrated OPERABLE by the SR 3.3.2.2.1 performance of the CHANNEL CHECK, SR 3.3.2.2.2 CHANNEL FUNCTIONAL TEST ~~and~~ SR 3.3.2.2.4 CHANNEL CALIBRATION operations at the frequencies shown in Table 4.2.J-1.

2. SR 3.3.2.2.5 LOGIC SYSTEM FUNCTIONAL TEST(s) including breaker and valve actuation M.2 of all CHANNEL(s) shall be performed at least once per ~~18~~ 24 LD.1 months.

add proposed SR 3.3.2.2.3 M.5

A.1

TABLE 3.2.J-1

FEEDWATER PUMP TRIP INSTRUMENTATION

A.2

LA.1

Functional Unit	Allowable Value ~~Trip Setpoint~~[a]	Minimum CHANNEL(s)[b]	ACTION
Reactor Vessel Water Level -High	≤ 201 inches	~~2~~ 4	90 A, B, C

LCO 3.3.2.2

A.4

LF.1

ACTION

add proposed ACTIONS Note

A.3

ACTION 90 - a. With the number of OPERABLE CHANNEL(s) one less than required by the Minimum CHANNEL(s) requirement, restore the inoperable CHANNEL to OPERABLE status within 7 days or place the inoperable CHANNEL in the tripped condition within the next 8 hours.

b. With the number of OPERABLE CHANNEL(s) two less than required by the Minimum CHANNEL(s) requirement, restore at least one of the inoperable CHANNEL(s) to OPERABLE status within 72 hours or be in at least STARTUP within the next 8 hours.

INSERT ACTION 90

A.4

---

a ~~Reactor vessel water level settings are expressed in inches above the top of active fuel (which is 360 inches above vessel zero).~~

LA.1

b A CHANNEL may be placed in an inoperable status for up to ~~2~~ 6 hours for required surveillance without placing the CHANNEL in the tripped condition.

A.4

Note to Surveillance Requirements

ITS 3.3.2.2

ITS 3.3.2.2

A.1

TABLE 4.2.J-1

FEEDWATER PUMP TRIP INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functional Unit	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION
LCO 3.3.2.2 Reactor Vessel Water Level - High	SR 3.3.2.2.1 ~~B~~ S	SR 3.3.2.2.2 ~~E~~ Q	SR 3.3.2.2.4 E

M.4

LE.1

Add proposed SR 3.3.2.2.3

M.5

Page 4 of 4

A.1

ITS Chapter 1.0

3.3 - LIMITING CONDITIONS FOR OPERATION

A. SHUTDOWN MARGIN (SDM)

The SHUTDOWN MARGIN (SDM) shall be equal to or greater than:

1. 0.38% Δk/k with the highest worth control rod analytically determined, or
2. 0.28% Δk/k with the highest worth control rod determined by test.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, 4, and 5.

ACTION:

With the SHUTDOWN MARGIN less than specified:

1. In OPERATIONAL MODE 1 or 2, restore the required SHUTDOWN MARGIN within 6 hours or be in at least HOT SHUTDOWN within the next 12 hours.
2. In OPERATIONAL MODE 3 or 4, immediately verify all insertable control rods to be fully inserted and suspend all activities that could reduce the SHUTDOWN MARGIN. In OPERATIONAL MODE 4, establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.
3. In OPERATIONAL MODE 5, suspend CORE ALTERATION(s) and other activities that could reduce the SHUTDOWN MARGIN and fully insert all insertable control rods within 1 hour. Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

4.3 - SURVEILLANCE REQUIREMENTS

A. SHUTDOWN MARGIN

The SHUTDOWN MARGIN shall be determined to be equal to or greater than that specified at any time during the operating cycle:

See ITS 3.1.1

1. By demonstration, prior to or during the first startup after each refueling outage.
2. Within 24 hours after detection of a withdrawn control rod that is immovable, as a result of excessive friction or mechanical interference, or known to be unscrammable. The required SHUTDOWN MARGIN shall be verified acceptable with an increased allowance for the withdrawn worth of the immovable or unscrammable control rod.

A.13 Replaced with INSERT 2

3. By calculation, prior to each fuel movement during the fuel loading sequence.

Page 12 of 12

A.1

ITS 3.1.1

3.3 - LIMITING CONDITIONS FOR OPERATION

LCO 3.1.1

A. SHUTDOWN MARGIN (SDM)

The SHUTDOWN MARGIN (SDM) shall be equal to or greater than: SR 3.1.1.1

1. 0.38% Δk/k with the highest worth control rod analytically determined, or
2. 0.28% Δk/k with the highest worth control rod determined by test.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, 4, and 5.

ACTION:

With the SHUTDOWN MARGIN less than specified:

ACTION A / ACTION B
1. In OPERATIONAL MODE 1 or 2, restore the required SHUTDOWN MARGIN within 6 hours or be in at least HOT SHUTDOWN within the next 12 hours.

ACTION C / ACTION D / ACTION D
2. In OPERATIONAL MODE 3 or 4, immediately verify all insertable control rods to be fully inserted and suspend all activities that could reduce the SHUTDOWN MARGIN. In OPERATIONAL MODE 4, establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

A.2 A.3 A.5 A.4 L.1

ACTION E
3. In OPERATIONAL MODE 5, suspend CORE ALTERATION(s) and other activities that could reduce the SHUTDOWN MARGIN and fully insert all insertable control rods within 1 hour. Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

A.3 A.6 A.5 A.4 L.2

4.3 - SURVEILLANCE REQUIREMENTS

A. SHUTDOWN MARGIN

The SHUTDOWN MARGIN shall be determined to be equal to or greater than that specified at any time during the operating cycle:

LA.1

1. By demonstration, prior to or during the first startup after each refueling outage. A.7 A.8

2. Within 24 hours after detection of a withdrawn control rod that is immovable, as a result of excessive friction or mechanical interference, or known to be unscrammable. The required SHUTDOWN MARGIN shall be verified acceptable with an increased allowance for the withdrawn worth of the immovable or unscrammable control rod. A.9 moved to ITS 3.1.3

LA.1

3. By calculation, prior to each fuel movement during the fuel loading sequence.

Page 1 of 1

A.1

ITS 3.1.3

3.3 - LIMITING CONDITIONS FOR OPERATION

A. SHUTDOWN MARGIN (SDM)

The SHUTDOWN MARGIN (SDM) shall be equal to or greater than:

Required Action A.4

1. 0.38% Δk/k with the highest worth control rod analytically determined, or
2. 0.28% Δk/k with the highest worth control rod determined by test.

Required Action A.4

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, 4, and 5.

ACTION:

With the SHUTDOWN MARGIN less than specified:

1. In OPERATIONAL MODE 1 or 2, restore the required SHUTDOWN MARGIN within 6 hours or be in at least HOT SHUTDOWN within the next 12 hours.
2. In OPERATIONAL MODE 3 or 4, immediately verify all insertable control rods to be fully inserted and suspend all activities that could reduce the SHUTDOWN MARGIN. In OPERATIONAL MODE 4, establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.
3. In OPERATIONAL MODE 5, suspend CORE ALTERATION(s) and other activities that could reduce the SHUTDOWN MARGIN and fully insert all insertable control rods within 1 hour. Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

<See ITS 3.1.1>

4.3 - SURVEILLANCE REQUIREMENTS

A. SHUTDOWN MARGIN

The SHUTDOWN MARGIN shall be determined to be equal to or greater than that specified at any time during the operating cycle:

1. By demonstration, prior to or during the first startup after each refueling outage.
2. Within 24 72 hours after detection of a withdrawn control rod that is immovable, as a result of excessive friction or mechanical interference, or known to be unscrammable. The required SHUTDOWN MARGIN shall be verified acceptable with an increased allowance for the withdrawn worth of the immovable or unscrammable control rod.
3. By calculation, prior to each fuel movement during the fuel loading sequence.

L.4

A.5

A.9

Moved to ITS Chapter 1.0 SDM definition

A.1

ITS 3.1.2

3.1 REACTIVITY CONTROL

Anomalies 3/4.3.B

3.3 - LIMITING CONDITIONS FOR OPERATION

3.1.2 **B. Reactivity Anomalies** A.2

LCO 3.1.2 The reactivity equivalence of the difference between the actual critical control rod configuration and the predicted control rod configuration shall not exceed 1% Δk/k. M.1

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

ACTION A With the reactivity equivalence difference exceeding 1% Δk/k, within ~~12~~ 72 hours perform an analysis to determine and explain the cause of the reactivity difference; operation may continue if the difference is explained and corrected. L.1 LA.1

ACTION B With the provisions of the ACTION above not met, be in at least HOT SHUTDOWN within the next 12 hours.

4.3 - SURVEILLANCE REQUIREMENTS

B. Reactivity Anomalies A.2

SR 3.1.2.1 The reactivity equivalence of the difference between the actual critical control rod configuration and the predicted control rod configuration shall be verified to be less than or equal to 1% Δk/k: A.3

1. During the first startup following CORE ALTERATION(s), and L.2

2. At least once per ~~31 effective full power days~~ 1000 MWD/T. L.3

Page 1 of 1

3.3 - LIMITING CONDITIONS FOR OPERATION

3.1.3 C. Control Rod OPERABILITY

LCO 3.1.3 All control rods shall be OPERABLE.

APPLICABILITY:

A.3 OPERATIONAL MODE(s) 1 and 2.

add proposed ACTIONS Note

ACTION: add proposed Required Action A.1 Note

ACTION A 1. With one control rod inoperable due to being immovable as a result of excessive friction or mechanical interference, or known to be unscrammable: A.5

L.1 a. Within ~~one~~ 4 hour:

ACTION D

1) Verify that the inoperable control rod, ~~if withdrawn~~, is separated from all other inoperable ~~withdrawn~~ control rods by at least two control cells in all directions. M.2 2 L.2

Required Action A.2

2) Disarm the associated control rod drive (CRD) ~~directional control valves[(a)] either:~~ LA.1

M.3 ~~a) Electrically, or~~

~~b) Hydraulically by closing the drive water and exhaust water isolation valves.~~

add proposed ACTION B M.3

ACTION E

b. With the provisions of ACTION 1.a above not met, be in at least HOT SHUTDOWN within the next 12 hours.

4.3 - SURVEILLANCE REQUIREMENTS

C. Control Rod OPERABILITY

SR 3.1.3.2 SR 3.1.3.3 1. When above the low power setpoint of the RWM, all withdrawn control rods ~~not required to have their directional control valves disarmed electrically or hydraulically~~ shall be demonstrated OPERABLE by moving each control rod at least one notch: A.6 A.4 M.5

a. At least once per ~~7~~ 31 days, and L.3

Required Action A.3

b. Within 24 hours when any control rod is immovable as a result of excessive friction or mechanical interference, or known to be unscrammable.

~~2. All control rods shall be demonstrated OPERABLE by performance of Surveillance Requirements 4.3.D, 4.3.F, 4.3.G, 4.3.H and 4.3.I.~~ A.7

add proposed Required Action A.1 M.1

~~a May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.~~ A.8

3.3 - LIMITING CONDITIONS FOR OPERATION

4.3 - SURVEILLANCE REQUIREMENTS

Required Action A.4

c. Comply with Surveillance Requirement 4.3.A.2 within ~~24~~ 72 hours or be in HOT SHUTDOWN within the next 12 hours. L.4

ACTION E

ACTION C

2. With one or more control rods scrammable but inoperable for causes other than addressed in ACTION 3.3.C.1 above:

L.1 — 2

ACTION D

a. If the inoperable control rod(s) is withdrawn, within one hour:

Add proposed Note to Condition D — L.1

1) Verify that the inoperable withdrawn control rod(s) is separated from all other inoperable withdrawn control rods by at least two control cells in all directions, and

M.2

A.4

add proposed Required Action C.1 Note

L.5

Required Action C.1

Required Action C.2

2) Demonstrate the insertion capability of the inoperable withdrawn control rod(s) by inserting the inoperable withdrawn control rod(s) at least one notch by drive water pressure within the normal operating range.[b]

M.6

b. With the provisions of ACTION 2.a above not met, fully insert the inoperable withdrawn control rod(s) and disarm the associated directional control valves[a] either:

CRD — LA.1

1) Electrically, or

2) Hydraulically by closing the drive water and exhaust water isolation valves.

b The inoperable control rod may then be withdrawn to a position no further withdrawn than its position when found to be inoperable. M.6

a May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status. A.8

A.1

ITS 3.1.3

3.3 - LIMITING CONDITIONS FOR OPERATION

4.3 - SURVEILLANCE REQUIREMENTS

Required Action C.2

c. If the inoperable control rod(s) is fully inserted, within one hour disarm the associated directional control valves[a] either:

4

L.5

CRD

LA.1

1) Electrically, or

2) Hydraulically by closing the drive water and exhaust water isolation valves.

ACTION E 3. With the provisions of ACTION 2 above not met, be in at least HOT SHUTDOWN within the next 12 hours.

ACTION E 4. With more than 8 control rods inoperable, be in at least HOT SHUTDOWN within 12 hours.

a May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.

A.8

A.1

ITS 3.1.3

A.10

<general reorganization>

3.3 - LIMITING CONDITIONS FOR OPERATION

D. Maximum Scram Insertion Times

SR 3.1.3.4 The maximum scram insertion time of each control rod from the fully withdrawn position to 90% insertion, ~~based on de-energization of the scram pilot valve solenoids as time zero,~~ shall not exceed 7 seconds.

A.11

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

ACTION A or ACTION C With the maximum scram insertion time of one or more control rods exceeding 7 seconds:

1. Declare the control rod(s) exceeding the above maximum scram insertion time inoperable, and

2. ~~When operation is continued with three or more control rods with maximum scram insertion times in excess of 7 seconds, perform Surveillance Requirement 4.3.D.3 at least once per 60 days of POWER OPERATION.~~

~~With the provisions of the ACTION(s) above not met, be in at least HOT SHUTDOWN within 12 hours.~~

L.6

4.3 - SURVEILLANCE REQUIREMENTS

D. Maximum Scram Insertion Times

The maximum scram insertion time of the control rods shall be demonstrated through measurement with reactor coolant pressure greater than 800 psig and, during single control rod scram time tests, with the control rod drive pumps isolated from the accumulators:

1. For all control rods prior to THERMAL POWER exceeding 40% of RATED THERMAL POWER:

   a. following CORE ALTERATION(s), or

   b. after a reactor shutdown that is greater than 120 days,

2. For specifically affected individual control rods[a] following maintenance on or modification to the control rod or control rod drive system which could affect the scram insertion time of those specific control rods, and

3. For at least 10% of the control rods, on a rotating basis, at least once per 120 days of POWER OPERATION.

<See ITS 3.1.4>

← add proposed SR 3.1.3.4

A.12

a. The provisions of Specification 4.0.D are not applicable provided this surveillance is conducted prior to exceeding 40% of RATED THERMAL POWER.

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A.1

ITS 3.1.4

3.3 - LIMITING CONDITIONS FOR OPERATION

D. Maximum Scram Insertion Times

The maximum scram insertion time of each control rod from the fully withdrawn position to 90% insertion, based on de-energization of the scram pilot valve solenoids as time zero, shall not exceed 7 seconds.

NOTE to Surveillance Requirements

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

With the maximum scram insertion time of one or more control rods exceeding 7 seconds:

1. Declare the control rod(s) exceeding the above maximum scram insertion time inoperable, and

2. When operation is continued with three or more control rods with maximum scram insertion times in excess of 7 seconds, perform Surveillance Requirement 4.3.D.3 at least once per 60 days of POWER OPERATION.

With the provisions of the ACTION(s) above not met, be in at least HOT SHUTDOWN within 12 hours.

<See ITS 3.1.3>

4.3 - SURVEILLANCE REQUIREMENTS

D. Maximum Scram Insertion Times

SR 3.1.4.1, SR 3.1.4.2, SR 3.1.4.4

M.1

The maximum scram insertion time of the control rods shall be demonstrated through measurement with reactor coolant pressure greater than or equal to 800 psig and, during single control rod scram time tests, with the control rod drive pumps isolated from the accumulators:

1. For all control rods prior to THERMAL POWER exceeding 40% of RATED THERMAL POWER:

SR 3.1.4.4 a. following CORE ALTERATION(s), or L.1

SR 3.1.4.1 b. after a reactor shutdown that is greater than 120 days,

2. For specifically affected individual control rods[a] following maintenance on or modification to the control rod or control rod drive system which could affect the scram insertion time of those specific control rods, and SR 3.1.4.4

3. For at least 10% of the control rods, on a rotating basis, at least once per 120 days of POWER OPERATION. SR 3.1.4.2 LA.1

<add proposed SR 3.1.4.3> M.1

A.2

SR 3.1.4.4

a The provisions of Specification 4.0.D are not applicable provided this surveillance is conducted prior to exceeding 40% of RATED THERMAL POWER.

A.1

ITS 3.1.4

3.3 - LIMITING CONDITIONS FOR OPERATION

E. Average Scram Insertion Times

Footnote (a) to Table 3.1.4-1

The average scram insertion time of all OPERABLE control rods from the fully withdrawn position, based on de-energization of the scram pilot valve solenoids as time zero, shall not exceed any of the following:

% Inserted From Fully Withdrawn	Avg. Scram Insertion Times (sec)
5	0.375
20	0.900
50	2.00
90	3.50

M.2

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

ACTION A With the average scram insertion time exceeding any of the above limits, be in at least HOT SHUTDOWN within 12 hours.

4.3 - SURVEILLANCE REQUIREMENTS

E. Average Scram Insertion Times

SR 3.1.4.1, SR 3.1.4.2, SR 3.1.4.4

The control rod average scram times shall be demonstrated by scram time testing from the fully withdrawn position as required by Surveillance Requirement 4.3.D.

add proposed LCO 3.1.4 and Table 3.1.4-1

A.1

ITS 3.1.4

3.3 - LIMITING CONDITIONS FOR OPERATION

F. Group Scram Insertion Times

Foot note (a) to Table 3.1.4-1

~~The average of the scram insertion times, from the fully withdrawn position, for the three fastest control rods of all groups of four control rods in a two-by-two array,~~ based on de-energization of the scram pilot valve solenoids as time zero, ~~shall not exceed any of the following:~~

~~% Inserted From Fully Withdrawn~~	~~Avg. Scram Insertion Times (sec)~~
~~5~~	~~0.398~~
~~20~~	~~0.954~~
~~50~~	~~2.120~~
~~90~~	~~3.800~~

M.2

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

ACTION A With the average scram insertion times of control rods exceeding the above limits:

1. ~~Declare the control rods exceeding the above average scram insertion times inoperable until an analysis is performed to determine that required scram reactivity remains for the slow four control rod group, and~~
2. ~~When operation is continued with an average scram insertion time(s) in excess of the average scram insertion time limit, perform Surveillance Requirement 4.3.D.3 at least once per 60 days of power operation.~~

M.2

~~With the provisions of the ACTION(s) above not met,~~ be in at least HOT SHUTDOWN within 12 hours.

4.3 - SURVEILLANCE REQUIREMENTS

F. Group Scram Insertion Times

SR 3.1.4.1, SR 3.1.4.2, SR 3.1.4.4

All control rods shall be demonstrated OPERABLE by scram time testing from the fully withdrawn position as required by Surveillance Requirement 4.3.D.

add proposed LCO 3.1.4 and Table 3.1.4-1

A.1 ITS 3.1.5

3.3 - LIMITING CONDITIONS FOR OPERATION

LCO 3.1.5 G. Control Rod Scram Accumulators

All control rod scram accumulators shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 5[a]. A.2 moved to ITS 3.9.5

ACTION: add proposed ACTIONS Note A.3

1. In OPERATIONAL MODE 1 or 2.

ACTION A a. With one control rod scram accumulator inoperable, within 8 hours: with reactor steam dome pressure ≥ 900 psig M.1

(1) Restore the inoperable accumulator to OPERABLE status, or A.4

add proposed Required Action A.1

Required Action A.2 2) Declare the control rod associated with the inoperable accumulator inoperable. L.1

b. With the provisions of ACTION 1.a above not met, be in at least HOT SHUTDOWN within the next 12 hours. A.5

M.1

ACTION B. ACTION C Required Actions B.2.2, C.2 c. With more than one control rod scram accumulator inoperable, declare the associated control rods inoperable and: add proposed Required Action B.2.1

within 1 hour L.1

4.3 - SURVEILLANCE REQUIREMENTS

G. Control Rod Scram Accumulators

SR 3.1.5.1 Each control rod scram accumulator shall be determined OPERABLE at least once per 7 days by verifying that the indicated pressure is ≥940 psig unless the control rod is fully inserted and disarmed, or scrammed. A.6

A.2 moved to ITS 3.9.5

a In OPERATIONAL MODE 5, this Specification is applicable for the accumulators associated with each withdraw control rod and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.

A.1

3.3 - LIMITING CONDITIONS FOR OPERATION

G. Control Rod Scram Accumulators

All control rod scram accumulators shall be OPERABLE. A.2

APPLICABILITY

OPERATIONAL MODE(s) 1, 2 and 5[a]. A.3

ACTION:

1. In OPERATIONAL MODE 1 or 2.
   a. With one control rod scram accumulator inoperable, within 8 hours:
      1) Restore the inoperable accumulator to OPERABLE status, or
      2) Declare the control rod associated with the inoperable accumulator inoperable.
   b. With the provisions of ACTION 1.a above not met, be in at least HOT SHUTDOWN within the next 12 hours.
   c. With more than one control rod scram accumulator inoperable, declare the associated control rods inoperable and:

See ITS 3.1.5

4.3 - SURVEILLANCE REQUIREMENTS

G. Control Rod Scram Accumulators

SR 3.9.5.2

Each control rod scram accumulator shall be determined OPERABLE at least once per 7 days by verifying that the indicated press is ≥940 psig ~~unless the control rod is fully inserted and disarmed, or scrammed.~~ A.4

add proposed control rod scram insertion capability M.1

add proposed SR 3.9.5.1

---

a In OPERATIONAL MODE 5, this Specification is applicable for the accumulators associated with each withdrawn control rod ~~and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~ A.2 A.3

A.1

ITS 3.1.5

3.3 - LIMITING CONDITIONS FOR OPERATION

4.3 - SURVEILLANCE REQUIREMENTS

Required Action D.1 Note

Required Actions B.1, C.1

1) If the control rod associated with any inoperable scram accumulator is withdrawn, immediately verify that at least one control rod drive pump is operating ~~by inserting at least one withdrawn control rod at least one notch.~~ With no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position. L.2 A.7

ACTION D

~~2) Fully insert the inoperable control rods and disarm the associated directional control valves[(b)] either:~~

~~a) Electrically, or~~

~~b) Hydraulically by closing the drive water and exhaust water isolation valves.~~

~~d. With the provisions of ACTION 1.c.2 above not met, be in at least HOT SHUTDOWN within 12 hours.~~

A.8

2. In OPERATIONAL MODE 5[(a)]:

a. With one withdrawn control rod with its associated scram accumulator inoperable, fully insert the affected control rod and disarm the associated directional control valves[(b)] within one hour, either:

A.2 moved to ITS 3.9.5

---

a In OPERATIONAL MODE 5, this Specification is applicable for the accumulators associated with each withdrawn control rod and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.

b May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.

3.3 - LIMITING CONDITIONS FOR OPERATION

4.3 - SURVEILLANCE REQUIREMENTS

1) If the control rod associated with any inoperable scram accumulator is withdrawn, immediately verify that at least one control rod drive pump is operating by inserting at least one withdrawn control rod at least one notch. With no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position.

2) Fully insert the inoperable control rods and disarm the associated directional control valves[b] either:

a) Electrically, or

b) Hydraulically by closing the drive water and exhaust water isolation valves.

d. With the provisions of ACTION 1.c.2 above not met, be in at least HOT SHUTDOWN within 12 hours.

<See ITS 3.1.5>

2. In OPERATIONAL MODE 5[a]: A.2 A.3

add proposed ACTION A for control rod scram insertion capability M.1

ACTION A

a. With one withdrawn control rod with its associated scram accumulator inoperable, fully insert the affected control rod ~~and disarm the associated directional control valves[b] within one hour, either:~~ A.5

---

a In OPERATIONAL MODE 5, this Specification is applicable for the accumulators associated with each withdrawn control rod ~~and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~ A.2 A.3

~~b May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.~~ A.5

ITS 3.10.7

A.1

3.3 - LIMITING CONDITIONS FOR OPERATION

1) If the control rod associated with any inoperable scram accumulator is withdrawn, immediately verify that at least one control rod drive pump is operating by inserting at least one withdrawn control rod at least one notch. With no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position.

2) Fully insert the inoperable control rods and disarm the associated directional control valves[b] either:

a) Electrically, or

b) Hydraulically by closing the drive water and exhaust water isolation valves.

d. With the provisions of ACTION 1.c.2 above not met, be in at least HOT SHUTDOWN within 12 hours.

A.7

M.1

2. In OPERATIONAL MODE 5[a]:

a. With one withdrawn control rod with its associated scram accumulator inoperable, fully insert the affected control rod and disarm the associated directional control valves[b] within one hour, either:

4.3 - SURVEILLANCE REQUIREMENTS

<See ITS 3.1.5>

a In OPERATIONAL MODE 5, this Specification is applicable for the accumulators associated with each withdrawn control rod and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.

b May be reamed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.

[A.1]

ITS 3.1.5

3.3 - LIMITING CONDITIONS FOR OPERATION

4.3 - SURVEILLANCE REQUIREMENTS

1) Electrically, or

2) Hydraulically by closing the drive water and exhaust water isolation valves.

b. With more than one withdrawn control rod with the associated scram accumulator inoperable or no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position.

[A.2] moved to ITS 3.9.5

3.3 - LIMITING CONDITIONS FOR OPERATION

4.3 - SURVEILLANCE REQUIREMENTS

~~1) Electrically, or~~

~~2) Hydraulically by closing the drive water and exhaust water isolation valves.~~ A.5

b. With more than one withdrawn control rod with the associated scram accumulator inoperable or no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position. A.6 moved to ITS 3.10.7

1) Electrically, or

2) Hydraulically by closing the drive water and exhaust water isolation valves. <See ITS 3.1.5>

A.7

LCO 3.10.7.f and ACTION B

M.1

b. ~~With more than one withdrawn control rod with the associated scram accumulator inoperable~~ or no control rod drive pump operating, immediately place the reactor mode switch in the Shutdown position.

3.3 - LIMITING CONDITIONS FOR OPERATION

H. Control Rod Drive Coupling

SR 3.1.3.5

All control rods shall be coupled to their drive mechanisms. A.13

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, ~~and 5[a]~~. L.7

ACTION:

~~1.~~ In OPERATIONAL MODE 1 or 2 with one control rod not coupled to its associated drive mechanism, within 2 hours: L.5 L.8

a. ~~If permitted by the RWM,~~ insert the ~~control rod drive mechanism to accomplish recoupling~~ and ~~verify recoupling by withdrawing the control rod, and:~~ A.14 L.9

~~(1) Observing any indicated response of the nuclear instrumentation, and~~ L.10

~~(2) Demonstrating that the control rod will not go to the overtravel position.~~

~~b. If not permitted by the RWM or, if recoupling is not accomplished in accordance with ACTION 1.a above,~~ then declare the control rod inoperable, fully insert the control rod and disarm the associated directional control valves[b] either: L.8

ACTION C

CRD LA.1

1) ~~Electrically, or~~

4.3 - SURVEILLANCE REQUIREMENTS

H. Control Rod Drive Coupling

SR 3.1.3.5

Each affected control rod shall be demonstrated to be coupled to its drive mechanism by verifying that the control rod drive does not go to the overtravel position:

1. Deleted.

2. Anytime the control rod is withdrawn to the "Full out" position, and

3. Following maintenance on or modification to the control rod or control rod drive system which could have affected the control rod drive coupling integrity.

~~a In OPERATIONAL MODE 5, this Specification is applicable for withdrawn control rods and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~ L.7

~~b May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.~~ A.8

A.1

ITS 3.1.3

3.3 - LIMITING CONDITIONS FOR OPERATION

4.3 - SURVEILLANCE REQUIREMENTS

2) Hydraulically by closing the drive water and exhaust water isolation valves. LA.1

ACTION E 2. With the provisions of ACTION 1 above not met, be in at least HOT SHUTDOWN within 12 hours.

3. In OPERATIONAL MODE 5[a] with a withdrawn control rod not coupled to its associated drive mechanism, within 2 hours: L.7

   a. Insert the control rod to accomplish recoupling and verify recoupling by withdrawing control rod and demonstrating that the control rod will not go to the overtravel position, or

   b. If recoupling is not accomplished, declare the control rod inoperable, fully insert the control rod and disarm the associated directional control valves[b] within one hour, either:

      1) Electrically, or

      2) Hydraulically by closing the drive water and exhaust water isolation valves.

---

a In OPERATIONAL MODE 5, this Specification is applicable for withdrawn control rod and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.

b May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod to OPERABLE status.

L.7

A.1

ITS 3.1.3

REACTIVITY CONTROL

3.3 - LIMITING CONDITIONS FOR OPERATION

I. Control Rod Position Indication System

SR 3.1.3.1 All control rod position indicators shall be OPERABLE. A.15

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 5[a]. A.16 moved to ITS 3.9.4

ACTION:

1. In OPERATIONAL MODE 1 or 2 with one or more control rod position indicators inoperable, within one hour either: L.5 ACTION C

   a. Determine the position of the control rod by an alternate method, or LA.2

   b. ~~Move the control rod to a position with an OPERABLE position indicator, or~~ LA.2

   c. Declare the control rod inoperable, fully insert the inoperable withdrawn control rod(s), and disarm the associated directional control valves[b] either: CRD LA.1

      1) Electrically, or

      2) Hydraulically by closing the drive water and exhaust water isolation valves.

4.3 - SURVEILLANCE REQUIREMENTS

I. Control Rod Position Indication System

SR 3.1.3.1 The control rod position indication system shall be determined OPERABLE by verifying:

1. At least once per 24 hours that the position of each control rod is indicated.

2. ~~That the indicated control rod position changes during the movement of the control rod drive when performing Surveillance Requirement 4.3.C.1.~~ L.11

3. ~~Deleted.~~

moved to ITS 3.9.4 A.16

a In OPERATIONAL MODE 5, this Specification is applicable for withdrawn control rods and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.

b ~~May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod(s) to OPERABLE status.~~ A.8

A.1

REACTIVITY CONTROL

3.3 - LIMITING CONDITIONS FOR OPERATION

I. Control Rod Position Indication System

LCO 3.9.4 ~~All~~ Each control rod "full-in" position ~~indicators~~ channel shall be OPERABLE. L.1

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 5[a]. M.1

ACTION:

1. In OPERATIONAL MODE 1 or 2 with one or more control rod position indicators inoperable, within one hour either:
   a. Determine the position of the control rod by an alternate method, or
   b. Move the control rod to a position with an OPERABLE position indicator, or
   c. Declare the control rod inoperable, fully insert the inoperable withdrawn control rod(s), and disarm the associated directional control valves[b] either:
      1) Electrically, or
      2) Hydraulically by closing the drive water and exhaust water isolation valves.

See ITS 3.1.3

4.3 - SURVEILLANCE REQUIREMENTS

I. Control Rod Position Indication System

SR 3.9.4.1 The control rod "full-in" position indication ~~system~~ Channel shall be determined OPERABLE by verifying: L.1

~~1. At least once per 24 hours that the position of each control rod is indicated.~~

~~2. That the indicated control rod position changes during the movement of the control rod drive when performing Surveillance Requirement 4.3.C.1.~~

~~3. Deleted.~~

---

a ~~In OPERATIONAL MODE 5 this Specification is applicable for withdrawn control rods and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~ M.1 A.2

b May be rearmed intermittently, under administrative control, to permit testing associated with restoring the control rod(s) to OPERABLE status. See ITS 3.1.3

3.3 - LIMITING CONDITIONS FOR OPERATION

ACTION E

2. With the provisions of ACTION 1 above not met, be in at least HOT SHUTDOWN within the next 12 hours.

3. In OPERATIONAL MODE 5[a] with a withdrawn control rod position indicator inoperable:

   a. Move the control rod to a position with an OPERABLE position indicator, or

   b. Fully insert the control rod.

A.16 moved to ITS 3.9.4

4.3 - SURVEILLANCE REQUIREMENTS

moved to ITS 3.9.4 A.16

a In OPERATIONAL MODE 5, this Specification is applicable for withdrawn control rods and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.

3.3 - LIMITING CONDITIONS FOR OPERATION | 4.3 - SURVEILLANCE REQUIREMENTS

2. With the provisions of ACTION 1 above not met, be in at least HOT SHUTDOWN within the next 12 hours. <See ITS 3.1.3>

add proposed ACTIONS Note A.3

ACTION A 3. In OPERATIONAL MODE 5[a] with a withdrawn control rod position indicator inoperable: M.1 full-in L.1

a. Move the control rod to a position with an OPERABLE position indicator, or M.1

b. Fully insert the control rod.

a ~~In OPERATIONAL MODE 5, this Specification is applicable for withdrawn control rods~~ M.1 ~~and is not applicable to control rods removed per Specification 3.10.I or 3.10.J.~~ A.2

CTS 3/4.3.J

L.1

3.3 - LIMITING CONDITIONS FOR OPERATION

J. Control Rod Drive Housing Support

The control rod drive housing support shall be in place.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 3.

ACTION:

With the control rod drive housing support not in place, be in at least HOT SHUTDOWN within 12 hours and in at least COLD SHUTDOWN within the following 24 hours.

4.3 - SURVEILLANCE REQUIREMENTS

J. Control Rod Drive Housing Support

The control rod drive housing support shall be verified to be in place by a visual inspection prior to startup any time it has been disassembled or when maintenance has been performed in the control rod drive housing support area.

A.1

ITS 3.1.8

3.3 - LIMITING CONDITIONS FOR OPERATION

K. SDV Vent and Drain Valves

LCO 3.1.8 All scram discharge volume (SDV) vent and drain valves shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

ACTION A 1. With[b] one or more SDV vent or drain lines with one valve inoperable, isolate[c] the associated line within 7 days or be in HOT SHUTDOWN within the next 12 hours. ACTION C

ACTION B 2. With[b] one or more SDV vent or drain lines with both valves inoperable, isolate[c] the associated line within 8 hours or be in HOT SHUTDOWN within the next 12 hours. ACTION C

4.3 - SURVEILLANCE REQUIREMENTS

K. SDV Vent and Drain Valves

The scram discharge volume vent and drain valves shall be demonstrated OPERABLE:

SR 3.1.8.1 1. At least once per 31 days by verifying each valve to be open[a], and

SR 3.1.8.2 2. At least once per 92 days by cycling each valve through at least one complete cycle of travel.

SR 3.1.8.3 3. At least once per ~~18~~ 24 months, the scram discharge volume vent and drain valves shall be demonstrated to: LD.1

a. Close within 30 seconds after receipt of a actual or simulated signal for control rods to scram, and

b. Open after the actual or simulated scram signal is reset. A.2

ACTIONS Note 1 — b Separate Action statement entry is allowed for each SDV vent and drain line.

ACTIONS Note 2 — c An isolated line may be unisolated under administrative control to allow draining and venting of the SDV.

SR 3.1.8.1 Note — a These valves may be closed intermittently for testing under administrative controls.

Page 1 of 1

A.1

3.3 - LIMITING CONDITIONS FOR OPERATION

L. Rod Worth Minimizer (RWM)

LCO 3.3.2.1 and Table 3.3.2.1-1 Function 2

The rod worth minimizer (RWM) shall be OPERABLE.

M.3

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2[(a)], when THERMAL POWER is less than or equal to ~~20~~% of RATED THERMAL POWER.

L.4 — 10

M.4 — Add proposed Required Actions C.2.1.1 and C.2.1.2

ACTION:

Conditions C and D — With the RWM inoperable, verify control rod movement and compliance with the prescribed control rod pattern by a second licensed operator or technically qualified individual who is present at the reactor control console.

Required Actions C.2.2 and D.1

Otherwise, control rod movement may be made only by actuating the manual scram or placing the reactor mode switch in the Shutdown position.

Required Action C.1

Add proposed Note to SR 3.3.2.1.3

L.2

4.3 - SURVEILLANCE REQUIREMENTS

L. Rod Worth Minimizer (RWM)

The RWM shall be demonstrated OPERABLE:

Add proposed Note to SR 3.3.2.1.2

SR 3.3.2.1.8 1. By verifying that the control rod patterns and sequence input to the RWM computer are correctly loaded following any loading of the program into the computer.

SR 3.3.2.1.2 2. In OPERATIONAL MODE 2 within 8 hours prior to withdrawal of control rods for the purpose of making the reactor critical:

L.2

M.3

a. ~~by verifying proper indication of the selection error of at least one out-of-sequence control rod.~~

b. ~~by verifying the rod block function.~~

LA.2

SR 3.3.2.1.3 3. In OPERATIONAL MODE 1 prior to reducing THERMAL POWER below ~~20~~% of RATED THERMAL POWER:

L.2

10 — L.4

a. ~~by verifying proper indication of the selection error of at least one out-of-sequence control rod.~~

b. ~~by verifying the rod block function.~~

LA.2

Add proposed SR 3.3.2.1.6 — M.5

Add proposed SR 3.3.2.1.9 — M.6

M.3

a Entry into OPERATIONAL MODE 2 and withdrawal of selected control rods is permitted for the purpose of determining the OPERABILITY of the RWM prior to withdrawal of control rods for the purpose of bringing the reactor to criticality

3.3 - LIMITING CONDITIONS FOR OPERATION

M. Rod Block Monitor (RBM)

LCO 3.3.2.1 and Table 3.3.2.1-1 Function 1

Both rod block monitor (RBM) CHANNEL(s) shall be OPERABLE.

APPLICABILITY:

A.3

~~OPERATIONAL MODE 1, when~~ thermal power is greater than or equal to 30% of RATED THERMAL POWER. and no peripheral rod is selected

ACTION:

1. With one RBM CHANNEL inoperable:

   a. ~~Verify that the reactor is not operating in a LIMITING CONTROL ROD PATTERN, and~~ L.3

   ACTION A

   b. Restore the inoperable RBM CHANNEL to OPERABLE status within 24 hours.

ACTION B

2. With the provisions of ACTION 1 above not met, place the inoperable rod block monitor CHANNEL in the tripped condition within the next one hour.

3. With both RBM CHANNEL(s) inoperable, place at least one inoperable rod block monitor CHANNEL in the tripped condition within one hour.

4.3 - SURVEILLANCE REQUIREMENTS

M. Rod Block Monitor (RBM)

Each of the required RBM CHANNEL(s) shall be demonstrated OPERABLE by performance of a:

SR 3.3.2.1.1
SR 3.3.2.1.4

1. CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION at the frequencies and for the OPERATIONAL MODE(s) specified in Table 4.2.E-1.

2. ~~CHANNEL FUNCTIONAL TEST prior to control rod withdrawal when the reactor is operating in a LIMITING CONTROL ROD PATTERN, but no more often than daily.~~ L.3

CTS 3/4.3.N

R.1

3.3 - LIMITING CONDITIONS FOR OPERATION

N. Economic Generation Control (EGC) System

The economic generation control (EGC) system may be in operation with automatic flow control provided:

1. Core flow is within 65% to 100% of rated core flow, and
2. THERMAL POWER is ≥20% of RATED THERMAL POWER.

APPLICABILITY

OPERATIONAL MODE 1.

ACTION:

With core flow less than 65% or greater than 100% of rated core flow, or THERMAL POWER less than 20% of RATED THERMAL POWER, restore operation to within the limits within one hour. Otherwise, immediately remove the plant from EGC operation.

4.3 - SURVEILLANCE REQUIREMENTS

N. Economic Generation Control (EGC) System

The economic generation control system shall be demonstrated OPERABLE by verifying that core flow is within 65% to 100% of rated core flow and THERMAL POWER is ≥20% of RATED THERMAL POWER:

1. Prior to entry into EGC operation, and
2. At least once per 12 hours while operating in EGC.

A.1

ITS 3.1.7

3.4 - LIMITING CONDITIONS FOR OPERATION	4.4 - SURVEILLANCE REQUIREMENTS
LCO 3.1.7 A. Standby Liquid Control System (SLCS)	A. Standby Liquid Control System
The standby liquid control system (SLCS) shall be OPERABLE.	The standby liquid control system shall be demonstrated OPERABLE:
APPLICABILITY:	1. At least once per 24 hours by verifying that:
OPERATIONAL MODE(s) 1 and 2.	SR 3.1.7.2 a. The temperature of the sodium pentaborate solution is greater than or equal to the limits of Figure 3.4.A-1.
ACTION:	SR 3.1.7.1 b. The volume of the sodium pentaborate solution is greater than or equal to the limits shown in Figure 3.4.A-2.
ACTION A 1. With one subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days ~~or be in at least HOT SHUTDOWN~~ within the next 12 hours. ACTION C	SR 3.1.7.3 c. The temperature of the pump suction piping to be greater than or equal to 83°F.
ACTION B 2. With both standby liquid control subsystems inoperable, restore at least one subsystem to OPERABLE status within 8 hours ~~or be in at least HOT SHUTDOWN~~ within the next 12 hours. ACTION C	2. At least once per 31 days by:
	SR 3.1.7.4 a. Verifying the continuity of the explosive charge. LA.1
	SR 3.1.7.5 b. Determining[a] ~~(by chemical analysis)~~ that the available concentration of boron in solution is ~~14% by weight to 16.5% by weight~~ within limits of Figure 3.1.7-1. A.3
	SR 3.1.7.6 c. Verifying that each valve, manual, ~~power operated or automatic,~~ in the flow path that is not locked, sealed, or otherwise secured in position, is in the correct position, or can be aligned to the correct position. A.2

SR 3.1.7.5

once within 24 hours after

M.1

a This surveillance shall also be performed anytime water or boron is added to the solution or when the solution temperature drops below the limits specified by Figure 3.4.A-1.

Page 1 of 4

3.4 - LIMITING CONDITIONS FOR OPERATION | 4.4 - SURVEILLANCE REQUIREMENTS

SR 3.1.7.7

3. When tested pursuant to Specification 4.0.E, by demonstrating that the minimum flow requirement of 40 gpm per pump at a pressure of greater than or equal to 1275 psig is met.

4. At least once per ~~18~~ 24 months by: LD.1

SR 3.1.7.8

a. Initiating one of the standby liquid control subsystems, ~~including an explosive valve,~~ and verifying that a flow path from the pumps to the reactor pressure vessel is available. Both injection loops shall be tested in ~~36~~ 48 months. LA.2

~~b. Deleted~~

SR 3.1.7.9

c. Demonstrating that the pump suction line from the storage tank is not plugged.

add second Frequency M.2

A.1

ITS 3.1.7

STANDBY LIQUID CONTROL SYSTEM

Figure 3.1.7-2

FIGURE 3.4.A-1

SODIUM PENTABORATE SOLUTION TEMPERATURE REQUIREMENTS

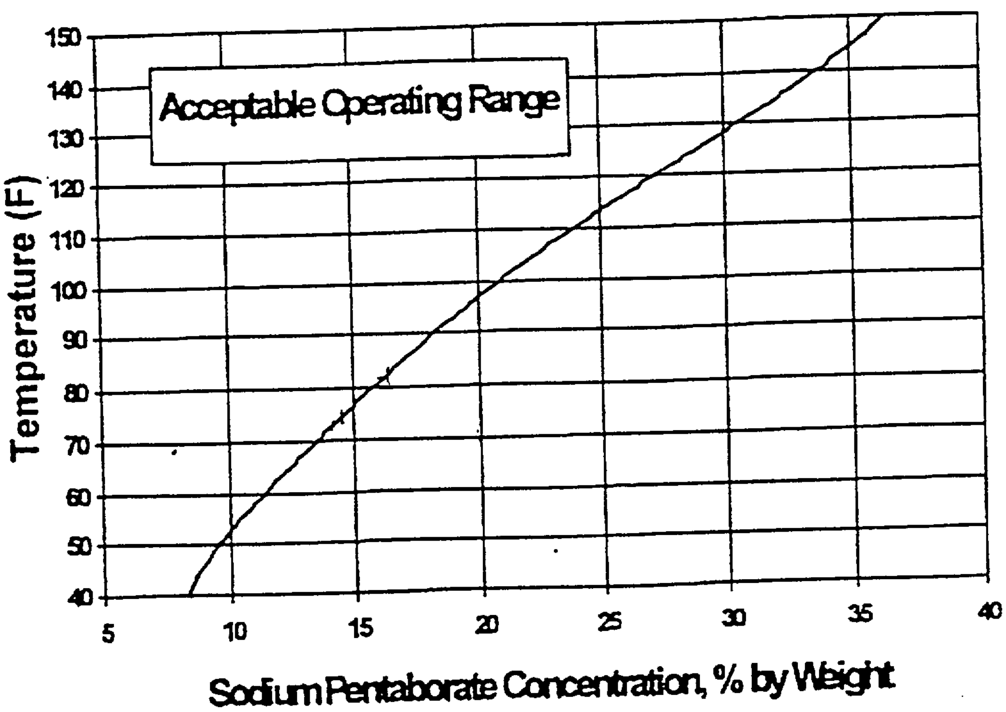
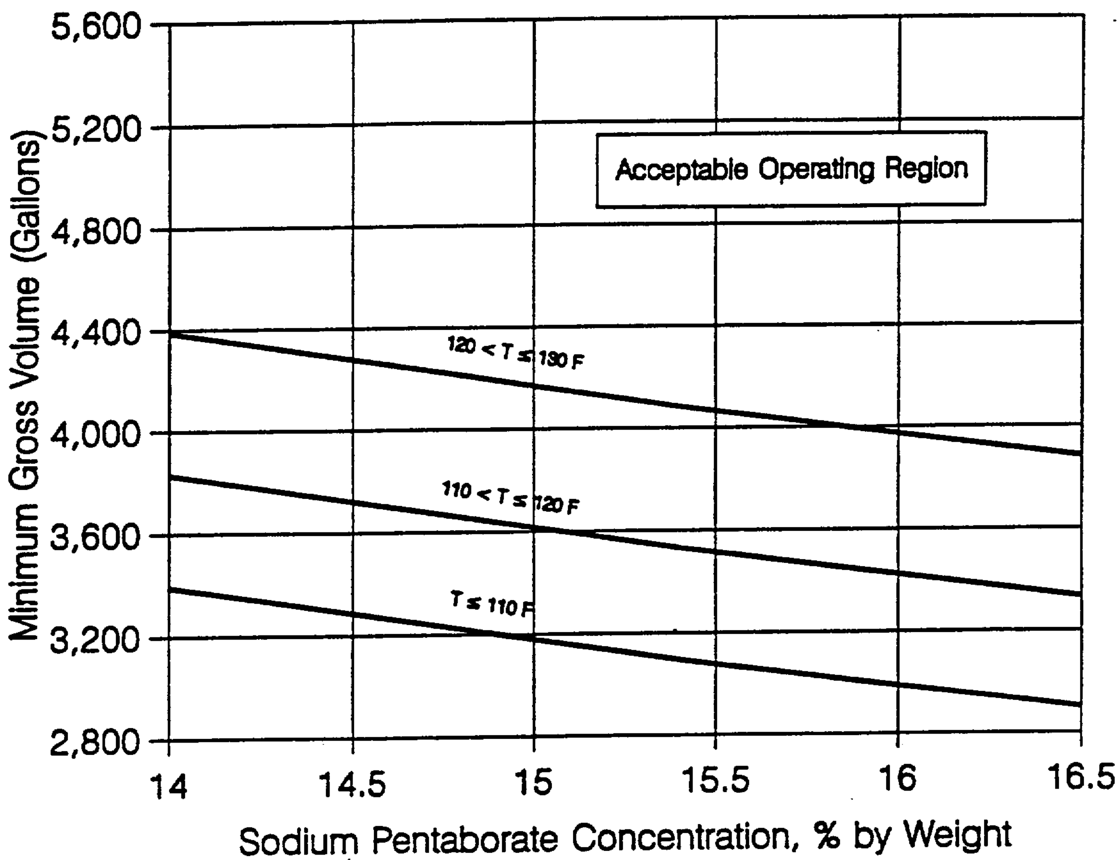


FIGURE 3.4.A-2

SODIUM PENTABORATE SOLUTION VOLUME REQUIREMENTS



A.1

ITS 3.5.1

3.5 - LIMITING CONDITIONS FOR OPERATION

A. Emergency Core Cooling System - Operating

LCO 3.5.1 The emergency core cooling systems (ECCS) shall be OPERABLE with:

1. ~~The core spray (CS) system consisting of two subsystems with each subsystem comprised of:~~ LA.1

   a. ~~One OPERABLE CS pump, and~~

   b. ~~An OPERABLE flow path capable of taking suction from the suppression chamber and transferring the water through the spray sparger to the reactor vessel.~~

M.1 S 2. ~~The low pressure coolant injection (LPCI) subsystem comprised of:~~ LA.1

   a. ~~Four OPERABLE LPCI pumps, and~~

   b. ~~An OPERABLE flow path capable of taking suction from the suppression chamber and transfering the water to the reactor vessel.~~

3. ~~The high pressure cooling injection (HPCI) system consisting of:~~ LA.1

   a. ~~One OPERABLE HPCI pump, and~~

   b. ~~An OPERABLE flow path capable of taking suction from the suppression chamber and transferring the water to the reactor vessel.~~

LCO 3.5.1 4. The automatic depressurization system (ADS) with at least ~~5~~ 4 OPERABLE ADS valves. L.1

4.5 - SURVEILLANCE REQUIREMENTS

A. Emergency Core Cooling System - Operating

The ECCS shall be demonstrated OPERABLE by:

1. At least once per 31 days:

   a. For the CS system, the LPCI subsystem and the HPCI system:

      SR 3.5.1.1 1) Verifying that the system piping from the pump discharge valve to the system isolation valve is filled with water.

      SR 3.5.1.2 2) Verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct[a] position. LA.2

   b. ~~For the HPCI system, verifying that the HPCI pump flow controller is in the correct position.~~ LA.3

2. Verifying that, when tested pursuant to Specification 4.0.E:

   SR 3.5.1.5 a. The CS pump in each subsystem develop a flow of at least 4500 gpm against a test line pressure corresponding to a reactor vessel pressure of ≥90 psig.

add proposed SR 3.5.1.3, SR 3.5.1.4 and SR 3.5.1.11 M.2

~~[a] Except that an automatic valve capable of automatic return to its ECCS position when an ECCS signal is present may be in position for another mode of operation.~~ LA.2

3.5 - LIMITING CONDITIONS FOR OPERATION

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2[(b)] and 3[(b)].

ACTION:

1. For the core spray system:

ACTION B

a. With one CS subsystem inoperable, provided that the LPCI subsystem is OPERABLE, restore the inoperable CS subsystem to OPERABLE status within 7 days, or

ACTION E — be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION J

b. With both CS subsystems inoperable, ~~be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.~~ Enter LCO 3.0.3 M3

2. For the LPCI subsystem: A.2

ACTION A

a. With one LPCI pump inoperable[(d)], provided that both CS subsystems are OPERABLE, restore the inoperable LPCI pump to OPERABLE status within 30 days,

ACTION E — or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.5 - SURVEILLANCE REQUIREMENTS

SR 3.5.1.5 b. Three LPCI pumps together develop a flow of at least 14,500 gpm against a test line pressure corresponding to a reactor vessel pressure of ≥20 psig.

SR 3.5.1.6 c. The HPCI pump develops a flow of at least 5000 gpm against a system head corresponding to reactor vessel pressure, when steam is being supplied to the turbine between 920 and 1005 psig[(c)]. A.3

3. At least once per ~~18~~ 24 months: LD.1

SR 3.5.1.8 a. For the CS system, the LPCI subsystem, and the HPCI system, verify each system/subsystem actuates on an actual or simulated automatic initiation signal. Actual injection of coolant into the reactor vessel may be excluded from this test.

b. For the HPCI system, verifying that:

SR 3.5.1.7 1) The system develops a flow of ≥5000 gpm against a system head corresponding to reactor vessel pressure, when steam is being supplied to the turbine between ~~150~~ and ~~350~~ 180 psig[(c)]. A.3 LA.3 M.4

APPLICABILITY

b The HPCI system and ADS are not required to be OPERABLE when reactor steam dome pressure is ≤150 psig.

d ~~The provisions of Specification 3.9.A, Actions 4.a or 6.b are applicable to the LPCI subsystem such that with an inoperable diesel generator, for the remaining OPERABLE diesel generator, both LPCI pumps (and their associated flow path) associated with that OPERABLE diesel generator, shall be OPERABLE. Otherwise, enter Specification 3.5.A, Action 2.c.~~ A.2

SR 3.5.1.6 Note

c The provisions of Specification 4.0.D are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure and flow is adequate to perform the test. A.3

A.1

ITS 3.5.1

3.5 - LIMITING CONDITIONS FOR OPERATION

M.1 a

ACTION B
ACTION C

A.2

b. With ~~the~~ LPCI subsystem otherwise inoperable[d], provided that both CS subsystems are OPERABLE, restore the LPCI subsystem to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION E

M.1 add proposed ACTION D

ACTION J

c. With the LPCI subsystem and one or both CS subsystems inoperable, ~~be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.~~ Enter LCO 3.0.3

M.3

ACTION F

3. With the HPCI system inoperable, provided both CS subsystems, the LPCI subsystem, the ADS and the Isolation Condenser (IC) system are OPERABLE, restore the HPCI system to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to ≤150 psig within the following 24 hours.

ACTION I

add proposed ACTION G

L.3

4. For the ADS:

ACTION H

a. With one of the above required ADS valves inoperable, provided the HPCI system, both CS subsystems and three LPCI pumps are OPERABLE, restore the inoperable ADS valve to OPERABLE

4.5 - SURVEILLANCE REQUIREMENTS

~~2) The pump suction is automatically transferred from the condensate storage tank to the suppression chamber on a condensate storage tank water level - low signal and on a suppression chamber water level - high signal.~~ LA.3

~~c. Performing a CHANNEL CALIBRATION of the CS and LPCI system discharge line "keep filled" alarm instrumentation.~~ L.2

~~d. Deleted.~~ LD.1

4. At least once per ~~18~~ 24 months for the ADS:

SR 3.5.1.9

a. Verify the ADS actuates on an actual or simulated automatic initiation signal. Actual valve actuation may be excluded from this test.

required L.1

SR 3.5.1.10

b. Manually opening each required ADS valve ~~when the reactor steam dome pressure is ≥150 psig~~[c] ~~and observing that either:~~ A.3

~~1) The turbine control valve or turbine bypass valve position responds accordingly, or~~

~~2) There is a corresponding change in the measured steam flow.~~ LA.3

~~d The provisions of Specification 3.9.A, Actions 4.a or 6.b are applicable to the LPCI subsystem such that with an inoperable diesel generator, for the remaining OPERABLE diesel generator, both LPCI pumps (and their associated flow path) associated with that OPERABLE diesel generator, shall be OPERABLE. Otherwise, enter Specification 3.5.A, Action 2.c.~~ A.2

SR 3.5.1.10 Note

c The provisions of Specification 4.0.D are not applicable provided the surveillance is performed within 12 hours after reactor steam pressure and flow is adequate to perform the test. A.3

3.5 - LIMITING CONDITIONS FOR OPERATION

4.5 - SURVEILLANCE REQUIREMENTS

ACTION H

status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to ≤150 psig within the following 24 hours.

ACTION I

b. With two or more of the above required ADS valves inoperable, be in at least HOT SHUTDOWN within 12 hours and reduce reactor steam dome pressure to ≤150 psig within the following 24 hours.

ACTION I

~~5. With an ECCS discharge line "keep filled" pressure alarm instrumentation CHANNEL inoperable, perform Surveillance Requirement 4.5.A.1.a.1) for CS and LPCI at least once per 24 hours.~~ L.2

~~6. Deleted.~~

~~7. In the event an ECCS system is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.B within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.~~ L.4

add proposed ACTION J A.4 M.3

A.1

ITS 3.5.2

SR 3.5.2.2
SR 3.5.2.3
SR 3.5.2.4

3.5 - LIMITING CONDITIONS FOR OPERATION

LCO 3.5.2

B. Emergency Core Cooling System - Shutdown low pressure ECCS injection/spray

At least two ~~of the following four~~ subsystems~~/loops~~ shall be OPERABLE:

LA.1

~~1. One or both core spray (CS) subsystems with:~~

~~a. An OPERABLE flow path capable of taking suction from at least one of the following water sources and transferring the water through the spray sparger to the reactor vessel:~~

~~1) From the suppression chamber, or~~

~~2) When the suppression chamber water level is less than the limit or is drained, from the condensate storage tank~~

SR 3.5.2.1.b containing at least ~~140,000~~ 50,000 available gallons of water. L.5

~~2. One or both low pressure coolant injection (LPCI) subsystem loops with a subsystem loop comprised of:~~

LA.1

~~a. At least one OPERABLE LPCI pump, and~~

~~b. An OPERABLE flow path capable of taking suction from at least one of the following water sources and transferring the water to the reactor vessel:~~

~~1) From the suppression chamber, or~~

4.5 - SURVEILLANCE REQUIREMENTS

B. Emergency Core Cooling System - Shutdown

SR 3.5.2.5 LD.1

The required ECCS shall be demonstrated OPERABLE per Surveillance Requirement 4.5.A, except: A.2

~~1. The LPCI subsystems cross-tie valves may be closed.~~ LA.1

SR 3.5.2.4 2. Each LPCI pump develops the required flow when tested pursuant to Specification 4.0.E.

add proposed flow rate and head conditions for one pump M.1

Page 1 of 4

A.1

ITS 3.5.2

3.5 - LIMITING CONDITIONS FOR OPERATION

4.5 - SURVEILLANCE REQUIREMENTS

(2) ~~When the suppression chamber water level is less than the limit or is drained, from the condensate storage tank~~ LA.1

SR 3.5.2.1., b containing at least ~~140,000~~ 50,000 L.5 available gallons of water.

APPLICABILITY:

OPERATIONAL MODE(s) 4 and 5[a].

ACTION:

ACTION A — 1. With one of the above required subsystems/loops inoperable, restore at least two subsystems/loops to OPERABLE status within 4 hours or

ACTION B — suspend all operations with a potential for draining the reactor vessel.

ACTION C — 2. With both of the above required subsystems/loops inoperable, suspend ~~CORE ALTERATION(s) and~~ L.1 all operations with a potential for draining the reactor vessel. Restore at least one subsystem/loop to OPERABLE status within 4 hours or establish

ACTION D — SECONDARY CONTAINMENT INTEGRITY A.4 within the next 8 hours A.3

Applicability a The ECCS is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded, A.5 the spent fuel pool gates are removed, and water level is maintained within the limits of Specification 3.10.G and 3.10.H.

A.1 ITS 3.5.2

3.5 - LIMITING CONDITIONS FOR OPERATION

moved to ITS 3.6.2.2

C. Suppression Chamber

The suppression chamber shall be OPERABLE: A.6

1. In OPERATIONAL MODE(s) 1, 2, and 3 with a contained water volume equivalent to a water level of ≥14' 6.5" above the bottom of the suppression chamber.

SR 3.5.2.1.a

2. In OPERATIONAL MODE(s) 4 and 5[(a)] with a contained volume equivalent to a water level of ~~≥8'~~ above the bottom of the suppression chamber, except that the suppression chamber level may be less than the limit provided that:

10 ft, 4 inches A.8 LA.1

a. ~~No operations are performed that have a potential for draining the reactor vessel,~~ L.2

b. ~~The reactor mode switch is locked in the Shutdown or Refuel position,~~ L.3

SR 3.5.2.1.b

c. The condensate storage tank contains ≥140,000 available gallons of water, and

Add Note to SR 3.5.2.1.b L.2

50,000 L.5

LCO 3.5.2

d. The ECCS systems are OPERABLE per Specification 3.5.B.

A.6 moved to ITS 3.6.2.2

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, 4 and 5[(a)].

4.5 - SURVEILLANCE REQUIREMENTS

C. Suppression Chamber

The suppression chamber shall be determined OPERABLE by verifying:

1. For OPERATIONAL MODE(s) 1, 2 and 3, at least once per 24 hours, the water level to be ≥14' 6.5".

2. For OPERATIONAL MODE(s) 4 or 5[(a)], at least once per 12 hours: A.7 A.8

SR 3.5.2.1.a

a. The water level to be ~~≥8'~~, or 10 ft, 4 inches

SR 3.5.2.1.b

b. ~~Verify the alternate conditions of Specification 3.5.C.2,~~ ~~or the conditions of footnote (a),~~ to be satisfied. L.4 A.7

Applicability

a The suppression chamber is not required to be OPERABLE ~~provided that the reactor vessel head is removed, the cavity is flooded~~ or ~~being flooded from the suppression pool~~ the spent fuel pool gates are removed ~~when the cavity is flooded~~ and the water level is maintained within the limits of Specification 3.10.G and 3.10.H. A.5 M.2

ITS 3.6.2.2

A.1

3.5 - LIMITING CONDITIONS FOR OPERATION

C. Suppression Chamber

The suppression chamber shall be OPERABLE:

LCO 3.6.2.2

1. In OPERATIONAL MODE(s) 1, 2, and 3 with a contained water volume equivalent to a water level of ≥14' 6.5" ~~above the bottom of the suppression chamber.~~

LA.1

2. In OPERATIONAL MODE(s) 4 and 5[a] with a contained volume equivalent to a water level of ≥8' above the bottom of the suppression chamber, except that the suppression chamber level may be less than the limit provided that:

   a. No operations are performed that have a potential for draining the reactor vessel,

   b. The reactor mode switch is locked in the Shutdown or Refuel position,

   c. The condensate storage tank contains ≥140,000 available gallons of water, and

   d. The ECCS systems are OPERABLE per Specification 3.5.B.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, 4 and 5[a].

4.5 - SURVEILLANCE REQUIREMENTS

C. Suppression Chamber

The suppression chamber shall be determined OPERABLE by verifying:

SR 3.6.2.2.1

1. For OPERATIONAL MODE(s) 1, 2 and 3, at least once per 24 hours, the water level to be ≥14' 6.5".

2. For OPERATIONAL MODE(s) 4 or 5[a], at least once per 12 hours:

   a. The water level to be ≥8', or

   b. Verify the alternate conditions of Specification 3.5.C.2, or the conditions of footnote (a), to be satisfied.

A.3 Moved to ITS 3.5.2

a The suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specification 3.10.G and 3.10.H.

A.1

ITS 3.5.2

3.5 - LIMITING CONDITIONS FOR OPERATION

4.5 - SURVEILLANCE REQUIREMENTS

ACTION:

1. In OPERATIONAL MODE(s) 1, 2, or 3 with the suppression chamber water level less than the above limit, restore the water level to within the limit within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

A.6 Moved to ITS 3.6.2.2

L.2

Add proposed Required Action A.1

2. In OPERATIONAL MODE(s) 4 or 5[a] with the suppression chamber water level less than the above limit or drained and the above required conditions not satisfied, suspend CORE ALTERATION(s) and all operations that have a potential for draining the reactor vessel ~~and lock the reactor mode switch in the Shutdown position~~. Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

Required Action C.1

L.1

L.3

A.4

ACTION D

A.3

A.5

Applicability

a The suppression chamber is not required to be OPERABLE ~~provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool,~~ the spent fuel pool gates are removed ~~when the cavity is flooded~~ and the water level is maintained within the limits of Specification 3.10.G and 3.10.H.

M.2

Amendment Nos. 150 & 145

A.1

ITS 3.6.2.2

3.5 - LIMITING CONDITIONS FOR OPERATION

4.5 - SURVEILLANCE REQUIREMENTS

ACTION:

ACTION A

L.1

1. In OPERATIONAL MODE(s) 1, 2, or 3 with the suppression chamber water level less than the above limit, restore the water level to within the limit within 2 ~~1~~ hour ~~or be in at least HOT SHUTDOWN~~ within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION B

2. In OPERATIONAL MODE(s) 4 or 5[a] with the suppression chamber water level less than the above limit or drained and the above required conditions not satisfied, suspend CORE ALTERATION(s) and all operations that have a potential for draining the reactor vessel and lock the reactor mode switch in the Shutdown position. Establish SECONDARY CONTAINMENT INTEGRITY within 8 hours.

A.3 moved to ITS 3.5.2

a The suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specification 3.10.G and 3.10.H.

A.1

ITS 3.5.3

3.5 - LIMITING CONDITIONS FOR OPERATION

D. Isolation Condenser

LCO 3.5.3 The isolation condenser (IC) system shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3 with reactor steam dome pressure >150 psig.

ACTION: Immediately

ACTION A — With the IC system inoperable, operation may continue provided the HPCI system is OPERABLE; restore the IC system to OPERABLE status within 14 days or

ACTION B — be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to ≤150 psig within the following 24 hours.

4.5 - SURVEILLANCE REQUIREMENTS

D. Isolation Condenser

The IC system shall be demonstrated OPERABLE:

SR 3.5.3.1 1. At least once per 24 hours by verifying the shell side water volume and the shell side water temperature to be within limits.

SR 3.5.3.2 2. At least once per 31 days by verifying that each valve, manual, power operated or automatic in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.

SR 3.5.3.3 3. At least once per ~~18~~ 24 months by verifying the IC system actuates on an actual or simulated automatic initiation signal. LD.1

SR 3.5.3.4 4. At least once per 5 years by verifying the system heat removal capability. M.1

A.1

A.2 general organization

3.6 - LIMITING CONDITIONS FOR OPERATION

A. Recirculation Loops

LCO 3.4.1 Two reactor coolant system recirculation loops shall be in operation.

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

ACTION C 1. With only one reactor coolant system recirculation loop in operation, within 24 hours either, restore both loops to operation or:

a. ~~Increase the MINIMUM CRITICAL POWER RATIO (MCPR) Safety Limit by 0.01 per Specification 2.1.B, and~~ A.3

A.2 / LCO 3.4.1

b. Increase the MINIMUM CRITICAL POWER RATIO (MCPR) Operating Limit ~~by 0.01 per Specification 3/11.C, and~~ LA.1

c. Reduce the Average Power Range Monitor (APRM) Flow Biased Neutron Flux Scram ~~and Rod Block~~ and Rod Block Monitor ~~Trip Setpoints~~ Allowable Values to those applicable to single recirculation loop operation per Specifications 2.2.A and 3.2.E. A.4

d. Reduce the AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) to single loop operation limits as specified in the CORE OPERATING LIMITS REPORT (COLR).

4.6 - SURVEILLANCE REQUIREMENTS

A. Recirculation Loops

~~Each pump motor generator (MG) set scoop tube mechanical and electrical stop shall be demonstrated OPERABLE with the overspeed setpoints specified in the CORE OPERATING LIMITS REPORT at least once per 18 months.~~ LA.2

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

e. ~~Electrically prohibit the idle recirculation pump from starting~~[a]. L.1

ACTION D Otherwise, be in at least HOT SHUTDOWN within the next 12 hours.

2. With no reactor coolant system
ACTION A recirculation loops in operation, ~~immediately initiate measures to place the unit in at least~~ STARTUP within 8 hours and in HOT SHUTDOWN within the next 6 hours. LA.3 M.1

---

a ~~Except to permit testing in preparation for returning the pump to service.~~ L.1

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

B. Jet Pumps

LCO 3.4.2 All jet pumps shall be OPERABLE ~~and flow indication shall be OPERABLE on at least 19 jet pumps~~. L.1

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2.

ACTION:

ACTION A 1. With one or more jet pumps inoperable ~~for other than inoperable flow indication~~, be in at least HOT SHUTDOWN within 12 hours. L.1

~~2. With flow indication inoperable for two or more jet pumps, flow indication shall be restored such that at least 19 jet pumps have OPERABLE flow indication within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours.~~

4.6 - SURVEILLANCE REQUIREMENTS

B. Jet Pumps

All jet pumps shall be demonstrated OPERABLE as follows: add proposed SR 3.4.2.1 Note 1 L.2

1. During two loop operation, at least once per 24 hours while greater than 25% of RATED THERMAL POWER by determining recirculation loop flow, ~~total core flow~~ M.1 and individual jet pump flow for each jet pump and verifying that no two of the following conditions occur when both recirculation pumps are operating in accordance with Specification 3.6.C: A.2

   a. SR 3.4.2.1.a The indicated recirculation pump flow differs by >10% from the established speed-flow characteristics.

   b. ~~The indicated total core flow differs by >10% from the established total core flow value derived from established core plate ΔP/core flow relationships.~~ M.1

   c. SR 3.4.2.1.b The indicated flow of any individual jet pump differs from the established patterns by >10%.

   d. SR 3.4.2.1 Note 2 The provisions of Specification 4.0.D are not applicable provided that the surveillance is performed within 24 hours after exceeding 25% of RATED THERMAL POWER.

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

2. During single recirculation loop operation, at least once per 24 hours while greater than 25% of RATED THERMAL POWER by verifying that no two of the following conditions occur: A2

L.2 add proposed SR 3.4.2.1 NOTE 1

a. SR 3.4.2.1.a The indicated recirculation pump flow in the operating loop differs by >10% from the established single recirculation speed-flow characteristics.

b. ~~The indicated total core flow differs by >10% from the established total core flow value derived from established core plate ΔP/core flow relationships.~~ M.1

c. SR 3.4.2.1.b The indicated flow of any individual jet pump differs from established single recirculation loop patterns by >10%.

d. SR 3.4.2.1 NOTE 2 The provisions of Specification 4.0.D are not applicable provided that the surveillance is performed within 24 hours after exceeding 25% of RATED THERMAL POWER.

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

C. Recirculation Pumps

LCO 3.4.1 Recirculation pump speed shall be maintained within:

SR 3.4.1.1
1. 10% of each other with THERMAL POWER ≥80% of RATED THERMAL POWER.
2. 15% of each other with THERMAL POWER <80% of RATED THERMAL POWER.

M.2

APPLICABILITY:

OPERATIONAL MODE(s) 1 and 2 ~~during two recirculation loop operation.~~ A.2

ACTION:

Action B With the recirculation pump speeds different by more than the specified limits, ~~either~~:

1. ~~Restore the recirculation pump speeds to within the specified limit~~ within 2 hours, ~~or~~ A.5 L.2
2. ~~Trip one of the recirculation pumps and take the ACTION required by Specification 3.6.A.1.~~ A.6

4.6 - SURVEILLANCE REQUIREMENTS

C. Recirculation Pumps

SR 3.4.1.1 Recirculation pump speed shall be verified to be within the limits at least once per 24 hours.

add proposed SR 3.4.1.1 Note L.3

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

D. Idle Recirculation Loop Startup

SR 3.4.9.3 — An idle recirculation loop shall not be started unless the temperature differential between the reactor pressure vessel and the bottom head coolant temperature is ~~within limits~~[a], and: (≤ 145°F) M.2

SR 3.4.9.4 —

1. When both loops have been idle, unless the temperature differential between the reactor coolant within the idle loop to be started up and the coolant in the reactor pressure vessel is ~~within limits~~, or (≤ 50°F)
2. When only one loop has been idle, unless the temperature differential between the reactor coolant within the idle and operating recirculation loops is ~~within limits~~. (≤ 50°F)

APPLICABILITY:

SR 3.4.9.3 and SR 3.4.9.4 Notes — OPERATIONAL MODE(s) 1, 2, 3 and ~~4~~. during recirculation pump startup — A.7

ACTION: add proposed Conditions A and C Notes — A.2

ACTIONS A and C — With temperature differences ~~and/or flow rates~~ exceeding the above limits, suspend startup of any recirculation loop, restore the parameter(s) to within limits within 30 minutes, and determine if the reactor coolant system is acceptable for continued operation within 72 hours. — LA.2, A.3, L.2

ACTION B — Otherwise, be in HOT SHUTDOWN in 12 hours and COLD SHUTDOWN within the following 24 hours.

4.6 - SURVEILLANCE REQUIREMENTS

D. Idle Recirculation Loop Startup

The temperature differentials ~~and flow rate~~ shall be determined to be within the limits within 15 minutes prior to startup of an idle recirculation loop. — LA.2

SR 3.4.9.3
SR 3.4.9.4

M.1

A.7

M.1

A.8

M.1

---

a ~~Below 25 psig reactor pressure, this temperature differential is not applicable.~~ — M.2

A.1

ITS 3.4.3

A.2 <general organization>

3.6 - LIMITING CONDITIONS FOR OPERATION

LCO 3.4.3

E. Safety Valves Excluding the Target Rock valve, M.1

A.5

~~1.~~ The safety valve function of the (8) ~~9~~ reactor coolant system safety valves shall be OPERABLE ~~(in accordance with the specified code safety valve function lift settings[a] established as:)~~

~~1 safety valve[b] @1135 psig ±1%~~
2 safety valves @1240 psig ±1%
2 safety valves @1250 psig ±1%
4 safety valves @1260 psig ±1%

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

ACTION B 1. With the safety valve function of one or more of the above required safety valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

~~2. Deleted~~

4.6 - SURVEILLANCE REQUIREMENTS

E. Safety Valves In accordance with the Inservice Testing Program LA.3

~~1. Deleted~~

A.5

~~2. At least once per 18 months, 1/2 of the safety valves shall be removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations. At least once per 40 months, the safety valves shall be rotated such that all (8) 9 safety valves are removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations.~~

SR 3.4.3.1 Verify the safety function lift setpoints (a) of the required safety valves are as follows: A.5 LA.1

~~a The lift setting pressure shall correspond to ambient conditions of the valves at nominal operating temperatures and pressures.~~ LA.1

~~b Target Rock combination safety/relief valve.~~ A.5

(3)

Page 1 of 4

3.6 - LIMITING CONDITIONS FOR OPERATION

E. Safety Valves

Excluding the Target Rock valve, the safety valve function of the reactor coolant system safety valves shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. With the safety valve function of one or more of the above required safety valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
2. Deleted

4.6 - SURVEILLANCE REQUIREMENTS

E. Safety Valves

1. Deleted.
2. At least once per 18 months, 1/2 of the safety valves shall be removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations. At least once per 40 months[c], the safety valves shall be rotated such that all 9 safety valves are removed, set pressure tested and reinstalled or replaced with spares that have been previously set pressure tested and stored in accordance with manufacturer's recommendations.

   Verify the safety function lift setpoints[a] of the required safety valves are as follows:

   1 safety valve[b]@1135 psig ±1%
   2 safety valves @1240 psig ±1%
   2 safety valves @1250 psig ±1%
   4 safety valves @1260 psig ±1%

a The lift setting pressure shall correspond to ambient conditions of the valves at nominal operating temperatures and pressures

b Target Rock combination safety/relief valve.

c The surveillance interval has been extended to 60 months for Unit 3, Cycle 15 only, and the provisions of Specification 4.0.B are not applicable to the 60-month interval.

A.1

Instrumentation

PRIMARY SYSTEM BOUNDARY

3.6 - LIMITING CONDITIONS FOR OPERATION

F. Relief Valves Instrumentation

LCO 3.3.6.3
Table 3.3.6.3-1 Function 1.b

5 reactor coolant system relief valves and the reactuation time delay of two relief valves shall be OPERABLE with the following settings:

Table 3.3.6.3-1 Functions 1.a and 2.a

Relief Function ~~Setpoint (psig)~~ Allowable Value A.2

Open LF.1

<CTS 199 and 201>

≤ 1112 psig
≤ 1112 psig
≤ 1135 psig
≤ 1135 psig
≤ 1135 psig[a] <See ITS 3.4.3>

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. With one or more relief valves open, provided that suppression pool average water temperature is <110°F, take action to close the open relief valve(s); if suppression pool average water temperature is ≥110°F place the reactor mode switch in the Shutdown position. <See ITS 3.4.3>

4.6 - SURVEILLANCE REQUIREMENTS

A.3

F. Relief Valves Instrumentation — add proposed SR 3.3.6.3 Note

Table 3.3.6.3-1 Functions 1.a and 2.a
Table 3.3.6.3-1 Function 1.b

1. The relief valve function and the reactuation time delay function instrumentation shall be demonstrated OPERABLE by performance of a:

a. CHANNEL FUNCTIONAL TEST of the relief valve function at least once per ~~18~~ 24 months, and a A.4 LD.1

SR 3.3.6.3.1
SR 3.3.6.3.2
SR 3.3.6.3.3

b. CHANNEL CALIBRATION 31 days M.2 and LOGIC SYSTEM FUNCTIONAL TEST of the entire system at least once per ~~18~~ 24 months. LD.1 LE.1

~~2. Deleted.~~

add proposed Table 3.3.6.3-1 Function 1.b time delay Allowable Value M.1 <CI 201>

a Target Rock combination safety/relief valve. <See ITS 3.4.3>

A.1

A.2 ⟨general organization⟩

3.6 - LIMITING CONDITIONS FOR OPERATION

F. Relief Valves

LCO 3.4.3 5 reactor coolant system relief valves and the reactuation time delay of two relief valves shall be OPERABLE with the following settings:

⟨See ITS 3.3.6.3⟩

Relief Function Setpoint (psig)
Open
≤ 1112 psig
≤ 1112 psig
≤ 1135 psig
≤ 1135 psig
≤ 1135 psig[a]

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. ~~With one or more relief valves open, provided that suppression pool average water temperature is <110°F, take action to close the open relief valve(s); if suppression pool average water temperature is ≥110°F place the reactor mode switch in the Shutdown position.~~ L.1

4.6 - SURVEILLANCE REQUIREMENTS

F. Relief Valves

⟨See ITS 3.3.6.3⟩

1. The relief valve function and the reactuation time delay function instrumentation shall be demonstrated OPERABLE by performance of a:
   a. CHANNEL FUNCTIONAL TEST of the relief valve function at least once per 18 months, and a
   b. CHANNEL CALIBRATION and LOGIC SYSTEM FUNCTIONAL TEST of the entire system at least once per 18 months.

2. Deleted.

add proposed SRs 3.4.3.2 and 3.4.3.3 — A.4

a Target Rock combination safety/relief valve. ⟨See ITS 3.3.6.3⟩

ITS 3.6.1.6

A.1

Low Set A.2

3.6 - LIMITING CONDITIONS FOR OPERATION

F. Relief Valves

LCO 3.6.1.6 5 reactor coolant system relief valves and the reactuation time delay of two relief valves shall be OPERABLE with the following settings:

See ITS 3.4.3

The two low set relief valves shall be OPERABLE.

A.2

See ITS 3.3.6.3

Relief Function Setpoint (psig)
Open
≤ 1112 psig
≤ 1112 psig
≤ 1135 psig
≤ 1135 psig
≤ 1135 psig[a]

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. ~~With one or more relief valves open, provided that suppression pool average water temperature is <110°F, take action to close the open relief valve(s); if suppression pool average water temperature is ≥110°F place the reactor mode switch in the Shutdown position.~~

L.1

4.6 - SURVEILLANCE REQUIREMENTS

F. Relief Valves

1. The relief valve function and the reactuation time delay function instrumentation shall be demonstrated OPERABLE by performance of a:
   a. CHANNEL FUNCTIONAL TEST of the relief valve function at least once per 18 months, and a
   b. CHANNEL CALIBRATION and LOGIC SYSTEM FUNCTIONAL TEST of the entire system at least once per 18 months.

See ITS 3.3.6.3

~~2. Deleted.~~

Add proposed SRs 3.6.1.6.1 and 3.6.1.6.2

A.3

See ITS 3.3.6.3

a Target Rock combination safety/relief valve.

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

2. ACTION A — With the relief valve function and/or the reactuation time delay of one of the above required reactor coolant system relief valves inoperable, restore the inoperable relief valve function and the reactuation time delay function to OPERABLE status within 14 days, or be ACTION B — in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

3. ACTION E — With the relief valve function and/or the reactuation time delay of more than one of the above required reactor coolant system relief valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

4. ~~Deleted.~~

A.1

PRIMARY SYSTEM BOUNDARY

A.2 <general organization>

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

<See ITS 3.3.6.3>

ACTION A

2. With the relief valve function and/or the reactuation time delay of one of the above required reactor coolant system relief valves inoperable, restore the inoperable relief valve function and the reactuation time delay function to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION B

ACTION B

3. With the relief valve function and/or the reactuation time delay of more than one of the above required reactor coolant system relief valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

4. Deleted.

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

ACTION A

2. With the relief valve function and/or the reactuation time delay of one of the above required reactor coolant system relief valves inoperable, restore the inoperable relief valve function and the reactuation time delay function to OPERABLE status within 14 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION B

See ITS 3.3.6.3

ACTION B

3. With the relief valve function and/or the reactuation time delay of more than one of the above required reactor coolant system relief valves inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

4. Deleted.

3.6 - LIMITING CONDITIONS FOR OPERATION

G. Leakage Detection Systems

LCO 3.4.5 The following reactor coolant system leakage detection systems shall be OPERABLE:

R.1 1. ~~The primary containment atmosphere particulate radioactivity sampling system, and~~

2. The drywell floor drain sump system.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

R.1 1. ~~With the primary containment atmosphere particulate radioactivity sampling system inoperable, restore the inoperable leak detection radioactivity sampling system to OPERABLE status within 24 hours; otherwise, be in HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.~~

ACTION A) 2. With the drywell floor drain sump system inoperable, restore the drywell floor drain sump system to OPERABLE status within 24 hours; otherwise, be

ACTION B) in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.6 - SURVEILLANCE REQUIREMENTS

G. Leakage Detection Systems

The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by:

1. ~~Performing the leakage determinations of Specification 4.6.H.~~ A.2 add proposed SR 3.4.5.1 M.1

SR 3.4.5.2 2. Performing a CHANNEL CALIBRATION of the drywell floor drain sump ~~pump discharge flow integrator~~ LA.1 monitoring system A.3 at least once per ~~18~~ 12 M.2 months.

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

H. Operational Leakage

LCO 3.4.4

Reactor coolant system leakage shall be limited to:

1. No PRESSURE BOUNDARY LEAKAGE.
2. ≤25 gpm total leakage averaged over any 24 hour surveillance period.
3. ≤5 gpm UNIDENTIFIED LEAKAGE.
4. ≤2 gpm increase in UNIDENTIFIED LEAKAGE within any period of 24 hours or less (Applicable in OPERATIONAL MODE 1 only).

A.2 the previous

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. ACTION C — With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
2. ACTION A — With the reactor coolant system UNIDENTIFIED LEAKAGE or total leakage rate(s) greater than the above limit(s), reduce the leakage rate to within the limits within 4 hours or be in ACTION C — at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.6 - SURVEILLANCE REQUIREMENTS

H. Operational Leakage

The reactor coolant system leakage shall be demonstrated to be within each of the limits by: LA.1

moved to ITS 3.4.5

1. Sampling the primary containment atmospheric particulate radioactivity at least once per 12 hours[a], and A.3
2. SR 3.4.4.1 ~~Determining the primary containment sump flow rate~~ at least once per ~~8 hours, not to exceed~~ 12 hours. LA.1 L.1

---

moved to ITS 3.4.5

a Not a means of quantifying leakage. A.3

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

H. Operational Leakage

Reactor coolant system leakage shall be limited to:

1. No PRESSURE BOUNDARY LEAKAGE.
2. ≤25 gpm total leakage averaged over any 24 hour surveillance period.
3. ≤5 gpm UNIDENTIFIED LEAKAGE.
4. ≤2 gpm increase in UNIDENTIFIED LEAKAGE within any period of 24 hours or less (Applicable in OPERATIONAL MODE 1 only).

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.
2. With the reactor coolant system UNIDENTIFIED LEAKAGE or total leakage rate(s) greater than the above limit(s), reduce the leakage rate to within the limits within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.6 - SURVEILLANCE REQUIREMENTS

H. Operational Leakage

The reactor coolant system leakage shall be demonstrated to be within each of the limits by:

~~1. Sampling the primary containment atmospheric particulate radioactivity at least once per 12 hours[a], and~~ R.1

2. Determining the primary containment sump flow rate at least once per 8 hours, not to exceed 12 hours.

See ITS 3.4.4

~~a Not a means of quantifying leakage.~~ R.1

3.6 - LIMITING CONDITIONS FOR OPERATION

4.6 - SURVEILLANCE REQUIREMENTS

3. With an increase in reactor coolant system UNIDENTIFIED LEAKAGE of >2 gpm within the previous ~~any~~ period ~~of~~ 24 hours ~~or less~~ in OPERATIONAL MODE 1: A.2

ACTION B a. Identify the source of leakage as not IGSCC susceptible material or reduce the leakage to within limits within 4 hours, or A.4

ACTION C b. Be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

A.1

ITS 3.4.6

3.6 - LIMITING CONDITIONS FOR OPERATION

J. Specific Activity

LCO 3.4.6 The specific activity of the reactor coolant shall be limited to ≤0.2 μCi/gram DOSE EQUIVALENT I-131.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3, with any main steam line not isolated.

ACTION:

ACTION A 1. With the specific acitivity of the reactor coolant >0.2 μCi/gram DOSE EQUIVALENT I-131 but ≤4.0 μCi/gram DOSE EQUIVALENT I-131, determine DOSE EQUIVALENT I-131 once per 4 hours and restore DOSE EQUIVALENT I-131 to within limits within 48 hours[a].

ACTION B 2. With the specific activity of the reactor coolant >0.2 μCi/gram DOSE EQUIVALENT I-131 for greater than 48 hours, or with the specific activity of the reactor coolant >4.0 μCi/gram DOSE EQUIVALENT I-131, determine DOSE EQUIVALENT I-131 once per 4 hours, and isolate all main steam lines within 12 hours, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.6 - SURVEILLANCE REQUIREMENTS

J. Specific Activity

SR 3.4.6.1 In OPERATIONAL MODE 1, the specific activity of the reactor coolant shall be verified to be ≤0.2 μCi/gram DOSE EQUIVALENT I-131 once per 7 days.

LCO 3.0.4

Required Actions A.1 and A.2 Note a The provisions of Specification 3.0.D are not applicable.

3.6 - LIMITING CONDITIONS FOR OPERATION

K. Pressure/Temperature Limits

LCO 3.4.9 The primary system coolant system temperature and reactor vessel metal temperature and pressure shall be limited as specified below:

1. Pressure Testing:

   a. The reactor vessel metal temperature and pressure shall be maintained within the Acceptable Regions as shown on Figure~~s~~ 3.6.K-1 ~~through 3.6.K-3~~ with the rate of change of the primary system coolant temperature ≤20°F per hour, or A.9

   SR 3.4.9.1 b. The rate of change of the primary system coolant temperature shall be ≤100°F per hour when reactor vessel metal temperature and pressure is maintained within the Acceptable Regions as shown on Figure 3.6.K-~~4~~ 2. A.9

2. Non-Nuclear Heatup and Cooldown and low power PHYSICS TESTS:

   a. The reactor vessel metal temperature and pressure shall be maintained within the Acceptable Regions as shown on Figure 3.6.K-~~4~~ 2, and A.9

   b. The rate of change of the primary system coolant temperature shall be ≤100°F per hour.

4.6 - SURVEILLANCE REQUIREMENTS

K. Pressure/Temperature Limits

1. During non-nuclear heatup or cooldown, and pressure testing operations, at least once per 30 minutes,

   SR 3.4.9.1 a. The rate of change of the primary system coolant temperature shall be determined to be within the heatup and cooldown rate limits, and

   b. The reactor vessel metal temperature and pressure shall be determined to be within the Acceptable Regions on Figures 3.6.K-1 through 3.6.K-~~4~~ 2. A.9

2. For reactor critical operation, determine within 15 minutes prior to the withdrawal of control rods and at least once per 30 minutes during primary system heatup or cooldown, L.1

   SR 3.4.9.1 SR 3.4.9.2 a. The rate of change of the primary system coolant temperature to be within the limits, and

   b. The reactor vessel metal temperature and pressure to be within the Acceptable Region on Figure 3.6.K-~~5~~ 3. A.9

3. ~~The reactor vessel material surveillance specimens shall be removed and examined, to determine changes in reactor pressure vessel material properties in accordance with 10CFR Part 50, Appendix H.~~ A.4

A.1

PRIMARY SYSTEM BOUNDARY

3.6 - LIMITING CONDITIONS FOR OPERATION

3. Nuclear Heatup and Cooldown:

SR 3.4.9.2 a. The reactor vessel metal temperature and pressure shall be maintained within the Acceptable Region as shown on Figure 3.6.K-~~5~~ 3, and A.9

SR 3.4.9.1 b. The rate of change of the primary system coolant temperature shall be ≤100°F per hour.

SR 3.4.9.5 SR 3.4.9.6 SR 3.4.9.7 4. The reactor vessel flange and head flange temperature ≥83°F when reactor vessel head bolting studs are under tension.

4.6 - SURVEILLANCE REQUIREMENTS

4. The reactor vessel flange and head flange temperature shall be verified to be ≥83°F:

a. In OPERATIONAL MODE 4 when the reactor coolant temperature is: add proposed SR 3.4.9.7 Note A.5

SR 3.4.9.7 1) ≤113°F, at least once per 12 hours. add proposed SR 3.4.9.6 Note

SR 3.4.9.6 2) ≤93°F, at least once per 30 minutes.

SR 3.4.9.5 b. ~~Within 30 minutes prior to and~~ at least once per 30 minutes during tensioning of the reactor vessel head bolting studs. A.6

APPLICABILITY:

At all times.

ACTION: add proposed Conditions A and C Notes A.2

With any of the above limits exceeded,

ACTIONS A and C

1. Restore the reactor vessel metal temperature and/or pressure to within the limits within 30 minutes without exceeding the applicable primary system coolant temperature rate of change limit, and A.3

2. ~~Perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the reactor coolant system and~~ determine that the reactor coolant system remains acceptable for continued operations within 72 hours, or LA.1 L2

ACTION B 3. Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the following 24 hours.

A.1 ITS 3.4.10

PRIMARY SYSTEM BOUNDARY

3.6 - LIMITING CONDITIONS FOR OPERATION

L. Reactor Steam Dome Pressure

LCO 3.4.10 The pressure in the reactor steam dome shall be ≤1005 psig.

APPLICABILITY:

OPERATIONAL MODE(s) 1[a] and 2[a] M.1

ACTION:

ACTION A With the reactor steam dome pressure >1005 psig, reduce the pressure to ≤1005 psig within 15 minutes or be in at least

ACTION B HOT SHUTDOWN within 12 hours.

4.6 - SURVEILLANCE REQUIREMENTS

L. Reactor Steam Dome Pressure

SR 3.4.10.1 The reactor steam dome pressure shall be verified to be ≤1005 psig at least once per 12 hours.

M.1

a ~~Not applicable during anticipated transients.~~

A.1

3.6 - LIMITING CONDITIONS FOR OPERATION

M. Main Steam Line Isolation Valves

LCO 3.6.1.3 A.9 SR 3.6.1.3.6

Two main steam line isolation valves (MSIVs) per main steam line shall be OPERABLE with closing times ≥3 seconds and ≤5 seconds.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

add proposed Note 1 to ACTIONS L.4

add proposed Note 2 to ACTIONS A.3

add proposed Note 4 to ACTIONS A.4

ACTION:

ACTIONS A and D

With one or more MSIVs inoperable, ~~maintain at least one MSIV OPERABLE in each affected main steam line that is open and~~ within 8 hours either: A.5

~~1. Restore the inoperable valve(s) to OPERABLE status, or~~ A.6

2. Isolate the affected main steam line by use of a deactivated MSIV in the closed position. L.2

ACTION E

Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

add ACTION B L.3

4.6 - SURVEILLANCE REQUIREMENTS

M. Main Steam Line Isolation Valves

SR 3.6.1.3.6

Each of the above required MSIVs shall be demonstrated OPERABLE by verifying full closure between 3 and 5 seconds when tested pursuant to Specification 4.0.E.

CTS 3/4.6.N

R.1

3.6 - LIMITING CONDITIONS FOR OPERATION

N. Structural Integrity

~~The structural integrity of ASME Code Class 1, 2 and 3 components shall be maintained in accordance with Specification 4.6.N.~~

~~APPLICABILITY:~~

~~OPERATIONAL MODE(s) 1, 2, 3, 4 and 5.~~

~~ACTION:~~

1. ~~With the structural integrity of any ASME Code Class 1 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limits or isolate the affected component(s) prior to increasing the Reactor Coolant System temperature more than 50°F above the minimum temperature required by NDT considerations.~~
2. ~~With the structural integrity of any ASME Code Class 2 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s).~~
3. ~~With the structural integrity of any ASME Code Class 3 component(s) not conforming to the above requirements, restore the structural integrity of the affected component(s) to within its limit or isolate the affected component(s) from service.~~

4.6 - SURVEILLANCE REQUIREMENTS

N. ~~Structural Integrity~~

~~No additional Surveillance Requirements other than those required by Specification 4.0.E.~~

A.1

ITS 3.4.7

3.6 - LIMITING CONDITIONS FOR OPERATION

O. Shutdown Cooling - HOT SHUTDOWN

LCO 3.4.7 Two[a] shutdown cooling (SDC) loops shall be OPERABLE and, unless at least one recirculation pump is in operation, at least one shutdown cooling loop shall be in operation[(b)(c)], with each loop consisting of at least: A.2

1. One OPERABLE SDC pump, and

2. One OPERABLE SDC heat exchanger. LA.1

APPLICABILITY:

OPERATIONAL MODE 3, with reactor vessel coolant temperature less than the SDC cut-in permissive setpoint.

ACTION:

add Proposed ACTIONS Note 1 L.1

add Proposed ACTIONS Note 2 A.3

ACTION A 1. With less than the above required SDC loops OPERABLE, immediately initiate corrective action to return the required loops to OPERABLE status as soon as possible. Within 1 hour and at least once per 24 hours thereafter, A.4 demonstrate the operability of at least one alternate method capable of decay heat removal for each inoperable SDC loop. Be in at least COLD SHUTDOWN within 24 hours[(d)]. A.5

4.6 - SURVEILLANCE REQUIREMENTS

O. Shutdown Cooling - HOT SHUTDOWN

SR 3.4.7.1 At least one SDC loop, one recirculation pump or alternate method shall be verified to be in operation and circulating reactor coolant at least once per 12 hours. LA.2

Required Action B.2

add proposed SR 3.4.7.1 Note L.1

LCO Note 2 a One shutdown cooling loop may be inoperable for up to 2 hours for surveillance testing provided the other loop is OPERABLE and in operation. L.2

LCO Note 1 b A shutdown cooling pump may be removed from operation for up to 2 hours per 8 hour period provided the other loop is OPERABLE.

c The shutdown cooling loop may be removed from operation during hydrostatic testing. A.2

d Whenever two or more SDC loops are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods. A.5

Page 1 of 2

3.6 - LIMITING CONDITIONS FOR OPERATION

ACTION B

2. With no SDC loop or recirculation pump in operation, immediately initiate corrective action to return at least one shutdown cooling loop or recirculation pump to operation as soon as possible. Within 1 hour establish reactor coolant circulation by an alternate method and monitor reactor coolant temperature and pressure at least once per hour.

4.6 - SURVEILLANCE REQUIREMENTS

3.6 - LIMITING CONDITIONS FOR OPERATION

P. Shutdown Cooling - COLD SHUTDOWN

LCO 3.4.8 Two[a] shutdown cooling (SDC) loops shall be OPERABLE and, unless at least one recirculation pump is in operation, at least one shutdown cooling loop shall be in operation[b][c] ~~with each loop consisting of at least:~~

~~1. One OPERABLE SDC pump, and~~

~~2. One OPERABLE SDC heat exchanger.~~ LA.1

APPLICABILITY:

OPERATIONAL MODE 4.

ACTION: add proposed ACTIONS Note A.2

ACTION A 1. With less than the above required SDC loops OPERABLE, within 1 hour and at least once per 24 hours thereafter, demonstrate the operability of at least one alternate method capable of decay heat removal for each inoperable SDC loop.

ACTION B 2. With no SDC loop or recirculation pump in operation, within 1 hour establish reactor coolant circulation by an alternate method and monitor reactor coolant temperature and pressure at least once per hour.

4.6 - SURVEILLANCE REQUIREMENTS

P. Shutdown Cooling - COLD SHUTDOWN

SR 3.4.8.1 At least one SDC loop, recirculation pump ~~or alternate method~~ shall be verified to be in operation ~~and circulating reactor coolant~~ at least once per 12 hours. LA.2

Required Action B.1

LCO Note 3 a One shutdown cooling loop may be inoperable for up to 2 hours for surveillance testing ~~provided the other loop is OPERABLE and in operation~~. L.1

LCO Note 2 b A shutdown cooling pump may be removed from operation for up to 2 hours per 8 hour period ~~provided the other loop is OPERABLE~~.

LCO Note 1 c The shutdown cooling loop may be removed from operation during hydrostatic testing.

A.1

CONTAINMENT SYSTEMS

3.7 - LIMITING CONDITIONS FOR OPERATION

A. PRIMARY CONTAINMENT INTEGRITY

LCO 3.6.1.1 PRIMARY CONTAINMENT INTEGRITY shall be ~~maintained~~. OPERABLE

APPLICABILITY:

A.3 OPERATIONAL MODE(s) 1, 2[a] and 3.

ACTION: OPERABLE

A.2

Action A — Without PRIMARY CONTAINMENT INTEGRITY, restore PRIMARY CONTAINMENT INTEGRITY within 1 hour

Action B — or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.7 - SURVEILLANCE REQUIREMENTS

A. PRIMARY CONTAINMENT INTEGRITY — A.2

PRIMARY CONTAINMENT INTEGRITY shall be demonstrated~~:~~

SR 3.6.1.1.1 1. Perform required visual examinations and leakage rate testing except for primary containment air lock testing in accordance with and at the frequency specified by the Primary Containment Leakage Rate Testing Program.

2. At least once per 31 days by verifying that all primary containment penetrations[b] not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed, except for valves that are open under administrative control as permitted by Specification 3.7.D. — A.4 moved to ITS 3.6.1.3

~~3. By verifying each primary containment air lock is in compliance with the requirements of Specification 3.7.C.~~

~~4. By verifying the suppression chamber is in compliance with the requirements of Specification 3.7.K.~~ — A.5

---

a ~~See Special Test Exception 3.12.A.~~ — A.3

b Except valves, blind flanges, and deactivated automatic valves which are located inside the containment. Valves and blind flanges in high radiation areas may be verified by use of administrative controls. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed when the primary containment has not been de-inerted since the last verification or more often than once per 92 days. — A.4 moved to ITS 3.6.1.3

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

A. PRIMARY CONTAINMENT INTEGRITY

PRIMARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2[a] and 3.

ACTION:

Without PRIMARY CONTAINMENT INTEGRITY, restore PRIMARY CONTAINMENT INTEGRITY within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

L.10 — add Note 2 to Required Actions A.2 and C.2

Note 2 to SR 3.6.1.3.2 and SR 3.6.1.3.3

See ITS 3.6.1.1

4.7 - SURVEILLANCE REQUIREMENTS

A. PRIMARY CONTAINMENT INTEGRITY

PRIMARY CONTAINMENT INTEGRITY shall be demonstrated:

1. Perform required visual examinations and leakage rate testing except for primary containment air lock testing in accordance with and at the frequency specified by the Primary Containment Leakage Rate Testing Program.
2. Required Actions A.2 and C.2 and SR 3.6.1.3.2 — At least once per 31 days by verifying that all primary containment penetrations[b] not capable of being closed by OPERABLE containment automatic isolation valves (and not locked, sealed, or secured — L.9) and required to be closed during accident conditions are closed, except for valves that are open under administrative control as permitted by Specification 3.7.D.
3. By verifying each primary containment air lock is in compliance with the requirements of Specification 3.7.C.
4. By verifying the suppression chamber is in compliance with the requirements of Specification 3.7.K.

Note 1 to Required Action A.2 and C.2
Note 1 to SR 3.6.1.3.2 and SR 3.6.1.3.3 — L.10

a See Special Test Exception 3.12.A.

b Except valves, blind flanges, and deactivated automatic valves which are located inside the containment. Valves and blind flanges in high radiation areas may be verified by use of administrative controls. These penetrations shall be verified closed during each COLD SHUTDOWN except such verification need not be performed when the primary containment has not been de-inerted since the last verification or more often than once per 92 days.

Required Actions A.2 and SR 3.6.1.3.3

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

LCO 3.6.1.2 C. Primary Containment Air Locks

Each primary containment air lock shall be OPERABLE.

APPLICABILITY:

A.2

OPERATIONAL MODE(s) 1, 2[a] and 3.

L.1 add proposed ACTIONS Note 1

ACTION: add proposed ACTIONS Note 2

A.3

1. With one primary containment air lock door inoperable:

L.2 Verify

ACTION A a. ~~Maintain~~ at least the OPERABLE air lock door closed[b] ~~and either~~ ~~restore the inoperable air lock door to OPERABLE status~~ within 1 hour within 24 hours ~~or~~ lock the OPERABLE air lock door closed.

ACTION A b. ~~Operation may then continue until performance of the next required overall air lock leakage test~~ provided that the OPERABLE air lock door is verified to be locked closed[b] at least once per 31 days.

4.7 - SURVEILLANCE REQUIREMENTS

C. Primary Containment Air Locks

Each primary containment air lock shall be demonstrated OPERABLE:

1. SR 3.6.1.2.1 By performing required primary containment air lock leakage testing in accordance with and at the frequency specified by the Primary Containment Leakage Rate Testing Program[c][d].

2. SR 3.6.1.2.2 At least once per ~~6~~ 24 months, by verifying that only one door in each air lock can be opened at a time~~[e]~~. L.5

add proposed Note 1 to Required Action A A.4

A.5

A.6

add proposed Note to Required Action A.3 L.3

ACTIONS NOTE 1 ~~a See Special Test Exception 3.12.A.~~ A.2

Required Action A Note 2 b Except during entry through an OPERABLE door to repair an inoperable door ~~or to facilitate the removal of personnel for a cumulative time not to exceed one hour per year.~~ L.1 for all types of inoperabilities L.4

Note 1 to SR 3.6.1.2.1 c An inoperable air lock door does not invalidate the previous successful performance of the overall air lock leakage test.

Note 2 to SR 3.6.1.2.1 d Results shall be evaluated against acceptance criteria applicable to Specification 4.7.A.1.

~~e Only required to be performed upon entry into primary containment air lock when the primary containment is de-inerted.~~ L.5

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION | 4.7 - SURVEILLANCE REQUIREMENTS

ACTION D c. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

add proposed Note 1 to Required Action B — A.4

2. With the primary containment air lock interlock mechanism inoperable, ~~restore the air lock interlock mechanism to OPERABLE status~~ within 24 hours, ~~or~~ lock at least one air lock door closed and verify that the door is locked closed at least once per 31 days. Personnel entry and exit through the airlock is permitted ~~provided one OPERABLE air lock door remains locked closed at all times~~ and an individual is dedicated ~~to assure that both air lock doors are not opened simultaneously~~.

ACTION B

add proposed Required Action B.1 — M.1

A.5

add proposed Note to Required Action B.3 — L.3

L.6

LA.1

add proposed ACTION D — A.7

3. With the primary containment air lock inoperable, except as a result of an inoperable air lock door or interlock mechanism, ~~maintain~~ at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION C

ACTION D

add proposed Required Action C.1 — A.3

verify — L.2

within 1 hour

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

D. Primary Containment Isolation Valves

LCO 3.6.1.3 Each primary containment isolation valve ~~and reactor instrumentation excess flow check valve~~ shall be OPERABLE[a].

A.2 excluding reactor building to suppression chamber vacuum breakers

M.1 APPLICABILITY: add proposed 2nd Applicability

OPERATIONAL MODE(s) 1, 2 and 3.

A.3 add proposed Note 2 to ACTIONS

ACTION: add proposed Notes 3 and 4 to ACTIONS

A.4

A.2 1. With one or more of the primary containment isolation valve(s)[~~b~~] inoperable, ~~maintain at least one isolation valve OPERABLE in each affected penetration that is open and~~ within (4) hours either:

ACTIONS A and C

A.5

L.1

A.6 ~~a. Restore the inoperable valve(s) to OPERABLE status, or~~

b. Isolate each affected penetration by use of at least one deactivated automatic valve secured in the isolated position[a], or

L.2 c. Isolate each affected penetration by use of at least one closed manual valve or blind flange[a]~~,~~ or check valve with flow secured.

Required Action A.1 only

ACTION E Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

L.3 add proposed ACTION B

M.1 add proposed ACTION F

4.7 - SURVEILLANCE REQUIREMENTS

D. Primary Containment Isolation Valves

~~1. Each power-operated or automatic primary containment isolation valve shall be demonstrated OPERABLE prior to returning the valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control, or power circuit by performance of a cycling test and verification of isolation time.~~ L.5

2. SR 3.6.1.3.7 Each power-operated or automatic primary containment isolation valve required to close on an isolation signal, ~~except traversing in-core probe system explosive isolation valves,~~ shall be demonstrated OPERABLE at least once per ~~18~~ 24 months by verifying that on a containment isolation test or actual signal each automatic isolation valve actuates to its isolation position. A.7 LD.1 L.6

3. SR 3.6.1.3.5 The isolation time of each power-operated ~~or~~ automatic primary containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.E. LA.1

4. SR 3.6.1.3.8 Each reactor instrumentation line excess flow check valve which fulfills a primary containment isolation function shall be demonstrated OPERABLE at least once per ~~18~~ 24 months by verifying that the valve ~~checks flow~~ actuates to the isolation position. LD.1 L.7

5. SR 3.6.1.3.4 SR 3.6.1.3.9 Each traversing in-core probe system explosive isolation valve shall be demonstrated OPERABLE:

add proposed SR 3.6.1.3.1 M.2

Note 1 to ACTIONS a Locked or sealed closed valves may be opened on an intermittent basis under administrative control. L.4

~~b Except main steam isolation valves (MSIVs). Required actions for inoperable MSIVs are provided in Specification 3.6.M.~~ A.2

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3.7 - LIMITING CONDITIONS FOR OPERATION

ACTION C

2. With one or more reactor instrumentation line excess flow check valves inoperable, ~~operation may continue and the provisions of Specification 3.0.C are not applicable,~~ provided that within ~~4~~ 72 hours either: A.8 L.8

a. ~~The inoperable valve is restored to OPERABLE status, or~~ A.6

b. The instrument line is isolated ~~and the associated instrument is declared inoperable.~~ A.4 Note 3 to ACTIONS

ACTION E

Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.7 - SURVEILLANCE REQUIREMENTS

SR 3.6.1.3.4

a. At least once per 31 days by verifying the continuity of the explosive charge.

SR 3.6.1.3.9

b. At least once per ~~18~~ 24 months by removing at least one explosive squib from an explosive valve such that each explosive squib will be tested at least once per ~~90~~ 120 months, and initiating the removed explosive squib(s). ~~The replacement charge for the exploded squib(s) shall be from the same manufactured batch as the one fired or from another batch which has been certified by having at least one of that batch successfully fired. No squib shall remain in use beyond the expiration of its shelf-life or operating life, as applicable.~~ LD.1 LA.2

SR 3.6.1.3.10

6. ~~In accordance with the methods and~~ at the frequency specified by the Primary Containment Leakage Rate Testing Program, verify ~~total maximum pathway~~ leakage for all Main Steam Isolation Valves is ≤ 46 scfh when tested at P_t (25 psig). LA.3

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

E. Suppression Chamber - Drywell Vacuum Breakers

LCO 3.6.1.8 Nine suppression chamber - drywell vacuum breakers shall be OPERABLE ~~and twelve suppression chamber - drywell vacuum breakers shall be closed.~~ for opening

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

M.1

1. ACTION A With one ~~or more~~ of the required suppression chamber - drywell vacuum breakers inoperable for opening but known to be closed, restore at least nine vacuum breakers to OPERABLE status within 72 hours or be in at least ACTION C HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

2. ACTION B With one suppression chamber - drywell vacuum breaker open, restore the open vacuum breaker to the closed position within 4 hours or be in at least ACTION C HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

~~3. With one position indicator of any OPERABLE suppression chamber - drywell vacuum breaker inoperable, restore the inoperable position indicator to OPERABLE status within 14 days or visually verify the vacuum breaker to be closed at least once per 24 hours. Otherwise, declare the vacuum breaker inoperable.~~

4.7 - SURVEILLANCE REQUIREMENTS

L.3

E. Suppression Chamber - Drywell Vacuum Breakers

Each suppression chamber - drywell vacuum breaker shall be: add proposed Note 1 to SR 3.6.1.8.1 add proposed Note 2 to SR 3.6.1.8.1 A.2

SR 3.6.1.8.1 1. Verified closed at least once per ~~7~~ 14 days. L.2

2. Demonstrated OPERABLE:

SR 3.6.1.8.2 a. At least once per 31 days and within 12 hours after any discharge of steam to the suppression chamber from one or more main steam relief valve(s), by cycling each vacuum breaker through at least one complete cycle of full travel.

~~b. At least once per 31 days by verifying both position indicator(s) OPERABLE by observing expected valve movement during the cycling test.~~ L.1

c. At least once per ~~18~~ 24 months by: LD.1

SR 3.6.1.8.3 1) Verifying the force required to open the vacuum breaker ~~from the closed position~~ to be ≤0.5 psid, and LA.1

~~2) Verifying both position indicators OPERABLE by performance of a CHANNEL CALIBRATION.~~

~~3) Verifying that each valve's position indicator is capable of detecting disk displacement of ≥0.0625 inches.~~ L.1

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

F. Reactor Building - Suppression Chamber Vacuum Breakers

LCO 3.6.1.7 All reactor building - suppression chamber vacuum breakers shall be OPERABLE ~~and closed~~. LA.1

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

A.2 ACTION: add proposed ACTIONS Note

1. Action C: With one reactor building - suppression chamber vacuum breaker line inoperable for opening with both valves known to be closed, restore the inoperable vacuum breaker line to OPERABLE status within 7 days, or be Action E: in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

L.1 add proposed ACTION D

2. Action A: With one reactor building - suppression chamber vacuum breaker line otherwise inoperable, verify at least one vacuum Action B: breaker in the line to be closed within ~~2~~ 1 (M.1) hours and restore the open vacuum Action A: breaker to the closed position within 7 days or be in at least HOT Action E: SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

L.2 ~~3. With the position indicator of the air operated reactor building - suppression chamber vacuum breaker inoperable, restore the inoperable position indicator to OPERABLE status within 14 days or verify the vacuum breaker to be closed at least once per 24 hours by an~~

4.7 - SURVEILLANCE REQUIREMENTS

F. Reactor Building - Suppression Chamber Vacuum Breakers

Each reactor building - suppression chamber vacuum breaker shall be: add proposed Notes 1 and 2 to SR 3.6.1.7.1 A.3

SR 3.6.1.7.1 1. Verified closed at least once per ~~7~~ 14 days. L.3

2. Demonstrated OPERABLE:

SR 3.6.1.7.2 a. At least once per 92 days when tested pursuant to Specification 4.0.E by:

1) Cycling the vacuum breaker through at least one test cycle.

~~2) Verifying the air operated vacuum breaker position indicator OPERABLE by observing expected valve movement during the cycling test.~~ L.2

SR 3.6.1.7.3 b. At least once per ~~18~~ 24 (LD.1) months by:

1) Demonstrating that the force required to open each vacuum breaker does not exceed the equivalent of 0.5 psid.

~~2) Verifying the air operated vacuum breaker position indicator OPERABLE by performance of a CHANNEL CALIBRATION.~~ L.2

3.7 - LIMITING CONDITIONS FOR OPERATION | 4.7 - SURVEILLANCE REQUIREMENTS

~~alternate means. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.~~ L.2

A.1

ITS 3.6.1.4

3.7 - LIMITING CONDITIONS FOR OPERATION

G. Drywell Internal Pressure

LCO 3.6.1.4 The drywell internal pressure shall not exceed +1.5 psig[a].

A.2

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. ~~With the drywell internal pressure <1.0 psig during the applicable time period for OPERATIONAL MODE 1, restore the internal pressure to above the low pressure limit within 24 hours or reduce THERMAL POWER to <15% RATED THERMAL POWER within the next 8 hours.~~

ACTION A

2. With the drywell internal pressure otherwise outside of the specified limits, restore the internal pressure to within the limits within 1 hour ~~or be in at least HOT SHUTDOWN~~ within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION B

4.7 - SURVEILLANCE REQUIREMENTS

G. Drywell Internal Pressure

SR 3.6.1.4.1 The drywell internal pressure shall be determined to be within the limits at least once per 12 hours.

~~a In OPERATIONAL MODE 1, during the time period beginning within 24 hours after THERMAL POWER is >15% of RATED THERMAL POWER following startup, and ending within 24 hours prior to reducing THERMAL POWER to <15% of RATED THERMAL POWER preliminary to a scheduled reactor shutdown, the drywell internal pressure shall also be maintained ≥1.0 psig (except for up to 4 hours for required surveillance which reduces the differential pressure.)~~

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ITS 3.6.2.5

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

H. Drywell - Suppression Chamber Differential Pressure

LCO 3.6.2.5 Differential pressure between the drywell and the suppression chamber shall be ≥1.0 psid[a].

APPLICABILITY:

OPERATIONAL MODE 1, during the time period:

1. Beginning within 24 hours after THERMAL POWER is >15% of RATED THERMAL POWER following startup, and
2. Ending within 24 hours prior to reducing THERMAL POWER to ≤15% of RATED THERMAL POWER preliminary to a scheduled reactor shutdown. M.1

ACTION:

ACTION A 1. With the drywell - suppression chamber differential pressure less than the above limit, restore the required differential pressure within 24 hours ~~or~~

ACTION B reduce THERMAL POWER to ~~<~~15% (≤) A.2 RATED THERMAL POWER within the next 8 hours.

~~2. With the drywell - suppression chamber differential pressure instrumentation CHANNEL inoperable, restore the inoperable CHANNEL to OPERABLE status within 30 days or reduce THERMAL POWER to <15% RATED THERMAL POWER within the next 8 hours.~~ L.1

4.7 - SURVEILLANCE REQUIREMENTS

H. Drywell - Suppression Chamber Differential Pressure

SR 3.6.2.5.1 1. The drywell - suppression chamber differential pressure shall be demonstrated to be within limits by verifying the differential pressure at least once per 12 hours.

~~2. At least one drywell - suppression chamber differential pressure instrumentation CHANNEL, and at least one drywell pressure and one suppression chamber pressure instrumentation CHANNEL shall be demonstrated OPERABLE by performance of a:~~

~~a. CHANNEL CHECK at least once per 24 hours,~~

~~b. CHANNEL CALIBRATION at least once every 31 days.~~ L.1

Note to LCO 3.6.2.5

a Except for up to 4 hours for required surveillance ~~which reduces the differential pressure~~ LA.1

Page 1 of 2

ITS 3.6.2.5

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

4.7 - SURVEILLANCE REQUIREMENTS

~~3. With the drywell and/or suppression chamber pressure instrumentation CHANNEL(s) inoperable, restore the inoperable CHANNEL(s) to OPERABLE status within 30 days or reduce THERMAL POWER to <15% RATED THERMAL POWER within the next 8 hours.~~

~~4. With the drywell - suppression chamber differential pressure instrumentation CHANNEL inoperable and with insufficient drywell and suppression chamber pressure instrumentation CHANNEL(s) OPERABLE to determine drywell - suppression chamber differential pressure, restore either the drywell - suppression chamber differential pressure instrumentation CHANNEL or sufficient drywell and suppression chamber pressure instrumentation CHANNEL(s) to determine drywell - suppression chamber differential pressure to OPERABLE status within 8 hours or reduce THERMAL POWER to <15% RATED THERMAL POWER within the next 8 hours.~~

L.1

3.7 - LIMITING CONDITIONS FOR OPERATION

J. Primary Containment Oxygen Concentration

LCO 3.6.3.1 The suppression chamber and drywell atmosphere oxygen concentration shall be <4% by volume.

APPLICABILITY:

OPERATIONAL MODE 1, during the time period:

1. Beginning within 24 hours after THERMAL POWER is >15% of RATED THERMAL POWER following startup, and
2. Ending within 24 hours prior to reducing THERMAL POWER to <15% of RATED THERMAL POWER preliminary to a scheduled reactor shutdown.

ACTION:

ACTION A — With the drywell and/or suppression chamber oxygen concentration exceeding the limit, restore the oxygen concentration to within the limit within 24 hours or

ACTION B — reduce THERMAL POWER to ~~<~~ ≤ 15% RATED THERMAL POWER within the next 8 hours. A.2

4.7 - SURVEILLANCE REQUIREMENTS

J. Primary Containment Oxygen Concentration

SR 3.6.3.1.1 The suppression chamber and drywell oxygen concentration shall be verified to be within the limit ~~within 24 hours after THERMAL POWER is >15% of RATED THERMAL POWER and~~ at least once per 7 days thereafter. A.3

3.7 - LIMITING CONDITIONS FOR OPERATION

K. Suppression Chamber

The suppression chamber shall be OPERABLE with:

1. The suppression pool water level between 14' 6.5" and 14' 10.5".

2. A suppression pool maximum average water temperature of ≤85°F during OPERATIONAL MODE(s) 1 or 2, except that the maximum average temperature may be permitted to increase to:

    a. ≤105°F during testing which adds heat to the suppression pool.

    b. ≤110°F with THERMAL POWER ≤1% of RATED THERMAL POWER.

    c. ≤120°F with the main steam line isolation valves closed following a scram.

SR 3.6.1.1.2 3. A total leakage between the suppression chamber and drywell of less than the equivalent leakage through a 1 inch diameter orifice at a differential pressure of 1.0 psid.

A.6

L.3

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. With the suppression pool water level outside the above limits, restore the water level to within the limits

L.1 add proposed ACTION A

4.7 - SURVEILLANCE REQUIREMENTS

K. Suppression Chamber

The suppression chamber shall be demonstrated OPERABLE:

1. By verifying the suppression pool water level to be within the limits at least once per 24 hours.

2. At least once per 24 hours by verifying the suppression pool average water temperature to be ≤95°F, except:

    a. At least once per 5 minutes during testing which adds heat to the suppression pool, by verifying the suppression pool average water temperature to be ≤105°F.

    b. At least once per hour when suppression pool average water temperature is ≥ 95°F, by verifying:

        1) Suppression pool average water temperature to be ≤ 110°F, and

        2) THERMAL POWER to be ≤ 1% of RATED THERMAL POWER after suppression pool average water temperature has exceeded 95°F for more than 24 hours.

    c. At least once per 30 minutes with the main steam isolation valves closed following a scram and suppression pool average water temperature >95°F, by verifying suppression pool average water temperature to be ≤120°F.

See ITS 3.6.2.1 and ITS 3.6.2.2

A.1 ITS 3.6.2.1

3.7 - LIMITING CONDITIONS FOR OPERATION

K. Suppression Chamber

LCO 3.6.2.1 The suppression chamber shall be OPERABLE with:

1. The suppression pool water level between 14' 6.5" and 14' 10.5",

LCO 3.6.2.1.a 2. A suppression pool maximum average water temperature of ≤95°F during OPERATIONAL MODE(s) 1 or 2 except that the maximum average temperature may be permitted to increase to: A.2

LCO 3.6.2.1.b a. ≤105°F during testing which adds heat to the suppression pool.

LCO 3.6.2.1.c b. ≤110°F with THERMAL POWER ≤1% of RATED THERMAL POWER. A.2

CONDITION E c. ≤120°F with the main steam line isolation valves closed following a scram. M.1

A.3 moved to ITS 3.6.1.1 3. A total leakage between the suppression chamber and drywell of less than the equivalent leakage through a 1 inch diameter orifice at a differential pressure of 1.0 psid.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

1. With the suppression pool water level outside the above limits, restore the water level to within the limits

<See ITS 3.6.2.2>

4.7 - SURVEILLANCE REQUIREMENTS

K. Suppression Chamber

The suppression chamber shall be demonstrated OPERABLE: <See ITS 3.6.2.2>

1. By verifying the suppression pool water level to be within the limits at least once per 24 hours.

SR 3.6.2.1.1 2. At least once per 24 hours by verifying the suppression pool average water temperature to be ≤95°F, except:

a. At least once per 5 minutes during testing which adds heat to the suppression pool, by verifying the suppression pool average water temperature to be ≤105°F.

Required Action A.1 b. At least once per hour when suppression pool average water temperature is ≥ 95°F, by verifying:

1) Suppression pool average water temperature to be ≤ 110°F, and

2) ~~THERMAL POWER to be ≤ 1% of RATED THERMAL POWER after suppression pool average water temperature has exceeded 95°F for more than 24 hours.~~ L.2

M.1 Required Action D.2 c. At least once per 30 minutes ~~with the main steam isolation valves closed~~ following a scram and suppression pool average water temperature >95°F, by verifying suppression pool average water temperature to be ≤120°F.

Page 1 of 2

3.7 - LIMITING CONDITIONS FOR OPERATION

K. Suppression Chamber

LCO 3.6.2.2 The suppression chamber shall be OPERABLE with:

1. The suppression pool water level between 14' 6.5" and 14' 10.5",

2. A suppression pool maximum average water temperature of ≤95°F during OPERATIONAL MODE(s) 1 or 2, except that the maximum average temperature may be permitted to increase to:

   see ITS 3.6.2.1

   a. ≤105°F during testing which adds heat to the suppression pool.

   b. ≤110°F with THERMAL POWER ≤1% of RATED THERMAL POWER.

   c. ≤120°F with the main steam line isolation valves closed following a scram.

3. A total leakage between the suppression chamber and drywell of less than the equivalent leakage through a 1 inch diameter orifice at a differential pressure of 1.0 psid.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

ACTION A 1. With the suppression pool water level outside the above limits, restore the water level to within the limits

4.7 - SURVEILLANCE REQUIREMENTS

K. Suppression Chamber

The suppression chamber shall be demonstrated OPERABLE:

SR 3.6.2.2.1 1. By verifying the suppression pool water level to be within the limits at least once per 24 hours.

2. At least once per 24 hours by verifying the suppression pool average water temperature to be ≤95°F, except:

   a. At least once per 5 minutes during testing which adds heat to the suppression pool, by verifying the suppression pool average water temperature to be ≤105°F.

   b. At least once per hour when suppression pool average water temperature is ≥ 95°F, by verifying:

      1) Suppression pool average water temperature to be ≤ 110°F, and

      2) THERMAL POWER to be ≤ 1% of RATED THERMAL POWER after suppression pool average water temperature has exceeded 95°F for more than 24 hours.

   c. At least once per 30 minutes with the main steam isolation valves closed following a scram and suppression pool average water temperature >95°F, by verifying suppression pool average water temperature to be ≤120°F.

3.7 - LIMITING CONDITIONS FOR OPERATION

~~within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.~~

2. ~~In OPERATIONAL MODE(s) 1 or 2 with the suppression pool average water temperature >95°F, except as permitted above, restore the average temperature to ≤95°F within 24 hours or reduce THERMAL POWER to ≤1% RATED THERMAL POWER within the next 12 hours.~~

3. ~~With the suppression pool average water temperature >105°F during testing which adds heat to the suppression pool, except as permitted above, stop all testing which adds heat to the suppression pool and restore the average temperature to ≤95°F within 24 hours or reduce THERMAL POWER to ≤1% RATED THERMAL POWER within the next 12 hours.~~

4. ~~With the suppression pool average water temperature >110°F, immediately place the reactor mode switch in the Shutdown position and operate at least one low pressure coolant injection loop in the suppression pool cooling mode.~~

5. ~~With the suppression pool average water temperature >120°F, depressurize the reactor pressure vessel to <150 psig (reactor steam dome pressure) within 12 hours.~~

see ITS 3.6.2.1 and ITS 3.6.2.2

4.7 - SURVEILLANCE REQUIREMENTS

3. ~~Deleted.~~

4. ~~Deleted.~~

SR 3.6.1.1.2

5. At least once per ~~18~~ 24 months ~~by conducting a drywell to suppression chamber bypass leak test at an initial differential pressure of 1.0 psid and~~ verifying that the measured leakage is within the specified limit. ~~If any drywell to suppression chamber bypass leak test fails to meet the specified limit, the test schedule for subsequent tests shall be reviewed and approved by the Commission.~~ ~~If two consecutive tests fail to meet the specified limit, a test shall be performed at least every 9 months until two consecutive tests meet the specified limit, at which time the 18 month test schedule may be resumed.~~

LD.1

L.3

L.2

L.4

3.7 - LIMITING CONDITIONS FOR OPERATION

see ITS 3.6.2.2

within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION A

2. In OPERATIONAL MODE(s) 1 or 2 with the suppression pool average water temperature >95°F, except as permitted above, restore the average temperature to ≤95°F within 24 hours

ACTION B

or reduce THERMAL POWER to ≤1% RATED THERMAL POWER within the next 12 hours.

ACTION C

3. With the suppression pool average water temperature >105°F during testing which adds heat to the suppression pool, except as permitted above, stop all testing which adds heat to the suppression pool and

ACTION A

restore the average temperature to ≤95°F within 24 hours

ACTION B

or reduce THERMAL POWER to ≤1% RATED THERMAL POWER within the next 12 hours.

ACTION D

4. With the suppression pool average water temperature >110°F, immediately place the reactor mode switch in the Shutdown position and be in MODE 4 in 36 hours ~~and operate at least one low pressure coolant injection loop in the suppression pool cooling mode.~~

M.2

L.1

ACTION E

5. With the suppression pool average water temperature >120°F, depressurize the reactor pressure vessel to <150 psig (reactor steam dome pressure) within 12 hours.

4.7 - SURVEILLANCE REQUIREMENTS

~~3. Deleted.~~

~~4. Deleted.~~

moved to ITS 3.6.1.1

A.3

5. At least once per 18 months by conducting a drywell to suppression chamber bypass leak test at an initial differential pressure of 1.0 psid and verifying that the measured leakage is within the specified limit. If any drywell to suppression chamber bypass leak test fails to meet the specified limit, the test schedule for subsequent tests shall be reviewed and approved by the Commission. If two consecutive tests fail to meet the specified limit, a test shall be performed at least every 9 months until two consecutive tests meet the specified limit, at which time the 18 month test schedule may be resumed.

L.1

3.7 - LIMITING CONDITIONS FOR OPERATION

ACTION A [within 1 hour or be in at least HOT

ACTION B { SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

2. In OPERATIONAL MODE(s) 1 or 2 with the suppression pool average water temperature >95°F, except as permitted above, restore the average temperature to ≤95°F within 24 hours or reduce THERMAL POWER to ≤1% RATED THERMAL POWER within the next 12 hours.

3. With the suppression pool average water temperature >105°F during testing which adds heat to the suppression pool, except as permitted above, stop all testing which adds heat to the suppression pool and restore the average temperature to ≤95°F within 24 hours or reduce THERMAL POWER to ≤1% RATED THERMAL POWER within the next 12 hours.

4. With the suppression pool average water temperature >110°F, immediately place the reactor mode switch in the Shutdown position and operate at least one low pressure coolant injection loop in the suppression pool cooling mode.

5. With the suppression pool average water temperature >120°F, depressurize the reactor pressure vessel to <150 psig (reactor steam dome pressure) within 12 hours.

<See ITS 3.6.2.1>

4.7 - SURVEILLANCE REQUIREMENTS

3. Deleted.

4. Deleted.

moved to ITS 3.6.1.1 A.2

5. At least once per 18 months by conducting a drywell to suppression chamber bypass leak test at an initial differential pressure of 1.0 psid and verifying that the measured leakage is within the specified limit. If any drywell to suppression chamber bypass leak test fails to meet the specified limit, the test schedule for subsequent tests shall be reviewed and approved by the Commission. If two consecutive tests fail to meet the specified limit, a test shall be performed at least every 9 months until two consecutive tests meet the specified limit, at which time the 18 month test schedule may be resumed.

ITS 3.6.2.4

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

L. Suppression Chamber and Drywell Spray

LCO 3.6.2.4

The suppression chamber and drywell spray functions of the low pressure coolant injection (LPCI)/containment cooling system shall be OPERABLE with two independent loops, each loop consisting of:

LA.1

1. One OPERABLE LPCI pump, and
2. An OPERABLE flow path capable of recirculating water from the suppression pool through a heat exchanger and the suppression chamber and drywell spray nozzles.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

ACTION A

ACTION C

1. With one suppression chamber/drywell spray loop inoperable, restore the inoperable loop to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION B

ACTION C

2. With both suppression chamber/drywell spray loops inoperable, restore at least one loop to OPERABLE status within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the next 24 hours.

R.1

4.7 - SURVEILLANCE REQUIREMENTS

L. Suppression Chamber and Drywell Spray

R.1

The suppression chamber and drywell spray functions of LPCI/containment cooling system shall be demonstrated OPERABLE:

SR 3.6.2.4.1

1. At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position or can be aligned to the correct position

A.2

2. ~~By performance of an air or smoke flow test of the drywell spray nozzles at least once per 5 years and verifying that each spray nozzle is unobstructed.~~

Add Proposed SR 3.6.2.4.2

M.1

Page 1 of 1

A.1

ITS 3.6.2.3

3.7 - LIMITING CONDITIONS FOR OPERATION

M. Suppression Pool Cooling

LCO 3.6.2.3 The suppression pool cooling function of the low pressure coolant injection (LPCI)/containment cooling system shall be OPERABLE with two ~~independent~~ loops, each loop consisting of:

LA.1

1. One OPERABLE LPCI pump, and
2. An OPERABLE flow path capable of recirculating water from the suppression pool through a heat exchanger.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3.

ACTION:

ACTION A 1. With one suppression pool cooling loop inoperable, restore the inoperable loop to OPERABLE status within 7 days or

ACTION C be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION B 2. With both suppression pool cooling loops inoperable, be in at least HOT SHUTDOWN within 12 hours and in

ACTION C COLD SHUTDOWN within the next 24 hours.

restore one subsystem to OPERABLE status within 8 hours — L.1

4.7 - SURVEILLANCE REQUIREMENTS

M. Suppression Pool Cooling

The suppression pool cooling function of the LPCI/containment cooling system shall be demonstrated OPERABLE:

SR 3.6.2.3.1 1. At least once per 31 days by verifying that each valve, manual, power operated ~~or automatic~~, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position, or can be aligned to the correct position — A.2

SR 3.6.2.3.2 2. By verifying that each of the required LPCI pumps develops ~~the required recirculation flow~~ ≥ 5000 gpm through the heat exchanger and the suppression pool when tested pursuant to Specification 4.0.E. — M.1

A.1

ITS 3.6.4.1

3.7 - LIMITING CONDITIONS FOR OPERATION

N. SECONDARY CONTAINMENT INTEGRITY

LCO 3.6.4.1 SECONDARY CONTAINMENT INTEGRITY OPERABLE shall be maintained.

A.2

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3 and *.

ACTION:

ACTION A 1. Without SECONDARY CONTAINMENT INTEGRITY in OPERATIONAL MODES(s) 1, 2 or 3, restore SECONDARY CONTAINMENT INTEGRITY to OPERABLE status within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

A.2

ACTION B

2. Without SECONDARY CONTAINMENT INTEGRITY OPERABLE in OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.

ACTION C

4.7 - SURVEILLANCE REQUIREMENTS

N. SECONDARY CONTAINMENT INTEGRITY

SECONDARY CONTAINMENT INTEGRITY shall be demonstrated by:

SR 3.6.4.1.1 1. Verifying at least once per 24 hours that the pressure within the secondary containment is ≥0.25 inches of vacuum water gauge.

2. Verifying at least once per 31 days that:

A.3

SR 3.6.4.1.2 a. At least one door in each secondary containment air lock is closed.

b. All secondary containment penetrations[a] not capable of being closed by OPERABLE secondary containment automatic isolation dampers and required to be closed during accident conditions are closed.

moved to ITS 3.6.4.2

A4

LD.1

SR 3.6.4.1.3 3. At least once per ~~18~~ 24 months by operating one standby gas treatment subsystem at a flow rate ≤4000 cfm for one hour and maintaining ≥0.25 inches of vacuum water gauge in the secondary containment on a STAGGERED TEST BASES

M.1

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

a Valves and blind flanges in high-radiation areas may be verified by use of administrative controls. Normally locked or sealed-closed penetrations may be opened intermittently under administrative controls.

Page 1 of 1

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

N. SECONDARY CONTAINMENT INTEGRITY

SECONDARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3 and *.

ACTION:

1. Without SECONDARY CONTAINMENT INTEGRITY in OPERATIONAL MODES(s) 1, 2 or 3, restore SECONDARY CONTAINMENT INTEGRITY within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
2. Without SECONDARY CONTAINMENT INTEGRITY in OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.

<see ITS 3.6.4.1>

4.7 - SURVEILLANCE REQUIREMENTS

N. SECONDARY CONTAINMENT INTEGRITY

SECONDARY CONTAINMENT INTEGRITY shall be demonstrated by:

1. Verifying at least once per 24 hours that the pressure within the secondary containment is ≥0.25 inches of vacuum water gauge.
2. Verifying at least once per 31 days that:
   a. At least one door in each secondary containment air lock is closed.
   b. All secondary containment penetrations[a] not capable of being closed by OPERABLE secondary containment automatic isolation ~~dampers~~ Valves and required to be closed during accident conditions are closed. A.2

   Required Action A.2 and SR 3.6.4.2.1

   Not locked, Sealed, or otherwise Secured

   L.5
3. At least once per 18 months by operating one standby gas treatment subsystem at a flow rate ≤4000 cfm for one hour and maintaining ≥0.25 inches of vacuum water gauge in the secondary containment.

[SR 3.6.4.2.1 Note 1 and Required Action A.2 Note]

* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

[SR 3.6.4.2.1 Note 2]

a [Valves and blind flanges in high-radiation areas may be verified by use of administrative controls.] [Normally locked or sealed-closed penetrations may be opened intermittently under administrative controls.] L.1

3.7 - LIMITING CONDITIONS FOR OPERATION

A.2 LCO 3.6.4.2

O. Secondary Containment ~~Automatic~~ Isolation ~~Dampers~~ Valves

Each secondary containment ~~Ventilation system automatic~~ isolation ~~damper~~ valve shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3 and *.

L.1 add Note 1 to ACTIONS

ACTION A

A.3 ACTION: add Notes 2 and 3 to ACTIONS

A.2 With one or more of the secondary containment ~~Ventilation system automatic~~ isolation ~~dampers~~ Valves inoperable, ~~maintain at least one isolation damper OPERABLE in each affected penetration that is open and~~ within 8 hours either: A.4

A.5 ~~1. Restore the inoperable damper(s) to OPERABLE status, or~~

A.2 2. Isolate each affected penetration by use of at least one deactivated automatic ~~damper~~ valve secured in the isolation position, or

3. Isolate each affected penetration by use of at least one closed manual valve or blind flange.

add proposed ACTION B L.2

ACTION C Otherwise, in OPERATIONAL MODE(s) 1, 2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION D Otherwise, in OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE

4.7 - SURVEILLANCE REQUIREMENTS

O. Secondary Containment ~~Automatic~~ Isolation ~~Dampers~~ Valves A.2

Each secondary containment ~~ventilation system~~ automatic isolation ~~damper~~ valve shall be demonstrated OPERABLE:

L.3 ~~1. Prior to returning the damper to service after maintenance, repair, or replacement work is performed on the valve/damper or its associated actuator, control, or power circuit by performance of a cycling test.~~

SR 3.6.4.2.3 2. At least once per ~~18~~ 24 months by verifying that on an isolation actuator test signal each automatic isolation ~~damper~~ valve actuates to its isolation position. LD.1 L.4 A.2

add proposed SR 3.6.4.2.2 M.1

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

3.7 - LIMITING CONDITIONS FOR OPERATION | 4.7 - SURVEILLANCE REQUIREMENTS

ACTION D ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.

3.7 - LIMITING CONDITIONS FOR OPERATION

P. Standby Gas Treatment System

LA.1

LCO 3.6.4.3 Two independent standby gas treatment subsystems shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3 and *.

ACTION:

1. ACTION A With one standby gas treatment subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days, or:

   a. ACTION B In OPERATIONAL MODE(s) 1,2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   b. ACTION C In OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.

2. ACTION D With both standby gas treatment subsystems inoperable in OPERATIONAL MODE(s) 1,2 or 3, restore at least one subsystem to OPERABLE status within one hour, or ACTION E be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

L.1 Add proposed Required Action C.1

4.7 - SURVEILLANCE REQUIREMENTS

P. Standby Gas Treatment System

Each standby gas treatment subsystem shall be demonstrated OPERABLE:

SR 3.6.4.3.1 1. At least once per 31 days by ~~initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and~~ verifying that the subsystem operates for at least 10 hours with the heaters operating. LA.2

2. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by:

add proposed SR 3.6.4.3.2

   a. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of $<1\%$ and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 4000 cfm $\pm 10\%$.

A.2 moved to ITS Section 5.5

   b. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of $<2.5\%$, when tested at 30°C and 70% relative humidity; and

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

A.1

ITS 5.5

3.7 - LIMITING CONDITIONS FOR OPERATION

P. Standby Gas Treatment System

Two independent standby gas treatment subsystems shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3 and *.

ACTION:

1. With one standby gas treatment subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 7 days, or:

   a. In OPERATIONAL MODE(s) 1,2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   b. In OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.

2. With both standby gas treatment subsystems inoperable in OPERATIONAL MODE(s) 1,2 or 3, restore at least one subsystem to OPERABLE status within one hour, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

4.7 - SURVEILLANCE REQUIREMENTS

P. Standby Gas Treatment System

See ITS 3.6.4.3

Each standby gas treatment subsystem shall be demonstrated OPERABLE:

1. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the subsystem operates for at least 10 hours with the heaters operating.

24 LD.2

5.5.7 2. At least once per 18 months or (1) after any structural significant maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the subsystem by: add proposed ITS 5.5.7 A.11 A.6

5.5.7.a 5.5.7.b a. Verifying that the subsystem satisfies the in-place penetration and bypass leakage testing acceptance criteria of <1% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 4000 cfm ±10%. and ANSI/ASME N510-1980 A.7

5.5.7.c b. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <2.5%, when tested at 30°C and 70% relative humidity; and LA.4

* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

A.1

3.7 - LIMITING CONDITIONS FOR OPERATION

ACTION F 3. With both standby gas treatment subsystems inoperable in OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.

4.7 - SURVEILLANCE REQUIREMENTS

c. Verifying a subsystem flow rate of 4000 cfm ±10% during system operation when tested in accordance with ANSI N510-1980. A.2 moved to ITS Section 5.5

3. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <2.5%, when tested at 30°C and 70% relative humidity.

4. At least once per ~~18~~ 24 months by: LD.1

a. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is <6 inches water gauge while operating the filter train at a flow rate of 4000 cfm ±10%. A.2 moved to ITS Section 5.5

SR 3.6.4.3.3 b. Verifying that the filter train starts and isolation dampers open on each of the following test or actual signals: L.2

SR 3.6.4.3.1 (1) ~~Manual initiation from the control room, and~~ LA.2

(2) Simulated automatic initiation signal. A.3

c. Verifying that the heaters dissipate 30 ±3 kw when tested in accordance with ANSI N510-1989. This reading shall include the appropriate correction for variations in voltage. A.2 moved to ITS Section 5.5

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

ITS 3.3.6.2

3.7 - LIMITING CONDITIONS FOR OPERATION	4.7 - SURVEILLANCE REQUIREMENTS
3. With both standby gas treatment subsystems inoperable in OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.	c. Verifying a subsystem flow rate of 4000 cfm ±10% during system operation when tested in accordance with ANSI N510-1980.
	3. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <2.5%, when tested at 30°C and 70% relative humidity.
SR 3.3.6.2.6	4. At least once per 18 24 months by: LD.1
See ITS 3.6.4.3	a. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is <6 inches water gauge while operating the filter train at a flow rate of 4000 cfm ±10%.
	b. Verifying that the filter train starts and isolation dampers open on each of the following test signals: 1) Manual initiation from the control room, and (2) Simulated automatic initiation signal. LA.4
	c. Verifying that the heaters dissipate 30 ±3 kw when tested in accordance with ANSI N510-1989. This reading shall include the appropriate correction for variations in voltage.

* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

A.1

ITS 5.5

3.7 - LIMITING CONDITIONS FOR OPERATION

3. With both standby gas treatment subsystems inoperable in OPERATIONAL MODE *, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATION(s), and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.C are not applicable.

<See ITS 3.6.4.3>

4.7 - SURVEILLANCE REQUIREMENTS

5.5.7.a 5.5.7.b c. Verifying a subsystem flow rate of 4000 cfm ±10% during system operation when tested in accordance with ANSI N510-1980.

5.5.7 3. After every 720 hours of charcoal adsorber operation by verifying ~~within 31 days after removal~~ that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <2.5%, when tested at 30°C and 70% relative humidity. 5.5.7.c LA.4

5.5.7 4. At least once per 18 24 months by: LD.2

5.5.7.d a. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is <6 inches water gauge while operating the filter train at a flow rate of 4000 cfm ±10%.

b. Verifying that the filter train starts and isolation dampers open on each of the following test signals:

1) Manual initiation from the control room, and

2) Simulated automatic initiation signal.

5.5.7.e c. Verifying that the heaters dissipate 30 ±3 kw when tested in accordance with ANSI N510-1989. This reading shall include the appropriate correction for variations in voltage.

* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

3.7 - LIMITING CONDITIONS FOR OPERATION

4.7 - SURVEILLANCE REQUIREMENTS

5. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter bank satisfies the in-place penetration and leakage testing acceptance criteria of <1% in accordance with ANSI N510-1980 while operating the system at a flow rate of 4000 cfm ±10%.

6. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and leakage testing acceptance criteria of <1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 4000 cfm ±10%.

A.2 moved to ITS Section 5.5

CONTAINMENT SYSTEMS

SBGT 3/4.7.P

3.7 - LIMITING CONDITIONS FOR OPERATION

4.7 - SURVEILLANCE REQUIREMENTS

5.5.7 5. After each complete or partial replacement of a HEPA filter bank by verifying that the HEPA filter bank satisfies the in-place penetration and leakage testing acceptance criteria of <1% in accordance with ANSI N510-1980 while operating the system at a flow rate of 4000 cfm ±10%. 5.5.7.a

5.5.7 6. After each complete or partial replacement of a charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and leakage testing acceptance criteria of <1% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 4000 cfm ±10%. 5.5.7.b

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies. A.6

3.8 - LIMITING CONDITIONS FOR OPERATION

A. Containment Cooling Service Water System

LCO 3.7.1 At least the following independent containment cooling service water (CCSW) subsystems, ~~with each subsystem comprised of:~~ LA.1

~~1. Two OPERABLE CCSW pumps, and~~

~~2. An OPERABLE flow path capable of taking suction from the ultimate heat sink and transferring the water:~~

~~a. Through one LPCI heat exchanger, and separately,~~

~~b. To the associated safety related equipment,~~

shall be OPERABLE:

1. In OPERATIONAL MODE(s) 1, 2 and 3, two subsystems.

~~2. In OPERATIONAL MODE *, the subsystem(s) associated with subsystems/loops and components required OPERABLE by Specification 3.8.D.~~ LA.2

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3 ~~and *~~. LA.2

4.8 - SURVEILLANCE REQUIREMENTS

A. Containment Cooling Service Water System

SR 3.7.1.1 Each of the required CCSW subsystems shall be demonstrated OPERABLE at least once per 31 days by verifying that each valve, manual or power operated, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position ~~.~~ or can be aligned to the correct position A.2

~~* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.~~ LA.2

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

ACTION:

1. In OPERATIONAL MODE 1, 2 or 3:

   a. ACTION A — With one CCSW pump inoperable, restore the inoperable pump to OPERABLE status within 30 days
   ACTION E — or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   b. ACTION B — With one CCSW pump in each subsystem inoperable, restore at least one inoperable pump to OPERABLE status within 7 days
   ACTION E — or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   c. ACTION C — With one CCSW subsystem otherwise inoperable, restore the inoperable subsystem to OPERABLE status with at least one OPERABLE pump within ~~72 hours~~ 7 days L.1
   ACTION E — or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   d. ACTION D — With both CCSW subsystems otherwise inoperable, restore at least one subsystem to OPERABLE status within 8 hours
   ACTION E — or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

2. ~~In OPERATIONAL MODE * with the CCSW subsystem which is associated with the safety related equipment required OPERABLE by Specification 3.8.D inoperable, declare the associated safety related equipment inoperable and take the ACTION required by Specification 3.8.D.~~ LA.2

* ~~When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.~~ LA.2

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

B. Diesel Generator Cooling Water System

~~A diesel generator cooling water (DGCW) subsystem shall be OPERABLE for each required diesel generator with each subsystem comprised of:~~ LA.1

1. ~~One OPERABLE DGCW pump, and~~
2. ~~An OPERABLE flow path capable of taking suction from the ultimate heat sink and transferring the water to the associated diesel generator.~~

APPLICABILITY: MODES 1, 2, and 3 LA.2

~~When the diesel generator is required to be OPERABLE.~~

ACTION: add proposed ACTIONS Note A.2

Required Action A Note
ACTION A
With one or more DGCW subsystems inoperable, declare the associated diesel generator inoperable ~~and take the ACTION required by Specifications 3.9.A or 3.9.B, as applicable.~~ A.3

4.8 - SURVEILLANCE REQUIREMENTS

B. Diesel Generator Cooling Water System

Each of the required DGCW subsystems shall be demonstrated OPERABLE:

1. At least once per 31 days by verifying that each valve in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position. A.4 SR 3.7.2.1
2. At least once per ~~18~~ 24 months by verifying that each pump starts automatically upon receipt of a start signal for the associated diesel generator. LD.1 SR 3.7.2.2

The following DGCW subsystems shall be OPERABLE:

a. Two unit DGCW subsystems; and
b. The opposite unit DGCW subsystem capable of supporting its associated diesel generator (DG). M.1

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

C. Ultimate Heat Sink

LCO 3.7.3 The ultimate heat sink shall be OPERABLE with:

SR 3.7.3.1 1. A minimum water level at or above elevation 501 ft 6 in. Mean Sea Level, and

SR 3.7.3.2 2. An average water temperature of ≤95°F.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, ~~4, 5 and *.~~ LA.1

ACTION:

With the requirements of the above specification not satisfied:

ACTION A 1. In OPERATIONAL MODE(s) 1, 2 or 3, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

~~2. In OPERATIONAL MODE(s) 4 or 5 declare the diesel generator cooling water system inoperable and take the ACTION required by Specification 3.8.B.~~

~~3. In OPERATIONAL MODE *, declare the diesel generator cooling water system inoperable and take the ACTION required by Specification 3.8.B. The provisions of Specification 3.0.C are not applicable.~~ LA.1

4.8 - SURVEILLANCE REQUIREMENTS

C. Ultimate Heat Sink

SR 3.7.3.1 SR 3.7.3.2 The ultimate heat sink shall be determined OPERABLE at least once per 24 hours by verifying the average water temperature and water level to be within their limits.

~~* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential to drain the reactor vessel~~ LA.1

3.8 - LIMITING CONDITIONS FOR OPERATION

D. Control Room Emergency Ventilation System

LCO 3.7.4 The control room emergency ventilation system shall be OPERABLE~~, with the system comprised of an OPERABLE control room emergency filtration system and an OPERABLE refrigeration control unit (RCU)~~. LA.1

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, and *.

ACTION:

1. In OPERATIONAL MODE(s) 1, 2 or 3:

   a. With the control room emergency filtration system inoperable, restore the inoperable system to OPERABLE status within 7 days (ACTION A) or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. (ACTION B)

   b. With the refrigeration control unit (RCU) inoperable, restore the inoperable RCU to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

   See ITS 3.7.5

4.8 - SURVEILLANCE REQUIREMENTS

D. Control Room Emergency Ventilation System

The control room emergency ventilation system shall be demonstrated OPERABLE:

1. At least once per 18 months by verifying that the RCU has the capability to remove the required heat load. See ITS 3.7.5

2. SR 3.7.4.1 At least once per 31 days by ~~initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and~~ verifying that the system operates for at least 10 hours with the heaters operating. LA.2

3. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

   a. Verifying that the system satisfies the in-place penetration and bypass leakage testing acceptance criteria of <0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 2000 scfm ±10%.

   See ITS 5.5

   add proposed SR 3.7.4.2 A.2

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

3.8 - LIMITING CONDITIONS FOR OPERATION

D. Control Room Emergency Ventilation ~~System~~ AC A.2

LCO 3.7.5 The control room emergency ventilation AC system shall be OPERABLE~~, with the system comprised of an OPERABLE control room emergency filtration system and an OPERABLE refrigeration control unit (RCU)~~. LA.1

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, and *.

ACTION:

1. In OPERATIONAL MODE(s) 1, 2 or 3:

See ITS 3.7.4 — a. With the control room emergency filtration system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With the ~~refrigeration control unit (RCU)~~ inoperable, restore the inoperable ~~RCU~~ to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION A

ACTION B

Control Room Emergency Ventilation AC System A.2

4.8 - SURVEILLANCE REQUIREMENTS

D. Control Room Emergency Ventilation ~~System~~ AC A.2

The control room emergency ventilation system shall be demonstrated OPERABLE:

1. At least once per ~~18~~ 24 months by verifying that the ~~RCU~~ has the capability to remove the required heat load. LD.1

SR 3.7.5.1

Control room emergency ventilation AC system A.2

2. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters operating.

See ITS 3.7.4

3. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:

a. Verifying that the system satisfies the in-place penetration and bypass leakage testing acceptance criteria of <0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 2000 scfm ±10%.

See ITS 5.5

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

3.8 - LIMITING CONDITIONS FOR OPERATION

D. Control Room Emergency Ventilation System

The control room emergency ventilation system shall be OPERABLE, with the system comprised of an OPERABLE control room emergency filtration system and an OPERABLE refrigeration control unit (RCU).

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, and *.

ACTION:

1. In OPERATIONAL MODE(s) 1, 2 or 3:
   a. With the control room emergency filtration system inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
   b. With the refrigeration control unit (RCU) inoperable, restore the inoperable RCU to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

See ITS 3.7.4

4.8 - SURVEILLANCE REQUIREMENTS

D. Control Room Emergency Ventilation System

The control room emergency ventilation system shall be demonstrated OPERABLE:

1. At least once per 18 months by verifying that the RCU has the capability to remove the required heat load.
2. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 hours with the heaters operating.
3. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire or chemical release in any ventilation zone communicating with the system by:
   a. Verifying that the system satisfies the in-place penetration and bypass leakage testing acceptance criteria of <0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 2000 scfm ±10%.

24 LD.3

A.11 Significant

5.5.7

Add proposed ITS 5.5.7 A.6

5.5.7.a

5.5.7.b

and ANSI/ASME N510-1980 A.7

* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

ACTION C 2. In OPERATIONAL MODE *, with the control room emergency filtration system or the RCU inoperable, immediately suspend CORE ALTERATION(s), handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

ACTION C NOTE 3. The provisions of Specification 3.0.C are not applicable in OPERATIONAL MODE *.

<See ITS 3.7.5>

4.8 - SURVEILLANCE REQUIREMENTS

b. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <0.50%, when tested at 30°C and 70% relative humidity; and A.2

c. Verifying a system flow rate of 2000 scfm ±10% during system operation when tested in accordance with ANSI N510-1980.

4. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <0.50%, when tested at 30°C and 70% relative humidity.

<See ITS 5.5>

5. At least once per ~~18~~ 24 months by: LD.1

a. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is <6 inches water gauge while operating the filter train at a flow rate of 2000 scfm ±10%. A.2

SR 3.7.4.3 b. Verifying that the ~~filter train starts and isolation dampers close~~ System actuates on manual initiation ~~from the control room~~. LA.2

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

ACTION C 2. In OPERATIONAL MODE *, with the control room emergency filtration system or the RCU inoperable, immediately suspend CORE ALTERATION(s), handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

<See ITS 3.7.4>

Control Room Emergency Ventilation AC System A.2

ACTION C Note 3. The provisions of Specification 3.0.C are not applicable in OPERATIONAL MODE *.

4.8 - SURVEILLANCE REQUIREMENTS

b. Verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <0.50%, when tested at 30°C and 70% relative humidity; and

c. Verifying a system flow rate of 2000 scfm ±10% during system operation when tested in accordance with ANSI N510-1980.

4. After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <0.50%, when tested at 30°C and 70% relative humidity.

<See ITS 5.5>

5. At least once per 18 months by:

a. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is <6 inches water gauge while operating the filter train at a flow rate of 2000 scfm ±10%.

b. Verifying that the filter train starts and isolation dampers close on manual initiation from the control room.

<See ITS 3.7.4>

Applicability * When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

A.1

ITS 5.5

3.8 - LIMITING CONDITIONS FOR OPERATION

See ITS 3.7.4

2. In OPERATIONAL MODE *, with the control room emergency filtration system or the RCU inoperable, immediately suspend CORE ALTERATION(s), handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.

3. The provisions of Specification 3.0.C are not applicable in OPERATIONAL MODE *.

4.8 - SURVEILLANCE REQUIREMENTS

5.5.7.c b. Verifying ~~within 31 days after removal~~ that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <0.50%, when tested at 30°C and 70% relative humidity; and LA.4

5.5.7.a 5.5.7.b c. Verifying a system flow rate of 2000 scfm ±10% during system operation when tested in accordance with ANSI N510-1980.

5.5.7 4. After every 720 hours of charcoal adsorber operation by verifying ~~within 31 days after removal~~ that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of ASTM-D-3803-89, for a methyl iodide penetration of <0.50%, when tested at 30°C and 70% relative humidity. LA.4

5.5.7.c

5.5.7 5. At least once per ~~18~~ 24 months by: LD.3

5.5.7.d a. Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is <6 inches water gauge while operating the filter train at a flow rate of 2000 scfm ±10%.

b. Verifying that the filter train starts and isolation dampers close on manual initiation from the control room.

* When handling irradiated fuel in the secondary containment, during CORE ALTERATION(s), and operations with a potential for draining the reactor vessel.

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

SR 3.7.4.4

c. Verifying that during the pressurization mode of operation, control room positive pressure is maintained at ≥1/8 inch water gauge relative to adjacent areas during system operation at a flow rate ≤2000 scfm.

A.2

d. Verifying that the heaters dissipate 12 ±1.2 kw when tested in accordance with ANSI N510-1989. This reading shall include the appropriate correction for variations from 480 volts at the bus.

See ITS 5.5

6. After each complete or partial replacement of an HEPA filter bank by verifying that the HEPA filter bank satisfies the in-place penetration and leakage testing acceptance criteria of <0.05% in accordance with ANSI N510-1980 while operating the system at a flow rate of 2000 scfm ±10%.

7. After each complete or partial replacement of an charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and leakage testing acceptance criteria of <0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at flow rate of 2000 scfm ±10%.

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

c. Verifying that during the pressurization mode of operation, control room positive pressure is maintained at ≥1/8 inch water gauge relative to adjacent areas during system operation at a flow rate ≤2000 scfm.

<See ITS 3.7.4>

d. Verifying that the heaters dissipate 12 ±1.2 kw when tested in accordance with ANSI N510-1989. This reading shall include the appropriate correction for variations from 480 volts at the bus.

6. After each complete or partial replacement of an HEPA filter bank by verifying that the HEPA filter bank satisfies the in-place penetration and leakage testing acceptance criteria of <0.05% in accordance with ANSI N510-1980 while operating the system at a flow rate of 2000 scfm ±10%.

7. After each complete or partial replacement of an charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and leakage testing acceptance criteria of <0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at flow rate of 2000 scfm ±10%.

<See ITS 5.5>

See ITS 3.7.4

c. Verifying that during the pressurization mode of operation, control room positive pressure is maintained at ≥1/8 inch water gauge relative to adjacent areas during system operation at a flow rate ≤2000 scfm.

5.5.7.e

d. Verifying that the heaters dissipate 12 ±1.2 kw when tested in accordance with ANSI N510-1989. This reading shall include the appropriate correction for variations from 480 volts at the bus.

5.5.7

5.5.7.a

6. After each complete or partial replacement of an HEPA filter bank by verifying that the HEPA filter bank satisfies the in-place penetration and leakage testing acceptance criteria of <0.05% in accordance with ANSI N510-1980 while operating the system at a flow rate of 2000 scfm ±10%.

5.5.7

5.5.7.b

7. After each complete or partial replacement of an charcoal adsorber bank by verifying that the charcoal adsorber bank satisfies the in-place penetration and leakage testing acceptance criteria of <0.05% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at flow rate of 2000 scfm ±10%.

A.6

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

R.1

3.8 - LIMITING CONDITIONS FOR OPERATION	4.8 - SURVEILLANCE REQUIREMENTS
E. Flood Protection Flood protection shall be available for all required safe shutdown systems, components and structures. APPLICABILITY: At all times. ACTION: With the water level, as measured at the Unit 2/3 cribhouse: 1. Above elevation 506.5 ft Mean Sea Level USGS datum, initiate the applicable flood protection measures. 2. Above, or predicted to exceed within 3 days, elevation 509.0 ft Mean Sea Level USGS datum, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN with the following 24 hours.	E. Flood Protection The water level at the Unit 2/3 cribhouse shall be determined to be within the limit by: 1. Measurement at least once per 24 hours when the water level is below elevation 506.0 ft Mean Sea Level USGS datum, and 2. Measurement at least once per 2 hours when the water level is equal to or above elevation 506.0 ft Mean Sea Level USGS datum.

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

F. Snubbers

All required snubbers shall be OPERABLE. The only snubbers excluded from this requirement are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed would have no adverse impact on any safety-related system.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2 and 3. OPERATIONAL MODE(s) 4 and 5 for snubbers located on systems required OPERABLE in OPERATIONAL MODE(s) 4 and 5.

ACTION:

With one or more snubbers inoperable, on any system, within 72 hours:

1. Replace or restore the inoperable snubber(s) to OPERABLE status, and
2. Perform an engineering evaluation per Specification 4.8.F.7 on the attached component.

Otherwise, declare the attached system inoperable and follow the appropriate ACTION statement for that system.

4.8 - SURVEILLANCE REQUIREMENTS

F. Snubbers

Each snubber shall be demonstrated OPERABLE by the performance of the following augmented inservice inspection program in addition to the requirements of Specification 4.0.E.

1. Inspection Types

   As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

2. Visual Inspections

   Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.8.F-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.8.F-1[a].

3. Visual Inspection Acceptance Criteria

   Visual inspections shall verify that: (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of

a The first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before amendment nos. 150 & 145.

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

visual inspections shall be classified as unacceptable. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

Snubbers originally classified as unacceptable may be reclassified as acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.8.F.6.

4. <u>Transient Event Inspection</u>

An inspection shall be performed of all snubbers attached to sections of systems that have experienced unexpected, potentially damaging transients, as determined from a review of operational data or a visual inspection of the systems, within 72 hours for accessible systems and 6 months for inaccessible systems following this determination. In addition to satisfying the visual inspection acceptance criteria, freedom-of-motion of mechanical snubbers shall be verified using at least one of the following: (1) manually induced snubber movement; or (2) evaluation of in-place snubber piston setting; or (3) stroking the mechanical snubber through its full range of travel.

LA.1

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

5. **Functional Tests**

   ~~At least once per 18 months, a representative sample of snubbers shall be tested using one of the following sample plans for each type of snubber. The sample plan shall be selected prior to the test period and cannot be changed during the test period. The NRC Regional Administrator shall be notified in writing of the sample plan selected prior to the test period or the sample plan used in the prior test period shall be implemented:~~

   a. ~~At least 10% of the total of each type of snubber shall be functionally tested either in-place or in a bench test. For each snubber of a type that does not meet the functional test acceptance criteria of Specification 4.8.F.6, an additional 10% of that type of snubber shall be functionally tested until no more failures are found or until all snubbers of that type have been functionally tested; or~~

   b. ~~A representative sample of each type of snubber shall be functionally tested, in accordance with Figure 4.8.F-1. "C" is the total number of snubbers of a type found not meeting the acceptance requirements of Specification 4.8.F.6. The cumulative number of snubbers of a type tested is denoted by "N". At the end of each day's testing, the new values of "N" and "C" (previous day's total plus current day's increments) shall be plotted on Figure 4.8.F-1.~~

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

If at any time the point plotted falls on or above the "Reject" line, all snubbers of that type shall be functionally tested. If at any time the point plotted falls on or below the "Accept" line, testing of snubbers of that type may be terminated. When the point plotted lies in the "Continue Testing" region, additional snubbers of that type shall be tested until the point falls in the "Accept" region or the "Reject" region, or all the snubbers of that type have been tested. Testing equipment failure during functional testing may invalidate that day's testing and allow that day's testing to resume anew at a later time, providing all snubbers tested with the failed equipment during the day of equipment failure are retested; or

c. An initial representative sample of 55 snubbers of each type shall be functionally tested. For each snubber type which does not meet the functional test acceptance criteria, another sample of at least one-half the size of the initial sample shall be tested until the total number tested is equal to the initial sample size multiplied by the factor, 1 + C/2, where "C" is the number of snubbers found which do not meet the functional test acceptance criteria. The results from this sample plan shall be plotted using an "Accept" line which follows the equation N = 55(1 + C/2). Each snubber point should be plotted as soon as the snubber is tested. If the point plotted falls on or below the

3.8 - LIMITING CONDITIONS FOR OPERATION | 4.8 - SURVEILLANCE REQUIREMENTS

"Accept" line, testing of that type of snubber may be terminated. If the point plotted falls above the "Accept" line, testing must continue until the point falls on or below the "Accept" line or all the snubbers of that type have been tested.

The representative sample selected for the functional test sample plans shall be randomly selected from the snubbers of each type and reviewed before beginning the testing. The review shall ensure as far as practical that they are representative of the various configurations, operating environments, range of size, and capacity of snubbers of each type.

Snubbers placed in the same location as snubbers which failed the previous functional test shall be retested at the time of the next functional test but shall not be included in the sample plan, and failure of this functional test shall not be the sole cause for increasing the sample size under the sample plan. If during testing, additional sampling is required due to failure of only one type of snubber, the functional testing results shall be reviewed at the time to determine if additional samples should be limited to the type of snubber which has failed the functional testing.

6. Functional Test Acceptance Criteria

The snubber functional test shall verify that:

a. Activation (restraining action) is achieved within the specified range in both tension and compression;

LA.1

3.8 - LIMITING CONDITIONS FOR OPERATION

4.8 - SURVEILLANCE REQUIREMENTS

b. The force required to initiate or maintain motion of the snubber is within the specified range in both directions of travel; and

c. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement.

Testing methods may be used to measure parameters indirectly or parameters other than those specified if those results can be correlated to the specified parameters through established methods.

7. Functional Test Failure Analysis

An engineering evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause for the failure. The results of this evaluation shall be used, if applicable, in selecting snubbers to be tested in an effort to determine the OPERABILITY of other snubbers irrespective of type which may be subject to the same failure mode.

For the snubbers found inoperable, an engineering evaluation shall be performed on the components to which the inoperable snubbers are attached. The purpose of this engineering evaluation shall be to determine if the components to which the inoperable snubbers are attached were adversely affected by the inoperability of the snubbers in order to ensure that the component remains capable of meeting the designed service.

3.8 - LIMITING CONDITIONS FOR OPERATION | 4.8 - SURVEILLANCE REQUIREMENTS

If any snubber selected for functional testing either fails to lock up or fails to move, i.e., frozen-in-place, the cause will be evaluated and, if caused by manufacturer or design deficiency, all snubbers of the same type subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated in Specification 4.8.F.5 for snubbers not meeting the functional test acceptance criteria.

8. Functional Testing of Repaired and Replaced Snubbers

Snubbers which fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers which have repairs which might affect the functional test result shall be tested to meet the functional test criteria before installation in the unit. Mechanical snubbers shall have met the acceptance criteria subsequent to their most recent service, and the freedom-of-motion test must have been performed within 12 months before being installed in the unit.

9. Snubber Service Life Program

The service life of all snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when

~~3.8 - LIMITING CONDITIONS FOR OPERATION~~

~~4.8 - SURVEILLANCE REQUIREMENTS~~

~~the snubber is required to be OPERABLE. The parts replacements shall be documented and the documentation shall be retained.~~

LA.1

TABLE 4.8.F-1

SNUBBER VISUAL INSPECTION CRITERIA

Population[a][b] or Category	Column A[c][f] Extend Interval	Column B[d][f] Repeat Interval	Column C[e][f] Reduce Interval
	NUMBER OF UNACCEPTABLE SNUBBERS		
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
≥1000	29	56	109

a The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the decision must be made and documented before any inspection and shall be used as the basis upon which to determine the next inspection interval for that category.

b Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

c If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval, but not greater than 48 months.

d If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

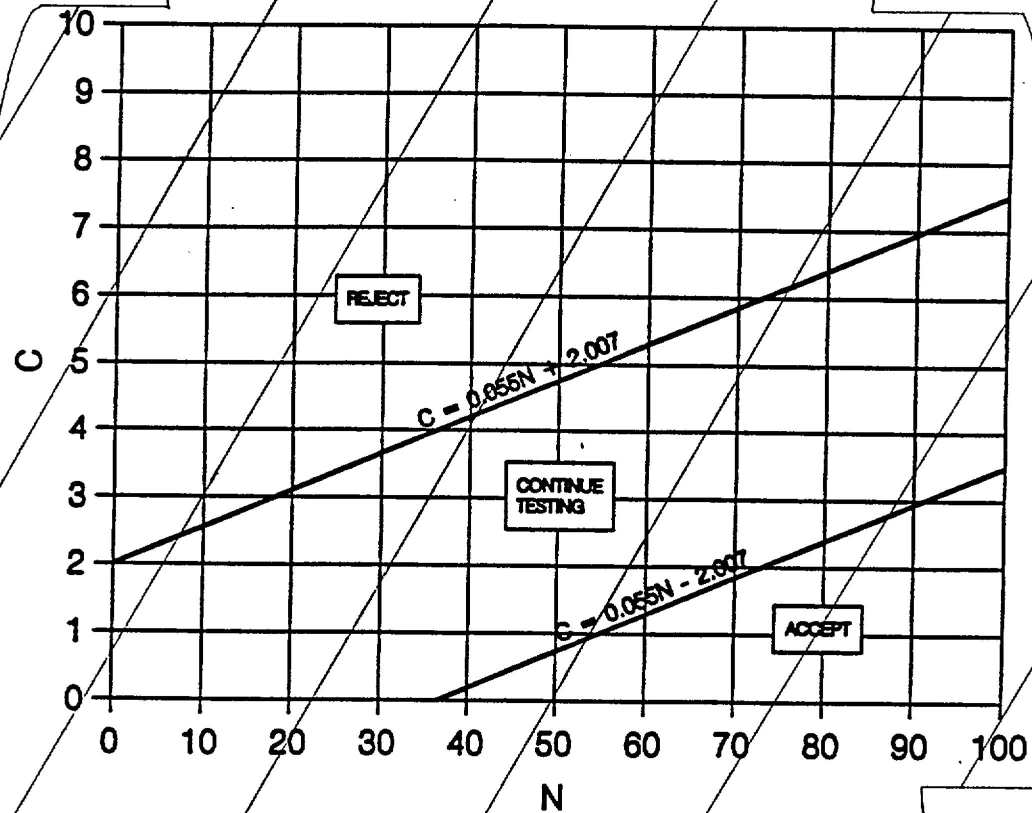
e If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval, but not less than 31 days. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

f The provisions of Specification 4.0.B are applicable for all inspection intervals up to and including 48 months.

CTS 3/4.8.F

LA.1

FIGURE 4.8.F-1
SAMPLING PLAN FOR SNUBBER FUNCTIONAL TESTING



N = Cumulative number of snubbers of a type tested.

C = Total number of snubbers of a type not meeting acceptance requirements.

CTS 3/4.8.G

R.1

3.8 - LIMITING CONDITIONS FOR OPERATION

G. Sealed Source Contamination

Each sealed source containing radioactive material either in excess of 100 μCi of beta and/or gamma emitting material or 5 μCi of alpha emitting material shall be free of ≥0.005 μCi of removable contamination.

APPLICABILITY:

At all times.

ACTION:

1. With a sealed source having removable contamination in excess of the above limit, withdraw the sealed source from use and either:
   a. Decontaminate and repair the sealed source, or
   b. Dispose of the sealed source in accordance with Commission Regulations.
2. With a sealed source leakage test revealing the presence of removable contamination in excess of the above limit, a report shall be prepared and submitted to the Commission on an annual basis.
3. The provisions of Specification 3.0.C are not applicable.

4.8 - SURVEILLANCE REQUIREMENTS

G. Sealed Source Contamination

1. Test Requirements - Each sealed source shall be tested for leakage and/or contamination by:
   a. The licensee, or
   b. Other persons specifically authorized by the Commission or an Agreement State.

   The test method shall have a detection sensitivity of at least 0.005 μCi per test sample.
2. Test Frequencies - Each category of sealed sources, excluding startup sources and fission detectors previously subjected to core flux, shall be tested at the frequency described below.
   a. Sources in use - At least once per 6 months for all sealed sources containing radioactive material:
      1) With a half-life >30 days, excluding Hydrogen 3, and
      2) In any form other than gas.
   b. Stored sources not in use - Each sealed source shall be tested prior to use or transfer to another licensee unless tested within the previous 6 months. Sealed sources transferred without a certificate indicating the last test date shall be tested prior to being placed into use.

Page 1 of 2

R.1

~~3/8 - LIMITING CONDITIONS FOR OPERATION~~

~~4.8 - SURVEILLANCE REQUIREMENTS~~

~~c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core and following repair or maintenance to the source.~~

Add proposed ITS 5.5.8 — A.8

3.8 - LIMITING CONDITIONS FOR OPERATION

H. Offgas Explosive Mixture

5.5.8.a The concentration of hydrogen in the offgas holdup system shall be limited to ≤4% by volume.

LA.5

APPLICABILITY:

~~During offgas holdup system operation.~~

ACTION:

~~With the concentration of hydrogen in the offgas holdup system exceeding the limit, restore the concentration to within the limit within 48 hours. The provisions of Specification 3.0.C are not applicable.~~

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Explosive Gas and Storage Tank Radioactivity Monitoring Program Surveillance Frequencies. A.8

4.8 - SURVEILLANCE REQUIREMENTS

H. Offgas Explosive Mixture

5.5.8.a The concentration of hydrogen in the offgas holdup system shall be determined to be within the above limits ~~as required by Table 3.2.H-1 of Specification 3.2.H~~.

A.1

3.8 - LIMITING CONDITIONS FOR OPERATION

I. Main Condenser Offgas Activity

LCO 3.7.6 The release rate of the sum of the activities of the noble gases measured prior to the offgas holdup line shall be limited to ≤ ~~100~~ μCi/sec/ ~~MWt~~, after 30 minutes decay. 252,700 A.2

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2[a] and 3[a].

ACTION:

252,700 A.2

ACTION A — With the release rate of the sum of the activities of the noble gases at the main condenser air ejector effluent (as measured prior to the offgas holdup line) > ~~100~~ μCi/sec/ ~~MWt~~, after 30 minutes decay, restore the release rate to within its limit within 72 hours ~~or be in at least~~ L.1

Required Action B.1 — ~~STARTUP~~ with the main steam isolation valves closed within the next ~~8~~ 12 hours.

add proposed Required Action B.2 — A.3

add proposed Required Actions B.3.1 and B.3.2 — L.2

4.8 - SURVEILLANCE REQUIREMENTS

I. Main Condenser Offgas Activity

~~1. The release rate of noble gases from the main condenser air ejector shall be continuously monitored in accordance with the ODCM.~~ LA.1

SR 3.7.6.1 2. The release rate of the sum of the activities from noble gases from the main condenser air ejector shall be determined to be within the limits of Specification 3.8.I at the following frequencies[b] ~~by performing an isotopic analysis of a representative sample of gases taken at the recombiner outlet, or the air ejector outlet, if the recombiner is bypassed~~: LA.2

a. At least once per 31 days, and

b. Within 4 hours following the determination of an increase of ≥ 50% after factoring out increases due to changes in THERMAL POWER level L3 M.1

With any main steam line not isolated and — A.3

Applicability — a ~~When~~ When the main condenser air ejector is in operation.

SR 3.7.6.1 Note — b The provisions of Specification 4.0.D are not applicable. — add proposed Note to SR 3.7.6.1 — L4

Add proposed ITS 5.5.8 A.8

3.8 - LIMITING CONDITIONS FOR OPERATION

J. Liquid Holdup Tanks

5.5.8.b The quantity of radioactive material contained in each ~~of the following~~ tank~~s~~ shall be limited to ≤0.7 curies and the total of all the tanks shall not exceed 3.0 curies.

~~a. Waste sample tanks,~~
~~b. Floor drain sample tanks,~~
~~c. Waste surge tank, and~~
~~d. Any outside temporary tank used for storage of radioactive liquids.~~

LA.5

~~APPLICABILITY:~~

~~At all times.~~

~~ACTION:~~

~~With the quantity of radioactive material in any of the above identified tanks exceeding the above limit, immediately suspend all additions of radioactive material to the tank and within 48 hours reduce the tank contents to within the limit. The provisions of Specification 3.0.C are not applicable.~~

4.8 - SURVEILLANCE REQUIREMENTS

J. Liquid Holdup Tanks

5.5.8.b The quantity of radioactive material contained in each of the identified tanks shall be determined to be within the above limit by analyzing a representative sample of the tank's contents ~~at least once per 7 days when radioactive materials are being added to the tank and within 7 days of completion of the addition of radioactive materials to the tank.~~

A.1

3.9 - LIMITING CONDITIONS FOR OPERATION

A. A.C. Sources - Operating

LCO 3.8.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

LA.1 qualified

1. Two ~~physically independent~~ circuits between the offsite transmission network and the onsite Class 1E distribution system, and

LCO 3.8.1.a

LA.1

2. Two ~~separate and independent~~ diesel generators~~, each with:~~

LCO 3.8.1.b

A.2 SR 3.8.1.4

a. A separate fuel oil day tank containing ≥205 gallons of available fuel,

b. A separate bulk fuel storage system containing ≥10,000 gallons of available fuel, and

LA.1 c. ~~A separate fuel oil transfer pump.~~

M.1 add proposed LCO 3.8.1.c and d

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 3.

add proposed Applicability Note

ACTION:

add proposed ACTIONS Note

1. With one of the above required offsite circuit power sources inoperable:

ACTION A

a. Demonstrate the OPERABILITY of the remaining offsite circuit by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

add proposed Required Action A.2 — M.2

4.9 - SURVEILLANCE REQUIREMENTS

A. A.C Sources - Operating

add proposed Surveillance Table Notes 1 and 2 — M.1

1. Each of the required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be determined OPERABLE:

a. At least once per 7 days by verifying correct breaker alignments and indicated power availability, and

SR 3.8.1.1

24 — LD.1

b. At least once per ~~18~~ months by manually transferring the power supply from the normal circuit to the alternate circuit.

SR 3.8.1.9

2. Each of the required diesel generators shall be demonstrated OPERABLE[a] at least once per 31 days by:

a. Verifying the fuel levels in both the fuel oil day tank and the bulk fuel storage tank.

SR 3.8.1.4

b. Verifying the fuel transfer pump starts and transfers fuel from the bulk fuel storage system to the fuel oil day tank.

SR 3.8.1.6

SR 3.8.1.2 Note 1

SR 3.8.1.3 Note 1

a All diesel generator starts may be preceded by an engine prelube period. All diesel generator starts that require loading may be preceded by an engine prelube period and followed by a warmup period prior to loading. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor.

A.1

A.2 ⟨General Description⟩

Add proposed fuel oil and starting air LCO

3.9 - LIMITING CONDITIONS FOR OPERATION

A. A.C. Sources - Operating

As a minimum, the following A.C. electrical power sources shall be OPERABLE:

1. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
2. Two separate and independent diesel generators, each with:
   a. A separate fuel oil day tank containing ≥205 gallons of available fuel,
   b. A separate bulk fuel storage system containing ≥10,000 gallons of available fuel, and
   c. A separate fuel oil transfer pump.

APPLICABILITY: A.2

OPERATIONAL MODE(s) 1, 2, and 3.

ACTION: Add proposed ACTIONS Note A.3

1. With one of the above required offsite circuit power sources inoperable:
   a. Demonstrate the OPERABILITY of the remaining offsite circuit by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

4.9 - SURVEILLANCE REQUIREMENTS

A. A.C Sources - Operating

1. Each of the required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be determined OPERABLE:
   a. At least once per 7 days by verifying correct breaker alignments and indicated power availability, and
   b. At least once per 18 months by manually transferring the power supply from the normal circuit to the alternate circuit.
2. Each of the required diesel generators shall be demonstrated OPERABLE[a] at least once per 31 days by: SR 3.8.3.2
   a. Verifying the fuel levels in both the fuel oil day tank and the bulk fuel storage tank.
   b. Verifying the fuel transfer pump starts and transfers fuel from the bulk fuel storage system to the fuel oil day tank.

⟨See ITS 3.8.1⟩

a All diesel generator starts may be preceded by an engine prelube period. All diesel generator starts that require loading may be preceded by an engine prelube period and followed by a warmup period prior to loading. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor.

A.3

add proposed Note 2 to SR 3.8.1.2

3.9 - LIMITING CONDITIONS FOR OPERATION

ACTION A

L.1 add proposed Required Action A.3 2nd Completion Time

ACTION F

b. Restore the inoperable offsite circuit to OPERABLE status within ~~7 days~~ or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION B

2. With one of the above required diesel generator power sources inoperable:

a. Demonstrate the OPERABILITY of the offsite circuit power sources by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

b. If the diesel generator is inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.9.A.2.c[(b)] within 24 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated ~~(if it has not been successfully tested within the past 24 hours) and within the subsequent 72 hours,~~ and

L.2

L.3

4.9 - SURVEILLANCE REQUIREMENTS

add proposed Note 3 to SR 3.8.1.2

SR 3.8.1.2 c. Verifying[(c)] the diesel starts and accelerates to synchronous speed with generator voltage and frequency at 4160 ± ~~420~~ 208 volts and 60 ± 1.2 Hz, respectively.

A.5 A.4 A.13

M.3

add proposed Note 4 to SR 3.8.1.3

SR 3.8.1.3 d. Verifying the diesel generator is synchronized, loaded to between ~~2470~~ 2340 and 2600 kW[(d)] ~~in accordance with the manufacturer's/vendor's recommendations,~~ and operates with this load for ≥60 minutes.

Add proposed Note 5 to SR 3.8.1.3

L.12

A.4

~~e. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.~~ L.4

f. Verifying the pressure in required starting air receiver tanks to be ≥220 psig. A.6 moved to ITS 3.8.3

SR 3.8.1.5 3. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 31 days ~~and after each operation of the diesel where the period of operation was ≥1 hour~~ by removing any accumulated water from the day tank. L.5

SR 3.8.1.7 4. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 92 days by checking for and removing accumulated water from the fuel oil bulk storage tanks.

~~b Contrary to the provisions of Specification 3.0.B, this test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY for failures that are potentially generic to the remaining diesel generator and for which appropriate alternative testing cannot be designed.~~ L.2

~~c Surveillance Requirement 4.9.A.7 may be substituted for Surveillance Requirement 4.9.A.2.c.~~ A.5

Notes 1, 2, and 3 to SR 3.8.1.3

d Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.

A.1 ITS 3.8.3

3.9 - LIMITING CONDITIONS FOR OPERATION

b. Restore the inoperable offsite circuit to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

2. With one of the above required diesel generator power sources inoperable:

   a. Demonstrate the OPERABILITY of the offsite circuit power sources by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

   b. If the diesel generator is inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned preventive maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.9.A.2.c[b] within 24 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated (if it has not been successfully tested within the past 24 hours) and within the subsequent 72 hours, and

<See ITS 3.8.1>

4.9 - SURVEILLANCE REQUIREMENTS

c. Verifying[c] the diesel starts and accelerates to synchronous speed with generator voltage and frequency at 4160 ±420 volts and 60 ±1.2 Hz, respectively.

d. Verifying the diesel generator is synchronized, loaded to between 2470 and 2600 kW[d] in accordance with the manufacturer's/vendor's recommendations, and operates with this load for ≥60 minutes.

e. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.

SR 3.8.3.2 f. Verifying the pressure in required starting air receiver tanks to be ≥220 psig.

3. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 31 days and after each operation of the diesel where the period of operation was ≥1 hour by removing any accumulated water from the day tank.

4. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 92 days by checking for and removing accumulated water from the fuel oil bulk storage tanks.

---

b Contrary to the provisions of Specification 3.0.B, this test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY for failures that are potentially generic to the remaining diesel generator and for which appropriate alternative testing cannot be designed.

c Surveillance Requirement 4.9.A.7 may be substituted for Surveillance Requirement 4.9.A.2.c.

d Momentary transients outside of the load range do not invalidate this test. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor. This surveillance shall be conducted on only one diesel generator at a time.

3.9 - LIMITING CONDITIONS FOR OPERATION

Required Action B.4

c. Restore the diesel generator to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION F

L.1

add proposed Required Action B.4 2nd Completion Time

A.7

add proposed ACTION D Note

Condition D

3. With one of the above offsite circuit power sources and one of the above required diesel generator power sources inoperable:

Required Actions A.1 and B.1

a. Demonstrate the OPERABILITY of the remaining offsite circuit power source by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

A.8

Required Action B.3.2

b. If the diesel generator is inoperable due to any cause other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY[a] of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.9.A.2.c[b] within ~~8~~ 24 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated ~~(if it has not been successfully tested within the past 24 hours) and within the subsequent 72 hours for each OPERABLE diesel generator.~~

L.2

L.3

Required Action B.3.1

L.3

4.9 - SURVEILLANCE REQUIREMENTS

5. Each of the required diesel generators shall be demonstrated OPERABLE by:

a. Sampling new fuel oil prior to addition to the storage tanks in accordance with applicable ASTM standards, and

b. Verifying prior to addition to the storage tanks that the sample meets the applicable ASTM standards for API gravity, water and sediment, and the visual test for free water and particulate contamination, and

c. Verifying within 31 days of obtaining the sample that the kinematic viscosity is within applicable ASTM limits.

A.6

moved to ITS 3.8.3

6. Each of the required diesel generators shall be demonstrated OPERABLE by:

a. Sampling and analyzing the bulk fuel storage tanks at least once per 31 days in accordance with applicable ASTM standards, and

b. Verifying that the sample meets the applicable ASTM standards for water and sediment, kinematic viscosity, and ASTM particulate contaminant is <10 mg/liter.

~~a A successful test of OPERABILITY per Surveillance Requirement 4.9.A.2.c under this ACTION statement satisfies the diesel generator test requirements of ACTION(s) 1 or 2 above.~~ A.8

~~b Contrary to the provisions of Specification 3.0.B, this test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY for failures that are potentially generic to the remaining diesel generator and for which appropriate alternative testing cannot be designed.~~ L.2

A.1 ITS 3.8.3

A.4

3.9 - LIMITING CONDITIONS FOR OPERATION

c. Restore the diesel generator to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

3. With one of the above offsite circuit power sources and one of the above required diesel generator power sources inoperable:

a. Demonstrate the OPERABILITY of the remaining offsite circuit power source by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

See ITS 3.8.1

b. If the diesel generator is inoperable due to any cause other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY[a] of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.9.A.2.c[b] within 8 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated (if it has not been successfully tested within the past 24 hours) and within the subsequent 72 hours for each OPERABLE diesel generator.

4.9 - SURVEILLANCE REQUIREMENTS

5. Each of the required diesel generators shall be demonstrated OPERABLE by:

add proposed SR 3.8.3.1

a. Sampling new fuel oil prior to addition to the storage tanks in accordance with applicable ASTM standards, and

b. Verifying prior to addition to the storage tanks that the sample meets the applicable ASTM standards for API gravity, water and sediment, and the visual test for free water and particulate contamination, and

c. Verifying within 31 days of obtaining the sample that the kinematic viscosity is within applicable ASTM limits.

A.4

6. Each of the required diesel generators shall be demonstrated OPERABLE by:

a. Sampling and analyzing the bulk fuel storage tanks at least once per 31 days in accordance with applicable ASTM standards, and

b. Verifying that the sample meets the applicable ASTM standards for water and sediment, kinematic viscosity, and ASTM particulate contaminant is <10 mg/liter.

---

a A successful test of OPERABILITY per Surveillance Requirement 4.9.A.2.c under this ACTION statement satisfies the diesel generator test requirements of ACTION(s) 1 or 2 above.

b Contrary to the provisions of Specification 3.0.B, this test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY for failures that are potentially generic to the remaining diesel generator and for which appropriate alternative testing cannot be designed.

A.1 ITS 5.5

A.9 add proposed ITS 5.5.9

3.9 - LIMITING CONDITIONS FOR OPERATION

c. Restore the diesel generator to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

See ITS 3.8.1

3. With one of the above offsite circuit power sources and one of the above required diesel generator power sources inoperable:

a. Demonstrate the OPERABILITY of the remaining offsite circuit power source by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

b. If the diesel generator is inoperable due to any cause other than preplanned preventive maintenance or testing, demonstrate the OPERABILITY[a] of the remaining OPERABLE diesel generator by performing Surveillance Requirement 4.9.A.2.c[b] within 8 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated (if it has not been successfully tested within the past 24 hours) and within the subsequent 72 hours for each OPERABLE diesel generator.

4.9 - SURVEILLANCE REQUIREMENTS

5. Each of the required diesel generators shall be demonstrated OPERABLE by:

5.5.9 5.5.9.a

a. Sampling new fuel oil prior to addition to the storage tanks in accordance with applicable ASTM standards, and

L.1 or absolute specific gravity

flash point M.3

5.5.9.a.1 5.5.9.a.2 5.5.9.a.3

b. Verifying prior to addition to the storage tanks that the sample meets the applicable ASTM standards for API gravity, water and sediment, and the visual test for free water and particulate contamination, and

or L.1

L.1 and other properties M.3

addition of new fuel oil to storage tanks

5.5.9.b

c. Verifying within 31 days of ~~obtaining the sample~~ that the kinematic viscosity is within applicable ASTM limits.

M.3

6. Each of the required diesel generators shall be demonstrated OPERABLE by:

5.5.9.c

a. Sampling and analyzing the bulk fuel storage tanks at least once per 31 days in accordance with applicable ASTM standards, and

5.5.9.c

b. Verifying that ~~the sample meets the applicable ASTM standards for water and sediment, kinematic viscosity, and ASTM~~ particulate contaminant is ~~<~~ ≤ 10 mg/liter.

L.1

A.9

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

a A successful test of OPERABILITY per Surveillance Requirement 4.9.A.2.c under this ACTION statement satisfies the diesel generator test requirements of ACTION(s) 1 or 2 above.

b Contrary to the provisions of Specification 3.0.B, this test is required to be completed regardless of when the inoperable diesel generator is restored to OPERABILITY for failures that are potentially generic to the remaining diesel generator and for which appropriate alternative testing cannot be designed.

add proposed ITS 5.5.10

add proposed ITS 5.5.11

M.2

A.4 add proposed Note 2 to SR 3.8.1.8

3.9 - LIMITING CONDITIONS FOR OPERATION

Required Actions D.1 and D.2

c. Restore at least one of the inoperable A.C. power sources to OPERABLE status within 12 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, and

ACTION F

Required Actions A.3 and B.4

d. Restore both offsite circuits and both diesel generators to OPERABLE status within 7 days ~~from the time of the initial loss~~ or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION F

add proposed Required Action A.3 2nd Completion Time and Required Action B.4 2nd Completion Time — L.1

Required Action B.2

4. With one of the above required diesel generator power sources inoperable, in addition to ACTION 2 or 3, as applicable:

a. Verify within ~~2~~ (4) hours that at least one of the required two systems, subsystems, trains, components and devices in two train systems is OPERABLE including its emergency power supply. — L.6

b. Otherwise, take the applicable ACTIONs for both systems, subsystems, trains, components or devices inoperable, ~~or~~ be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION F

4.9 - SURVEILLANCE REQUIREMENTS

SR 3.8.1.8

7. Each of the required diesel generators shall be demonstrated OPERABLE[a] at least once per 184 days by verifying[c] the diesel starts and accelerates to ~~synchronous speed~~ (Steady state) in ≤13 seconds. The generator ~~voltage and frequency~~ shall be verified to reach 4160 ±~~420~~ (208) volts and 60 ±1.2 Hz, respectively, ~~in ≤13 seconds after the start signal~~. (≥ 58.8 Hz and ≥ 3952 V) — A.9, A.5, L.7, A.13, L.7

8. Each of the required diesel generators shall be demonstrated OPERABLE[a] at least once per ~~18~~ (24) months by: — LD.1

~~a. Deleted.~~

SR 3.8.1.8 Note 1, SR 3.8.1.12 Note, SR 3.8.1.13 Note, SR 3.8.1.16 Note 2, SR 3.8.1.19 Note

a All diesel generator starts may be preceded by an engine prelube period. ~~All diesel generator starts that require loading may be preceded by an engine prelube period and followed by a warmup period prior to loading. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor.~~ — A.9

~~c Surveillance Requirement 4.9.A.7 may be substituted for Surveillance Requirement 4.9.A.2.c.~~ — A.5

3.9 - LIMITING CONDITIONS FOR OPERATION

M.2

ACTION C)

5. With two of the above required offsite circuit power sources inoperable:

(add proposed Required Action C.1)

ACTION F)

a. Restore at least one of the inoperable offsite circuits to OPERABLE status within 24 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours, and

ACTION A)

L.1

ACTION F)

b. Restore at least two offsite circuits to OPERABLE status within 7 days ~~from the time of initial loss~~ or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION E)

6. With both of the above required diesel generator power sources inoperable:

Required ACTION B.1)

a. Demonstrate the OPERABILITY of the offsite circuit power sources by performing Surveillance Requirement 4.9.A.1.a within 1 hour and at least once per 8 hours thereafter.

4.9 - SURVEILLANCE REQUIREMENTS

SR 3.8.1.10.a
SR 3.8.1.10.b

(add proposed Note to SR 3.8.1.10)

(add proposed SR 3.8.1.10.c)

b. Verifying the diesel generator capability to reject its largest single emergency load (~~≥642 kW~~) while maintaining frequency ≤66.73 Hz and voltage at 4160 ± ~~420~~ 208 volts (within 3 seconds).

L.A.2 A.4 A.13

SR 3.8.1.11

(add proposed Note 1 to SR 3.8.1.11)

c. Verifying the diesel generator capability to reject a load between ~~2470~~ 2340 and 2600 kw[d] without tripping on overspeed. The generator voltage shall not exceed 5000 volts[g] during or following the load rejection.

L.12 A.9 L.13 A.10 A.4

SR 3.8.1.12)

d. ~~y~~ Simulating a loss of offsite power by itself, and: (Actual or)

L.8

1) Verifying de-energization of the emergency buses, and load shedding from the emergency buses.

2) Verifying the diesel starts on the auto-start signal, energizes the emergency buses with permanently connected loads in ≤13 seconds, ~~energizes the auto-connected shutdown loads,~~ and operates with this load for ≥5 minutes. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4160 ± ~~420~~ 208 volts and 60 ± 1.2 Hz, respectively, during this test.

A.11

A.13

A.10
A.9
L.13

d ~~(Momentary transients outside of the load range do not invalidate this test.)~~ ~~(Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor.)~~ ~~(This surveillance shall be conducted on only one diesel generator at a time.)~~

SR 3.8.1.11 Note 2

g Momentary transients outside of the voltage limit do not invalidate this test.

3.9 - LIMITING CONDITIONS FOR OPERATION

A.8

Required Action E.1

b. Within 2 hours, restore at least one of the above required diesel generators to OPERABLE(a) status and verify that at least one of the required two systems, subsystems, trains, components and devices in two train systems is OPERABLE including its emergency power supply. Otherwise, take the applicable ACTIONs for both systems, subsystems, trains, components or devices inoperable, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Required Action B.2

add 4 hour Completion Time

L.6

ACTION F

Required Actions B.3.1 and B3.2

c. Demonstrate the continued OPERABILITY of the restored diesel generator by performing Surveillance Requirement 4.9.A.2.c within the subsequent 72 hours, and

L.3

L.1

Required Action B.4

d. Restore at least two required diesel generators to OPERABLE status within 7 days ~~from the time of initial loss~~ or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION F

7. With the fuel oil contained in the bulk fuel storage tank(s) not meeting the properties specified in Surveillance Requirements 4.9.A.5 and 4.9.A.6, restore the fuel oil properties to within the specified limits within 7 days. Otherwise, declare the associated diesel generator(s) inoperable.

A.6 moved to ITS 3.8.3

add ACTION G — A.12

4.9 - SURVEILLANCE REQUIREMENTS

SR 3.8.1.13

e. Verifying that on an ECCS actuation actual or test signal, without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for ≥5 minutes. The generator voltage and frequency shall be 4160 ± ~~420~~ 208 volts and 60 ± 1.2 Hz, respectively, in ≤13 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

L.8

L.7

A.13

M.7

add proposed SR 3.8.1.13.d And e

SR 3.8.1.19

f. By ~~s~~Simulating a loss of offsite power in conjunction with an ECCS actuation actual or test signal, and

Actual or — L.8

1) Verifying de-energization of the emergency buses, and load shedding from the emergency buses.

2) Verifying the diesel starts on the auto-start signal, energizes the emergency buses with permanently connected loads in ≤13 seconds, energizes the auto-connected emergency loads ~~through the load sequencer,~~ and operates with this load for ≥5 minutes. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4160 ± ~~420~~ 208 volts and 60 ± 1.2 Hz, respectively, during this test.

LA.3

A.13

~~(a) A successful test of OPERABILITY per Surveillance Requirement 4.9.A.2.c under this ACTION statement satisfies the diesel generator test requirements of ACTION(s) 1 or 2 above.~~ — A.8

A.1 ITS 3.8.3

3.9 - LIMITING CONDITIONS FOR OPERATION

b. Within 2 hours, restore at least one of the above required diesel generators to OPERABLE[e] status and verify that at least one of the required two systems, subsystems, trains, components and devices in two train systems is OPERABLE including its emergency power supply. Otherwise, take the applicable ACTIONs for both systems, subsystems, trains, components or devices inoperable, or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. Demonstrate the continued OPERABILITY of the restored diesel generator by performing Surveillance Requirement 4.9.A.2.c within the subsequent 72 hours, and

d. Restore at least two required diesel generators to OPERABLE status within 7 days from the time of initial loss or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTIONS A and B

7. With the fuel oil contained in the bulk fuel storage tank(s) not meeting the properties specified in Surveillance Requirements 4.9.A.5 and 4.9.A.6, restore the fuel oil properties to within the specified limits within 7 days. L.1

ACTION D

Otherwise, declare the associated diesel generator(s) inoperable.

Add proposed ACTION C and ACTIONS Note L.2

4.9 - SURVEILLANCE REQUIREMENTS

e. Verifying that on an ECCS actuation test signal, without loss of offsite power, the diesel generator starts on the auto-start signal and operates on standby for ≥5 minutes. The generator voltage and frequency shall be 4160 ±420 volts and 60 ±1.2 Hz, respectively, in ≤13 seconds after the auto-start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.

f. Simulating a loss of offsite power in conjunction with an ECCS actuation test signal, and

1) Verifying de-energization of the emergency buses, and load shedding from the emergency buses.

2) Verifying the diesel starts on the auto-start signal, energizes the emergency buses with permanently connected loads in ≤13 seconds, energizes the auto-connected emergency loads through the load sequencer, and operates with this load for ≥5 minutes. After energization, the steady-state voltage and frequency of the emergency busses shall be maintained at 4160 ±420 volts and 60 ±1.2 Hz, respectively, during this test.

<See ITS 3.8.1>

e A successful test of OPERABILITY per Surveillance Requirement 4.9.A.2.c under this ACTION statement satisfies the diesel generator test requirements of ACTION(s) 1 or 2 above.

A.1

3.9 - LIMITING CONDITIONS FOR OPERATION

4.9 - SURVEILLANCE REQUIREMENTS

SR 3.8.1.14

g. Verifying that all automatic diesel generator trips, except engine overspeed and generator differential current are automatically bypassed upon an (actual or Simulated) emergency actuation signal. L.8 A.4

M.4

SR 3.8.1.15

(add proposed Note 2 to SR 3.8.1.15) (add proposed Note 3 to SR 3.8.1.15)

h. Verifying the diesel generator operates for ≥24 hours (within the power factor limit). During the first 2 hours of this test, the diesel generator shall be loaded to between 2730 and 2860 kW[d] and during the remaining 22 hours of this test, the diesel generator shall be loaded to between ~~2470~~ (2340) and 2600 kW[d]. ~~The generator voltage and frequency shall be 4160 ±420 volts and 60 ±1.2 Hz, respectively, in ≤13 seconds after the start signal; the steady state generator voltage and frequency shall be maintained within these limits during this test.~~ Within 5 minutes after completing this 24 hour test, perform Surveillance Requirement (4.9.A.2.c[ii]). A.9 L.12 A.9 L.9 A.4 (add proposed Note 3 to SR 3.8.1.16) M.8

SR 3.8.1.16

i. ~~Verifying that the auto-connected loads to each diesel generator do not exceed the 2000 hour rating of 2860 kW.~~ LA.4

SR 3.8.1.15 Note 1

d Momentary transients outside of the load range (or power factor) do not invalidate this test. ~~Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor.~~ ~~This surveillance shall be conducted on only one diesel generator at a time.~~ M.4 A.9 L.13

SR 3.8.1.16 Note 1

f If Surveillance Requirement 4.9.A.2.c is not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Instead, the diesel generator may be operated at ~~approximately full load~~ (≥ 2340 kW) for (≥) 2 hours ~~or until the operating temperature has stabilized~~. M.9

(Momentary transients below the load limit do not invalidate the test.)

A.1

3.9 - LIMITING CONDITIONS FOR OPERATION

4.9 - SURVEILLANCE REQUIREMENTS

j. Verifying the diesel generator's capability to:

SR 3.8.1.17
1) synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

2) transfer its loads to the offsite power source, and

3) be restored to its standby status.

SR 3.8.1.18
k. Verifying that the automatic load sequence logic is OPERABLE with the interval between each load block within ± 10% of its design interval.

SR 3.8.1.20
9. Each of the required diesel generators shall be demonstrated OPERABLE[a] at least once per 10 years ~~or after any modifications which could affect diesel generator interdependence~~ by starting both diesel generators simultaneously, and verifying that both diesel generators accelerate to ≥900 rpm in ≤13 seconds. A.9 L.10

add proposed minimum voltage in ≤ 13 sec.

58.8 Hz L.11 M.10

10. Each of the required diesel generators shall be demonstrated OPERABLE at least once per 10 years by draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank. A.6 moved to ITS 3.8.3

add proposed SR 3.8.1.21 M.1

SR 3.8.1.20 Note
a All diesel generator starts may be preceded by an engine prelube period. ~~All diesel generator starts that require loading may be preceded by an engine prelube period and followed by a warmup period prior to loading. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor.~~ A.9

A.1 ITS 3.8.3

3.9 - LIMITING CONDITIONS FOR OPERATION

<See ITS 3.8.1>

4.9 - SURVEILLANCE REQUIREMENTS

j. Verifying the diesel generator's capability to:

   1) synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,

   2) transfer its loads to the offsite power source, and

   3) be restored to its standby status.

k. Verifying that the automatic load sequence logic is OPERABLE with the interval between each load block within ±10% of its design interval.

9. Each of the required diesel generators shall be demonstrated OPERABLE[a] at least once per 10 years or after any modifications which could affect diesel generator interdependence by starting both diesel generators simultaneously, and verifying that both diesel generators accelerate to ≥900 rpm in ≤13 seconds.

10. ~~Each of the required diesel generators shall be demonstrated OPERABLE at least once per 10 years by draining each fuel oil storage tank, removing the accumulated sediment and cleaning the tank.~~ L.3

a All diesel generator starts may be preceded by an engine prelube period. All diesel generator starts that require loading may be preceded by an engine prelube period and followed by a warmup period prior to loading. Diesel generator loadings may include gradual loading as recommended by the manufacturer/vendor.

$\boxed{A.1}$

~~TABLE 4.9.A-1~~

~~DIESEL GENERATOR TEST SCHEDULE~~

~~(NOT USED)~~

A.1

3.9 - LIMITING CONDITIONS FOR OPERATION

B. A.C. Sources - Shutdown

LCO 3.8.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

M.1

LCO 3.8.2.a 1. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and

M.2

LCO 3.8.2.b 2. One diesel generator with:

A.2

SR 3.8.2.1 a. A fuel oil day tank containing ≥205 gallons of available fuel,

SR 3.8.2.1 b. A bulk fuel storage system containing ≥10,000 gallons of available fuel, and

LA.1 c. ~~A fuel oil transfer pump.~~

APPLICABILITY:

OPERATIONAL MODE(s) 4 and 5, and when handling irradiated fuel in the secondary containment.

ACTION:

add proposed ACTION A Note — A.3

1. With less than the above required A.C. electrical power sources OPERABLE:

add proposed Required Action A.1 — M.1

ACTIONS A and B

a. Suspend CORE ALTERATIONS,

b. Suspend handling of irradiated fuel in the secondary containment,

c. Suspend operations with a potential for draining the reactor vessel, and

4.9 - SURVEILLANCE REQUIREMENTS

L.1

B. A.C Sources - Shutdown

add proposed SR 3.8.2.1 Note 1 — L.1

add proposed SR 3.8.2.1 Note 2 — L.2

SR 3.8.2.1 Note 1 Each of the required A.C. electrical power sources shall be demonstrated OPERABLE per the surveillance requirements in Specification 4.9.A, except for 4.9.A.2.d — L.1

except SR 3.8.1.9, SR 3.8.1.20, and SR 3.8.1.21 — A.4

A.2 <General Description>

Add proposed fuel oil and starting air LCO

3.9 - LIMITING CONDITIONS FOR OPERATION

B. A.C. Sources - Shutdown

As a minimum, the following A.C. electrical power sources shall be OPERABLE:

1. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and
2. One diesel generator with:
   a. A fuel oil day tank containing ≥205 gallons of available fuel,
   b. A bulk fuel storage system containing ≥10,000 gallons of available fuel, and
   c. A fuel oil transfer pump.

<See ITS 3.8.2>

APPLICABILITY:

OPERATIONAL MODE(s) 4 and 5, and when handling irradiated fuel in the secondary containment. A.2

ACTION:

A.3 Add proposed ACTIONS Note

1. With less than the above required A.C. electrical power sources OPERABLE:
   a. Suspend CORE ALTERATIONS,
   b. Suspend handling of irradiated fuel in the secondary containment,
   c. Suspend operations with a potential for draining the reactor vessel, and

L.1 Add proposed ACTIONS A and B

L.2 Add proposed ACTION C and ACTIONS Note

4.9 - SURVEILLANCE REQUIREMENTS

B. A.C Sources - Shutdown

SR 3.8.3.1 and SR 3.8.3.2

Each of the required A.C. electrical power sources shall be demonstrated OPERABLE per the surveillance requirements in Specification 4.9.A, except for 4.9.A.2.d.

for portions not applicable to fuel oil or starting air

3.9 - LIMITING CONDITIONS FOR OPERATION

LA.2 d. ~~Suspend crane operations over the spent fuel storage pool if fuel assemblies are stored therein.~~

M.3 Required Actions A.2.4 and B.4 2 In addition, when in OPERATIONAL MODE 5 with the water level <23 feet above the reactor pressure vessel flange, immediately initiate corrective action to restore the required power sources to OPERABLE status as soon as practical.

ACTIONS Note 3. The provisions of Specification 3.0.C are not applicable.

4.9 - SURVEILLANCE REQUIREMENTS

A.1

<General Description> A.2

3.9 - LIMITING CONDITIONS FOR OPERATION

C. D.C. Sources - Operating

LCO 3.8.4 As a minimum, the following D.C. electrical power sources shall be OPERABLE with the identified parameters within the limits specified in Table 4.9.C-1:

A.2 moved to ITS 3.8.6

LCO 3.8.4.a 1. Two station 250 volt batteries, each with a full capacity charger.

Division 1 and 2 — LA.1

LCO 3.8.4.b 2. ~~Two station~~ 125 volt batteries, each with a full capacity charger.

add proposed LCO 3.8.4.c

M.2 (DC electrical power subsystems)

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 3.

ACTION:

ACTION A
ACTION B 1. With one of the above required 250 volt station batteries and/or chargers inoperable, restore the inoperable equipment to OPERABLE status within
ACTION C 2 hours[b].

4.9 - SURVEILLANCE REQUIREMENTS

C. D.C. Sources - Operating

Each of the required 125 volt and 250 volt batteries and chargers shall be demonstrated OPERABLE[a]: LA.2

1. At least once per 7 days by verifying that: moved to ITS 3.8.6 A.2

   a. The parameters in Table 4.9.C-1 meet Category A limits, and

SR 3.8.4.1 b. There is correct breaker alignment to the battery chargers and total battery terminal voltage is ≥125.9 or ≥260.4 volts, as applicable, on float charge. A.4 L.1

2. At least once per 92 days and within 7 days after a battery discharge with a battery terminal voltage below 105 or 210 volts, as applicable, or battery overcharge with battery terminal voltage above 150 or 300 volts, as applicable, by verifying that:

   a. The parameters in Table 4.9.C-1 meet the Category B limits,

SR 3.8.4.2 b. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is $\leq 150 \times 10^{-6}$ ohms or ≤20% above baseline connection resistance, whichever is higher, and M.3

LA.2

a An alternate 125 volt battery shall adhere to these same Surveillance Requirements to be considered OPERABLE.
SR 3.8.4.1 except the Unit 2 total battery terminal voltage on float charge shall be verified weekly as ≥130.2 volts.

ACTION A b Each 250 volt battery may be inoperable for a maximum of seven days per operating cycle for maintenance or testing. If it is determined that a 250 volt battery need be replaced as a result of maintenance or testing, a
ACTION B specific battery may be inoperable for an additional seven days per operating cycle.

ITS 3.8.6

A.1

Battery Cell Parameters A.2

3.9 - LIMITING CONDITIONS FOR OPERATION

C. ~~D.C. Sources - Operating~~

LCO 3.8.6

A.2 As a minimum, the following D.C. electrical power sources shall be OPERABLE with the identified parameters within the limits specified in Table 4.9.C-1:

1. Two station 250 volt batteries, each with a full capacity charger.
2. Two station 125 volt batteries, each with a full capacity charger.

See ITS 3.8.4

APPLICABILITY:

A.3 OPERATIONAL MODE(s) 1, 2, and 3.

ACTION:

1. With one of the above required 250 volt station batteries and/or chargers inoperable, restore the inoperable equipment to OPERABLE status within 2 hours[b].

4.9 - SURVEILLANCE REQUIREMENTS

C. ~~D.C. Sources - Operating~~

Each of the required 125 volt and 250 volt batteries ~~and chargers~~ shall be demonstrated OPERABLE[a]: LA.1

SR 3.8.6.1

1. At least once per 7 days by verifying that:
   a. The parameters in Table 4.9.C-1 meet Category A limits, and
   b. There is correct breaker alignment to the battery chargers and total battery terminal voltage is ≥125.9 or ≥260.4 volts, as applicable, on float charge.

SR 3.8.6.2

2. At least once per 92 days and within 7 days after a battery discharge with a battery terminal voltage below 105 or 210 volts, as applicable, or battery overcharge with battery terminal voltage above 150 or 300 volts, as applicable, by verifying that: L.1
   a. The parameters in Table 4.9.C-1 meet the Category B limits,
   b. There is no visible corrosion at either terminals or connectors, or the connection resistance of these items is ≤150 x10^{-6} ohms or ≤20% above baseline connection resistance, whichever is higher, and

for average electrolyte temperature only

LA.1

a ~~An alternate 125 volt battery shall adhere to these same Surveillance Requirements to be considered OPERABLE,~~ except the Unit 2 total battery terminal voltage on float charge shall be verified weekly as ≥130.2 volts.

b Each 250 volt battery may be inoperable for a maximum of seven days per operating cycle for maintenance or testing. If it is determined that a 250 volt battery need be replaced as a result of maintenance or testing, a specific battery may be inoperable for an additional seven days per operating cycle.

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3.9 - LIMITING CONDITIONS FOR OPERATION

ACTION D
ACTION E
ACTION F

2. With one of the above required 125 volt station batteries and/or chargers inoperable, within 2 hours[c], either restore the inoperable equipment to OPERABLE status, or place an OPERABLE corresponding alternate 125 volt battery (with an OPERABLE full capacity charger) in service.

add Proposed ACTION G — M.2

ACTION H

3. With the provisions of either ACTION 1 or 2 above not met, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

A.2 moved to ITS 3.8.6

4. With any Category A parameter(s) outside the limit(s) shown in Table 4.9.C-1, the battery may be considered OPERABLE provided that its associated charger is OPERABLE, and within 24 hours all the category B measurements are taken and found to be within their allowable values, and provided all Category A and B parameter(s) are restored to within limits within the next 6 days.

5. With any Category B parameter(s) outside the limit(s) shown in Table 4.9.C-1, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within the limit(s) within 7 days.

4.9 - SURVEILLANCE REQUIREMENTS

moved to ITS 3.8.6 — A.2

c. The average electrolyte temperature of all connected cells is above 65°F.

3. At least every 18 (24 — LD.1) months by verifying that:

SR 3.8.4.4 a. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.

SR 3.8.4.5 b. The cell-to-cell and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material. — L.2

SR 3.8.4.6 c. The resistance of each cell-to-cell and terminal connection is $\leq 150 \times 10^{-6}$ ohms or $\leq 20\%$ above baseline connection resistance, whichever is higher. — M.3, A.5 — add Proposed limits

SR 3.8.4.3
SR 3.8.4.7 d. The battery chargers will supply a load equal to the manufacturer's rating for at least 4 hours. — A.5

4. At least every 18 (24 — LD.1) months, by verifying

SR 3.8.4.8 that the battery capacity is adequate to supply and maintain in OPERABLE status all of the actual or simulated (required — LA.3) emergency loads for design duty cycle when the battery is subjected to a battery service test.

---

[c] ACTION D — With Unit 2 and 3 in OPERATIONAL MODE(s) 1, 2 or 3, each 125 volt battery may be inoperable for up to a maximum of seven days per operating cycle for maintenance or testing provided the alternate 125 volt battery is placed into service and is OPERABLE. ACTION E — If it is determined that a 125 volt battery need be replaced as a result of maintenance or testing, a specific battery may be inoperable for an additional seven days provided the alternate 125 volt battery is placed into service and is OPERABLE. ACTION F — With the other Unit in MODE(s) 4 or 5, operations may continue with one of the two 125 volt battery systems inoperable provided the alternate 125 volt battery is placed into service and is OPERABLE.

3.9 - LIMITING CONDITIONS FOR OPERATION

A.4 add proposed ACTIONS Note

2. With one of the above required 125 volt station batteries and/or chargers inoperable, within 2 hours[c], either restore the inoperable equipment to OPERABLE status, or place an OPERABLE corresponding alternate 125 volt battery (with an OPERABLE full capacity charger) in service.

3. With the provisions of either ACTION 1 or 2 above not met, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION A

add proposed Required Action A.1

M.1

4. With any Category A parameter(s) outside the limit(s) shown in Table 4.9.C-1, the battery may be considered OPERABLE provided that ~~its associated charger is OPERABLE~~ A.5 and within 24 hours all the category B measurements are taken and found to be within their allowable values, and provided all Category A and B parameter(s) are restored to within limits within the next ~~8~~ 31 L.3 days.

ACTION A

5. With any Category B parameter(s) outside the limit(s) shown in Table 4.9.C-1, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within the limit(s) within ~~7~~ days.

4.9 - SURVEILLANCE REQUIREMENTS

SR 3.8.6.3 c. The average electrolyte temperature of ~~all~~ representative L.2 connected cells is above 65°F.

3. At least every 18 months by verifying that:

a. The cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration.

b. The cell-to-cell and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material.

c. The resistance of each cell-to-cell and terminal connection is $\leq 150 \times 10^{-6}$ ohms or $\leq 20\%$ above baseline connection resistance, whichever is higher.

d. The battery chargers will supply a load equal to the manufacturer's rating for at least 4 hours.

4. At least every 18 months, by verifying that the battery capacity is adequate to supply and maintain in OPERABLE status all of the actual or simulated emergency loads for design duty cycle when the battery is subjected to a battery service test.

See ITS 3.8.4

c With Unit 2 and 3 in OPERATIONAL MODE(s) 1, 2 or 3, each 125 volt battery may be inoperable for up to a maximum of seven days per operating cycle for maintenance or testing provided the alternate 125 volt battery is placed into service and is OPERABLE. If it is determined that a 125 volt battery need be replaced as a result of maintenance or testing, a specific battery may be inoperable for an additional seven days provided the alternate 125 volt battery is placed into service and is OPERABLE. With the other Unit in MODE(s) 4 or 5, operations may continue with one of the two 125 volt battery systems inoperable provided the alternate 125 volt battery is placed int service and is OPERABLE.

A.1 ITS 3.8.4

3.9 - LIMITING CONDITIONS FOR OPERATION

moved to ITS 3.8.6 A.2

6. With any Category B parameter not within its allowable value(s), immediately declare the battery inoperable.

4.9 - SURVEILLANCE REQUIREMENTS

SR 3.8.4.9 1st Frequency

5. At least once per 60 months, verify that the battery capacity is at least 80% of the manufacturer's rating when subjected to either a performance discharge test or a modified performance discharge test. The modified performance discharge test satisfies the requirements of both the service test and performance test and therefore, may be performed in lieu of a service test.

SR 3.8.4.8 Note

SR 3.8.4.9 2nd Frequency

6. For any battery that shows signs of degradation or has reached 85% of the service life for the expected application and delivers a capacity of less than 100% of the manufacturer's rated capacity, a performance discharge test or a modified performance test of battery capacity shall be performed at least once every 12 months ~~or the battery shall be replaced or restored to 100% or greater of the manufacturer's rated capacity during the next refuel outage.~~ M.1 ~~Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating.~~ LA.4 If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity and has shown no signs of degradation, a performance test or a modified performance test of battery capacity shall be performed at least once every two years.

3rd Frequency

Page 3 of 4

3.9 - LIMITING CONDITIONS FOR OPERATION

ACTION B 6. With any Category B parameter not within its allowable value(s), immediately declare the battery inoperable.

add proposed ACTION B for electrolyte temperature and Category A or B limits not restored

A.6

4.9 - SURVEILLANCE REQUIREMENTS

5. At least once per 60 months, verify that the battery capacity is at least 80% of the manufacturer's rating when subjected to either a performance discharge test or a modified performance discharge test. The modified performance discharge test satisfies the requirements of both the service test and performance test and therefore, may be performed in lieu of a service test.

6. For any battery that shows signs of degradation or has reached 85% of the service life for the expected application and delivers a capacity of less than 100% of the manufacturer's rated capacity, a performance discharge test or a modified performance test of battery capacity shall be performed at least once every 12 months or the battery shall be replaced or restored to 100% or greater of the manufacturer's rated capacity during the next refuel outage. Degradation is indicated when the battery capacity drops more than 10% from its capacity on the previous performance test, or is below 90% of the manufacturer's rating. If the battery has reached 85% of service life, delivers a capacity of 100% or greater of the manufacturer's rated capacity and has shown no signs of degradation, a performance test or a modified performance test of battery capacity shall be performed at least once every two years.

See ITS 3.8.4

A.1 ITS 3.8.4

A.2 moved to ITS 3.8.6

TABLE 4.9.C-1

BATTERY SURVEILLANCE REQUIREMENTS

PARAMETER	CATEGORY A	CATEGORY B	
	LIMITS FOR EACH DESIGNATED PILOT CELL	LIMITS FOR EACH CONNECTED CELL	ALLOWABLE VALUE FOR EACH CONNECTED CELL
Electrolyte Level	> Minimum level indication mark, and ≤¼" above maximum level indication mark	> Minimum level indication mark, and ≤¼" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	≥2.13 volts	≥2.13 volts[c]	≥2.07 volts
Specific Gravity[a]	≥1.200[b]	≥ 1.195[b], and Average of all connected cells >1.205[b]	Not more than 0.020 below the average of all connected cells, and Average of all connected cells ≥1.195[b]

TABLE NOTATIONS

(a) Corrected for electrolyte temperature and level.

(b) Or battery charging current is less than 2 amperes when on float charge.

(c) May be corrected for average electrolyte temperature.

TABLE 3.8.6-1

TABLE 4.9.C-1

BATTERY SURVEILLANCE REQUIREMENTS

CATEGORY C

PARAMETER	CATEGORY A	CATEGORY B	
	LIMITS FOR EACH DESIGNATED PILOT CELL	LIMITS FOR EACH CONNECTED CELL	ALLOWABLE VALUE FOR EACH CONNECTED CELL
Electrolyte Level	> Minimum level indication mark, and ≤¼" above maximum level indication mark	> Minimum level indication mark, and ≤¼" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	≥2.13 volts	≥2.13 volts	≥2.07 volts
Specific Gravity[a]	≥1.200[b] move Notation	≥ 1.195[b], and Average of all connected cells >1.205[b]	Not more than 0.020 below the average of all connected cells, and Average of all connected cells ≥1.195[b]

M.2 M.4 L.4

add proposed footnote (a)

TABLE NOTATIONS

add proposed footnote (c) time allowance M.3

footnote b (a) Corrected for electrolyte temperature and level.

footnote c (b) Or battery charging current is less than 2 amperes when on float charge.

~~(c) May be corrected for average electrolyte temperature.~~ M.2

A.1 ITS 3.8.5

A.2 <GENERAL DESCRIPTION>

3.9 - LIMITING CONDITIONS FOR OPERATION

D. D.C. Sources - Shutdown

LCO 3.8.5 ~~As a minimum, the following~~ D.C. electrical power sources shall be OPERABLE~~a~~ to support the electrical power distribution subsystem(s) required by LCO 3.8.8, "Distribution Systems - Shutdown."

1. ~~One station 250 volt battery with a full capacity charger.~~
2. ~~One station 125 volt battery with a full capacity charger.~~

LA.1

APPLICABILITY:

OPERATIONAL MODE(s) 4 and 5, and when handling irradiated fuel in the secondary containment.

M.2 add proposed ACTIONS Note

ACTION:

ACTION A With ~~any of the above~~ one or more required station batteries and/or associated charger(s) inoperable, ~~,~~ suspend CORE ALTERATIONS, suspend handling of irradiated fuel in the secondary containment, and suspend operations with a potential for draining the reactor vessel.

M.1 add proposed Required Action A.1

M.3 add proposed Required Action A.2.4

4.9 - SURVEILLANCE REQUIREMENTS

L.1

D. D.C. Sources - Shutdown add proposed Note

SR 3.8.5.1 The required batteries and chargers shall be demonstrated OPERABLE[a] per the surveillance requirements in Specification 4.9.C.

LA.2

a ~~An alternate 125 volt battery shall adhere to these same Surveillance Requirements to be considered OPERABLE,~~

SR 3.8.5.1 except the Unit 2 total battery terminal voltage on float charge shall be verified weekly as ≥130.2 volts.

ITS 3.8.6

A.1

A.2

add proposed LCO 3.8.6

(Battery Cell Parameters)

3.9 - LIMITING CONDITIONS FOR OPERATION	4.9 - SURVEILLANCE REQUIREMENTS
D. ~~D.C. Sources - Shutdown~~	D. ~~D.C. Sources - Shutdown~~
As a minimum, the following D.C. electrical power sources shall be OPERABLE: 1. One station 250 volt battery with a full capacity charger. 2. One station 125 volt battery with a full capacity charger.	~~The required batteries and chargers shall be demonstrated OPERABLE[a] per the surveillance requirements in Specification 4.9.C.~~ A.2

<See ITS 3.8.5>

A.3

APPLICABILITY:

OPERATIONAL MODE(s) 4 and 5, and when handling irradiated fuel in the secondary containment.

ACTION:

With any of the above required station batteries and/or associated charger(s) inoperable, suspend CORE ALTERATIONS, suspend handling of irradiated fuel in the secondary containment, and suspend operations with a potential for draining the reactor vessel.

L.5

add Proposed ACTIONS A and B

a ~~An alternate 125 volt battery shall adhere to these same Surveillance Requirements to be considered OPERABLE, except the Unit 2 total battery terminal voltage on float charge shall be verified weekly as ≥130.2 volts.~~ A.2

3.9 - LIMITING CONDITIONS FOR OPERATION

E. Distribution - Operating

The following power distribution systems shall be energized:

A.2 — Division 1 and Division 2

LCO 3.8.7.a and b

1. A.C. power distribution, consisting of:

   a. Both Unit engineered safety features 4160 volt buses:

      1) For Unit 2, Nos. 23-1 and 24-1.

      2) For Unit 3, Nos. 33-1 and 34-1.

   b. Both Unit engineered safety features 480 volt buses:

      1) For Unit 2, Nos. 28 and 29.

      2) For Unit 3, Nos. 38 and 39.

   c. The Unit 120 volt Essential Service Bus and Instrument Bus.

LA.1

A.2 — Division 1 and Division 2

LCO 3.8.7.c

2. 250 volt D.C. power distribution, consisting of:

   a. For Unit 2, TB MCC 2 and RB MCC 2.

   b. For Unit 3, TB MCC 3 and RB MCC 3.

3. For Unit 2, 125 volt D.C. power distribution, consisting of:

   a. TB Main Bus Nos. 2A-1 and 3A,

   b. TB Res. Bus Nos. 2B and 2B-1,

   c. Reserve Bus No. 2, and

   d. RB Distribution Panel No. 2.

4.9 - SURVEILLANCE REQUIREMENTS

E. Distribution - Operating

SR 3.8.7.1 Each of the required power distribution system divisions shall be determined energized at least once per 7 days by verifying correct breaker alignment and voltage on the busses/MCCs/panels.

M.3

; and

The portions of the opposite unit's Division 2 AC and DC electrical power distribution subsystems necessary to support equipment required to be OPERABLE by LCO 3.6.4.3, "Standby Gas Treatment (SGT) System," LCO 3.7.4, "Control Room Emergency Ventilation (CREV) System" (Unit 3 only), LCO 3.7.5, "Control Room Emergency Ventilation Air Conditioning (AC) System" (Unit 3 only), and LCO 3.8.1, "AC Sources - Operating."

LA.1

.9 - LIMITING CONDITIONS FOR OPERATION

4.9 - SURVEILLANCE REQUIREMENTS

~~4. For Unit 3, 125 volt D.C. power distribution, consisting of:~~

~~a. TB Main Bus Nos. 2A-1, 3A and 3A-1,~~

~~b. TB Res. Bus Nos. 3B and 3B-1, and~~

~~c. RB Distribution Panel No. 3.~~

LA.1

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, and 3.

ACTIONS:

L.1

ACTIONS A, B, and C

1. With one or more of the above required A.C. distribution systems not energized, re-energize the system within 8 hours, add proposed Required Actions A.1, B.1, and C.1 Second Completion Time M.1

ACTION F

or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

L.1

ACTION D

2. With one or more of the above required D.C. distribution systems not energized, re-energize the system within 2 hours, add proposed Required Action D.1 Second Completion Time M.1

ACTION F

or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

add proposed ACTION E M.3

add proposed ACTION G M.2

A.1

3.9 - LIMITING CONDITIONS FOR OPERATION

F. Distribution - Shutdown

LCO 3.8.8 The following power distribution systems shall be energized ~~with:~~ to support equipment required to be OPERABLE — M.1

1. A.C. power distribution ~~consisting of:~~

~~a. One Unit engineered safety features 4160 volt bus:~~

~~1) For Unit 2, No. 23-1 or 24-1,~~

~~2) For Unit 3, No. 33-1 or 34-1.~~

~~b. One associated Unit engineered safety features 480 volt bus:~~

~~1) For Unit 2, No. 28 or 29,~~

~~2) For Unit 3, No. 38 or 39.~~ — LA.1

2. ~~For Unit 2,~~ 125 volt D.C. power distribution ~~consisting of either:~~ ; and the opposite unit's Division 2 electrical power distribution subsystems to support equipment required to be OPERABLE — M.1

~~a. TB Main Bus No. 2A-1, and RB Distribution Panel No. 2, or~~

~~b. TB Main Bus No. 3A, Reserve Bus No. 2, and TB Res. Bus Nos. 2B and 2B-1.~~

~~3. For Unit 3, 125 volt D.C. power distribution, consisting of either:~~

~~a. TB Main Bus Nos. 3A and 3A-1, and RB Distribution Panel No. 3, or~~

~~b. TB Main Bus No. 2A-1 and TB Res. Bus Nos. 3B and 3B-1.~~ — LA.1

4.9 - SURVEILLANCE REQUIREMENTS

F. Distribution - Shutdown

SR 3.8.8.1 Each of the required power distribution system divisions shall be determined energized at least once per 7 days by verifying correct breaker alignment and voltage on the busses/MCCs/panels.

3.9 - LIMITING CONDITIONS FOR OPERATION

4.9 - SURVEILLANCE REQUIREMENTS

APPLICABILITY:

OPERATIONAL MODE(s) 4, 5, and when handling irradiated fuel in the secondary containment.

add proposed ACTIONS Note M.2

ACTIONS:

one or more

ACTION A With ~~less than the~~ above required A.C. or D.C. distribution systems energized, suspend CORE ALTERATIONS, suspend handling of irradiated fuel in the secondary containment, and suspend operations with a potential for draining the reactor vessel.

add proposed Required Action A.1 M.1

add proposed Required Actions A.2.4 and A.2.5 M.3

A.1

3.9 - LIMITING CONDITIONS FOR OPERATION

G. RPS Electric Power Monitoring

LCO 3.3.8.2 Two Reactor Protection System (RPS) electric power monitoring ~~CHANNEL(s)~~ assemblies for each inservice RPS Motor Generator (MG) set or alternate power supply shall be OPERABLE.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, ~~3, 4[b]~~ and 5[a]. L.1 L.3

ACTION:

ACTION A 1. With one RPS electric power monitoring ~~CHANNEL~~ assembly for an inservice RPS MG set or alternate power supply inoperable, ~~restore the inoperable power monitoring CHANNEL to OPERABLE status~~ within 72 hours ~~or~~ remove the associated RPS MG set or alternate power supply from service. A.2

ACTION B 2. With both RPS electric power monitoring ~~CHANNEL(s)~~ assemblies for an inservice RPS MG set or alternate power supply inoperable, ~~restore at least one electric power monitoring CHANNEL to OPERABLE status~~ within ~~30 minutes~~ 1 hour ~~or~~ remove the associated RPS MG set or alternate power supply from service. A.2 L.2

add proposed ACTION C — A.3

add proposed ACTION D — L.4

4.9 - SURVEILLANCE REQUIREMENTS

G. RPS Electric Power Monitoring

The specified RPS electric power monitoring ~~CHANNEL(s)~~ assemblies shall be determined OPERABLE:

SR 3.3.8.2.1 1. By performance of a CHANNEL FUNCTIONAL TEST[b] each time the plant is in COLD SHUTDOWN for a period of more than 24 hours, unless performed in the previous 6 months.

SR 3.3.8.2.2, SR 3.3.8.2.3 2. At least once per ~~18~~ 24 months by demonstrating the OPERABILITY of overvoltage, undervoltage, and underfrequency protective instrumentation by performance of a (SR 3.3.8.2.2) CHANNEL CALIBRATION ~~including~~ (SR 3.3.8.2.3) simulated automatic actuation of the protective relays, tripping logic, and output circuit breakers, ~~and verifying the following~~ ~~setpoints~~ Allowable Values: LD.1 LE.1 A.4

(SR 3.3.8.2.2)

a. Overvoltage ≤ 129.6 volts AC with time delay set to ≤ 4 seconds LF.1 <OI 138> M.2

b. Undervoltage ≥ 105.3 volts AC with time delay set to ≤ 4 seconds LF.1 <OI 139> M.2

c. Underfrequency ≥ 55.4 Hz with time delay set to ≤ 4 seconds LF.1 <OI 140> M.2

---

a With any control rod withdrawn from a core cell containing one or more fuel assemblies. L.3

b Only required to be performed prior to entering MODE 2 ~~or 3~~ from MODE 3 or 4. L.1

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A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

A. Reactor Mode Switch

moved to ITS 3.9.2 A.2

The reactor mode switch shall be OPERABLE and locked in the Shutdown or Refuel position. When the reactor mode switch is locked in the Refuel position:

Applicability

1. A control rod shall not be withdrawn unless the Refuel position one-rod-out interlock is OPERABLE.

2. ~~CORE ALTERATION(s)~~ *In-vessel fuel movement* A.3 shall not be performed using equipment associated with a Refuel position interlock unless at least the following associated Refuel position interlocks are OPERABLE for such equipment.

LCO 3.9.1

SR 3.9.1.1

a a. All rods in.

b b. Refuel platform position. A.4

c, e, f c. Refuel platform hoists fuel-loaded.

d d. Fuel grapple position.

g *e. Service platform hoist fuel loaded.* M.1

APPLICABILITY: A.5

OPERATIONAL MODE(s) 3[(a)], 4[(a)] and 5[(b)(c)]. A.6 moved to ITS 3.10.2 and ITS 3.10.3 A.7 A.8

ACTION:

1. With the reactor mode switch not locked in the Shutdown or Refuel position as specified, suspend CORE ALTERATION(s) and lock the reactor mode switch in the Shutdown or Refuel position. A.2 moved to ITS 3.9.2

4.10 - SURVEILLANCE REQUIREMENTS

A. Reactor Mode Switch

1. The reactor mode switch shall be verified to be locked in the Shutdown or Refuel position as specified: A.2 moved to ITS 3.9.2

   a. Within 2 hours prior to:

      1. Beginning CORE ALTERATION(s), and

      2. Resuming CORE ALTERATION(s) when the reactor mode switch has been unlocked.

   b. At least once per 12 hours.

2. Each of the required reactor mode switch Refuel position interlocks[(a)] shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST ~~within 24 hours prior to the start of and~~ at least once per 7 days ~~during control rod withdrawal or CORE ALTERATION(s)~~, *in-vessel fuel movement* as applicable. SR 3.9.1.1 A.6 moved to ITS 3.10.1 L.1 A.2 moved to ITS 3.9.2 A.3

3. ~~Each of the required reactor mode switch Refuel position interlocks[(a)] that is affected shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST prior to resuming control rod withdrawal or~~ L.2

a When the reactor mode switch is in the Refuel position. A.6 moved to ITS 3.10.2 and ITS 3.10.3

~~b See Special Test Exceptions 3.12.A and 3.12.B.~~ A.7

~~c The reactor shall be maintained in OPERATIONAL MODE 5 whenever fuel is in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.~~ A.8

d The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that all control rods are verified to remain fully inserted by a second licensed operator or other technically qualified individual. A.6 moved to ITS 3.10.1

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

A. Reactor Mode Switch A.2 L.1

~~The reactor mode switch shall be OPERABLE and locked in the Shutdown or Refuel position.~~ When the reactor mode switch is locked in the Refuel position: <covered by SR 3.9.2.1>

Applicability

LCO 3.9.2

1. A control rod shall not be withdrawn unless the Refuel position one-rod-out interlock is OPERABLE.

2. CORE ALTERATION(s) shall not be performed using equipment associated with a Refuel position interlock unless at least the following associated Refuel position interlocks are OPERABLE for such equipment. A.3 moved to ITS 3.9.1

   a. All rods in.
   b. Refuel platform position.
   c. Refuel platform hoists fuel-loaded.
   d. Fuel grapple position.

APPLICABILITY: A.4

OPERATIONAL MODE(s) 3[a], 4[a] and 5[b](c). A.5 moved to ITS 3.10.2 and ITS 3.10.3 A.6 A.7

ACTION:

Action A

1. With the reactor mode switch not locked in the Shutdown or Refuel position as specified, ~~suspend CORE ALTERATION(s) and lock the reactor mode switch in the Shutdown or Refuel position.~~ L.1 L.2 L.1

4.10 - SURVEILLANCE REQUIREMENTS

A. Reactor Mode Switch

SR 3.9.2.1

1. The reactor mode switch shall be verified to be locked in the Shutdown or Refuel position as specified: L.1

   ~~a. Within 2 hours prior to:~~

   ~~1) Beginning CORE ALTERATION(s), and~~

   ~~2. Resuming CORE ALTERATION(s) when the reactor mode switch has been unlocked.~~ L.3

   add proposed Note to SR 3.9.2.2 L.4

   b. At least once per 12 hours.

SR 3.9.2.2

2. Each of the required reactor mode switch Refuel position interlocks[(d)] shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST ~~within 24 hours prior to the start of and~~ at least once per 7 days during control rod withdrawal or CORE ALTERATION(s), as applicable. A.5 moved to ITS 3.10.1 L.3 A.3 moved to ITS 3.9.1

~~3. Each of the required reactor mode switch Refuel position interlocks[(d)] that is affected shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST prior to resuming control rod withdrawal or~~ L.5

---

a When the reactor mode switch is in the Refuel position. A.5 moved to ITS 3.10.2 and ITS 3.10.3

~~b See Special Test Exceptions 3.12.A and 3.12.B.~~ A.6

~~c The reactor shall be maintained in OPERATIONAL MODE 5 whenever fuel is in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.~~ A.7

d The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that all control rods are verified to remain fully inserted by a second licensed operator or other technically qualified individual. A.5 moved to ITS 3.10.2

A.1

See ITS 3.9.1 and ITS 3.9.2

3.10 - LIMITING CONDITIONS FOR OPERATION

A. Reactor Mode Switch

The reactor mode switch shall be OPERABLE and locked in the Shutdown or Refuel position. When the reactor mode switch is locked in the Refuel position:

1. A control rod shall not be withdrawn unless the Refuel position one-rod-out interlock is OPERABLE.

2. CORE ALTERATION(s) shall not be performed using equipment associated with a Refuel position interlock unless at least the following associated Refuel position interlocks are OPERABLE for such equipment.

   a. All rods in.
   b. Refuel platform position.
   c. Refuel platform hoists fuel-loaded.
   d. Fuel grapple position.

APPLICABILITY:

OPERATIONAL MODE(s) 3[a], 4[a] and 5[b][c].

ACTION:

1. With the reactor mode switch not locked in the Shutdown or Refuel position as specified, suspend CORE ALTERATION(s) and lock the reactor mode switch in the Shutdown or Refuel position.

4.10 - SURVEILLANCE REQUIREMENTS

A. Reactor Mode Switch

1. The reactor mode switch shall be verified to be locked in the Shutdown or Refuel position as specified:

   a. Within 2 hours prior to:

      1. Beginning CORE ALTERATION(s), and

      2. Resuming CORE ALTERATION(s) when the reactor mode switch has been unlocked.

   b. At least once per 12 hours.

LCO 3.10.1
2. Each of the required reactor mode switch Refuel position interlocks[d] shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST within 24 hours prior to the start of and at least once per 7 days during control rod withdrawal or CORE ALTERATION(s), as applicable.

LCO 3.10.1
3. Each of the required reactor mode switch Refuel position interlocks[d] that is affected shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST prior to resuming control rod withdrawal or

a When the reactor mode switch is in the Refuel position.

b See Special Test Exceptions 3.12.A and 3.12.B.

c The reactor shall be maintained in OPERATIONAL MODE 5 whenever fuel is in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

LCO 3.10.1 d The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that all control rods ~~are verified to~~ remain fully inserted ~~by a second licensed operator or other technically qualified individual.~~

LA.1

L.1

Applicability of MODES 3, 4, and 5

add proposed LCO 3.10.2.b

in core cells containing one or more fuel assemblies

add proposed ACTION and Surveillance Requirements

M.1

A.1

ITS 3.10.2

3.10 - LIMITING CONDITIONS FOR OPERATION

A. Reactor Mode Switch

LCO 3.10.2 The reactor mode switch shall be OPERABLE ~~and locked~~ in the ~~Shutdown or~~ Refuel position. When the reactor mode switch is ~~locked~~ in the Refuel position: L.1

LCO 3.10.2.a 1. A control rod shall not be withdrawn unless the Refuel position one-rod-out interlock is OPERABLE.

2. CORE ALTERATION(s) shall not be performed using equipment associated with a Refuel position interlock unless at least the following associated Refuel position interlocks are OPERABLE for such equipment.

   a. All rods in.
   b. Refuel platform position.
   c. Refuel platform hoists fuel-loaded.
   d. Fuel grapple position.

APPLICABILITY:

OPERATIONAL MODE(s) 3[a], 4[a] and 5[a][b][c].

ACTION:

1. With the reactor mode switch not locked in the Shutdown or Refuel position as specified, suspend CORE ALTERATION(s) and lock the reactor mode switch in the Shutdown or Refuel position.

4.10 - SURVEILLANCE REQUIREMENTS

Add proposed SR 3.10.2.1

A. Reactor Mode Switch

1. The reactor mode switch shall be verified to be ~~locked~~ in the ~~Shutdown or~~ Refuel position as specified: L.1

   a. Within 2 hours prior to:

      1. Beginning CORE ALTERATION(s), and

      2. Resuming CORE ALTERATION(s) when the reactor mode switch has been unlocked.

   b. At least once per 12 hours.

2. Each of the required reactor mode switch Refuel position interlocks[d] shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST within 24 hours prior to the start of and at least once per 7 days during control rod withdrawal or CORE ALTERATION(s), as applicable. A.3

3. Each of the required reactor mode switch Refuel position interlocks[d] that is affected shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST prior to resuming control rod withdrawal or

See ITS 3.9.1 and ITS 3.9.2

Applicability a When the reactor mode switch is in the Refuel position.

b See Special Test Exceptions 3.12.A and 3.12.B.

c The reactor shall be maintained in OPERATIONAL MODE 5 whenever fuel is in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

d The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that all control rods are verified to remain fully inserted by a second licensed operator or other technically qualified individual.

3.10 - LIMITING CONDITIONS FOR OPERATION

A. Reactor Mode Switch

L.1

LCO 3.10.3

The reactor mode switch shall be OPERABLE ~~and locked~~ in the Shutdown or Refuel position. When the reactor mode switch is locked in the Refuel position:

1. A control rod shall not be withdrawn unless the Refuel position one-rod-out interlock is OPERABLE.

2. CORE ALTERATION(s) shall not be performed using equipment associated with a Refuel position interlock unless at least the following associated Refuel position interlocks are OPERABLE for such equipment.

   a. All rods in.
   b. Refuel platform position.
   c. Refuel platform hoists fuel-loaded.
   d. Fuel grapple position.

APPLICABILITY:

OPERATIONAL MODE(s) 3[a], 4[a] and 5[a][c].

ACTION:

1. With the reactor mode switch not locked in the Shutdown or Refuel position as specified, suspend CORE ALTERATION(s) and lock the reactor mode switch in the Shutdown or Refuel position.

4.10 - SURVEILLANCE REQUIREMENTS

A. Reactor Mode Switch

add proposed SR 3.10.3.1

L.1

A.8

1. The reactor mode switch shall be verified to be locked in the Shutdown or Refuel position as specified:

   a. Within 2 hours prior to:

      1. Beginning CORE ALTERATION(s), and

      2. Resuming CORE ALTERATION(s) when the reactor mode switch has been unlocked.

   b. At least once per 12 hours.

2. Each of the required reactor mode switch Refuel position interlocks[d] shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST within 24 hours prior to the start of and at least once per 7 days during control rod withdrawal or CORE ALTERATION(s), as applicable.

3. Each of the required reactor mode switch Refuel position interlocks[d] that is affected shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST prior to resuming control rod withdrawal or

See ITS 3.9.1

Applicability

a When the reactor mode switch is in the Refuel position.

b See Special Test Exceptions 3.12.A and 3.12.B.

c The reactor shall be maintained in OPERATIONAL MODE 5 whenever fuel is in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

d The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that all control rods are verified to remain fully inserted by a second licensed operator or other technically qualified individual.

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

2. With the one-rod-out interlock inoperable, lock the reactor mode switch in the Shutdown position. A.2 moved to ITS 3.9.2

ACTION A 3. With any of the above required Refuel position equipment interlocks inoperable, suspend CORE ALTERATION(s) with equipment associated with the inoperable Refuel position equipment interlock. in-vessel fuel movement A.3 add proposed Required Actions A.2.1 and A.2.2 L.3

4.10 - SURVEILLANCE REQUIREMENTS

~~CORE ALTERATION(s), as applicable, following repair, maintenance or replacement of any component that could affect the Refuel position interlock.~~ L.2

3.10 - LIMITING CONDITIONS FOR OPERATION

2. With the one-rod-out interlock inoperable, ~~lock the reactor mode switch in the Shutdown position.~~ L.2

ACTION A

3. With any of the above required Refuel position equipment interlocks inoperable, suspend CORE ALTERATION(s) with equipment associated with the inoperable Refuel position equipment interlock. A.3

Moved to ITS 3.9.1

4.10 - SURVEILLANCE REQUIREMENTS

~~CORE ALTERATION(s), as applicable, following repair, maintenance or replacement of any component that could affect the Refuel position interlock.~~ L.5

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

A.2 place Required Action A.2.2

2. With the one-rod-out interlock inoperable, ~~lock~~ the reactor mode switch in the Shutdown position.

3. With any of the above required Refuel position equipment interlocks inoperable, suspend CORE ALTERATION(s) with equipment associated with the inoperable Refuel position equipment interlock.

See ITS 3.9.1 and ITS 3.9.2

4.10 - SURVEILLANCE REQUIREMENTS

CORE ALTERATION(s), as applicable, following repair, maintenance or replacement of any component that could affect the Refuel position interlock. A.3

3.10 - LIMITING CONDITIONS FOR OPERATION

A.9 — place
Required ACTION A.2.2

2. With the one-rod-out interlock inoperable, lock the reactor mode switch in the Shutdown position.

3. With any of the above required Refuel position equipment interlocks inoperable, suspend CORE ALTERATION(s) with equipment associated with the inoperable Refuel position equipment interlock.

See ITS 3.9.1

4.10 - SURVEILLANCE REQUIREMENTS

CORE ALTERATION(s), as applicable, following repair, maintenance or replacement of any component that could affect the Refuel position interlock. — A.8

3.10 - LIMITING CONDITIONS FOR OPERATION

B. Instrumentation

LCO 3.3.1.2 and Table 3.3.1.2-1 — At least 2 source range monitor[a] (SRM) CHANNEL(s) shall be OPERABLE ~~and inserted to the normal operating level with:~~ LA.2

~~1. Continuous visual indication in the control room, and~~

SR 3.3.1.2.2.b and c — 2. One of the required SRM detectors located in the quadrant where CORE ALTERATION(s) are being performed and the other required SRM detector located in an adjacent quadrant.

APPLICABILITY: add proposed Note b to Table 3.3.1.2-1 — L.7

Table 3.3.1.2-1 — OPERATIONAL MODE 5~~, unless the following conditions are met:~~

~~1. No more than two fuel assemblies are present in each core quadrant associated with an SRM;~~ M.2

4.10 - SURVEILLANCE REQUIREMENTS

B. Instrumentation

Each of the required SRM channels shall be demonstrated OPERABLE by:

1. At least once per 12 hours:

   SR 3.3.1.2.1 — a. Performance of a CHANNEL CHECK.

   ~~b. Verifying the detectors are inserted to the normal operating level, and~~ LA.2

   M.3 — add proposed SR 3.3.1.2.2.a and SR 3.3.1.2.2 Note 2

   c. SR 3.3.1.2.2 Note 1 — During CORE ALTERATION(s), SR 3.3.1.2.2.b and c — verifying that the detector of an OPERABLE SRM CHANNEL is located in the core quadrant where CORE ALTERATION(s) are being performed and another is located in an adjacent quadrant.

SR 3.3.1.2.5 — 2. Performance of a CHANNEL FUNCTIONAL TEST~~:~~ and determination of signal to noise ratio — M.5

   ~~a. Within 24 hours prior to the start of CORE ALTERATION(s), and~~ L.3

   b. At least once per 7 days. — add proposed SR 3.3.1.2.4 Note — L.4

SR 3.3.1.2.4 — 3. Verifying that the channel count rate is at least 3 cps~~:~~ or ≥ 0.7 cps with a signal to noise ratio ≥ 20:1 — L.8

   ~~a. Prior to control rod withdrawal,~~ L.3

   b. Prior to and at least once per 12 hours during CORE ALTERATION(s),

   c. At least once per 24 hours.

add proposed SR 3.3.1.2.7 — M.4

Table 3.3.1.2-1 Note c — a The use of special movable detectors during CORE ALTERATION(s) in place of the normal SRM neutron detectors is permissible as long as these special detectors are connected to the normal SRM circuits.

3.10 - LIMITING CONDITIONS FOR OPERATION | **4.10 - SURVEILLANCE REQUIREMENTS**

2. While in the core, these two fuel assemblies are in locations adjacent to the SRM; and M.2

3. In the case of movable detectors, each group of fuel assemblies shall be separated by at least two fuel cell locations from any other fuel assemblies. LA3

ACTION:

ACTION E With the requirements of the above specification not satisfied, immediately suspend all operations involving CORE ALTERATION(s) except for control rod insertion A.4 and initiate action to L.5 fully insert all insertable control rods in core cells containing one or more fuel assemblies L.6.

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

C. Control Rod Position

A.2

LCO 3.9.3 All control rods shall be fully inserted[a].

APPLICABILITY:

OPERATIONAL MODE 5 ~~during CORE ALTERATION(s)~~[b]. when loading fuel assemblies into the core — L.1

ACTION:

ACTION A With all control rods not fully inserted, suspend ~~all other CORE ALTERATION(s)~~, ~~except that one control rod may be withdrawn under control of the reactor mode switch Refuel position one-rod-out interlock~~. — A.2

loading fuel assemblies into the core — L.1

4.10 - SURVEILLANCE REQUIREMENTS

C. Control Rod Position

SR 3.9.3.1 All control rods shall be verified to be fully inserted, except as specified:

1. ~~Within 2 hours prior to:~~
   a. ~~The start of CORE ALTERATION(s).~~ — L.2
   b. ~~The withdrawal of one control rod under the control of the reactor mode switch Refuel position one-rod-out interlock.~~ — A.2
2. At least once per 12 hours.

---

a ~~Except control rods removed per Specification 3.10.I or 3.10.J or one control rod withdrawn under control of the reactor mode switch refuel position one-rod-out interlock.~~ — A.2

b ~~See Special Test Exception 3.12.B~~

3.10 - LIMITING CONDITIONS FOR OPERATION	4.10 - SURVEILLANCE REQUIREMENTS
E. Communications	E. Communications
Direct communication shall be maintained between the control room and refueling platform personnel.	Direct communication between the control room and refueling platform personnel shall be demonstrated within one hour prior to the start of and at least once per 12 hours during CORE ALTERATION(s).
APPLICABILITY:	
OPERATIONAL MODE 5, during CORE ALTERATION(s)[a].	
ACTION:	
When direct communication between the control room and refueling platform personnel cannot be maintained, immediately suspend CORE ALTERATION(s).	

R.1

a Except movement of control rods with their normal drive system.

R.1

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

G. Water Level - Reactor Vessel

LCD 3.9.6 At least 23 feet of water shall be maintained over the top of the reactor pressure vessel flange.

APPLICABILITY:

new fuel requirements only moved to ITS 3.9.7

During handling of fuel assemblies or control rods within the reactor pressure vessel while in OPERATIONAL MODE 5 when the fuel assemblies or control rods being handled are irradiated or the fuel assemblies or control rods seated within the reactor vessel are irradiated.

A.2 moved to ITS 3.9.7

A.3

A.2 moved to ITS 3.9.7

ACTION:

ACTION A With the requirements of the above specification not satisfied, suspend all operations involving handling of fuel assemblies or control rods within the reactor pressure vessel after placing all fuel assemblies and control rods in a safe condition.

new fuel requirements only moved to ITS 3.9.7

A.2 moved to ITS 3.9.7

LA.1

4.10 - SURVEILLANCE REQUIREMENTS

G. Water Level - Reactor Vessel

SR 3.9.6.1 The reactor vessel water level shall be determined to be at least its minimum required depth within 2 hours prior to the start of and at least once per 24 hours during handling of fuel assemblies or control rods within the reactor pressure vessel.

L.1

A.2 moved to ITS 3.9.7

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

G. Water Level - Reactor Vessel

LCO 3.9.7 At least 23 feet of water shall be maintained over the top of the irradiated fuel assemblies seated within the reactor pressure vessel ~~flange~~. L.1

APPLICABILITY:

During handling of new fuel assemblies or control rods within the reactor pressure vessel ~~while in OPERATIONAL MODE 5~~ A.2 when ~~the fuel assemblies or control rods being handled are irradiated or~~ L.1 the fuel assemblies ~~or control rods~~ seated within the reactor vessel are irradiated.

ACTION:

ACTION A With the requirements of the above specification not satisfied, suspend all operations involving handling of new L.1 fuel assemblies or control rods within the reactor pressure vessel ~~after placing all fuel assemblies and control rods in a safe condition~~. LA.1

4.10 - SURVEILLANCE REQUIREMENTS

G. Water Level - Reactor Vessel

SR 3.9.7.1 The reactor vessel water level shall be determined to be at least its minimum required depth ~~within 2 hours prior to the start of and~~ L.2 at least once per 24 hours during handling of new L.1 fuel assemblies or control rods within the reactor pressure vessel.

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

H. Water Level - Spent Fuel Storage Pool

LCO 3.7.8 The pool water level shall be maintained at a level of ≥ ~~33~~ 19 feet over the top of irradiated fuel assemblies seated in the spent fuel storage pool racks. M.1

APPLICABILITY: A.2

~~Whenever~~ During movement of irradiated fuel assemblies are in the spent fuel storage pool. During movement of new fuel assemblies in the spent fuel storage pool with irradiated fuel assemblies seated in the spent fuel storage pool.

ACTION:

ACTION A With the requirements of the above specification not satisfied, suspend all movement of fuel assemblies ~~and crane operations with loads~~ LA.1 in the spent fuel storage pool ~~area after placing the fuel assemblies~~ LA.2 ~~and crane load~~ ~~in a safe condition~~ LA.1. The provisions of Specification 3.0.C are not applicable.

4.10 - SURVEILLANCE REQUIREMENTS

H. Water Level - Spent Fuel Storage Pool

SR 3.7.8.1 The water level in the spent fuel storage pool shall be determined to be at least at its minimum required depth at least once per 7 days.

A.1

REFUELING OPERATIONS

3.10 - LIMITING CONDITIONS FOR OPERATION

I. Single Control Rod Removal

LCO 3.10.3 One control rod and/or the associated control rod drive mechanism may be removed from the core ~~and/or reactor pressure vessel~~ provided that at least the following requirements are satisfied ~~until a control rod and associated control rod drive mechanism are reinstalled and the control rod is fully inserted in the core~~. A.2

L.1

1. The reactor mode switch is ~~OPERABLE and locked~~ ~~in the Shutdown position or~~ in the Refuel position ~~per Table 1-2 and Specification 3.10.A~~.

A.3 ~~2. The source range monitors (SRM) are OPERABLE per Specification 3.10.B.~~

L.2 add proposed LCO 3.10.3.c.1

LCO 3.10.3.c.2 3. The SHUTDOWN MARGIN requirements of Specification 3.3.A are satisfied, except that the control rod selected to be removed;

a. May be assumed to be the highest worth control rod ~~required to be assumed to be fully withdrawn by the SHUTDOWN MARGIN test, and~~ A.4

~~b. Need not be assumed to be immovable or unscrammable.~~

4. All other control rods in a five-by-five array centered on the control rod being removed are either:

LA.1 LCO 3.10.3.a a. Fully inserted and ~~electrically or hydraulically disarmed~~, ~~or~~

LCO 3.10.3.c.2 A.5 ~~b. The four fuel assemblies surrounding the control rod or control rod drive mechanism to be removed from the core and/or reactor vessel are removed from the core cell.~~

4.10 - SURVEILLANCE REQUIREMENTS

I. Single Control Rod Removal

SR 3.10.3.2 and SR 3.10.3.3 ~~Within 4 hours prior to the start of removal of a control rod and/or the associated control rod drive mechanism from the core and/or reactor pressure vessel and at least~~ once per 24 hours thereafter ~~until a control rod and associated control rod drive mechanism are reinstalled and the control rod is fully inserted in the core,~~ verify that: L.3 A.2

1. ~~The reactor mode switch is OPERABLE per Surveillance Requirement 4.1.A.1 or 4.10.A.2, as applicable, and locked in the Shutdown position or in the Refuel position with~~ the "one-rod-out" L.1

SR 3.10.3.1 Refuel position interlock OPERABLE per Specification 3.10.A.

~~2. The SRM CHANNEL(s) are OPERABLE per Specification 3.10.B.~~ A.3

3. The SHUTDOWN MARGIN

SR 3.10.3.1 requirements of Specification 3.3.A are satisfied per Specification 3.10.I.3.

add proposed 3.10.3.2 Note A.6

SR 3.10.3.2 4. All other control rods in a five-by-five array centered on the control rod being removed are either:

SR 3.10.3.2 SR 3.10.3.3 a. Fully ~~inserted~~ and ~~electrically or hydraulically~~ disarmed, or LA.1

~~b. The four fuel assemblies surrounding the control rod or control rod drive mechanism to be removed from the core and/or reactor vessel are removed from the core cell.~~ A.5

SR 3.10.3.3 5. All other control rods are fully inserted.

add proposed SR 3.10.3.1 and SR 3.10.3.4 L.2

See ITS 3.10.4

3.10 - LIMITING CONDITIONS FOR OPERATION

I. Single Control Rod Removal

LCO 3.10.4 One control rod and/or the associated control rod drive mechanism may be removed from the core and/or reactor pressure vessel provided that at least the following requirements are satisfied ~~until a control rod and associated control rod drive mechanism are reinstalled and the control rod is fully inserted in the core.~~ A.2

L.1 ~~1. The reactor mode switch is OPERABLE and locked in the Shutdown position or in the Refuel position per Table 1-2 and Specification 3.10.A.~~

A.3 ~~2. The source range monitors (SRM) are OPERABLE per Specification 3.10.B.~~

LCO 3.10.4.c 3. The SHUTDOWN MARGIN requirements of Specification 3.3.A are satisfied, except that the control rod selected to be removed;

a. May be assumed to be the highest worth control rod ~~required to be assumed to be fully withdrawn by the SHUTDOWN MARGIN test, and~~

A.4 ~~b. Need not be assumed to be immovable or unscrammable.~~

LCO 3.10.4.b 4. All other control rods in a five-by-five array centered on the control rod being removed are either:

LA.1
LCO 3.10.4.a, LCO 3.10.4.b a. Fully inserted and ~~electrically or hydraulically~~ disarmed, ~~or~~

A.5 ~~b. The four fuel assemblies surrounding the control rod or control rod drive mechanism to be removed from the core and/or reactor vessel are removed from the core cell.~~

M.1 add proposed LCO 3.10.4.c (first part) and LCO 3.10.4.d

4.10 - SURVEILLANCE REQUIREMENTS

I. Single Control Rod Removal

SR 3.10.4.1, SR 3.10.4.2, SR 3.10.4.4 ~~Within 4 hours prior to the start of removal of a control rod and/or the associated control rod drive mechanism from the core and/or reactor pressure vessel and~~ at least once per 24 hours thereafter ~~until a control rod and associated control drive mechanism are reinstalled and the control rod is fully inserted in the core, verify that:~~ L.2 A.2

1. ~~The reactor mode switch is OPERABLE per Surveillance Requirement 4.1.A.1 or 4.10.A.2, as applicable, and locked in the Shutdown position or in the~~ Refuel position with the "one-rod-out" Refuel position interlock OPERABLE per Specification 3.10.A. L.1 M.1

~~2. The SRM CHANNEL(s) are OPERABLE per Specification 3.10.B.~~ A.3

3. The SHUTDOWN MARGIN
SR 3.10.4.4 requirements of Specification 3.3.A are satisfied per Specification 3.10.I.3.

4. All other control rods in a five-by-five
SR 3.10.4.2 array centered on the control rod being removed are either:

SR 3.10.4.1 a. Fully inserted and ~~electrically or hydraulically~~ disarmed, ~~or~~ LA.1

~~b. The four fuel assemblies surrounding the control rod or control rod drive mechanism to be removed from the core and/or reactor vessel are removed from the core cell.~~ A.5

SR 3.10.4.1
5. All other control rods are fully inserted.

add proposed SR 3.10.4.3 and SR 3.10.4.5 M.1

3.10 - LIMITING CONDITIONS FOR OPERATION

4.10 - SURVEILLANCE REQUIREMENTS

LCO 3.10.3.a 5. All other control rods are fully inserted.

APPLICABILITY:

OPERATIONAL MODE(s) 4 and 5. <see ITS 3.10.4>

add proposed ACTIONS Note A.6

A.7 ACTION:

add proposed Required Action A.1 Notes

Actions A and B With the requirements of the above specification not satisfied, suspend removal of the control rod and/or associated control rod drive mechanism from the core and/or reactor pressure vessel and initiate ACTION to satisfy the above requirements.

add proposed Required Actions A.2.1, A.2.2, and B.2.1 M.1

3.10 - LIMITING CONDITIONS FOR OPERATION

4.10 - SURVEILLANCE REQUIREMENTS

LCO 3.10.4.a 5. All other control rods are fully inserted.

APPLICABILITY:

OPERATIONAL MODE(s) 4 and 5 with LCO 3.9.5 not met A.6

See ITS 3.10.3

ACTION:

ACTION A With the requirements of the above specification not satisfied, suspend removal of the control rod and/or associated control rod drive mechanism from the core and/or reactor pressure vessel and initiate ACTION to satisfy the above requirements.

A.7 add proposed Required Action A.2.1

3.10 - LIMITING CONDITIONS FOR OPERATION

J. Multiple Control Rod Removal

LCO 3.10.5 Any number of control rods and/or control rod drive mechanisms may be removed from the core and/or reactor pressure vessel provided that at least the following requirements are satisfied ~~until all control rods and control rod drive mechanisms are reinstalled and all control rods are fully inserted in the core.~~ A.2

L.1 1. ~~The reactor mode switch is OPERABLE and locked in the Shutdown position or in the Refuel position per Specification 3/10.A.~~ except that the Refuel position "one-rod-out" interlock may be bypassed, as required, for those control rods and/or control rod drive mechanisms to be removed, after the fuel assemblies have been removed as specified below. LCO 3.10.5

A.3 2. ~~The source range monitors (SRM) are OPERABLE per Specification 3.10.B.~~

A.4 3. ~~The SHUTDOWN MARGIN requirements of Specification 3.3.A are satisfied.~~

LCO 3.10.5.b 4. All other control rods are either fully inserted or have the surrounding four fuel assemblies removed from the core cell.

LCO 3.10.5.a 5. The four fuel assemblies surrounding each control rod or control rod drive mechanism to be removed from the core and/or reactor vessel are removed from the core cell.

M.1 add proposed LCO 3.10.5.c

A.5 APPLICABILITY:

OPERATIONAL MODE 5~~.~~ with LCO 3.9.3, LCO 3.9.4, or LCO 3.9.5 not met

4.10 - SURVEILLANCE REQUIREMENTS

J. Multiple Control Rod Removal

1. ~~Within 4 hours prior to the start of removal of control rods and/or control rod drive mechanisms from the core and/or reactor pressure vessel~~ and at least once per 24 hours thereafter ~~until all control rods and control rod drive mechanisms are reinstalled and all control rods are fully inserted in the core,~~ verify that: L.2 SR 3.10.5.1 SR 3.10.5.2 A.2

a. ~~The reactor mode switch is OPERABLE per Surveillance Requirement 4.1.A.1 or 4.10.A.2, as applicable, and locked in the Shutdown position or in the Refuel position per Specification 3.10.A.~~ L.1

b. ~~The SRM CHANNEL(s) are OPERABLE per Specification 3.10.B.~~ A.3

c. ~~The SHUTDOWN MARGIN requirements of Specification 3.3.A are satisfied.~~ A.4

SR 3.10.5.2 d. All other control rods are either fully inserted or have the surrounding four fuel assemblies removed from the core cell.

SR 3.10.5.1 e. The four fuel assemblies surrounding each control rod and/or control rod drive mechanism to be removed from the core and/or reactor vessel are removed from the core cell.

3.10 - LIMITING CONDITIONS FOR OPERATION

ACTION:

ACTION A

With the requirements of the above specification not satisfied, suspend removal of control rods and/or control rod drive mechanisms from the core and/or reactor pressure vessel and initiate ACTION to satisfy the above requirements.

M.1 add proposed Required Action A.2

A.6 add proposed Required Action A.3.1

4.10 - SURVEILLANCE REQUIREMENTS

~~2. Following replacement of all control rods and/or control rod drive mechanisms removed in accordance with this specification, perform a functional test of the "one-rod-out" Refuel position interlock, if this function had been bypassed.~~ L.3

add proposed SR 3.10.5.3 M.1

A.1

3.10 - LIMITING CONDITIONS FOR OPERATION

K. Shutdown Cooling and Coolant Circulation - High Water Level

LCO 3.9.8 At least one shutdown cooling (SDC) loop shall be OPERABLE and in operation[a] ~~, with at least:~~

~~1. One OPERABLE SDC pump, and~~

~~2. One OPERABLE SDC heat exchanger.~~ LA.1

APPLICABILITY:

OPERATIONAL MODE 5, when irradiated fuel is in the reactor vessel and the water level is ≥23 feet above the top of the reactor pressure vessel flange.

ACTION:

1. ACTION A With no SDC loop OPERABLE, within one hour and at least once per 24 hours thereafter, demonstrate the operability of at least one alternate method capable of decay heat removal. ACTION B Otherwise, suspend all operations involving an increase in the reactor decay heat load (A.2) and establish (A.3) SECONDARY CONTAINMENT INTEGRITY (A.4) within 4 hours.

2. ACTION C With no SDC loop in operation, within one hour establish reactor coolant circulation by an alternate method, monitor reactor coolant temperature at least once per hour, and verify reactor coolant circulation at least once per 12 hours.

4.10 - SURVEILLANCE REQUIREMENTS

K. Shutdown Cooling and Coolant Circulation - High Water Level

SR 3.9.8.1 At least one SDC loop shall be verified to be in operation ~~and circulating reactor coolant~~ LA.2 at least once per 12 hours.

LCO 3.9.8 Note a The shutdown cooling pump may be removed from operation for up to 2 hours per 8-hour period.

3.10 - LIMITING CONDITIONS FOR OPERATION

L. Shutdown Cooling and Coolant Circulation - Low Water Level

LCO 3.9.9 Two shutdown cooling (SDC) loops shall be OPERABLE and at least one loop shall be in operation[a], ~~with each loop consisting of at least:~~ LA.1

~~1. One OPERABLE SDC pump, and~~

~~2. One OPERABLE SDC heat exchanger.~~

APPLICABILITY:

OPERATIONAL MODE 5, when irradiated fuel is in the reactor vessel and the water level is <23 feet above the top of the reactor pressure vessel flange.

ACTION:

ACTION A 1. With less than the above required SDC loops OPERABLE, within one hour and at least once per 24 hours thereafter, demonstrate the OPERABILITY of at least one alternate method capable of decay heat removal for each inoperable SDC loop.

add proposed ACTION B M.1

ACTION C 2. With no SDC loop in operation, within one hour establish reactor coolant circulation by an alternate method, monitor reactor coolant temperature at least once per hour, and verify reactor coolant circulation at least once per 12 hours.

4.10 - SURVEILLANCE REQUIREMENTS

L. Shutdown Cooling and Coolant Circulation - Low Water Level

SR 3.9.9.1 At least one SDC loop shall be verified to be in operation ~~and circulating reactor coolant~~ at least once per 12 hours. LA.2

LCO 3.9.9 Note a The shutdown cooling pump may be removed from operation for up to 2 hours per 8-hour period.

3.11 - LIMITING CONDITIONS FOR OPERATION

LCO 3.2.1 A. AVERAGE PLANAR LINEAR HEAT GENERATION RATE

All AVERAGE PLANAR LINEAR HEAT GENERATION RATES (APLHGR) shall not exceed the limits specified in the CORE OPERATING LIMITS REPORT.

APPLICABILITY:

A.2 ~~OPERATIONAL MODE 1,~~ when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.

ACTION:

ACTION A With an APLHGR exceeding the limits specified in the CORE OPERATING LIMITS REPORT:

LA.1 ~~1. Initiate corrective action within 15 minutes, and~~

2. Restore APLHGR to within the required limit within 2 hours.

ACTION B With the provisions of the ACTION above not met, reduce THERMAL POWER to less than 25% of RATED THERMAL POWER within the next 4 hours.

4.11 - SURVEILLANCE REQUIREMENTS

A. AVERAGE PLANAR LINEAR HEAT GENERATION RATE

SR 3.2.1.1 The APLHGRs shall be verified to be equal to or less than the limits specified in the CORE OPERATING LIMITS REPORT.

1. At least once per 24 hours,

2. Within 12 hours after ~~completion of a~~ THERMAL POWER ~~increase of at least~~ ≥25 ~~15~~% of RATED THERMAL POWER, and L.1

~~3. Initially and at least once per 12 hours when the reactor is operating with a LIMITING CONTROL ROD PATTERN for APLHGR.~~ L.2

~~4. The provisions of Specification 4.0.D are not applicable.~~ L.1

A.1

ITS 3.2.4

APRM Gain and Setpoint A.2

3.11 - LIMITING CONDITIONS FOR OPERATION

B. ~~TRANSIENT LINEAR HEAT GENERATION RATE~~

LCO 3.2.4.a
LCO 3.2.4.b
LCO 3.2.4.c

The TRANSIENT LINEAR HEAT GENERATION RATE (TLHGR) shall be maintained such that the FUEL DESIGN LIMITING RATIO for CENTERLINE MELT (FDLRC) is less than or equal to 1.0~~,~~

A.3 ~~Where FDLRC is equal to:~~

~~(LHGR) (1.2)~~
~~(TLHGR) (FRTP)~~

APPLICABILITY:

A.4 ~~OPERATIONAL MODE 1,~~ when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.

ACTION:

ACTION A

LA.1 With FDLRC greater than 1.0, ~~initiate corrective ACTION within 15 minutes and~~ within 6 hours either:

1. Restore FDLRC to less than or equal to 1.0, or

A.5 Allowable Value

2. Adjust the flow biased APRM ~~setpoints~~ specified in Specifications 2.2.A and 3.2.E by 1/FDLRC, or

L.1

3. Adjust~~[a]~~ each APRM gain such that the APRM readings are ≥100% times the FRACTION OF RATED THERMAL POWER (FRTP) times FDLRC.

ACTION B

With the provisions of the ACTION above not met, reduce THERMAL POWER to less than 25% of RATED THERMAL POWER within the next 4 hours.

4.11 - SURVEILLANCE REQUIREMENTS

B. ~~TRANSIENT LINEAR HEAT GENERATION RATE~~

SR 3.2.4.1

The value of FDLRC shall be verified:

1. At least once per 24 hours,

2. Within 12 hours after ~~completion of a~~ THERMAL POWER ~~increase of at least 15%~~ ≥ 25% of RATED THERMAL POWER, and L.2

SR 3.2.4.2

3. Initially and at least once per 12 hours when the reactor is operating with FDLRC greater than or equal to 1.0.

~~4. The provisions of Specification 4.0.D are not applicable.~~

A.2

; or each required APRM Flow Biased Neutron Flux - High Function Allowable Value shall be modified by 1/FDLRC; or each required APRM gain shall be adjusted such that the APRM readings are ≥ 100% times the FRTP times FDLRC

~~a. Provided that the adjusted APRM reading does not exceed 100% of RATED THERMAL POWER and a notice of adjustment is posted on the reactor control panel.~~

Page 1 of 1

A.1

3.11 - LIMITING CONDITIONS FOR OPERATION

LCO 3.2.2 C. MINIMUM CRITICAL POWER RATIO

The MINIMUM CRITICAL POWER RATIO (MCPR) shall be equal to or greater than the MCPR operating limit specified in the CORE OPERATING LIMITS REPORT.

APPLICABILITY:

A.2 ~~OPERATIONAL MODE 1,~~ when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.

ACTION:

ACTION A With MCPR less than the applicable MCPR limit as determined for one of the conditions specified in the CORE OPERATING LIMITS REPORT:

LA.1 1. ~~Initiate corrective ACTION within 15 minutes, and~~

2. Restore MCPR to within the required limit within 2 hours.

ACTION B With the provisions of the ACTION above not met, reduce THERMAL POWER to less than 25% of RATED THERMAL POWER within the next 4 hours.

4.11 - SURVEILLANCE REQUIREMENTS

C. MINIMUM CRITICAL POWER RATIO

SR 3.2.1.1

MCPR shall be determined to be equal to or greater than the applicable MCPR operating limit specified in the CORE OPERATING LIMITS REPORT.

1. At least once per 24 hours,

2. Within 12 hours after ~~completion of a~~ THERMAL POWER ~~increase of at least~~ ≥ 25% ~~15%~~ of RATED THERMAL POWER, and L.1

3. ~~Initially and at least once per 12 hours when the reactor is operating with a LIMITING CONTROL ROD PATTERN for MCPR.~~ L.2

4. ~~The provisions of Specification 4.0.D are not applicable.~~ L.1

Add proposed SR 3.2.2.2 M.1

Page 1 of 1

ITS 3.2.3

A.1

3.11 - LIMITING CONDITIONS FOR OPERATION

LCO 3.2.3 D. STEADY STATE LINEAR HEAT GENERATION RATE

The LINEAR HEAT GENERATION RATE (LHGR) shall not exceed the STEADY STATE LINEAR HEAT GENERATION RATE (SLHGR) limits specified in the CORE OPERATING LIMITS REPORT.

APPLICABILITY:

A.2 ~~OPERATIONAL MODE 1~~ when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.

ACTION:

ACTION A With an LHGR exceeding the SLHGR limits specified in the CORE OPERATING LIMITS REPORT:

LA.1 1. Initiate corrective ACTION within 15 minutes, and

2. Restore the LHGR to within the SLHGR limit within 2 hours.

ACTION B With the provisions of the ACTION above not met, reduce THERMAL POWER to less than 25% of RATED THERMAL POWER within the next 4 hours.

4.11 - SURVEILLANCE REQUIREMENTS

SR 3.2.3.1 D. STEADY STATE LINEAR HEAT GENERATION RATE

The SLHGR shall be determined to be equal to or less than the limit:

1. At least once per 24 hours,

2. Within 12 hours after ~~completion of a~~ THERMAL POWER ~~increase of at least 15%~~ ≥ 25% of RATED THERMAL POWER, and L.1

3. ~~Initially and at least once per 12 hours when the reactor is operating with a LIMITING CONTROL ROD PATTERN for SLHGR.~~ L.2

4. ~~The provisions of Specification 4.0.D are not applicable.~~ L.1

Page 1 of 1

M.1

SPECIAL TEST EXCEPTIONS

PCI 3/4.12.A

3.12 - LIMITING CONDITIONS FOR OPERATION

A. PRIMARY CONTAINMENT INTEGRITY

The provisions of Specifications 3.7.A, 3.7.E and 3.10.A and Table 1-2 may be suspended to permit the reactor pressure vessel closure head and the drywell head to be removed and the primary containment air lock doors to be open when the reactor mode switch is in the Startup position during low power PHYSICS TESTS with THERMAL POWER less than 1% of RATED THERMAL POWER and reactor coolant temperature less than 212°F.

APPLICABILITY:

OPERATIONAL MODE 2, during low power PHYSICS TESTS.

ACTION:

With THERMAL POWER greater than or equal to 1% of RATED THERMAL POWER or with the reactor coolant temperature greater than or equal to 212°F, immediately place the reactor mode switch in the Shutdown position.

4.12 - SURVEILLANCE REQUIREMENTS

A. PRIMARY CONTAINMENT INTEGRITY

The THERMAL POWER and reactor coolant temperature shall be verified to be within the limits at least once per hour during low power PHYSICS TESTS.

A.1

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3.12 - LIMITING CONDITIONS FOR OPERATION

B. SHUTDOWN MARGIN Demonstrations

LCO 3.10.7

A.2

The provisions of ~~Specifications 3.10.A and 3.10.C~~ and Table 1-2 may be suspended to permit the reactor mode switch to be in the Startup position and to allow more than one control rod to be withdrawn for SHUTDOWN MARGIN demonstration, provided that at least the following requirements are satisfied.

A.3

~~1. The source range monitors are OPERABLE per Specification 3.10.B.~~

LCO 3.10.7.b

2. The rod worth minimizer is OPERABLE per Specification 3.3.L and is programmed for the SHUTDOWN MARGIN demonstration, or conformance with the SHUTDOWN MARGIN demonstration procedure is verified by a second licensed operator or other technically qualified individual.

A.4 add proposed LCO 3.10.7.c

LCO 3.10.7.d

3. The "rod-out-notch-override" control shall not be used during out-of-sequence movement of the control rods.

LCO 3.10.7.e

4. No other CORE ALTERATION(s) are in progress.

M.1 add proposed LCO 3.10.7.f

APPLICABILITY:

OPERATIONAL MODE 5~~, during SHUTDOWN MARGIN demonstrations~~.

A.5 with the reactor mode switch in startup/hot standby position

ACTION:

add proposed ACTION A A.4

ACTION B

With the requirements of the above specification not satisfied, immediately place the reactor mode switch in the Shutdown or Refuel position.

4.12 - SURVEILLANCE REQUIREMENTS

B. SHUTDOWN MARGIN Demonstrations

L.1

~~Within 30 minutes prior to and~~ at least once per 12 hours during the performance of a SHUTDOWN MARGIN demonstration, verify that:

A.3

~~1. The source range monitors are OPERABLE per Specification 3.10.B.~~

SR 3.10.7.2
SR 3.10.7.3

2. The rod worth minimizer is OPERABLE with the required program per Specification 3.3.L or a second licensed operator or other technically qualified individual is present and verifies compliance with the SHUTDOWN MARGIN demonstration procedures, and

SR 3.10.7.4

3. No other CORE ALTERATION(s) are in progress.

add proposed SR 3.10.7.2 and SR 3.10.7.3 Notes A.6

add proposed SR 3.10.7.5 A.4

add proposed SR 3.10.7.6 M.1

A.1

3.12 - LIMITING CONDITIONS FOR OPERATION

C. Inservice Leak and Hydrostatic Testing Operation

The average reactor coolant temperature specified in Table 1-2 for OPERATIONAL MODE 4 may be changed to "NA," and operation considered not to be in OPERATIONAL MODE 3, and the requirements of LCO 3.6.P, "Shutdown Cooling - COLD SHUTDOWN," may be suspended, to allow performance of an inservice leak or hydrostatic test provided the following OPERATIONAL MODE 3 LCOs are met:

1. LCO 3.2.A, "Isolation Actuation", Table 3.2.A-1, Functional Unit Number 2, "SECONDARY CONTAINMENT ISOLATION";
2. LCO 3.7.N, "SECONDARY CONTAINMENT INTEGRITY";
3. LCO 3.7.O, "Secondary Containment Automatic Isolation Dampers"; and
4. LCO 3.7.P, "Standby Gas Treatment System."

APPLICABILITY:

OPERATIONAL MODE 4 with average reactor coolant temperature > 212°F.

ACTION:

With one or more of the above requirements[a] not met:

4.12 - SURVEILLANCE REQUIREMENTS

C. Inservice Leak and Hydrostatic Testing Operation

Perform the applicable surveillance requirements for the required OPERATIONAL MODE 3 LCOs in accordance with the frequency of the applicable surveillance requirements.

---

a Separate ACTION entry is allowed for each requirement of the LCO.

A.1

3.12 - LIMITING CONDITIONS FOR OPERATION

1. Immediately enter the applicable ACTION of the affected LCO[b], or

2. Immediately suspend activities that could increase the average reactor coolant temperature or pressure, and reduce average reactor coolant temperature to ≤212°F within 24 hours.

4.12 - SURVEILLANCE REQUIREMENTS

A.1

b Required ACTIONs to be in OPERATIONAL MODE 4 include reduce average coolant temperature ≤212°F.

4.0 **5.0 DESIGN FEATURES**

4.1 **5.1 SITE**

area boundary follows the Illinois River to the North, the Kankakee River to the East, a county road from Divine extended eastward to the Kankakee River on the south and the Elgin, Joliet and Eastern Railway right-of-way on the west. A.2

Site and Exclusion Area

4.1.1 5.1.A The site ~~consists of approximately 953 acres adjacent to the Illinois River at the point where it is formed by the confluence of the Des Plaines and Kankakee Rivers, in the northeast quarter of the Goose Lake Township, Grundy County, Illinois.~~ The Exclusion Area shall ~~not~~ be ~~less than~~ an 800 meters radius from the centerline of the reactor vessels. A.1

Low Population Zone

4.1.2 5.1.B The Low Population Zone shall be a five mile radius from the centerline of the reactor vessels.

~~Radioactive Gaseous Effluents~~

~~5.1.C Information regarding radioactive gaseous effluents shall be located in the OFFSITE DOSE CALCULATION MANUAL.~~

~~Radioactive Liquid Effluents~~

~~5.1.D Information regarding radioactive liquid effluents shall be located in the OFFSITE DOSE CALCULATION MANUAL.~~ A.3

5.2 CONTAINMENT

Configuration

5.2.A The primary containment is a steel lined concrete structure consisting of a drywell and suppression chamber. The drywell is a steel structure composed of a spherical lower portion, a cylindrical middle portion, and a hemispherical top head. The drywell is attached to the suppression chamber through a series of downcomer vents. The drywell has a minimum free air volume of 158,236 cubic feet. The suppression chamber has an air region of 116,300 to 112,800 cubic feet and a water region of 116,300 to 119,800 cubic feet. LA.2

Design Temperature and Pressure

5.2.B The primary containment is designed and shall be maintained for:

1. Maximum internal pressure: 62 psig.
2. Maximum internal temperature: drywell 281°F.
   suppression pool 281°F.
3. Maximum external pressure: drywell 2 psig.
   suppression pool 1 psig.

Secondary Containment

5.2.C The secondary containment consists of the Reactor Building and a portion of the main steam tunnel and has a minimum free volume of 4,500,000 cubic feet.

5.0 DESIGN FEATURES

4.2 5.3 REACTOR CORE

Fuel Assemblies

4.2.1 5.3.A The reactor core shall contain 724 fuel assemblies. Each assembly consists of a matrix of Zircaloy clad fuel rods with an initial composition of natural or slightly enriched uranium dioxide as fuel material. The assemblies may contain water rods or a water box. Limited substitutions of Zircaloy or ZIRLO or stainless steel filler rods for fuel rods, in accordance with NRC-approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff-approved codes and methods, and shown by tests or analyses to comply with all fuel safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in non-limiting core regions.

Control Rod Assemblies LA.3

4.2.2 5.3.B The reactor core shall contain 177 cruciform shaped control rod assemblies. The control material shall be boron carbide powder (B_4C) and/or hafnium metal. ~~The control rod assembly shall have a nominal axial absorber length of 143 inches.~~

A.1

4.3 **5.6 FUEL STORAGE**

4.3.1 Criticality

4.3.1.1 5.6.A The spent fuel storage racks are designed and shall be maintained with:

4.3.1.1.a 1. A k_{eff} equivalent to ≤0.95 when flooded with unborated water, including all calculational uncertainties and biases as described in Section 9.1 .2 of the UFSAR.

4.3.1.1.b 2. A nominal 6.30 inch center-to-center distance between fuel assemblies placed in the storage racks.

Drainage

4.3.2 5.6.B The spent fuel storage pool is designed and shall be maintained to prevent inadvertent draining of the pool below elevation 589' 2.5".

Capacity

4.3.3 5.6.C The spent fuel storage pool is designed and shall be maintained with a storage capacity limited to no more than 3537 fuel assemblies.

A.1

ITS 5.1

5.0 ADMINISTRATIVE CONTROLS

5.1 6.1 RESPONSIBILITY

5.1.1 6.1.A The ~~S~~tation ~~M~~anager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence. LA.1

6.~~1~~.B The Shift Mana~~g~~er shall be responsible ~~f~~or directing and ~~c~~ommanding the saf~~e~~ overall operation o~~f~~ the facility under all con~~d~~itions.

Insert Proposed ITS 5.1.2 LA.2

Page 1 of 1

A.1

ITS 5.2

5.2 **6.2 ORGANIZATION**

5.2.1 **6.2.A Onsite and Offsite Organizations**

Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting the safety of the nuclear power plant.

5.2.1.a 1. Lines of authority, responsibility, and communication shall be established and defined for the highest management levels through intermediate levels to and including all operating organization positions. These relationships shall be documented and updated, as appropriate, in the form of organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements shall be documented in the Quality Assurance Manual. Insert 5.2.1.a LA.1

5.2.1.b 2. The ~~Station Manager~~ shall be responsible for overall unit safe operation and shall have control over those onsite activities necessary for safe operation and maintenance of the plant. A corporate officer LA.1

5.2.1.c 3. ~~The Chief Nuclear Officer (CNO)~~ shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety.

5.2.1.d 4. The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures. radiation protection A.2

5.2.2 6.2.B Unit Staff

The unit staff shall include the following: At least one required non-licensed operator assigned to each unit. M.1

5.2.2.a 1. ~~Three non-licensed operators shall be on site at all times.~~

5.2.2.b 2. At least one licensed Reactor Operator shall be present in the control room when fuel is in the reactor. In addition, while the unit is in MODE(s) 1, 2, ~~3 or 4~~ at least one licensed Senior Reactor Operator shall be present in the control room. L.1

5.2.2.c 3. Shift crew composition may be less than the minimum requirement of 10 CFR 50.54(m)(2)(i) and 6.2.B.1 and 6.2.C for a period of time not to exceed two hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements.

5.2.2.d 4. A radiation protection technician shall be on site when fuel is in the reactor. The position may be vacant for not more than two hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position. A.2

~~5. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions; e.g. senior reactor operators, reactor operators, health physicists, auxiliary operators, and key maintenance personnel.~~ LA.2

5.2.2.e The amount of overtime worked by unit staff members performing safety-related functions shall be limited in accordance with the NRC Policy Statement on working hours (Generic Letter 82-12).

5.2.2.f 6. The operations manager or shift operations supervisor shall hold a Senior Reactor Operator License. LA.1

5.2.2.g 6.2.C Shift Technical Advisor

The Shift Technical Advisor (STA) shall provide technical advisory support to the ~~Unit Supervisor~~ shift manager in the areas of thermal hydraulics, reactor engineering and plant analysis with regard to the safe operation of the facility. In addition, the STA shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. A single STA may fulfill this function for both units. A.3

A.1

ITS 5.3

5.3 6.3 UNIT STAFF QUALIFICATIONS

5.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971, "Selection and Training of Nuclear Plant Personnel", dated March 8, 1971, except for the radiation protection manager, who shall meet or exceed the qualifications of the Radiation Protection Manager as specified in Regulatory Guide 1.8, September 1975~~, and the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design and response and analysis of the plant for transients and accidents.~~ LA.1 A.2

Page 1 of 1

CTS 6.4

Training 6.4

LA.1

6.4 TRAINING

A retraining and replacement program for the unit staff shall be maintained under the direction of the appropriate on site manager. Training shall be in accordance with ANSI N18.1-1971 and 10 CFR 55 for appropriate designated positions and shall include familiarization with relevant industry operational experience.

CTS 6.7

A.1

6.7 SAFETY LIMIT VIOLATION

6.7.A The following actions shall be taken in the event a Safety Limit is violated:

1. The NRC Operations Center shall be notified by telephone as soon as possible and in all cases within 1 hour. The Site Vice-President or his designated alternate shall be notified within 24 hours. LA.1

2. Within 30 days, a Licensee Event Report (LER) shall be prepared documenting the event pursuant to 10 CFR 50.73. The LER shall be submitted to the NRC. A.1

3. Critical operation of the Unit shall not be resumed until authorized by the Commission.

A.1

ITS 5.4

5.4 6.8 PROCEDURES AND PROGRAMS <See ITS 5.5>

5.4.1 6.8.A Written procedures shall be established, implemented, and maintained covering the activities referenced below:

5.4.1.a 1. The applicable procedures recommended in Appendix A, of Regulatory Guide 1.33, Revision 2, February 1978,

5.4.1.b 2. The Emergency Operating Procedures required to implement the requirements of NUREG-0737 and Supplement 1 to NUREG-0737 as stated in Section 7.1 of Generic Letter No. 82-33,

~~3. Station Security Plan implementation,~~

~~4. Generating Station Emergency Response Plan implementation,~~ A.2

~~5. PROCESS CONTROL PROGRAM (PCP) implementation,~~ LA.1

~~6. OFFSITE DOSE CALCULATION MANUAL (ODCM) implementation, and~~ A.3

5.4.1.c 7. Fire Protection Program implementation.

add proposed ITS 5.4.1.d M.1

~~6.8.B Deleted.~~

~~6.8.C Deleted.~~

6.8.D The following programs shall be established, implemented, and maintained: <See ITS 5.5>

1. Reactor Coolant Sources Outside Primary Containment

This program provides controls to minimize leakage from those portions of systems outside primary containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include CS, HPCI, LPCI, IC, process sampling (post accident sampling of reactor coolant and containment atmosphere), containment monitoring, and standby gas treatment systems. The program shall include the following:

a. Preventive maintenance and periodic visual inspection requirements, and

b. Leak test requirements for each system at a frequency of at least once per operating cycle.

5.0 ADMINISTRATIVE CONTROLS

5.5 **6.8 PROCEDURES AND PROGRAMS**

6.8.A Written procedures shall be established, implemented, and maintained covering the activities referenced below:

1. The applicable procedures recommended in Appendix A, of Regulatory Guide 1.33, Revision 2, February 1978,
2. The Emergency Operating Procedures required to implement the requirements of NUREG-0737 and Supplement 1 to NUREG-0737 as stated in Section 7.1 of Generic Letter No. 82-33,
3. Station Security Plan implementation,
4. Generating Station Emergency Response Plan implementation,
5. PROCESS CONTROL PROGRAM (PCP) implementation,
6. OFFSITE DOSE CALCULATION MANUAL (ODCM) implementation, and
7. Fire Protection Program implementation.

See ITS 5.4

~~6.8.B Deleted.~~

~~6.8.C Deleted.~~

5.5 6.8.D The following programs shall be established, implemented, and maintained:

5.5.2 1. Reactor Coolant Sources Outside Primary Containment

M.1

This program provides controls to minimize leakage from those portions of systems outside primary containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include CS, HPCI, LPCI, IC, SDC, Reactor Water Cleanup, process sampling ~~(post accident sampling of reactor coolant and containment atmosphere)~~, containment monitoring, and standby gas treatment systems. The program shall include the following: LA.7

5.5.2.a a. Preventive maintenance and periodic visual inspection requirements, and

5.5.2.b b. Leak test requirements for each system at a frequency of at least once per ~~operating cycle~~ 24 months. LD.1

The provisions of SR 3.0.2 are applicable to the 24 month Frequency for performing integrated system leak test activities. A.2

A.1

ITS 5.5

2. In-Plant Radiation Monitoring

This program provides controls which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following: LA.1

a. Training of personnel,

b. Procedures for monitoring, and

c. Provisions for maintenance of sampling and analysis equipment.

5.5.3 3. Post Accident Sampling

This program provides controls which will ensure the capability to obtain and analyze reactor coolant, radioactive iodines and particulates in plant gaseous effluents, and primary containment atmosphere samples under accident conditions. The program shall include the following:

5.5.3.a a. Training of personnel,

5.5.3.b b. Procedures for sampling and analysis,

5.5.3.c c. Provisions for maintenance of sampling and analysis equipment.

A.1

ITS 5.5

5.5.4 4. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to members of the public from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by station procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

5.5.4.a a. Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,

5.5.4.b b. Limitations on the instantaneous concentrations of radioactive material released in liquid effluents to unrestricted areas conforming to ten (10) times the concentration values in 10 CFR Part 20, Appendix B, Table 2, Column 2 to 10 CFR Part 20.1001 - 20.2402,

5.5.4.c c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.1302 and with the methodology and parameters in the ODCM,

or dose commitment A.3

5.5.4.d d. Limitations on the annual and quarterly doses to a member of the public from radioactive materials in liquid effluents released from each Unit ~~conforming to~~ to unrestricted areas Appendix I to 10 CFR Part 50,

5.5.4.e e. Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days, 5.5.4.f. f. Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose conforming to Appendix I to 10 CFR Part 50, A.3 or dose commitment

5.5.4.g g. Limitations on the dose rate resulting from radioactive materials released in gaseous effluents from the site to areas at or beyond the site boundary shall be limited to the following:

5.5.4.g.1 a) For noble gases: less than or equal to a dose rate of 500 mrem/yr to the whole body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and

5.5.4.g.2 b) For Iodine-131, Iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: less than or equal to a dose rate of 1500 mrem/yr to any organ.

5.5.4.h h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each Unit to areas beyond the site boundary conforming to Appendix I to 10 CFR Part 50,

5.5.4.i i. Limitations on the annual and quarterly doses to a member of the public from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with halflives greater than 8 days in gaseous effluents released from each Unit conforming to Appendix I to 10 CFR Part 50,

5.5.4.j j. Limitations on the annual dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Radioactive Effluents Control Program Surveillance frequencies. A.2

add proposed ITS 5.5.5 M.2

5.5.12 5. **Primary Containment Leakage Rate Testing Program**

5.5.12.a A program shall be established to implement the leakage rate testing of the primary containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemption. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Testing Program," dated September 1995.

5.5.12.b The peak calculated primary containment internal pressure for the design basis loss of coolant accident, P_a, is 48 psig.

5.5.12.c The maximum allowable primary containment leakage rate, L_a, at P_a, is 1.6% of primary containment air weight per day.

5.5.12.d Leakage rate acceptance criteria are:

5.5.12.d.1 a. Primary containment overall leakage rate acceptance criterion is $\leq 1.0\ L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance criteria are $\leq 0.60\ L_a$ for the combined Type B and Type C tests, and $\leq 0.75\ L_a$ for Type A tests.

5.5.12.d.2 b. Air lock testing acceptance criteria is the overall air lock leakage rate is $\leq 0.05\ L_a$ when tested at $\geq P_a$.

~~The provisions of 4.0.B do not apply to the test frequencies specified in the Primary Containment Leakage Rate Testing Program.~~ A4

5.5.12.e The provisions of 4.0.C are applicable to the Primary Containment Leakage Rate Testing Program.

A.1

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5.6 **6.9 REPORTING REQUIREMENTS**

In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following identified reports shall be submitted ~~to the Regional Administrator of the appropriate Regional Office of the NRC unless otherwise noted~~. A.2

in accordance with 10 CFR 50.4

6.9.A. ~~Routine Reports~~

~~1. Deleted.~~ A.3

2. ~~Annual Report~~

5.6.1 Annual reports covering the activities of the Unit for the previous calendar year, as described in this section shall be submitted prior to May 1 of each year.

~~The reports required shall include:~~ A.3 add proposed ITS 5.6.1 Note A.4

a. Tabulation of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/year and their associated person rem exposure according to work and job functions, e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignments to various duty functions may be estimated based on electronic or pocket dosimeter or TLD. Small exposures totaling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources should be assigned to specific major work functions. A.5

~~b. The results of specific activity analysis in which the reactor coolant exceeded the limits of Specification 3.6.J. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than the limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the reactor coolant exceeded the radioiodine limit.~~ A.6

A.1 ITS 5.6

5.6.2 3. Annual Radiological Environmental Operating Report add proposed ITS 5.6.2 Note A.4

The Annual Radiological Environmental Operating Report covering the operation of the Unit during the previous calendar year shall be submitted prior to May ~~1~~ 15 of each year. L.1 The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

5.6.3 4. Radioactive Effluent Release Report add proposed ITS 5.6.3 Note A.4

The Radioactive Effluent Release Report covering the operation of the facility during the previous calendar year shall be submitted prior to ~~April~~ May 1 of each year. L.1 The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the facility. The material provided shall be (1) consistent with the objectives outlined in the ODCM and PCP and (2) in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR Part 50. in accordance with 10 CFR 50.36a A.7

5.6.4 5. Monthly Operating Report

Routine reports of operating statistics and shutdown experience, including documentation of all challenges to safety valves or safety/relief valves, shall be submitted on a monthly basis ~~to the Director, Office of Resource Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Regional Administrator of the NRC Regional Office,~~ A.2 no later than the 15th of each month following the calendar month covered by the report.

5.6.5 6. CORE OPERATING LIMITS REPORT

5.6.5.a a. Core operating limits shall be established and documented in the CORE OPERATING LIMITS REPORT before each reload cycle or any remaining part of a reload cycle for the following:

5.6.5.a.5 (1) The Control Rod Withdrawal Block Instrumentation for Table 3.2.E-1 of Specification 3.2.E.

5.6.5.a.1 (2) The Average Planar Linear Heat Generation Rate (APLHGR) Limit for Specification 3.11.A.

5.6.5.a.3 (3) The Steady State Linear Heat Generation Rate (SLHGR) for Specification 3.11.D.

5.6.5.a.2 (4) The Minimum Critical Power Operating Limit ~~(including scram insertion times)~~ for Specification 3.11.C. ~~This includes rated and off-rated flow conditions.~~ LA.1

5.6.5.a.4 The LHGR and transient linear heat generation rate limit for 3.2.4. A.9

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A.1

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5.6.5.b b. The analytical methods used to determine the operating limits shall be those previously reviewed and approved by the NRC in the latest approved revision or supplement of topical reports:

5.6.5.b.1 (1) ANF-1125(P)(A), "Critical Power Correlation - ANFB."

5.6.5.b.2 (2) ANF-524(P)(A), "ANF Critical Power Methodology for Boiling Water Reactors."

5.6.5.b.3 (3) XN-NF-79-71(P)(A), "Exxon Nuclear Plant Transient Methodology for Boiling Water Reactors."

5.6.5.b.4 (4) XN-NF-80-19(P)(A), "Exxon Nuclear Methodology for Boiling Water Reactors."

5.6.5.b.5 (5) XN-NF-85-67(P)(A), "Generic Mechanical Design for Exxon Nuclear Jet Pump Boiling Water Reactors Reload Fuel."

5.6.5.b.6 (6) ANF-913(P)(A), "CONTRANSA2: A Computer Program for Boiling Water Reactor Transient Analysis."

5.6.5.b.7 (7) XN-NF-82-06(P)(A), Qualification of Exxon Nuclear Fuel for Extended Burnup Supplement 1 Extended Burnup Qualification of ENC 9x9 BWR Fuel, Supplement 1, Revision 2, Advanced Nuclear Fuels Corporation, May 1988.

5.6.5.b.8 (8) ANF-89-14(P)(A), Advanced Nuclear Fuels Corporation Generic Mechanical Design for Advance Nuclear Fuels Corporation 9x9-IX and 9x9-9X BWR Reload Fuel, Revision 1 and Supplements 1 and 2, Advanced Nuclear Fuels Corporation, October 1991.

5.6.5.b.9 (9) ANF-89-98(P)(A), Generic Mechanical Design Criteria for BWR Fuel Designs, Revision 1 and Revision 1 Supplement 1, Advanced Nuclear Fuels Corporation, May 1995.

5.6.5.b.10 (10) ANF-91-048(P)(A), Advanced Nuclear Fuels Corporation Methodology for Boiling Water Reactors EXEM BWR Evaluation Model, Advanced Nuclear Fuels Corporation, January 1993.

5.6.5.b.11 (11) Commonwealth Edison Company Topical Report NFSR-0091, "Benchmark of CASMO/MICROBURN BWR Nuclear Design Methods", and associated Supplements on Neutronics Licensing Analyses (Supplement 1) and La Salle County Unit 2 Benchmarking (Supplement 2).

5.6.5.b.12 (12) ANF-1125 (P)(A), ANFB Critical Power Correlation Determination of ATRIUM-9B Additive Constant Uncertainties, Supplement 1, Appendix E, Siemens Power Corporation, September 1998.

5.6.5.c c. The core operating limits report shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.

5.6.5.d The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto shall be provided on issuance, for each reload cycle, to the NRC ~~Document Control Desk with copies to the Regional Administrator and Resident Inspector~~. A.2

6.9.B ~~Special Reports~~ A.3

~~Special reports shall be submitted to the Regional Administrator of the NRC Regional Office within the time period specified for each report.~~ A.8

6.10 [INTENTIONALLY LEFT BLANK]

(13) EMF-85-74 (P), RODEX2A (BWR) Fuel Rod Thermal Mechanical Evaluation Model, Supplement 1 (P)(A) and Supplement 2 (P)(A), Siemens Power Corporation, February 1998. A.10

CTS 6.11

LA.1

6.11 RADIATION PROTECTION PROGRAM

~~Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.~~

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A.1 ITS 5.7

ADMINISTRATIVE CONTROLS

5.7 **6.12 HIGH RADIATION AREA**

5.7.1 6.12.A Pursuant to 10 CFR 20.1601(c), in lieu of the requirements of paragraph 20.1601 of 10 CFR Part 20, each high radiation area in which the intensity of radiation is greater than 100 mrem/hr at 30 cm (12 in.) shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit (RWP)[a] (or equivalent document). Any individual or group of individuals permitted to enter such areas shall be provided with or accompanied by one or more of the following:

a. 1. A radiation monitoring device which continuously indicates the radiation dose rate in the area.

b. 2. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them; or

c. 3. An individual qualified in radiation protection procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified in the RWP (or equivalent document).

A.2

Individuals qualified in radiation protection procedures

such individuals

5.7.1 a ~~Health Physics personnel~~ or personnel escorted by ~~health physics personnel~~ shall be exempt from the RWP issuance requirements during the performance of their assigned radiation protection duties, provided they are otherwise following plant radiation protection procedures for entry into high radiation areas.

5.7.2 6.12.B In addition to the requirements of 6.12.A, areas accessible to personnel with radiation levels greater than 1000 mrem/hr at 30 cm (12 in.) from the radiation source or from any surface which the radiation penetrates shall require the following:

a. 1. Doors shall be locked to prevent unauthorized entry and shall not prevent individuals from leaving the area. In place of locking the door, direct or electronic surveillance that is capable of preventing unauthorized entry may be used. The keys shall be maintained under the administrative control of the Shift Manager on duty ~~and/~~or ~~health physics~~ radiation protection supervision. A.2

b. 2. Personnel access and exposure control requirements of activities being performed within these areas shall be specified by an approved RWP(or equivalent document).

c. 3. Each person entering the area shall be provided with an alarming radiation monitoring device that continuously integrates the radiation dose rate (such as an electronic dosimeter.) Surveillance and radiation monitoring by a radiation protection technician may be substituted for an alarming dosimeter.

~~4. Deleted.~~

5.7.3 5. For individual HIGH RADIATION AREAS accessible to personnel with radiation levels of greater than 1000 mrem/h at 30 cm (12 in.) that are located within large areas where no enclosure exists for purposes of locking, and where no enclosure can be reasonably constructed around the individual areas, then such individual areas shall be barricaded, conspicuously posted, and a flashing light shall be activated as a warning device.

6.13 PROCESS CONTROL PROGRAM (PCP)

6.13.A Changes to the PCP:

1. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:

   a. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and,

   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.

2. Shall become effective after review and acceptance, including approval by the Station Manager.

LA.1

5.5.1 **6.14** **OFFSITE DOSE CALCULATION MANUAL (ODCM)**

5.5.1.c **6.14.A** Changes to the ODCM:

5.5.1.c.1 1. Shall be documented and records of reviews performed shall be retained. This documentation shall contain:

5.5.1.c.1(a) a. Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s) and,

5.5.1.c.1(b) b. A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.1302, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.

5.5.1.c.2 2. Shall become effective after review and acceptance, including approval by the Station Manager. LA.6

5.5.1.c.3 3. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Radioactive Effluent Report for the period of the report in which any change to the ODCM was made effective. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.