

SPECIAL TEST EXCEPTION

SPECIAL TEST EXCEPTION

3/4.10.7 SINGLE CONTROL ROD WITHDRAWAL - HOT SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.10.7 The reactor mode switch position specified in Table 1.2 for OPERATIONAL CONDITION 3 may be changed to include the Refuel position to allow withdrawal of a single control rod, provided the following requirements are met:

- a. The refuel position one-rod-out interlock shall be OPERABLE.
- b. The control rod "full-in" position indication channel for each control rod shall be OPERABLE.
- c. All other control rods are fully inserted; and
- d. 1. a. LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 3.3.1-1, and  
b. Each withdrawn control rod shall be OPERABLE.

OR

- 2. All other control rods in a five by five array centered on the control rod being withdrawn are disarmed; at which time LCO 3.1.1, "Shutdown Margin", OPERATIONAL CONDITION 3 requirements may be changed to allow the single control rod withdrawn to be assumed to be the highest worth control rod.

APPLICABILITY: OPERATIONAL CONDITION 3 with the reactor mode switch in the Refuel position.

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SPECIAL TEST EXCEPTION

ACTION:

- a. With one or more of Functions 1.a, 1.b, 8.a, 8.b, 11 and 12 of Table 3.3.1-1 OPERATIONAL CONDITION 5 requirements not being met:

1. immediately enter the ACTION Statement for that function \*\*,

OR

2. immediately initiate action to fully insert all insertable control rods and within one hour place the reactor mode switch in the Shutdown position.
- b. With the refuel position one-rod-out interlock inoperable,
1. immediately suspend control rod withdrawal,
2. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and
3. place the reactor mode switch in the Shutdown position.
- c. With one or more required control rod position indication channels inoperable,
1. a. immediately suspend in-vessel fuel movement
- b. immediately suspend control rod withdrawal,
- c. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies,

OR

2. a. initiate action to fully insert the control rod associated with the inoperable position indicator, and
- b. initiate action to disarm the control rod drive associated with the fully inserted control rod,

OR

3. a. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and
- b. within one hour place the reactor mode switch in the Shutdown position.

## SPECIAL TEST EXCEPTION

### ACTION (Continued)

- d. With one or more withdrawn control rods inoperable, immediately initiate action to fully insert inoperable withdrawn control rods and within one hour place the reactor mode switch in the Shutdown position.
- e. With all other control rods in a five by five array centered on the control rod being withdrawn not disarmed, immediately initiate action to fully insert the withdrawn control rod and within one hour place the reactor mode switch in the Shutdown position.
- f. With all other control rods not fully inserted, immediately initiate action to fully insert all control rods and within one hour place the reactor mode switch in the Shutdown position.

### SURVEILLANCE REQUIREMENTS

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- 4.10.7.1 Once per 12 hours, verify reactor mode switch locked in Refuel position.
- 4.10.7.2 Once per 24 hours.
  - a. verify all control rods, other than the control rod being withdrawn, in a five by five array centered on the control rod being withdrawn, are disarmed.+
  - b. verify all control rods, other than the control rod being withdrawn, are fully inserted.
- 4.10.7.3 Once per 7 days,
  - a. perform a CHANNEL FUNCTIONAL TEST on the Refuel position one-rod-out interlock.\*
  - b. insert each withdrawn control rod at least one notch.#
  - c. verify each withdrawn control rod scram accumulator pressure is  $\geq 940$  psig.
- 4.10.7.4 Each time the control rod is withdrawn from the "full-in" position, verify the required channel has no "full-in" indication on each control rod that is not "full-in".
- 4.10.7.5 Perform LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 Surveillance Requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 4.3.1.1-1

SPECIAL TEST EXCEPTION

SURVEILLANCE REQUIREMENTS (Continued)

- \* Not required to be performed until 1 hour after any control rod is withdrawn.
- # Not required to be performed until 7 days after the control rod is withdrawn.
- + Not required to be met if LCO requirements are being satisfied by 3.10.7.d.1 requirements.
- \*\* Except that the one hour to insert all insertable control rods allowed by ACTIONS 3 and 9 of Table 3.3.1-1 is not applicable. The insertable control rods are to be inserted immediately.

**SPECIAL TEST EXCEPTION**

**3/4.10.8 SINGLE CONTROL ROD WITHDRAWAL - COLD SHUTDOWN**

**LIMITING CONDITION FOR OPERATION**

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3.10.8 The reactor mode switch position specified in Table 1.2 for OPERATIONAL CONDITION 4 may be changed to include the Refuel position to allow withdrawal of a single control rod provided the following requirements are met:

- a. All other control rods are fully inserted;
- b. The refuel position one-rod-out interlock shall be OPERABLE, and
- c. The control rod "full-in" position indication channel for each control rod shall be OPERABLE.
- d. 1. a. LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 3.3.1-1, and  
b. Each withdrawn control rod shall be OPERABLE.

**OR**

2. All other control rods in a five by five array centered on the control rod being withdrawn are disarmed; at which time LCO 3.1.1, "Shutdown Margin", OPERATIONAL CONDITION 4 requirements may be changed to allow the single control rod withdrawn to be assumed to be the highest worth control rod.

**APPLICABILITY:** OPERATIONAL CONDITION 4 with the reactor mode switch in the Refuel position.

## SPECIAL TEST EXCEPTION

### ACTION:

a. If the affected control rod is insertable:

1. With one or more of Functions 1.a, 1.b, 8.a, 8.b, 11 and 12 of Table 3.3.1-1 OPERATIONAL CONDITION 5 requirements not being met:

a. immediately enter the ACTION Statement for that function \*\*,

OR

b. immediately initiate action to fully insert all insertable control rods and within one hour place the reactor mode switch in the Shutdown position.

2. With the refuel position one-rod-out interlock inoperable,

a. immediately suspend control rod withdrawal,

b. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and

c. place the reactor mode switch in the Shutdown position.

3. With one or more required control rod position indication channels inoperable,

a. i. immediately suspend in-vessel fuel movement

ii. immediately suspend control rod withdrawal,

iii. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies,

OR

b. i. initiate action to fully insert the control rod associated with the inoperable position indicator, and

ii. initiate action to disarm the control rod drive associated with the fully inserted control rod,



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## SPECIAL TEST EXCEPTION

### ACTION (Continued)

#### OR

- c. i. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and
    - ii. within one hour place the reactor mode switch in the Shutdown position.
  4. With one or more withdrawn control rods inoperable, immediately initiate action to fully insert inoperable withdrawn control rods and within one hour place the reactor mode switch in the Shutdown position.
  5. With all other control rods in a five by five array centered on the control rod being withdrawn not disarmed immediately initiate action to fully insert the withdrawn control rod and within one hour place the reactor mode switch in the Shutdown position.
  6. With all other control rods not fully inserted, immediately initiate action to fully insert all control rods and within one hour place the reactor mode switch in the Shutdown position.
- b. If the affected control rod is not insertable:
1. Immediately suspend withdrawal of the control rod,

#### AND

2. a. immediately initiate action to fully insert all control rods,

#### OR

- b. immediately initiate action to satisfy the requirements of this LCO.

## SURVEILLANCE REQUIREMENTS

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- 4.10.8.1 Once per 12 hours, verify reactor mode switch locked in Refuel position.



## SPECIAL TEST EXCEPTION

### SURVEILLANCE REQUIREMENTS (Continued)

#### 4.10.8.2 Once per 24 hours,

- a. verify all control rods, other than the control rod being withdrawn, in a five by five array centered on the control rod being withdrawn, are disarmed.+
- b. verify all control rods, other than the control rod being withdrawn, are fully inserted.
- c. verify a control rod withdrawal block is inserted.++

#### 4.10.8.3 Once per 7 days,

- a. perform a CHANNEL FUNCTIONAL TEST on the Refuel position one-rod-out interlock.\*
- b. insert each withdrawn control rod at least one notch.#
- c. verify each withdrawn control rod scram accumulator pressure is  $\geq 940$  psig.

#### 4.10.8.4 Each time the control rod is withdrawn from the "full-in" position, verify the required channel has no "full-in" indication on each control rod that is not "full-in".

#### 4.10.8.5 Perform LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 Surveillance Requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 4.3.1.1-1

\* Not required to be performed until 1 hour after any control rod is withdrawn.

# Not required to be performed until 7 days after the control rod is withdrawn.

+ Not required to be met if LCO requirements are being satisfied by 3.10.8.c.1 requirements.

++ Not required to be met if LCO requirements are being satisfied by 3.10.8.b.1 requirements.

\*\* Except that the one hour to insert all insertable control rods allowed by ACTIONS 3 and 9 of Table 3.3.1-1 is not applicable. The insertable control rods are to be inserted immediately.

**3/4.10 SPECIAL TEST EXCEPTIONS****BASES****3/4.10.1 PRIMARY CONTAINMENT INTEGRITY**

The requirement for PRIMARY CONTAINMENT INTEGRITY is not applicable during the period when open vessel tests are being performed during the low power PHYSICS TESTS.

**3/4.10.2 ROD SEQUENCE CONTROL SYSTEM**

In order to perform the tests required in the technical specifications it is necessary to bypass the sequence restraints on control rod movement. The additional surveillance requirements ensure that the specifications on heat generation rates and shutdown margin requirements are not exceeded during the period when these tests are being performed and that individual rod worths do not exceed the values assumed in the safety analysis.

**3/4.10.3 SHUTDOWN MARGIN DEMONSTRATIONS**

Performance of shutdown margin demonstrations with the vessel head removed requires additional restrictions in order to ensure that criticality does not occur. These additional restrictions are specified in this LCO.

**3/4.10.4 RECIRCULATION LOOPS**

This special test exception permits reactor criticality under no flow conditions and is required to perform certain startup and PHYSICS TESTS while at low THERMAL POWER levels.

**3/4.10.5 TRAINING STARTUPS**

This special test exception permits training startups to be performed with the reactor vessel depressurized at low THERMAL POWER and temperature while controlling RCS temperature with one RHR subsystem aligned in the shutdown cooling mode in order to minimize contaminated water discharge to the radioactive waste disposal system.

**3/4.10.6 INSERVICE LEAK AND HYDROSTATIC TESTING**

This special test exception allows reactor vessel inservice leak and hydrostatic testing to be performed in OPERATIONAL CONDITION 4 with reactor coolant temperatures  $\leq 212^{\circ}\text{F}$ . The additionally imposed OPERATIONAL CONDITION 3 requirement for SECONDARY CONTAINMENT INTEGRITY provides conservatism in the response of the unit to an operational event. This allows flexibility since temperatures approach  $200^{\circ}\text{F}$  during the testing and can drift higher because of decay and mechanical heat. The reactor coolant temperature is controlled to insure that it does not exceed  $212^{\circ}\text{F}$ .

Since the reactor coolant temperature is at or below  $212^{\circ}\text{F}$ , minimum water level in the suppression chamber in OPERATIONAL CONDITION 4 is sufficient to provide pressure suppression and adequate NPSH for ECCS pump operation. This condition is bounded by the analysis provided in support of EO-100-103 for pressure suppression.

*Insert A*

## INSERT A

### 3/4.10.7 SINGLE CONTROL ROD WITHDRAWAL - HOT SHUTDOWN

The purpose of this OPERATIONAL CONDITION 3 Special Test Exception is to permit the withdrawal of a single control rod for testing while in Hot Shutdown, by imposing certain restrictions. In OPERATIONAL CONDITION 3, the reactor mode switch is in the Shutdown position and all control rods are inserted and blocked from withdrawal. Many systems and functions are not required in these conditions, due to the other installed interlocks that are actuated when the reactor mode switch is in the Shutdown position. However, circumstances may arise while in OPERATIONAL CONDITION 3 that present the need to withdraw a single control rod for various tests (e.g., friction tests, scram timing, and coupling integrity checks). These single control rod withdrawals are normally accomplished by selecting the Refuel position for the reactor mode switch. The withdrawn control rod is considered to be OPERABLE if the scram accumulator pressure is  $\geq 940$  psig and the control rod is capable of being automatically inserted upon receipt of a scram signal.

### 3/4.10.8 SINGLE CONTROL ROD WITHDRAWAL - COLD SHUTDOWN

The purpose of this OPERATIONAL CONDITION 4 Special Test Exception is to permit the withdrawal of a single control rod for testing while in Cold Shutdown, by imposing certain restrictions. In OPERATIONAL CONDITION 4, the reactor mode switch is in the Shutdown position and all control rods are inserted and blocked from withdrawal. Many systems and functions are not required in these conditions, due to the other installed interlocks that are actuated when the reactor mode switch is in the Shutdown position. However, circumstances may arise while in OPERATIONAL CONDITION 4 that present the need to withdraw a single control rod for various tests (e.g., friction tests, scram timing, and coupling integrity checks). These single control rod withdrawals are normally accomplished by selecting the Refuel position for the reactor mode switch. The withdrawn control rod is considered to be OPERABLE if the scram accumulator pressure is  $\geq 940$  psig and the control rod is capable of being automatically inserted upon receipt of a scram signal. Technical Specification 3/4.9.10.1 governs single control rod removal in OPERATIONAL CONDITION 4.

TABLE 1.2

## OPERATIONAL CONDITIONS

CONDITION	MODE SWITCH POSITION	AVERAGE REACTOR COOLANT TEMPERATURE
1. Power Operation	Run	Any temperature
2. Startup	Startup/Hot Standby	Any temperature
3. Hot Shutdown	Shutdown <sup>***</sup>	> 200°F
4. Cold Shutdown	Shutdown <sup>**</sup>	≤ 200°F <sup>+</sup>
5. Refueling*	Shutdown <sup>**</sup> or Refuel <sup>#</sup>	≤ 140°F

# The reactor mode switch may be placed in the Run or Startup/Hot Standby position to test the switch interlock functions provided that the control rods are verified to remain fully inserted by a second licensed operator or other technically qualified member of the unit technical staff.

## 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 3.9.10.1.

\* Fuel in the reactor vessel with the vessel head closure bolts less than fully tensioned or with the head removed.

\*\* See Special Test Exceptions 3.10.1 and 3.10.3.

\*\*\* The reactor mode switch may be placed in the Refuel position while a single control rod is being recoupled provided that the one-rod-out interlock is OPERABLE. Also see Special Test Exceptions 3.10.7 and 3.10.8.

+ See Special Test Exception 3.10.6.

**SPECIAL TEST EXCEPTION**

**SPECIAL TEST EXCEPTION**

**3/4.10.7 SINGLE CONTROL ROD WITHDRAWAL - HOT SHUTDOWN**

**LIMITING CONDITION FOR OPERATION**

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3.10.7 The reactor mode switch position specified in Table 1.2 for OPERATIONAL CONDITION 3 may be changed to include the Refuel position to allow withdrawal of a single control rod, provided the following requirements are met:

- a. The refuel position one-rod-out interlock shall be OPERABLE.
- b. The control rod "full-in" position indication channel for each control rod shall be OPERABLE.
- c. All other control rods are fully inserted; and
- d. 1. a. LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 3.3.1-1, and  
b. Each withdrawn control rod shall be OPERABLE.

**OR**

2. All other control rods in a five by five array centered on the control rod being withdrawn are disarmed; at which time LCO 3.1.1, "Shutdown Margin", OPERATIONAL CONDITION 3 requirements may be changed to allow the single control rod withdrawn to be assumed to be the highest worth control rod.

**APPLICABILITY:** OPERATIONAL CONDITION 3 with the reactor mode switch in the Refuel position.

SPECIAL TEST EXCEPTION

ACTION:

- a. With one or more of Functions 1.a, 1.b, 8.a, 8.b, 11 and 12 of Table 3.3.1-1 OPERATIONAL CONDITION 5 requirements not being met:

1. immediately enter the ACTION Statement for that function \*\*,

OR

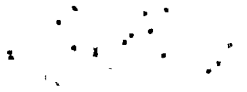
2. immediately initiate action to fully insert all insertable control rods and within one hour place the reactor mode switch in the Shutdown position.
- b. With the refuel position one-rod-out interlock inoperable,
1. immediately suspend control rod withdrawal,
2. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and
3. place the reactor mode switch in the Shutdown position.
- c. With one or more required control rod position indication channels inoperable,
1. a. immediately suspend in-vessel fuel movement
- b. immediately suspend control rod withdrawal,
- c. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies,

OR

2. a. initiate action to fully insert the control rod associated with the inoperable position indicator, and
- b. initiate action to disarm the control rod drive associated with the fully inserted control rod.

OR

3. a. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and
- b. within one hour place the reactor mode switch in the Shutdown position.



## SPECIAL TEST EXCEPTION

### ACTION (Continued)

- d. With one or more withdrawn control rods inoperable, immediately initiate action to fully insert inoperable withdrawn control rods and within one hour place the reactor mode switch in the Shutdown position.
- e. With all other control rods in a five by five array centered on the control rod being withdrawn not disarmed, immediately initiate action to fully insert the withdrawn control rod and within one hour place the reactor mode switch in the Shutdown position.
- f. With all other control rods not fully inserted, immediately initiate action to fully insert all control rods and within one hour place the reactor mode switch in the Shutdown position.

### SURVEILLANCE REQUIREMENTS

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- 4.10.7.1 Once per 12 hours, verify reactor mode switch locked in Refuel position.
- 4.10.7.2 Once per 24 hours.
  - a. verify all control rods, other than the control rod being withdrawn, in a five by five array centered on the control rod being withdrawn, are disarmed.+
  - b. verify all control rods, other than the control rod being withdrawn, are fully inserted.
- 4.10.7.3 Once per 7 days,
  - a. perform a CHANNEL FUNCTIONAL TEST on the Refuel position one-rod-out interlock.\*
  - b. insert each withdrawn control rod at least one notch.#
  - c. verify each withdrawn control rod scram accumulator pressure is  $\geq 940$  psig.
- 4.10.7.4 Each time the control rod is withdrawn from the "full-in" position, verify the required channel has no "full-in" indication on each control rod that is not "full-in".
- 4.10.7.5 Perform LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 Surveillance Requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 4.3.1.1-1



SPECIAL TEST EXCEPTION

SURVEILLANCE REQUIREMENTS (Continued)

- \* Not required to be performed until 1 hour after any control rod is withdrawn.
- # Not required to be performed until 7 days after the control rod is withdrawn.
- + Not required to be met if LCO requirements are being satisfied by 3.10.7.d.1 requirements.
- \*\* Except that the one hour to insert all insertable control rods allowed by ACTIONS 3 and 9 of Table 3.3.1-1 is not applicable. The insertable control rods are to be inserted immediately.

**SPECIAL TEST EXCEPTION**

**3/4.10.8 SINGLE CONTROL ROD WITHDRAWAL - COLD SHUTDOWN**

**LIMITING CONDITION FOR OPERATION**

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3.10.8 The reactor mode switch position specified in Table 1.2 for OPERATIONAL CONDITION 4 may be changed to include the Refuel position to allow withdrawal of a single control rod provided the following requirements are met:

- a. All other control rods are fully inserted;
- b. The refuel position one-rod-out interlock shall be OPERABLE, and
- c. The control rod "full-in" position indication channel for each control rod shall be OPERABLE.
- d. 1. a. LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 3.3.1-1, and  
b. Each withdrawn control rod shall be OPERABLE.

**OR**

2. All other control rods in a five by five array centered on the control rod being withdrawn are disarmed; at which time LCO 3.1.1, "Shutdown Margin", OPERATIONAL CONDITION 4 requirements may be changed to allow the single control rod withdrawn to be assumed to be the highest worth control rod.

**APPLICABILITY:** OPERATIONAL CONDITION 4 with the reactor mode switch in the Refuel position.

## SPECIAL TEST EXCEPTION

### ACTION:

a. If the affected control rod is insertable:

1. With one or more of Functions 1.a, 1.b, 8.a, 8.b, 11 and 12 of Table 3.3.1-1 OPERATIONAL CONDITION 5 requirements not being met:

a. immediately enter the ACTION Statement for that function \*\*,

OR

b. immediately initiate action to fully insert all insertable control rods and within one hour place the reactor mode switch in the Shutdown position.

2. With the refuel position one-rod-out interlock inoperable,

a. immediately suspend control rod withdrawal,

b. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and

c. place the reactor mode switch in the Shutdown position.

3. With one or more required control rod position indication channels inoperable,

a. i. immediately suspend in-vessel fuel movement

ii. immediately suspend control rod withdrawal,

iii. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies, and

OR

b. i. initiate action to fully insert the control rod associated with the inoperable position indicator, and

ii. initiate action to disarm the control rod drive associated with the fully inserted control rod,

OR

c. i. immediately initiate action to fully insert all insertable control rods in core cells containing one or more fuel assemblies ,and

ii. within one hour place the reactor mode switch in the Shutdown position.

## SPECIAL TEST EXCEPTION

### ACTIONS (Continued)

4. With one or more withdrawn control rods inoperable, immediately initiate action to fully insert inoperable withdrawn control rods and within one hour place the reactor mode switch in the Shutdown position.
  5. With all other control rods in a five by five array centered on the control rod being withdrawn not disarmed, immediately initiate action to fully insert the withdrawn control rod and within one hour place the reactor mode switch in the Shutdown position.
  6. With all other control rods not fully inserted, immediately initiate action to fully insert all control rods and within one hour place the reactor mode switch in the Shutdown position.
- b. If the affected control rod is not insertable:
1. Immediately suspend withdrawal of the control rod,
- AND
2. a. immediately initiate action to fully insert all control rods,
- OR
- b. immediately initiate action to satisfy the requirements of this LCO.

### SURVEILLANCE REQUIREMENTS

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- 4.10.8.1 Once per 12 hours, verify reactor mode switch locked in Refuel position.
- 4.10.8.2 Once per 24 hours.
  - a. verify all control rods, other than the control rod being withdrawn, in a five by five array centered on the control rod being withdrawn, are disarmed.+
  - b. verify all control rods, other than the control rod being withdrawn, are fully inserted.
  - c. verify a control rod withdrawal block is inserted.++



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**SPECIAL TEST EXCEPTION**

**SURVEILLANCE REQUIREMENTS (Continued)**

4.10.8.3 Once per 7 days,

- a. perform a CHANNEL FUNCTIONAL TEST on the Refuel position one-rod-out interlock.\*
- b. insert each withdrawn control rod at least one notch.#
- c. verify each withdrawn control rod scram accumulator pressure is  $\geq 940$  psig.

4.10.8.4 Each time the control rod is withdrawn from the "full-in" position, verify the required channel has no "full-in" indication on each control rod that is not "full-in".

4.10.8.5 Perform LCO 3.3.1, "Reactor Protection System Instrumentation," OPERATIONAL CONDITION 5 Surveillance Requirements for Functions 1.a, 1.b, 8.a, 8.b, 11, and 12 of Table 4.3.1.1-1

\* Not required to be performed until 1 hour after any control rod is withdrawn.

# Not required to be performed until 7 days after the control rod is withdrawn.

+ Not required to be met if LCO requirements are being satisfied by 3.10.8.c.1 requirements.

++ Not required to be met if LCO requirements are being satisfied by 3.10.8.b.1 requirements.

\*\* Except that the one hour to insert all insertable control rods allowed by ACTIONS 3 and 9 of Table 3.3.1-1 is not applicable. The insertable control rods are to be inserted immediately.

### 3/4.10 SPECIAL TEST EXCEPTIONS

#### BASES

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#### 3/4.10.1 PRIMARY CONTAINMENT INTEGRITY

The requirement for PRIMARY CONTAINMENT INTEGRITY is not applicable during the period when open vessel tests are being performed during the low power PHYSICS TESTS.

#### 3/4.10.2 ROD SEQUENCE CONTROL SYSTEM

In order to perform the tests required in the technical specifications it is necessary to bypass the sequence restraints on control rod movement. The additional surveillance requirements ensure that the specifications on heat generation rates and shutdown margin requirements are not exceeded during the period when these tests are being performed and that individual rod worths do not exceed the values assumed in the safety analysis.

#### 3/4.10.3 SHUTDOWN MARGIN DEMONSTRATIONS

Performance of shutdown margin demonstrations with the vessel head removed requires additional restrictions in order to ensure that criticality does not occur. These additional restrictions are specified in this LCO.

#### 3/4.10.4 RECIRCULATION LOOPS

This special test exception permits reactor criticality under no flow conditions and is required to perform certain startup and PHYSICS TESTS while at low THERMAL POWER levels.

#### 3/4.10.5 TRAINING STARTUPS

This special test exception permits training startups to be performed with the reactor vessel depressurized at low THERMAL POWER and temperature while controlling RCS temperature with one RHR subsystem aligned in the shutdown cooling mode in order to minimize contaminated water discharge to the radioactive waste disposal system.

#### 3/4.10.6 INSERVICE LEAK AND HYDROSTATIC TESTING

This special test exception allows reactor vessel inservice leak and hydrostatic testing to be performed in OPERATIONAL CONDITION 4 with reactor coolant temperatures  $\leq 212^{\circ}\text{F}$ . The additionally imposed OPERATIONAL CONDITION 3 requirement for SECONDARY CONTAINMENT INTEGRITY provides conservatism in the response of the unit to an operational event. This allows flexibility since temperatures approach  $200^{\circ}\text{F}$  during the testing and can drift higher because of decay and mechanical heat. The reactor coolant temperature is controlled to insure that it does not exceed  $212^{\circ}\text{F}$ .

Since the reactor coolant temperature is at or below  $212^{\circ}\text{F}$ , minimum water level in the suppression chamber in OPERATIONAL CONDITION 4 is sufficient to provide pressure suppression and adequate NPSH for ECCS pump operation. This condition is bounded by the analysis provided in support of EO-200-103 for pressure suppression.

*Insert A*

## INSERT A

### 3/4.10.7 SINGLE CONTROL ROD WITHDRAWAL - HOT SHUTDOWN

The purpose of this OPERATIONAL CONDITION 3 Special Test Exception is to permit the withdrawal of a single control rod for testing while in Hot Shutdown, by imposing certain restrictions. In OPERATIONAL CONDITION 3, the reactor mode switch is in the Shutdown position and all control rods are inserted and blocked from withdrawal. Many systems and functions are not required in these conditions, due to the other installed interlocks that are actuated when the reactor mode switch is in the Shutdown position. However, circumstances may arise while in OPERATIONAL CONDITION 3 that present the need to withdraw a single control rod for various tests (e.g., friction tests, scram timing, and coupling integrity checks). These single control rod withdrawals are normally accomplished by selecting the Refuel position for the reactor mode switch. The withdrawn control rod is considered to be OPERABLE if the scram accumulator pressure is  $\geq 940$  psig and the control rod is capable of being automatically inserted upon receipt of a scram signal.

### 3/4.10.8 SINGLE CONTROL ROD WITHDRAWAL - COLD SHUTDOWN

The purpose of this OPERATIONAL CONDITION 4 Special Test Exception is to permit the withdrawal of a single control rod for testing while in Cold Shutdown, by imposing certain restrictions. In OPERATIONAL CONDITION 4, the reactor mode switch is in the Shutdown position and all control rods are inserted and blocked from withdrawal. Many systems and functions are not required in these conditions, due to the other installed interlocks that are actuated when the reactor mode switch is in the Shutdown position. However, circumstances may arise while in OPERATIONAL CONDITION 4 that present the need to withdraw a single control rod for various tests (e.g., friction tests, scram timing, and coupling integrity checks). These single control rod withdrawals are normally accomplished by selecting the Refuel position for the reactor mode switch. The withdrawn control rod is considered to be OPERABLE if the scram accumulator pressure is  $\geq 940$  psig and the control rod is capable of being automatically inserted upon receipt of a scram signal. Technical Specification 3/4.9.10.1 governs single control rod removal in OPERATIONAL CONDITION 4.



