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| 3. | Functional test | Once every 24 months |
| 4. | Solution volume and temperature check | Once/day |
| 5. | Solution Boron-10 Enrichment | Once every 24 months. Enrichment analyses shall be received no later than 30 days after sampling. If not received within 30 days, notify NRC (within 7 days) of plans to obtain test results. |

F. At specific power operation conditions, the actual control rod configuration will be compared with the expected configuration based upon appropriately corrected past data. This comparison shall be made every equivalent full power month. The initial rod inventory measurement performed with equilibrium conditions are established after a refueling or major core alteration will be used as base data for reactivity monitoring during subsequent power operation throughout the fuel cycle.

G. The scram discharge volume drain and vent valves shall be verified open at least once per 31 days, except in shutdown mode*, and shall be cycled at least one complete cycle of full travel at least quarterly.

H. All withdrawn control rods shall be determined OPERABLE by demonstrating the scram discharge volume drain and vent valves OPERABLE. This will be done at least once per refueling cycle by placing the mode switch in shutdown and by verifying that:

- a. The drain and vent valves close within 30 seconds after receipt of a signal for control rods to scram, and
- b. The scram signal can be reset and the drain and vent valves open when the scram discharge volume trip is bypassed.

BASIS: The core reactivity limitation (Specification 3.2.A) requires that core reactivity be limited such that the core could be made subcritical at any time during the operating cycle, with the strongest operable control rod fully withdrawn and all other operable rods fully inserted. Compliance with this requirement can be demonstrated conveniently at the time of refueling. Therefore, the demonstration must be such that it will apply to the entire subsequent fuel cycle. The demonstration is performed with the reactor core in the cold, xenon-free condition and will show

* These valves may be closed intermittently for testing under administrative control.

Pump operability, boron concentration, solution temperature and volume of standby liquid control system⁽⁴⁾ are checked on a frequency consistent with instrumentation checks described in Specification 4.1. Experience with similar systems has indicated that the test frequencies are adequate. The only practical time to functionally test the liquid control system is during a refueling outage. The functional test includes the firing of explosive charges to open the shear plug valves and the pumping of demineralized water into the reactor to assure operability of the system downstream of the pumps. The test also includes recirculation of liquid control solution to and from the solution tanks.

Pump operability is demonstrated on a more frequent basis. This test consists of recirculation of demineralized water to a test tank. A continuity check of the firing circuit on the shear plug valves is provided by pilot lights in the control room. Tank level and temperature alarms are provided to alert the operator to off-normal conditions.

Figure 3.2.1 was revised to reflect the minimum and maximum weight percent of sodium pentaborate solution, and the minimum atom percent of B-10 to meet 10 CFR 50.62(c)(4). Since the weight percent of sodium pentaborate can change with water makeup or water evaporation, frequent surveillances are performed on the solution concentration, volume and temperature. The sodium pentaborate is enriched with B-10 at the chemical vendor's facility to meet the minimum atom percent. Preshipment samples of batches are analyzed for B-10 enrichment and verified by an independent laboratory prior to shipment to Oyster Creek. Since the B-10 enrichment will not change while in storage or in the SLCS tank, the surveillance for B-10 enrichment is performed on a 24 month interval. An additional requirement has been added to evaluate the solution's capability to meet the original design shutdown criteria whenever the Boron-10 enrichment requirement is not met.

The functional test and other surveillance on components, along with the monitoring instrumentation, gives a high reliability for standby liquid control system operability.

References

- (1) FDSAR, Volume II, Figure III-5-11
- (2) FDSAR, Volume I, Section VI-3
- (3) FDSAR, Volume I, Section III-5 and Volume II, Appendix B
- (4) FDSAR, Volume I, Section VI-4