EMERGENCY CORE COOLING SYSTEMS

3/4.5.3 SUPPRESSION POOL

LIMITING CONDITION FOR OPERATION

3.5.3 The suppression pool shall be OPERABLE:

a. In OPERATIONAL CONDITION 1, 2 and 3 with a contained water volume of at least 137,571 $ft^3$, equivalent to a level of 19'6".

b. In OPERATIONAL CONDITION 4 and 5* with a contained water volume of at least 94,000 $ft^3$, equivalent to a level of 13'3", except that the suppression pool level may be less than the limit or may be drained provided that:

1. No operations are performed that have a potential for draining the reactor vessel,

2. The reactor mode switch is locked in the Shutdown or Refuel position,

3. The condensate storage tank contains at least 125,000 available gallons of water, equivalent to a level of 11'1", and

4. The HPCS system is OPERABLE per Specification 3.5.2 with an OPERABLE flow path capable of taking suction from the condensate storage tank and transferring the water through the spray sparger to the reactor vessel.

c. See Attached Insert I

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4 and 5*.

ACTION:

a. In OPERATIONAL CONDITION 1, 2 or 3 with the suppression pool water level less than the above limit, restore the water level to within the limit within 1 hour or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. In OPERATIONAL CONDITION 4 or 5* with the suppression pool water level less than the above limit or drained and the above required conditions not satisfied, suspend CORE ALTERATIONS and all operations that have a potential for draining the reactor vessel and lock the reactor mode switch in the Shutdown position. Establish PRIMARY CONTAINMENT INTEGRITY - FUEL HANDLING within 8 hours.

c. See Attached Insert II

*The suppression pool is not required to be OPERABLE in OPERATIONAL CONDITION 5 provided that the reactor vessel head is removed, the cavity is flooded, the upper containment fuel pool gate is open, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

# See Attached Insert III

INSERTS

I.

LIMITING CONDITION FOR OPERATION

3.5.3 ...

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c. With two OPERABLE suppression pool pumpback system (SPPS) subsystems each consisting of #:

1. At least one OPERABLE crescent area sump pump and

2. An OPERABLE flow path to the suppression pool.

II.

ACTION:

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c. With one SPPS subsystem inoperable, restore the SPPS subsystem to OPERABLE status within 31 days or demonstrate the OPERABILITY the remaining SPPS subsystem at least once per 31 days by:

1. A functional test of the crescent area sump pump, and

2. Demonstrating that the associated flow path can be aligned to the suppression pool.

3. The provisions of Specification 3.0.4 are not applicable.

d. With both SPPS subsystems inoperable, restore one SPPS subsystem to OPERABLE status within 7 days or:

1. In OPERATIONAL CONDITION 1, 2, or 3 be in at least HOT SHUTDOWN within the next 12 hours and COLD SHUTDOWN within the following 24 hours.

2. In OPERATIONAL CONDITION 4 or 5* provide at least one alternate pumpback method and demonstrate the OPERABILITY of an alternate method within 24 hours and at least once per 24 hours thereafter, otherwise suspend CORE ALTERATIONS and all operations that have a potential for draining the reactor vessel and lock the reactor mode switch in the shutdown position. Establish PRIMARY CONTAINMENT INTEGRITY - FUEL HANDLING within 8 hours.

III.

# The SPPS is not required to be OPERABLE when the suppression pool is not required to be OPERABLE.

SURVEILLANCE REQUIREMENTS

4.5.3.1 The suppression pool shall be determined OPERABLE by verifying the water level to be greater than or equal to, as applicable:

a. 19'6", at least once per 24 hours, in OPERATIONAL CONDITION 1, 2 and 3.

b. 13'3", at least once per 12 hours, in OPERATIONAL CONDITION 4 and 5.

4.5.3.2 With the suppression pool level less than the above limit or drained in OPERATIONAL CONDITION 4 or 5*, at least once per 12 hours:

a. Verify the required conditions of Specification 3.5.3.b to be satisfied, or

b. Verify footnote conditions * to be satisfied.

4.5.3.3 See Attached Insert IV

*The suppression pool is not required to be OPERABLE in OPERATIONAL CONDITION 5 provided that the reactor vessel head is removed, the cavity is flooded, the upper containment fuel pool gate is open, and the water level is maintained within the limits of Specifications 3.9.8 and 3.9.9.

IV.

SURVEILLANCE REQUIREMENTS

4.5.3.3 At least once per 92 days, the SPPS shall be demonstrated OPERABLE by:

a. Verifying each crescent area sump pump develops 50gpm, and

b. Verifying the flow path can be aligned to the suppression pool.

SUPPRESSION POOL (Continued)

Repair work might require making the suppression pool inoperable. This specification will permit those repairs to be made and at the same time give assurance that the irradiated fuel has an adequate cooling water supply when the suppression pool must be made inoperable, including draining, in OPERATIONAL CONDITION 4 or 5.

In OPERATIONAL CONDITIONS 4 and 5 the suppression pool minimum required water volume is reduced because the reactor coolant is maintained at or below 200°F. Since pressure suppression is not required below 212°F, the minimum required water volume is based on NPSH, recirculation volume, vortex prevention, and a 2' 6" safety margin for conservatism.

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The suppression pool pumpback system (SPPS) is a subsystem designed to ensure suppression pool level; therefore the OPERABILITY of the Suppression Pool can be maintained in the event of a passive ECCS failure. The ECCS piping components which may experience passive failures will not result in flooding of the ECCS equipment cubicles because the rooms are located in watertight cubicles. The system design basis is for a maximum unisolatable leak into the auxiliary building crescent room of 50 gpm. Each of the manually operated SPPS subsystems consists of two crescent room sumps each with two 100% capacity pumps. In the event one subsystem becomes inoperable, a functional test of the operable subsystem is performed in lieu of a full (92 day) surveillance test because of the difficulty in performing the full test and the pumps are used in normal plant operation. This will provide the plant staff additional awareness of the systems condition.