

3.6 CONTAINMENT SYSTEMS

3.6.2.3 Residual Heat Removal (RHR) Suppression Pool Cooling

LCO 3.6.2.3 Four RHR suppression pool cooling subsystems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| A. One RHR suppression pool cooling subsystem inoperable. | A.1 Restore the RHR suppression pool cooling subsystem to OPERABLE status. | 30 days |
| B. Two RHR suppression pool cooling subsystems inoperable. | B.1 Restore one RHR suppression pool cooling subsystem to OPERABLE status. | 7 days |
| C. Three or more RHR suppression pool cooling subsystems inoperable. | C.1 Restore required RHR suppression pool cooling subsystems to OPERABLE status. | 8 hours |

(continued)

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---------------------------------|-----------------|
| Required Action and associated Completion Time not met. | D.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> D.2 Be in MODE 4. | 36 hours |

BASES

ACTIONS
(continued)

B.1

With two RHR suppression pool cooling subsystems inoperable, at least one inoperable subsystem must be restored to OPERABLE status within 7 days. In this condition, the remaining two RHR suppression pool cooling subsystems are adequate to perform the primary containment cooling function. However, the overall reliability is reduced because a single failure could result in reduced or no primary containment cooling capability depending upon whether the two OPERABLE subsystems are in separate loops or the same loop. The 7 day Completion Time is acceptable in light of the redundant RHR suppression pool cooling capabilities afforded by the two OPERABLE subsystems and the low probability of a DBA occurring during this period.

C.1

With three or more RHR suppression pool cooling subsystems inoperable, the required subsystems must be restored to OPERABLE status within 8 hours. In this condition, there is substantial loss of the primary containment pressure and temperature mitigation function. The 8 hour Completion Time is based on this loss of function and is considered acceptable due to the low probability of a DBA and because alternative methods to remove heat from the primary containment are available.

(continued)

BASES

ACTIONS
(continued)

D.1 and D.2

If any Required Action and associated Completion Time cannot be met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours and to MODE 4 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant systems.

SURVEILLANCE
REQUIREMENTS

SR 3.6.2.3.1

Verifying the correct alignment for manual, power operated, and automatic valves in the RHR suppression pool cooling mode flow path provides assurance that the proper flow path exists for system operation. This SR does not apply to valves that are locked, sealed, or otherwise secured in position since these valves were verified to be in the correct position prior to locking, sealing, or securing. A valve is also allowed to be in the nonaccident position provided it can be aligned to the accident position within the time assumed in the accident analysis. This is acceptable since the RHR suppression pool cooling mode is manually initiated. This SR does not require any testing or valve manipulation; rather, it involves verification that those valves capable of being mispositioned are in the correct position. This SR does not apply to valves that cannot be inadvertently misaligned, such as check valves.

The Frequency of 31 days is justified because the valves are operated under procedural control, improper valve position would affect only a single subsystem, the probability of an event requiring initiation of the system is low, and the subsystem is a manually initiated system. This Frequency has been shown to be acceptable based on operating experience.

(continued)

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APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|--|-----------------|
| A. One RHR suppression pool cooling subsystem inoperable. | A.1 Restore the RHR suppression pool cooling subsystem to OPERABLE status. | 30 days |
| B. Two RHR suppression pool cooling subsystems inoperable. | B.1 Restore one RHR suppression pool cooling subsystem to OPERABLE status. | 7 days |
| C. Three or more RHR suppression pool cooling subsystems inoperable. | C.1 Restore required RHR suppression pool cooling subsystems to OPERABLE status. | 8 hours |

(continued)

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|--|-------------------|-----------------|
| D. Required Action and associated Completion Time not met. | D.1 Be in MODE 3. | 12 hours |
| | <u>AND</u> | |
| | D.2 Be in MODE 4. | 36 hours |

BASES

ACTIONS
(continued)

B.1

With two RHR suppression pool cooling subsystems inoperable, at least one inoperable subsystem must be restored to OPERABLE status within 7 days. In this condition, the remaining two RHR suppression pool cooling subsystems are adequate to perform the primary containment cooling function. However, the overall reliability is reduced because a single failure could result in reduced or no primary containment cooling capability depending upon whether the two OPERABLE subsystems are in separate loops or the same loop. The 7 day Completion Time is acceptable in light of the redundant RHR suppression pool cooling capabilities afforded by the two OPERABLE subsystems and the low probability of a DBA occurring during this period.

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With three or more RHR suppression pool cooling subsystems inoperable, the required subsystems must be restored to OPERABLE status within 8 hours. In this condition, there is substantial loss of the primary containment pressure and temperature mitigation function. The 8 hour Completion Time is based on this loss of function and is considered acceptable due to the low probability of a DBA and because alternative methods to remove heat from the primary containment are available.

(continued)

BASES

ACTIONS
(continued)

D.1 and D.2

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REQUIREMENTS

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| A. One RHR suppression pool cooling subsystem inoperable. | A.1 Restore the RHR suppression pool cooling subsystem to OPERABLE status. | 30 days |
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(continued)

ACTIONS (continued)

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BASES

ACTIONS
(continued)

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(continued)

BASES

ACTIONS
(continued)

D.1 and D.2

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