3.9  REFUELING OPERATIONS

3.9.5  Shutdown Cooling (SDC) and Coolant Circulation-Low Water Level

LCO 3.9.5         Two SDC loops shall be OPERABLE, and one SDC loop shall be in operation.

------------------------- NOTES-------------------------
1.  One SDC loop may be replaced by one spent fuel pool cooling loop provided it is lined up to provide cooling flow to irradiated fuel in the reactor core and the core heat generation rate is less than the heat removal capacity of the spent fuel cooling loop.

2.  One required SDC loop may be inoperable for up to 2 hours for surveillance testing, provided that the other SDC loop is OPERABLE and in operation.

3.  All SDC pumps may be de-energized for $\leq$ 15 minutes when switching from one train to another provided:

    a.  The core outlet temperature is maintained > 10°F below saturation temperature;

    b.  No operations are permitted that would cause a reduction of the Reactor Coolant System boron concentration; and

    c.  No draining operations to further reduce Reactor Coolant System water volume are permitted.
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APPLICABILITY:   MODE 6 with the water level < 23 ft above the top of the irradiated fuel assemblies seated in the reactor vessel.

ACTIONS

| CONDITION | REQUIRED ACTION | | COMPLETION TIME |
|---|---|---|---|
| A. One SDC loop inoperable. | A.1 | Initiate action to restore SDC loop to OPERABLE status. | Immediately |
| | OR | | |
| | A.2 | Initiate action to establish ≥ 23 ft of water above the top of irradiated fuel assemblies seated in the reactor vessel. | Immediately |
| B. No SDC loop OPERABLE or in operation. | B.1 | Suspend operations involving a reduction in reactor coolant boron concentration. | Immediately |
| | AND | | |
| | B.2 | Initiate action to restore one SDC loop to OPERABLE status and to operation. | Immediately |
| | AND | | |
| | B.3 | Close all containment penetrations providing direct access from containment atmosphere to outside atmosphere. | 4 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|---|---|---|
| SR 3.9.5.1 | Verify required SDC loops are OPERABLE and one SDC loop is in operation. | 12 hours |
| SR 3.9.5.2 | Verify SDC loop in operation is circulating reactor coolant at a flow rate of $\geq$ 1500 gpm. | 12 hours |
| SR 3.9.5.3 | Verify correct breaker alignment and indicated power available to the required SDC loop components that are not in operation. | 7 days |