

### 3/4.3 INSTRUMENTATION

#### 2/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

##### LIMITING CONDITION FOR OPERATION

3.3.1 As a minimum, the reactor protection system instrumentation channels shown in Table 3.3.1-1 shall be OPERABLE with the REACTOR PROTECTION SYSTEM RESPONSE TIME as shown in Table 3.3.1-2.

APPLICABILITY: As shown in Table 3.3.1-1.

##### ACTION:

- a. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, place the inoperable channels and/or trip system in the tripped condition\* within 1 hour. The provisions of Specification 3.0.4 are not applicable.
- b. With the the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, place at least one trip system\*\* in the tripped condition within 1 hour and take the ACTION required by Table 3.3.1-1.

##### SURVEILLANCE REQUIREMENTS

4.3.1.1 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 CONDITIONS and at the frequencies shown in Table 4.3.1.1 1.

4.3.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.\*\*\*

4.3.1.3 The REACTOR PROTECTION SYSTEM RESPONSE TIME of each reactor trip functional unit shown in Table 3.3.1-2 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one channel per trip system such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip system.

\* With a design providing only one channel per trip system, 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 3.3.1-1 for that Trip Function shall be taken.

\*\* If more channels are inoperable in one trip system than in the other, select that trip system to place in the tripped condition, except when this would cause the Trip Function to occur.

\*\*\*The specified 18-month interval may be waived for Cycle 1 provided the surveillance is performed during Refuel 1, which is to commence no later than October 27, 1985.

## INSTRUMENTATION

### 3/4.3.2 ISOLATION ACTUATION INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.2 The isolation actuation instrumentation channels shown in Table 3.3.2-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.2-2 and with ISOLATION SYSTEM RESPONSE TIME as shown in Table 3.3.2-3.

APPLICABILITY: As shown in Table 3.3.2-1.

ACTION:

- a. With an isolation actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.2-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.
- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, place the inoperable channel(s) and/or trip system in the tripped condition\* within one hour. The provisions of Specification 3.0.4 are not applicable.
- c. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, place at least one trip system\*\* in the tripped condition\*\*\* within one hour and take the ACTION required by Table 3.3.2-1.

\*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 3.3.2-1 for that Trip Function shall be taken.

\*\*If more channels are inoperable in one trip system than in the other, select that trip system to place in the tripped condition except when this would cause the Trip Function to occur.

\*\*\*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 1 hour or the ACTION required by Table 3.3.2-1 for that Trip Function shall be taken.

TABLE 3.3.3-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

ACTION

- ACTION 30 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement:
- With one channel inoperable, place the inoperable channel in the tripped condition within one hour\* or declare the associated system inoperable.
  - With more than one channel inoperable, declare the associated system inoperable.
- ACTION 31 - With the number of OPERABLE channels less than required by the Minimum OPERABLE channels per Trip Function, 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 system inoperable.
- ACTION 32 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, declare the associated ADS trip system or FCCS inoperable.
- ACTION 33 - With the number of OPERABLE channels less than the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel in the tripped condition within one hour.
- ACTION 34 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 8 hours or declare the associated ADS trip system or ECCS inoperable.
- ACTION 35 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement
- For one trip system, place that trip system in the tripped condition within one hour\* or declare the HPCS system inoperable.
  - For both trip systems, declare the HPCS system inoperable.
- ACTION 36 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, place at least one inoperable channel in the tripped condition within one hour\* or declare the HPCS system inoperable.
- ACTION 37 - With the number of OPERABLE instruments less than the Minimum Operable Instruments, place the inoperable instrument(s) in the tripped condition within 1 hour\* or declare the associated emergency diesel generator inoperable and take the ACTION required by Specification 3.8.1.1 or 3.8.1.2 as appropriate.

\*The provisions of Specification 3.0.4 are not applicable.

## INSTRUMENTATION

### RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

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### LIMITING CONDITION FOR OPERATION

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3.3.7.11 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3.7.11-1 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the ODCM.

APPLICABILITY: As shown in Table 3.3.7.11-1

#### ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel or declare the channel inoperable.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3.7.11-1.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

### SURVEILLANCE REQUIREMENTS

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4.3.7.11 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.7.11-1.

## INSTRUMENTATION

### LOOSE-PART DETECTION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.3.7.12 The loose-part detection system shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

ACTION:

- a. With one or more loose-part detection system channels inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.6.c within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.7.12 Each channel of the loose-part detection system shall be demonstrated OPERABLE by performance of:

- a. CHANNEL CHECK at least once per 24 hours,
- b. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
- c. CHANNEL CALIBRATION at least once per 18 months.

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## REACTOR COOLANT SYSTEM

### 3/4.4.4 CHEMISTRY

#### LIMITING CONDITION FOR OPERATION

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3.4.4 The chemistry of the reactor coolant system shall be maintained within the limits specified in Table 3.4.4-1.

APPLICABILITY: At all times.

#### ACTION:

a. In OPERATIONAL CONDITION 1:

1. With the conductivity, chloride concentration or pH exceeding the limit specified in Table 3.4.4-1 for less than 72 hours during one continuous time interval and, for conductivity and chloride concentration, for less than 336 hours per year, but with the conductivity less than 10  $\mu\text{mho/cm}$  at 25°C and with the chloride concentration less than 0.5 ppm, this need not be reported to the Commission and the provisions of Specification 3.0.4 are not applicable.
2. With the conductivity, chloride concentration or pH exceeding the limit specified in Table 3.4.4-1 for more than 72 hours during one continuous time interval or, for conductivity and chloride concentration, for more than 336 hours per year, be in at least STARTUP within the next 6 hours.
3. With the conductivity exceeding 10  $\mu\text{mho/cm}$  at 25°C or chloride concentration exceeding 0.5 ppm, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN as rapidly as the cooldown rate limit permits.

b. In OPERATIONAL CONDITION 2 and 3 with the conductivity, chloride concentration or pH exceeding the limit specified in Table 3.4.4-1 for more than 48 hours during one continuous time interval, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. At all other times:

1. With the conductivity or pH exceeding the limit specified in Table 3.4.4-1, restore the conductivity and pH to within the limit within 72 hours.
2. With the chloride concentration exceeding the limit specified in Table 3.4.4-1 exceeded for more than 24 hours, perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the reactor coolant system. Determine that the structural integrity of the reactor coolant system remains acceptable for continued operation prior to proceeding to OPERATIONAL CONDITION 3.
3. The provisions of Specification 3.0.3 are not applicable.



## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT AIR LOCKS

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#### LIMITING CONDITION FOR OPERATION

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3.6.1.3 Each primary containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to  $0.05 L_a$  at  $P_a$ , 39.6 psig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2\*, and 3.

#### ACTION:

- a. With one primary containment air lock door inoperable:
  1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
  2. 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 at least once per 31 days.
  3. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
  4. The provisions of Specification 3.0.4 are not applicable.
- b. With the primary containment air lock inoperable, except as a result of an inoperable air lock door, 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.

\*See Special Test Exception 3.10.1.



## CONTAINMENT SYSTEMS

### 3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

3.6.3 The primary containment isolation valves and the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 shall be OPERABLE with isolation times less than or equal to those shown in Table 3.6.3-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

a. With one or more of the primary containment isolation valves shown in Table 3.6.3-1 inoperable:

1. Maintain at least one isolation valve OPERABLE in each affected penetration that is open and within 4 hours either:
  - 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,\* or
  - c) Isolate each affected penetration by use of at least one closed manual valve or blind flange.\*
  - d) The provisions of Specification 3.0.4 are not applicable provided that within 4 hours the affected penetration is isolated in accordance with Action a.1.b) or a.1.c) above, and provided that the associated system is declared inoperable, if applicable, and the appropriate action statements for that system are performed.

2. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one or more of the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 inoperable:

1. Operation may continue and the provisions of Specifications 3.0.3 and 3.0.4 are not applicable provided that within 4 hours either:

- a) The inoperable valve is returned to OPERABLE status, or
- b) The instrument line is isolated and the associated instrument is declared inoperable.

2. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

\*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative control.

## PLANT SYSTEMS

### CO<sub>2</sub> SYSTEMS

#### LIMITING CONDITION FOR OPERATION

3.7.5.3 The following low pressure CO<sub>2</sub> systems of Unit 1 and Unit 2 shall be OPERABLE.\* *re-align*

- a. Division 1 diesel generator 0 room.
- b. Division 2 diesel generator 1A room.
- c. Division 3 diesel generator 1B room.
- d. Unit 2 Division 2 diesel generator 2A room.

APPLICABILITY: Whenever equipment protected by the low pressure CO<sub>2</sub> systems is required to be OPERABLE. *should be subscript*

#### ACTION:

- a. With one or more of the above required low pressure CO<sub>2</sub> systems inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol. Restore the system to OPERABLE status within 14 days or, prepare and submit a Special Report to the Commission pursuant to Specification 6.6.C within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
- b. The provisions of Specification 3.0.3 (and 3.0.4) are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.7.5.3 Each of the above required low pressure CO<sub>2</sub> systems shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying CO<sub>2</sub> storage tank level to be greater than 50% full and pressure to be greater than 290 psig, and
- b. At least once per 31 days by verifying that each valve (manual, power operated, or automatic) in the flow path is in the correct position.
- c. At least once per 18 months by verifying:
  1. The system valves and associated motor operated ventilation dampers actuate, manually and automatically, upon receipt of a simulated actuation signal, and
  2. Flow from each nozzle during a "Puff test."

\*The normal or emergency power source may be inoperable in OPERATIONAL CONDITION 4 or 5 or when defueled.

## ELECTRICAL POWER SYSTEMS

### MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

#### LIMITING CONDITION FOR OPERATION

3.8.3.3 The thermal overload protection of each valve shown in Table 3.8.4.2-1 shall be bypassed continuously or under accident conditions, as applicable, by an OPERABLE bypass device integral with the motor starter.

APPLICABILITY: Whenever the motor operated valve is required to be OPERABLE.

#### ACTION:

b. With the thermal overload protection for one or more of the above required valves not bypassed continuously or under accident conditions, as applicable, by an OPERABLE integral bypass device, take administrative action to continuously bypass the thermal overload within 8 hours or declare the affected valve(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).

b. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.8.3.3.1 The thermal overload protection for the above required valves shall be verified to be bypassed continuously or under accident conditions, as applicable, by an OPERABLE integral bypass device by the performance of a CHANNEL FUNCTIONAL TEST of the bypass circuitry for those thermal overloads which are normally in force during plant operation and bypassed under accident conditions and by verifying that the thermal overload protection is bypassed for those thermal overloads which are continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing:

- a. At least once per 18 month. and
- b. Following maintenance on the motor starter.

4.8.3.3.2 The thermal overload protection for the above required valves which are continuously bypassed shall be verified to be bypassed following testing during which the thermal overload protection was temporarily placed in force.

# ELECTRICAL POWER SYSTEMS

TABLE 3.8.3.37  
MOTOR OPERATED VALVES THERMAL OVERLOAD  
PROTECTION

	<u>VALVE NUMBER</u>	<u>BYPASS DEVICE</u> <u>(Continuous)(Accident Conditions)</u>	<u>SYSTEM(S)</u> <u>AFFECTED</u>
a.	1VG001	Accident Conditions	SBGTS
	1VG003	Accident Conditions	
	2VG001	Accident Conditions	
	2VG003	Accident Conditions	
b.	1VP113A	Accident Conditions	Primary containment chilled water coolers
	1VP113B	Accident Conditions	
	1VP114A	Accident Conditions	
	1VP114B	Accident Conditions	
	1VP053A	Accident Conditions	
	1VP053B	Accident Conditions	
	1VP063A	Accident Conditions	
	1VP063B	Accident Conditions	
c.	1VQ038	Accident Conditions	Primary containment vent and purge system
	1VQ032	Accident Conditions	
	1VQ035	Accident Conditions	
	1VQ047	Accident Conditions	
	1VQ048	Accident Conditions	
	1VQ050	Accident Conditions	
	1VQ051	Accident Conditions	
	1VQ068	Accident Conditions	
	1VQ037	Accident Conditions	
d.	1WR179	Accident Conditions	RBCCW system
	1WR180	Accident Conditions	
	1WR040	Accident Conditions	
	1WR029	Accident Conditions	
e.	1B21 - F067A	Accident Conditions	Main steam system
	1B21 - F067B	Accident Conditions	
	1B21 - F067C	Accident Conditions	
	1B21 - F067D	Accident Conditions	
	1B21 - F019	Accident Conditions	
	1B21 - F016	Accident Conditions	

TABLE 3.8.3.31 (Continued)  
MOTOR OPERATED VALVES THERMAL OVERLOAD  
PROTECTION AND/OR BYPASS DEVICES

	VALVE NUMBER	BYPASS DEVICE (Continuous)(Accident Conditions)	SYSTEM(S) AFFECTED
e.	1B21 - F020	Continuous	Main steam system
	1B21 - F068	Continuous	
	1B21 - F070	Continuous	
	1B21 - F069	Continuous	
	1B21 - F071	Continuous	
	1B21 - F072	Continuous	
	1B21 - F073	Continuous	
f.	1B21 - F065A	Continuous	Main feedwater system
	1B21 - F065B	Continuous	
g.	1E21 - F001	Continuous	LPCS system
	1E21 - F005	Accident Conditions	
	1E21 - F011	Accident Conditions	
	1E21 - F012	Accident Conditions	
h.	1C41 - F001A	Accident Conditions	SBLCS
	1C41 - F001B	Accident Conditions	
i.	1G33 - F001	Accident Conditions	RWCU
	1G33 - F004	Accident Conditions	
j.	1E12 - F052A*	Accident Conditions	RHR system
	1E12 - F064A*	Accident Conditions	
	1E12 - F087A*	Accident Conditions	
	1E12 - F004A	Continuous	
	1E12 - F047A	Continuous	
	1E12 - F048A*	Accident Conditions	
	1E12 - F003A	Continuous	
	1E12 - F026A*	Accident Conditions	
	1E12 - F068A	Continuous	
	1E12 - F073A	Continuous	
	1E12 - F074A	Continuous	
	1E12 - F011A*	Accident Conditions	
	1E12 - F024A*	Accident Conditions	
	1E12 - F016A*	Accident Conditions	
	1E12 - F017A*	Accident Conditions	
	1E12 - F027A*	Accident Conditions	
	1E12 - F004B	Continuous	
	1E12 - F047B	Continuous	
	1E12 - F048B*	Accident Conditions	
	1E12 - F003B	Continuous	
	1E12 - F068B	Continuous	
	1E12 - F073B	Continuous	
	1E12 - F074B	Continuous	
	1E12 - F026B*	Accident Conditions	
	1E12 - F011B*	Accident Conditions	

\*The specified 18 month interval may be waived for Cycle 1 provided the surveillance is performed during Refuel 1.

TABLE 3.8.3.3<sup>1</sup> (Continued)  
MOTOR OPERATED VALVES THERMAL OVERLOAD  
PROTECTION AND/OR BYPASS DEVICES

	VALVE NUMBER	BYPASS DEVICE (Continuous)(Accident Conditions)	SYSTEM(S) AFFECTED
j.	1E12 - F0248*	Accident Conditions	RHR system
	1E12 - F006B	Continuous	
	1E12 - F016B*	Accident Conditions	
	1E12 - F017B*	Accident Conditions	
	1E12 - F042B*	Accident Conditions	
	1E12 - F064B*	Accident Conditions	
	1E12 - F093	Continuous	
	1E12 - F021*	Accident Conditions	
	1E12 - F004C	Continuous	
	1E12 - F052B*	Accident Conditions	
	1E12 - F087B*	Accident Conditions	
	1E12 - F099B*	Accident Conditions	
	1E12 - F099A*	Accident Conditions	
	1E12 - F008	Accident Conditions	
	1E12 - F009	Accident Conditions	
	1E12 - F040A*	Accident Conditions	
	1E12 - F040B*	Accident Conditions	
	1E12 - F049A*	Accident Conditions	
	1E12 - F049B*	Accident Conditions	
	1E12 - F053A	Accident Conditions	
	1E12 - F053B	Accident Conditions	
	1E12 - F006A	Continuous	
	1E12 - F023	Accident Conditions	
	1E12 - F027B*	Accident Conditions	
	1E12 - F042A*	Accident Conditions	
	1E12 - F042C*	Accident Conditions	
	1E12 - F064C*	Accident Conditions	
	1E12 - F094	Continuous	
k.	1E51 - J86	Accident Conditions	RCIC system
	1E51 - F022	Accident Conditions	
	1E51 - F068	Continuous	
	1E51 - F069	Continuous	
	1E51 - F080	Accident Conditions	
	1E51 - F046	Accident Conditions	
	1E51 - F059	Accident Conditions	
	1E51 - F063	Accident Conditions	
	1E51 - F019	Accident Conditions	
	1E51 - F031	Continuous	
	1E51 - F045	Accident Conditions	
	1E51 - F008	Accident Conditions	
	1E51 - F010	Accident Conditions	
	1E51 - F013	Accident Conditions	
	1E51 - F064	Accident Conditions	
	1E51 - F076	Accident Conditions	

\*The specified 18 month interval may be waived for Cycle 1 provided the surveillance is performed during Refuel 1.



## APPLICABILITY

### SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL CONDITIONS or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirements.

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

4.0.3 Failure to perform a Surveillance Requirement within the specified time interval shall constitute a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Exceptions to these requirements are stated in the individual Specifications. Surveillance requirements do not have to be performed on inoperable equipment.

4.0.4 Entry into an OPERATIONAL CONDITION or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified.

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

- a. 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 50, Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50, Section 50.55a(g) (6) (i).
- b. 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  
Monthly  
Quarterly or every 3 months  
Semiannually or every 6 months  
Every 9 months  
Yearly or annually

At least once per 7 days  
At least once per 31 days  
At least once per 92 days  
At least once per 184 days  
At least once per 276 days  
At least once per 366 days

\*Not applicable to 18 month surveillances required for Unit 2 Cycle 2 operation.

### 3/4.3 INSTRUMENTATION

#### 3/4.3.1 REACTOR PROTECTION SYSTEM INSTRUMENTATION

##### LIMITING CONDITION FOR OPERATION

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3.3.1 As a minimum, the reactor protection system instrumentation channels shown in Table 3.3.1-1 shall be OPERABLE with the REACTOR PROTECTION SYSTEM RESPONSE TIME as shown in Table 3.3.1-2.

APPLICABILITY: As shown in Table 3.3.1-1.

##### ACTION:

- a. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, place the inoperable channels and/or trip system in the tripped condition\* within 1 hour. The provisions of Specification 3.0.4 are not applicable.
- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, place at least one trip system\*\* in the tripped condition within 1 hour and take the ACTION required by Table 3.3.1-1.

##### SURVEILLANCE REQUIREMENTS

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4.3.1.1 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 CONDITIONS and at the frequencies shown in Table 4.3.1.1-1.

4.3.1.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

4.3.1.3 The REACTOR PROTECTION SYSTEM RESPONSE TIME of each reactor trip functional unit shown in Table 3.3.1-2 shall be demonstrated to be within its limit at least once per 18 months. Each test shall include at least one channel per trip system such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific reactor trip system.

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\*With a design providing only one channel per trip system, 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 3.3.1-1 for that Trip Function shall be taken.

\*\*If more channels are inoperable in one trip system than in the other, select that trip system to place in the tripped condition, except when this would cause the Trip Function to occur.

TABLE 3.3.3-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

ACTION

- ACTION 30 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement:
- With one channel inoperable, place the inoperable channel in the tripped condition within one hour\* or declare the associated system inoperable.
  - With more than one channel inoperable, declare the associated system inoperable.
- ACTION 31 - With the number of OPERABLE channels less than required by the Minimum OPERABLE channels per Trip Function, 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 system inoperable.
- ACTION 32 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, declare the associated ADS trip system or ECCS inoperable.
- ACTION 33 - With the number of OPERABLE channels less than the Minimum OPERABLE Channels per Trip Function requirement, place the inoperable channel in the tripped condition within one hour.
- ACTION 34 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, restore the inoperable channel to OPERABLE status within 8 hours or declare the associated ADS trip system or ECCS inoperable.
- ACTION 35 - With the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement:
- For one trip system, place that trip system in the tripped condition within one hour\* or declare the HPCS system inoperable.
  - For both trip systems, declare the HPCS system inoperable.
- ACTION 36 - Deleted
- ACTION 37 - With the number of OPERABLE instruments less than the Minimum OPERABLE INSTRUMENTS, place the inoperable instrument(s) in the tripped condition within 1 hour\* or declare the associated emergency diesel generator inoperable and take the ACTION required by Specification 3.8.1.1 or 3.8.1.2 as appropriate.

\*The provisions of Specification 3.0.4 are not applicable.

## INSTRUMENTATION

### RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.7.10 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3.7.10-1 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The alarm trip setpoints of these channels shall be determined in accordance with the Offsite Dose Calculation Manual (ODCM).

APPLICABILITY: At all times.

#### ACTION:

- a. With a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required, immediately suspend the release of radioactive liquid effluents monitored by the affected channel or declare the channel inoperable.
- b. With less than the minimum number of radioactive liquid effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3.7.10-1. Restore the inoperable instrumentation to OPERABLE status within the time specified in the ACTION or, in lieu of a Licensee Event Report, explain in the next Semiannual Radioactive Effluent Release Report why this inoperability was not corrected within the time specified.
- c. The provisions of Specifications 3.0.3, 3.0.4, and 6.6.B.2.b are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.7.10 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL FUNCTIONAL TEST, and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.7.10-1.

*The original submittal  
erroneously deleted action c.  
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## INSTRUMENTATION

### RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.7.11 The radioactive gaseous effluent monitoring instrumentation channels shown in Table 3.3.7.11-1 shall be OPERABLE with their alarm/trip setpoints set to ensure that the limits of Specification 3.11.2.1 are not exceeded. The alarm/trip setpoints of these channels shall be determined in accordance with the ODCM.

APPLICABILITY: As shown in Table 3.3.7.11-1

ACTION:

- a. With a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint less conservative than required, immediately suspend the release of radioactive gaseous effluents monitored by the affected channel or declare the channel inoperable.
- b. With less than the minimum number of radioactive gaseous effluent monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.3.7.11-1.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.7.11 Each radioactive gaseous effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations at the frequencies shown in Table 4.3.7.11-1.



## INSTRUMENTATION

### LOOSE-PART DETECTION SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.3.7.12 The loose-part detection system shall be OPERABLE.

APPLICABILITY: OPERATIONAL CONDITIONS 1 and 2.

#### ACTION:

- a. With one or more loose-part detection system channels inoperable for more than 30 days, prepare and submit a Special Report to the Commission pursuant to Specification 6.6.c within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.7.12 Each channel of the loose-part detection system shall be demonstrated OPERABLE by performance of:

- a. CHANNEL CHECK at least once per 24 hours,
- b. CHANNEL FUNCTIONAL TEST at least once per 31 days, and
- c. CHANNEL CALIBRATION at least once per 18 months.



REACTOR COOLANT SYSTEM

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## REACTOR COOLANT SYSTEM

### 3.4.4.4 CHEMISTRY

#### LIMITING CONDITION FOR OPERATION

3.4.4 The chemistry of the reactor coolant system shall be maintained within the limits specified in Table 3.4.4-1.

APPLICABILITY: At all times.

#### ACTION:

a. In OPERATIONAL CONDITION 1:

1. With the conductivity, chloride concentration or pH exceeding the limit specified in Table 3.4.4-1 for less than 72 hours during one continuous time interval and, for conductivity and chloride concentration, for less than 336 hours per year, but with the conductivity less than 10  $\mu\text{mho/cm}$  at 25°C and with the chloride concentration less than 0.5 ppm, this need not be reported to the Commission and the provisions of Specification 3.0.4 are not applicable.
2. With the conductivity, chloride concentration or pH exceeding the limit specified in Table 3.4.4-1 for more than 72 hours during one continuous time interval or, for conductivity and chloride concentration, for more than 336 hours per year at least STARTUP within the next 6 hours.
3. With the conductivity exceeding 10  $\mu\text{mho/cm}$  at 25°C or chloride concentration exceeding 0.5 ppm, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN as rapidly as the cooldown rate limit permits.

b. In OPERATIONAL CONDITIONS 2 and 3 with the conductivity, chloride concentration or pH exceeding the limit specified in Table 3.4.4-1 for more than 48 hours during one continuous time interval, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. At all other times:

1. With the conductivity or pH exceeding the limit specified in Table 3.4.4-1, restore the conductivity and pH to within the limit within 72 hours.
2. With the chloride concentration exceeding the limit specified in Table 3.4.4-1 exceeded for more than 24 hours, perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the reactor coolant system. Determine that the structural integrity of the reactor coolant system remains acceptable for continued operation prior to proceeding to OPERATIONAL CONDITION 3.
3. The provisions of Specification 3.0.3 are not applicable.

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erroneously labeled Section 4.  
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## CONTAINMENT SYSTEMS

### PRIMARY CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

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3.6.1.3 Each primary containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to  $0.05 L_a$  at  $P_a$ , 39.6raig.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2\*, and 3.

#### ACTION:

- a. With one primary containment air lock door inoperable:
  1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed.
  2. 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 at least once per 31 days.
  3. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
  4. The provisions of Specification 3.0.4 are not applicable.
- b. With the primary containment air lock inoperable except as a result of an inoperable air lock door, 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.

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\*See Special Test Exception 3.10.1.

## CONTAINMENT SYSTEMS

### 3/4.6.3 PRIMARY CONTAINMENT ISOLATION VALVES

#### LIMITING CONDITION FOR OPERATION

3.6.3 The primary containment isolation valves and the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 shall be OPERABLE with isolation times less than or equal to those shown in Table 3.6.3-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

#### ACTION:

- a. With one or more of the primary containment isolation valves shown in Table 3.6.3-1 inoperable:
  1. Maintain at least one isolation valve OPERABLE in each affected penetration that is open and within 4 hours either;
    - 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,\* or
    - c) Isolate each affected penetration by use of at least one closed manual valve or blind flange.\*
    - d) The provisions of Specification 3.0.4 are not applicable provided that within 4 hours the affected penetration is isolated in accordance with Action a.1.b) or a.1.c) above, and provided that the associated system is declared inoperable, if applicable, and the appropriate action statements for that system are performed.
  2. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With one or more of the reactor instrumentation line excess flow check valves shown in Table 3.6.3-1 inoperable:
  1. Operation may continue and the provisions of Specifications 3.0.3 and 3.0.4 are not applicable provided that within 4 hours either:
    - a) The inoperable valve is returned to OPERABLE status, or
    - b) The instrument line is isolated and the associated instrument is declared inoperable.
  2. Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

\*Isolation valves closed to satisfy these requirements may be reopened on an intermittent basis under administrative control.



## ELECTRICAL POWER SYSTEMS

### MOTOR OPERATED VALVES THERMAL OVERLOAD PROTECTION

#### LIMITING CONDITION FOR OPERATION

3.8.3.3 The thermal overload protection of each valve shown in Table 3.8.4.2-1 shall be bypassed continuously or under accident conditions, as applicable, by an OPERABLE bypass device integral with the motor starter.

APPLICABILITY: Whenever the motor operated valve is required to be OPERABLE.

#### ACTION:

- a. With the thermal overload protection for one or more of the above required valves not bypassed continuously or under accident conditions, as applicable, by an OPERABLE integral bypass device, take administrative action to continuously bypass the thermal overload within 8 hours or declare the affected valve(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).
- b. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.8.3.3.1 The thermal overload protection for the above required valves shall be verified to be bypassed continuously or under accident conditions, as applicable, by an OPERABLE integral bypass device by the performance of a CHANNEL FUNCTIONAL TEST of the bypass circuitry for those thermal overloads which are normally in force during plant operation and bypassed under accident conditions and by verifying that the thermal overload protection is bypassed for those thermal overloads which are continuously bypassed and temporarily placed in force only when the valve motors are undergoing periodic or maintenance testing:

- a. At least once per 18 months, and
- b. Following maintenance on the motor starter.

4.8.3.3.2 The thermal overload protection for the above required valves which are continuously bypassed shall be verified to be bypassed following testing during which the thermal overload protection was temporarily placed in force.