

SLC System
3.1.7

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
⁵ SR 3.1.7.6 Verify each SLC 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.	31 days
⁶ SR 3.1.7.7 Verify each pump develops a flow rate $\geq 11.4 \text{ m}^3/\text{h}$ (50.0 gpm) at a discharge pressure $\geq 86.0 \text{ Kg/cm}^2 \text{g}$ (1223 psig).	In accordance with the Inservice Testing Program or 92 days
⁷ SR 3.1.7.8 Verify flow through one SLC subsystem from pump into reactor pressure vessel. system	18 months on a STAGGERED TEST BASIS REFUELING INTERVAL
⁸ SR 3.1.7.9 Verify all heat traced piping between storage tank and pump suction is unblocked.	18 months REFUELING INTERVAL AND Once within 24 hours after solution temperature is restored within the limits of [Figure 3.1.7-1]

(continued)

simultaneous operation of both pumps develops a flow rate $\geq 22.8 \text{ m}^3/\text{h}$ (100 gpm) at a discharge pressure $\geq 86.0 \text{ Kg/cm}^2 \text{g}$ (1223 psig) through the

SLC System
B 3.1.7

BASES

SURVEILLANCE
REQUIREMENTS⁶
SR 3.1.7.7 (continued)

confirms one point on the pump design curve, and is indicative of overall performance. Such inservice inspections confirm component OPERABILITY, trend performance, and detect incipient failures by indicating abnormal performance. The Frequency of this Surveillance is [in accordance with the Inservice Testing Program or 92 days].

⁷ ⁸
SR 3.1.7.8 and SR 3.1.7.9

These Surveillances ensure that there is a functioning flow path from the boron solution storage tank to the RPV, ~~including the firing of an explosive valve. The replacement~~ ~~change for the explosive valve shall be from the same~~ ~~manufactured batch as the one fired or from another batch~~ ~~that has been certified by having one of that batch~~ ~~successfully fired. The pump and explosive valve tested~~ ~~should be alternated such that both complete flow paths are~~ ~~tested every 36 months, at alternating 18 month intervals.~~ ~~The Surveillance may be performed in separate steps to~~ ~~prevent injecting boron into the RPV. An acceptable method~~ ~~for verifying flow from the pump to the RPV is to pump~~ ~~demineralized water from a test tank through the SLC~~ ~~subsystem and into the RPV. The 18 month Frequency is based~~ ~~on the need to perform this Surveillance under the~~ ~~conditions that apply during a plant outage and the~~ ~~potential for an unplanned transient if the Surveillance~~ ~~were performed with the reactor at power. Operating~~ ~~experience has shown these components usually pass the~~ ~~Surveillance test when performed at the 18 month Frequency;~~ ~~therefore, the Frequency was concluded to be acceptable from~~ ~~a reliability standpoint.~~

REFUELING
INTERVAL

Demonstrating that all heat traced piping between the boron solution storage tank and the suction inlet to the injection pumps is unblocked ensures that there is a functioning flow path for injecting the sodium pentaborate solution. An acceptable method for verifying that the suction piping is unblocked is to pump from the storage tank to the test tank. The 18 month Frequency is acceptable since there is a low probability that the subject piping will be blocked due to precipitation of the boron from solution in the heat traced piping. This is especially true in light of the daily

(continued)

< TRANSACTION REPORT >

04-30-1993(FRI) 11:16

[RECEIVE]

NO.	DATE	TIME	DESTINATION STATION	PG.	DURATION	MODE	RESULT
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				3	0'01'55"		