

ATTACHMENT TO LICENSE AMENDMENT  
AMENDMENT NO.            FACILITY OPERATING NO. DPR-31  
AMENDMENT NO.            FACILITY OPERATING NO. DPR-41  
DOCKET NO. 50-250 AND 50-251

Revise Appendix A as follows:

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### **3.0 LIMITING CONDITIONS FOR OPERATION - APPLICABILITY**

**3.0.1** Compliance with the Limiting Conditions for Operation contained in the succeeding specifications is required during the OPERATIONAL MODES or other conditions specified therein; except that upon failure to meet the Limiting Conditions for Operation, the associated ACTION requirements shall be met.

**3.0.2** Non-compliance 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 intervals. If the Limiting Condition for Operation is restored prior to expiration of the specified time intervals, completion of the ACTION requirements is not required.

**3.0.3** When a Limiting Condition for Operation is not met, except as provided in the associated ACTION requirements, within 1 hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

- a) At least HOT STANDBY within the next 6 hours,\*
- b) At least HOT SHUTDOWN within the following 6 hours, and\*
- c) 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 MODE 5 or 6.

**3.0.4** Entry into an OPERATIONAL MODE or other specified condition shall not be made when the conditions for the Limiting Condition for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL MODE or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements. Exceptions to these requirements are stated in the individual specifications.

**3.0.5** For purposes of determining if a component is operable for LCO considerations, the component need not be considered inoperable due to inoperability of its normal or emergency power supply if all of its redundant components are operable with their normal or emergency power supplies operable.

**\*NOTE:** Until full conversion to STS, when a LCO action statement requires a unit to be placed in HOT SHUTDOWN within 6 hours, refer to Table 1.1 and place the unit on the required status to meet the HOT STANDBY MODE.



5. TWO residual heat removal pumps shall be operable.
  6. TWO residual heat exchangers shall be operable.
  7. All valves, interlocks and piping associated with the above components and required for post accident operation, shall be operable except valves that are positioned and locked. Valves 862-A and B; 863-A and B; 865-A, B, and C; and 866-A and B shall have power removed from their motor operators by locking open the circuit breakers at the Motor Control Centers. The air supply to valve 758 shall be shut off to the valve operator.
- b. During power operation, the requirements of 3.4.1a may be modified to allow one of the following components to be inoperable (including associated valves and piping) at any one time except for the cases stated in 3.4.1.b.2. If the system is not restored to meet the requirements of 3.4.1a within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.4.1a are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition.
1. ONE accumulator may be out of service for a period of up to 4 hours.
  2. ONE of FOUR safety injection pumps may be out of service for 30 days. A second safety injection pump may be out of service, provided the pump is restored to operable status within 24 hours. TWO of the FOUR Safety injection pumps shall be tested to demonstrate operability before initiating maintenance of the inoperable pumps.
  3. ONE channel of heat tracing on the flow path may be out of service for 24 hours.\*
  4. ONE residual heat removal pump may be out of service, provided the pump is restored to operable status within 24 hours. In addition the other residual heat removal pump shall be tested to demonstrate operability prior to initiating maintenance of the inoperable pump.

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\*See reference (11) on page B.3.4-2

**2. EMERGENCY CONTAINMENT COOLING SYSTEMS**

- a. The reactor shall not be made critical, except for low power physics tests unless the following conditions are met:
  - 1. Three emergency containment cooling units are operable.
  - 2. Two containment spray pumps are operable.
  - 3. All valves and piping associated with the above components, and required for post accident operation, are operable.
- b. During power operation, the requirements of 3.4.2a may be modified to allow one of the following components to be inoperable (including associated valves and piping) at any one time. If the system is not restored to meet the requirements of 3.4.2a within the time period specified, the reactor shall be placed in the HOT SHUTDOWN condition. If the requirements of 3.4.2a are not satisfied within an additional 48 hours, the reactor shall be placed in the COLD SHUTDOWN condition.



1. ONE emergency containment cooling unit may be out of service for a period of 24 hours. Prior to initiating maintenance the other TWO units shall be tested to demonstrate operability.
2. ONE containment spray pump may be out of service provided it is restored to operable status within 24 hours. The remaining containment spray pump shall be tested to demonstrate operability before initiating maintenance of the inoperable pump.
3. Any valve in the system may be inoperable provided repairs are completed within 24 hours. Prior to initiating repairs, all valves that provide the duplicate function shall be tested to demonstrate operability.

3. EMERGENCY CONTAINMENT FILTERING SYSTEM

APPLICABILITY: MODES 1, 2, 3 and 4

- a. Three emergency containment filtering units are operable.
- b. All valves, interlocks and piping associated with the above components and required for post accident operation, are operable.

ACTION:

1. ONE unit may be inoperable for a period of 7 days if the other TWO are operable.
2. Any valve in the system may be inoperable provided repairs are completed within 7 days. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.
3. If after 7 days the unit is still inoperable, be in HOT STANDBY within 6 hours and COLD SHUTDOWN within the following 30 hours.

5. INTAKE COOLING WATER SYSTEM

- a. The reactor shall not be made critical unless the following conditions are met:
  - 1. Three intake cooling water pumps and TWO headers are operable.
  - 2. All valves, interlocks and piping associated with the operation of these pumps, and required for post accident operation, are operable.
- b. During power operation, the requirements of 3.4.5.a, above, may be modified to allow any one of the following components to be inoperable provided the remaining systems are in continuous operation. If the system is not restored to meet the requirements of 3.4.5.a within the time period specified, the reactor shall be placed in the hot shutdown condition. If the requirements of 3.4.5.a are not satisfied within an additional 48 hours, the reactor shall be placed in the cold shutdown condition.
  - 1. One of the two headers may be out of service for a period of 24 hours.
  - 2. One intake cooling water pump may be out of service for a period of 24 hours.



6. POST ACCIDENT CONTAINMENT VENT SYSTEM

APPLICABILITY: MODES 1 and 2

- a. The post accident containment vent system is operable.
- b. All valves, interlocks and piping associated with the above components and required for post accident operation are operable.

ACTION:

1. The unit may be inoperable for a period of 7 days.
2. Any valve in the system may be inoperable provided repairs are completed within 7 days. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.
3. If after 7 days the unit is still inoperable, be in HOT STANDBY within 6 hours.

7. CONTROL ROOM VENTILATION

APPLICABILITY: All MODES

- a. The control room ventilation system is operable.
- b. All valves, interlocks and piping associated with the above components and required for post accident operation are operable.

Note: Reactor can be made critical with the system inoperable for up to 45 days to allow for implementation of modifications necessary to satisfy licensing commitments associated with NUREG-0737, Item III.D.3.4, Control Room Habitability, is acceptable provided that a temporary control room filtration system is operable. With the temporary filtration system inoperable, the reactor shall not be made critical.

ACTION:

MODES 1, 2, 3, and 4

1. The unit may be inoperable for a period of 3½ days.
2. Any valve in the system may be inoperable provided repairs are completed within 3½ days. Prior to initiating maintenance, all valves that provide the duplicate function shall be tested to demonstrate operability.

3. If after 3½ days the unit is still inoperable, be in at least HOT STANDBY and in COLD SHUTDOWN within the following 30 hours.

Note: Inoperability of the system for up to 45 days to allow for implementation of modifications necessary to satisfy licensing commitments associated with NUREG-0737, Item III.D.3.4, Control Room Habitability, is acceptable provided that a temporary control room filtration system is operable. With the temporary filtration system inoperable, current Technical Specification limits shall apply.

**MODES 5 and 6:**

With the control room ventilation system inoperable, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

### 3.5 INSTRUMENTATION

Applicability: Applies to reactor safety and features and accident monitoring instrumentation systems.

Objective: To delineate the conditions of the instrumentation and safety circuits necessary to ensure reactor safety.

Specification: 1. Tables 3.5-1 through 3.5-5 state the minimum instrumentation operation conditions.

1. TWO associated charging pumps shall be operable.
  2. THREE boric acid transfer pumps shall be operable.
  3. The boric acid tanks in service shall contain a total of at least 6160 gallons of a 20,000 to 22,500 ppm boron solution at a temperature of at least 145°F.
  4. System piping, interlocks and valves shall be operable to the extent of establishing one flow path from the boric acid tanks, and one flow path from the refueling water storage tank, to each Reactor Coolant System.
  5. TWO channels of heat tracing shall be operable for the flow path from the boric acid tanks.
  6. The primary water storage tank contains not less than 30,000 gallons of water.
- d. During power operation, the requirements of 3.6.b and c may be modified to allow one of the following components to be inoperable. If the system is not restored to meet the requirements of 3.6.b and c within the time period specified, the reactor(s) shall be placed in the hot shutdown condition. If the requirements of 3.6.b and c are not satisfied within an additional 48 hours, the reactor(s) shall be placed in the cold shutdown condition.
1. One of the two operable charging pumps may be removed from service provided that it is restored to operable status within 24 hours.
  2. One boric acid transfer pump may be out of service provided that it is restored to operable status within 24 hours.
  3. One channel of heat tracing may be out of service for 24 hours.

- b. Power operation may continue if ONE diesel generator is out of service provided (1) the remaining diesel generator is tested daily and its associated engineered safety features are operable, and (2) either start-up transformer is operable. If the diesel outage is to be seven (7) days or more the NRC shall be notified.
- c. ONE battery may be out of service for a period of twenty four (24) hours.

### 3.8 STEAM AND POWER CONVERSION SYSTEMS

Applicability: Applies to the operating status of the steam and power conversion systems.

Objective: To define conditions of the steam-relieving capacity.

- Specification:
1. When the reactor coolant of a nuclear unit is heated above 350°F, the following conditions must be met:
    - a. TWELVE (12) of its steam generator safety valves shall be operable (except for testing).
    - b. Its main steam stop valves shall be operable and capable of closing in 5 seconds or less.
    - c. System piping, interlocks and valves directly associated with the related components in TS 3.8.1 a, b shall be operable.
  2. The iodine-131 activity on the secondary site of a steam generator shall not exceed 0.67  $\mu\text{Ci/gm}$ .
  3. With the reactor coolant system above 350°F, if any of above specifications cannot be met within 48 hours, the reactor shall be shutdown and the reactor coolant temperature reduced below 350°F.

**SURVEILLANCE REQUIREMENTS**

- 4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.
- 4.0.2 Each Surveillance Requirement shall be performed within the specified time interval with:
- a. A maximum allowable extension not to exceed 25% of the surveillance interval, but
  - b. The combined time interval for any three consecutive surveillance intervals shall not exceed 3.25 times the specified surveillance interval.
- 4.0.3 Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, 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.
- 4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with a Limiting Condition of Operation has been performed within the stated surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.





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

- a) Inservice inspection of ASME Code Class 1, 2, and 3 components 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 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 activities

Required frequencies for  
performing inservice  
inspection 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

- c) The provisions of Specification 4.0.2 are applicable to the above required frequencies for performing inservice inspection activities.
- d) Performance of the above inservice inspection activities shall be in addition to other specified Surveillance Requirements.
- e) Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any Technical Specification.

## 4.2 REACTOR COOLANT SYSTEM IN-SERVICE INSPECTION

**Applicability:** Applies to pre-operational and in-service structural surveillance of the reactor coolant system boundary.

**Objective:** To assure the continued integrity of the reactor coolant system boundary.

**Specification:** 4.2.1 Except as listed below, there are no additional surveillance requirements other than those required by Specification 4.0.5. |

4.2.2 The inspection interval shall be 10 years.

4.2.3 Deleted

4.2.4 Deleted



**4.4.3     ISOLATION VALVES**

Containment isolation valves shall be tested in accordance with 10 CFR 50, Appendix J, (type C tests).

**4.4.4     RESIDUAL HEAT REMOVAL SYSTEM**

No additional surveillance requirements other than those required by Specification 4.0.5.

## SNUBBERS

4.14.1 Each safety related snubber shall be demonstrated OPERABLE by performance of the following augmented in-service inspection program.

a. Inspection Types

As used in this specification, type of snubber shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspections

Snubbers may be categorized as inaccessible or accessible during reactor operation. Each of these groups (inaccessible and accessible) may be inspected independently according to the schedule below. The first in-service visual inspection of each type of snubber shall be performed after 4 months but within 10 months of commencing POWER OPERATION and shall include all snubbers. If all snubbers of each type (on any system) are found OPERABLE during the first in-service visual inspection, the second in-service visual inspection (of that system) shall be performed at the first refueling outage. Otherwise, subsequent visual inspections (of a given system) shall be performed in accordance with the following schedule:

<u>Number Inoperable Snubbers of Each Type (on any system) per Inspection Period per Unit</u>	<u>Subsequent Visual Inspection Period *#</u>
0	18 months $\pm$ 25%
1	12 months $\pm$ 25%
2	6 months $\pm$ 25%
3, 4	124 days $\pm$ 25%
5, 6, 7	62 days $\pm$ 25%
8 or more	31 days $\pm$ 25%

\* The inspection interval for each type of snubber (on a given system) shall not be lengthened more than one step at a time unless a generic problem has been identified and corrected; in that event the inspection interval may be lengthened one step the first time and two steps thereafter if no inoperable snubbers of that type are found (on that system).

# The provisions of T.S. 4.0.2 are not applicable.

Specification 3.0.1 through 3.0.4 establish the general requirements applicable to Limiting Conditions for Operation. These requirements are based on the requirements for Limiting Conditions for Operation stated in the Code of Federal Regulations, 10 CFR 50.36(c)(2):

"Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shutdown the reactor or follow any remedial action permitted by the technical specification until the condition can be met."

Specification 3.0.1 establishes the Applicability statement within each individual specification as the requirement for when (i.e., in which OPERATIONAL MODES or other specified conditions) conformance to the Limiting Conditions for Operation is required for safe operation of the facility. The ACTION requirements establish those remedial measures that must be taken within specified time limits when the requirements of a Limiting Condition for Operation are not met.

There are two basic types of ACTION requirements. The first specifies the remedial measures that permit continued operation of the facility which is not further restricted by the time limits of the ACTION requirements. In this case, conformance to the ACTION requirements provides an acceptable level of safety for unlimited continued operation as long as the ACTION requirements continue to be met. The second type of ACTION requirement specifies a time limit in which conformance to the conditions of the Limiting Condition for Operation must be met. This time limit is the allowable outage time to restore an inoperable system or component to OPERABLE status or for restoring parameters within specified limits. If these actions are not completed within the allowable outage time limits, a shutdown is required to place the facility in a MODE or condition in which the specification no longer applies. It is not intended that the shutdown ACTION requirements be used as an operational convenience which permits (routine) voluntary removal of a system(s) or component(s) from service in lieu of other alternatives that would not result in redundant systems or components being inoperable.

The specified time limits of the ACTION requirements are applicable from the point in time it is identified that a Limiting Condition for Operation is not met. If it can be clearly determined when a Limiting Condition for Operation cannot be met, the ACTION Statement and/or Specification 3.0.3 must be applied to the time the Limiting Condition for Operation was not met. If it cannot be clearly determined when a Limiting Condition for Operation was not met, then the ACTION Statement and/or Specification 3.0.3 must be applied from time of discovery.

The time limits of the ACTION requirements are also applicable when a system or component is removed from service for surveillance testing or investigation of operational problems. Individual specifications may include a specified time limit for the completion of a Surveillance Requirement when equipment is removed from service. In this case, the allowable outage time limits of the ACTION requirements are applicable when this limit expires if the surveillance has not been completed. When a shutdown is required to comply with ACTION requirements, the plant may have entered a MODE in which a new specification becomes applicable. In this case, the time limits of the ACTION requirements would apply from the point in time that the new specification becomes applicable if the requirements of the Limiting Condition for Operation are not met.

Specification 3.0.2 establishes that noncompliance with a specification exists when the requirements of the Limiting Condition for Operation are not met and the associated ACTION requirements have not been implemented within the specified time interval. The purpose of this specification is to clarify that (1) implementation of the ACTION requirements within the specified time interval constitutes compliance with a specification and (2) completion of the remedial measures of the ACTION requirements is not required when compliance with a Limiting Condition of Operation is restored within the time interval specified in the associated ACTION requirements.

### 3/4.0 APPLICABILITY

#### BASES (Continued)

Specification 3.0.3 establishes the shutdown ACTION requirements that must be implemented when a Limiting Condition for Operation is not met and the condition is not specifically addressed by the associated ACTION requirements. The purpose of this specification is to delineate the time limits for placing the unit in a safe shutdown MODE when plant operation cannot be maintained within the limits for safe operation defined by the Limiting Conditions for Operation and its ACTION requirements. It is not intended to be used as an operational convenience which permits (routine) voluntary removal of redundant systems or components from service in lieu of other alternatives that would not result in redundant systems or components being inoperable. One hour is allowed to prepare for an orderly shutdown before initiating a change in plant operation. This time permits the operator to coordinate the reduction in electrical generation with the load dispatcher to ensure the stability and availability of the electrical grid. The time limits specified to reach lower MODES of operation permit the shutdown to proceed in a controlled and orderly manner that is well within the specified maximum cooldown rate and within the cooldown capabilities of the facility assuming only the minimum required equipment is OPERABLE. This reduces thermal stresses on components of the primary coolant system and the potential for a plant upset that could challenge safety systems under conditions for which this specification applies.

If remedial measures permitting limited continued operation of the facility under the provisions of the ACTION requirements are completed, the shutdown may be terminated. The time limits of the ACTION requirements are applicable from the point in time there was a failure to meet a Limiting Condition for Operation. Therefore, the shutdown may be terminated if the ACTION requirements have been met or the time limits of the ACTION requirements have not expired, thus providing an allowance for the completion of the required actions.

The time limits of Specification 3.0.3 allow 37 hours for the plant to be in the COLD SHUTDOWN MODE when a shutdown is required during the POWER MODE of operation. If the plant is in a lower MODE of operation when a shutdown is required, the time limit for reaching the new lower MODE of operation applies. However, if a lower MODE of operation is reached in less time than allowed, the total allowable time to reach COLD SHUTDOWN, or other applicable MODE, is not reduced. For example, if HOT STANDBY is reached in 2 hours, the time allowed to reach HOT SHUTDOWN is the next 11 hours because the total time to reach HOT SHUTDOWN is not reduced from the allowable limit of 13 hours. Therefore, if remedial measures are completed that would permit a return to POWER operation, a penalty is not incurred by having to reach a lower MODE of operation in less than the total time allowed.

The same principle applies with regard to the allowable outage time limits of the ACTION requirements, if compliance with the ACTION requirements for one specification results in entry into a MODE or condition of operation for another specification in which the requirements of the Limiting Condition for Operation are not met. If the new specification becomes applicable in less time than specified, the difference may be added to the allowable outage time limits of the second specification. However, the allowable outage time limits of ACTION requirements for a higher MODE of operation may not be used to extend the allowable outage time that is applicable when a Limiting Condition for Operation is not met in a lower MODE of operation.

### 3/4.0 APPLICABILITY

#### BASES (Continued)

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The shutdown requirements of Specification 3.0.3 do not apply in MODES 5 and 6, because the ACTION requirements of individual specifications define the remedial measures to be taken.

Specification 3.0.4 establishes limitations on MODE changes when a Limiting Condition for Operation is not met. It precludes placing the facility in a higher MODE of operation when the requirements for a Limiting Condition for Operation are not met and continued noncompliance to these conditions would result in a shutdown to comply with the ACTION requirements if a change in MODES were permitted. The purpose of this specification is to ensure that facility operation is not initiated or that higher MODES of operation are not entered when corrective action is being taken to obtain compliance with a specification by restoring equipment to OPERABLE status or parameters to specified limits. Compliance with ACTION requirements that permit continued operation of the facility for an unlimited period of time provides an acceptable level of safety for continued operation without regard to the status of the plant before or after a MODE change. Therefore, in this case, entry into an OPERATIONAL MODE or other specified condition may be made in accordance with the provisions of the ACTION requirements. The provisions of this specification should not, however, be interpreted as endorsing the failure to exercise good practice in restoring systems or components to OPERABLE status before plant startup.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 3.0.4 do not apply because they would delay placing the facility in a lower MODE of operation.

Specification 3.0.5 delineates what additional conditions must be satisfied to permit operation continue, consistent with the ACTION statements for power sources, when a normal or emergency power source is not OPERABLE. It specifically prohibits operation when one division is inoperable because its normal or emergency power source is inoperable and a system, subsystem, train, component or device in another division is inoperable for another reason.



The provisions of this specification permit the ACTION statements associated with individual systems, subsystems, trains, components or devices to be consistent with the ACTION statements of the associated electrical power source. It allows operation to be governed by the time limits of the ACTION statement associated with the Limiting Condition for Operation for the normal or emergency power source, not the individual ACTION statements for each system, subsystem, train, component or device that is determined to be inoperable solely because of the inoperability of its normal or emergency power source.

For example, Specification 3.7.1 requires in part that two emergency diesel generators be OPERABLE. The ACTION statement provides for an out-of-service time when one emergency diesel generator is not OPERABLE. If the definition of OPERABLE were applied without consideration of Specification 3.0.5, all systems, subsystems, trains, components and devices supplied by the inoperable emergency power source would also be inoperable. This would dictate invoking the applicable ACTION statements for each of the applicable Limiting Conditions for Operation. However, the provisions of Specification 3.0.5 permit the time limits for continued operation to be consistent with the ACTION statement for the inoperable emergency diesel generator instead, provided the other specified conditions are satisfied. In this case, this would mean that the corresponding normal power source must be OPERABLE, and all redundant systems, subsystems, trains, components and devices must be operable, or otherwise satisfy Specification 3.0.5 (i.e., be capable of performing their design function and have at least one normal or one emergency power source OPERABLE). If they are not satisfied, shutdown is required in accordance with this specification.

In cold shutdown or refueling condition, Specification 3.0.5 is not applicable, and thus the individual ACTION statements for each applicable Limiting Condition for Operation in these conditions must be adhered to.

Specifications 4.0.1 through 4.0.5 establish the general requirements applicable to Surveillance Requirements. These requirements are based on the Surveillance Requirements stated in the Code of Federal Regulations, 10 CFR 50.36(c)(3):

"Surveillance requirements are requirements relating to test, calibration, or inspection to ensure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits and that the limiting conditions of operation will be met."

Specification 4.0.1 establishes the requirement that surveillances must be performed during the OPERATIONAL MODES or other conditions for which the requirements of the Limiting Conditions for Operation apply unless otherwise stated in an individual Surveillance Requirement. The purpose of this specification is to ensure that surveillances are performed to verify the operational status of systems and components and that parameters are within specified limits to ensure safe operation of the facility when the plant is in a MODE or other specified condition for which the associated Limiting Conditions for Operation are applicable. Surveillance Requirements do not have to be performed when the facility is in an OPERATIONAL MODE for which the requirements of the associated Limiting Condition for Operation do not apply unless otherwise specified. The Surveillance Requirements associated with a Special Test Exception are only applicable when the Special Test Exception is used as an allowable exception to the requirements of a specification.

Specification 4.0.2 establishes the conditions under which the specified time interval for Surveillance Requirements may be extended. Item a. permits an allowable extension of the normal surveillance interval to facilitate surveillance scheduling and consideration of plant operating conditions that may not be suitable for conducting the surveillance; e.g., transient conditions or other ongoing surveillance or maintenance activities. Item b. limits the use of the provisions of item a. to ensure that it is not used repeatedly to extend the surveillance interval beyond that specified. The limits of Specification 4.0.2 are based on engineering judgment and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. These provisions are sufficient to ensure that the reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval.

### 3/4.0 APPLICABILITY

#### BASES (Continued)

Specification 4.0.3 establishes the failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, as a condition that constitutes a failure to meet the OPERABILITY requirements for a Limiting Condition for Operation. Under the provisions of this specification, systems and components are assumed to be OPERABLE when Surveillance Requirements have been satisfactorily performed within the specified time interval. However, nothing in this provision is to be construed as implying that systems or components are OPERABLE when they are found or known to be inoperable although still meeting the Surveillance Requirements. This specification also clarifies that the ACTION requirements are applicable when Surveillance Requirements have not been completed within the allowed surveillance interval and that the time limits of the ACTION requirements apply from the point in time it is identified that a surveillance has not been performed and not at the time that the allowed surveillance interval was exceeded. Completion of the Surveillance Requirement within the allowable outage time limits of the ACTION requirements restores compliance with the requirements of Specification 4.0.3.

However, this does not negate the fact that the failure to have performed the surveillance within the allowed surveillance interval, defined by the provisions of Specification 4.0.2, was a violation of the OPERABILITY requirements of a Limiting Condition for Operation that is subject to enforcement action. Further, the failure to perform a surveillance within the provisions of Specification 4.0.2 is a violation of a Technical Specification requirement and is, therefore, a reportable event under the requirements of 10 CFR 50.73(a)(2)(i)(B) because it is a condition prohibited by the plant's Technical Specifications.

If the allowable outage time limits of the ACTION requirements are less than 24 hours or a shutdown is required to comply with ACTION requirements, e.g., Specification 3.0.3, a 24-hour allowance is provided to permit a delay in implementing the ACTION requirements. This provides an adequate time limit to complete Surveillance Requirements that have not been performed. The purpose of this allowance is to permit the completion of a surveillance before a shutdown is required to comply with ACTION requirements or before other remedial measures would be required that may preclude completion of a surveillance. The basis for this allowance includes consideration for plant conditions, adequate planning, availability of personnel, the time required to perform the surveillance, and the safety significance of the delay in completing the required surveillance. This provision also provides a time limit for the completion of Surveillance Requirements that become applicable as a consequence of MODE changes imposed by ACTION requirements and for completing Surveillance Requirements that are applicable when an exception to the requirements of Specification 4.0.4 is allowed. If a surveillance is not completed within the 24-hour allowance, the time limits of the ACTION requirements are applicable at that time. When a surveillance is performed within the 24-hour allowance and the Surveillance Requirements are not met, the time limits of the ACTION requirements are applicable at the time that the surveillance is terminated.

Surveillance Requirements do not have to be performed on inoperable equipment because the ACTION requirements define the remedial measures that apply. However, the Surveillance Requirements have to be met to demonstrate that inoperable equipment has been restored to OPERABLE status.

### 3/4.0 APPLICABILITY

#### BASES (Continued)

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Specification 4.0.4 establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a MODE or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operation are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 4.0.4 do not apply because this would delay placing the facility in a lower MODE of operation.

Specification 4.0.5 ensures that inservice inspection of ASME Code Class 1, 2, and 3 components will be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. Relief from any of the above requirements has been provided in writing by the Commission and is not a part of these Technical Specifications.

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

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Code and applicable Addenda.

**BASES FOR REACTOR COOLANT SYSTEM IN-SERVICE INSPECTION**

This specification ensures that inservice inspection of ASME Code Class 1, 3, and 3 components will be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a. This is accomplished by referencing the inspections required by Specification 4.0.5.

**MISCELLANEOUS INSPECTIONS****Steam Generator Tube Inspection**

The Surveillance Requirements for inspection of the steam generator tubes ensure that the structural integrity of this portion of the RCS will be maintained. The program for inservice inspection of steam generator tubes is based on a modification of Regulatory Guide 183, Revision 1. Inservice inspection of steam generator tubing is essential in order to maintain surveillance of the conditions of the tubes in the event that there is evidence of mechanical damage or progressive degradation due to design, manufacturing errors, or inservice conditions that lead to corrosion. In service inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures can be taken.

The plant is expected to be operated in a manner such that the secondary coolant will be maintained within those parameter limits found to result in negligible corrosion of the steam generator tubes. If the secondary coolant chemistry is not maintained within these parameter limits, localized corrosion may likely result in stress corrosion cracking. The extent of cracking during plant operation would be limited by the limitation of steam generator tube leakage between the primary coolant system and the secondary coolant system (primary-to-secondary leakage - 1 gallon per minute, total). Cracks having a primary-to-secondary leakage less than this limit during operation will have an adequate margin of safety to withstand the loads imposed during normal operation and by postulated accidents. Operating plants have demonstrated that primary-to-secondary leakage of 1 gallon per minute can readily be detected by radiation monitors of steam generator blowdown. Leakage in excess of this limit will require plant shutdown and an unscheduled inspection, during which the leaking tubes will be located and plugged.

Wastage-type defects are unlikely with the all volatile treatment (AVT) of secondary coolant. However, even if a defect of similar type should develop in service, it will be found during scheduled inservice steam generator tube examinations. Plugging will be required of all tubes with imperfections exceeding the plugging limit which, by the definition of Specification 4.2.5.4a is 40% of the tube nominal wall thickness. Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect degradation that has penetrated 20% of the original tube wall thickness.

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3, of Table 4.2-3 these results shall be reported to the Commission pursuant to Specification 6.9.3.k. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.



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