LIMITING CONDITIONS FOR OPERATION

3.5 CORE AND CONTAINMENT COOLING SYSTEMS

B.2 Residual Heat Removal (RHR) Containment Spray

Specification:

Two RHR containment spray subsystems shall be OPERABLE.

Applicability:

Whenever irradiated fuel is in the reactor vessel, reactor coolant temperature is > 212°F, and prior to startup from a cold condition.

Actions:

A. One RHR containment spray subsystem inoperable,

1. Restore RHR containment spray subsystem to OPERABLE status within 7 days.

B. Required Action and associated Completion Time not met

OR
Two RHR containment spray subsystems inoperable,

1. Be in Cold Shutdown within 24 hours.

SURVEILLANCE REQUIREMENTS

4.5 CORE AND CONTAINMENT COOLING SYSTEMS

B.2 Residual Heat Removal (RHR) Containment Spray

1. Verify each RHR containment spray subsystem manual, power operated, and automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position or can be aligned to the correct position every 31 days.

2. Air test drywell and suppression pool (torus) headers and nozzles following maintenance that could result in nozzle blockage.

ACTIONS (continued)

B.1

If the inoperable RHR containment spray subsystem cannot be restored to OPERABLE status within the associated completion time or if two RHR containment spray subsystems are inoperable, the plant must be brought to a condition in which the specification does not apply. To achieve this status, the plant must be brought to Cold Shutdown within 24 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 4.5.B.2.1

Verifying the correct alignment for manual, power-operated, and automatic valves in the RHR containment spray mode flow path provides assurance that the proper flow paths will exist 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.

SR 4.5.B.2.2

Verifying that the drywell and suppression pool (torus) headers and nozzles are free of obstructions by blowing air through them ensures an open flow path. The frequency for performance of the spray nozzle obstruction surveillance test is following maintenance that could result in nozzle blockage. This frequency is justified due to the passive design of the nozzles and has been shown acceptable through industry operating experience. Normal plant operation and maintenance practices are not expected to trigger the surveillance requirement. Only an unanticipated circumstance would initiate this surveillance, such as an inadvertent spray actuation or loss of

(continued)

foreign material control when working within the affected boundary of the system. Procedures require performance of an evaluation to determine whether a containment spray nozzle test would be required to ensure the nozzles remain unobstructed to support system Operability following these events.

REFERENCES

1. FSAR, Section 4.8

2. FSAR, Section 14.5

3. ASME, Boiler and Pressure Vessel Code, Section XI