

2. Containment Vessel Internal Spray System

- A. System tests shall be performed once every operating cycle or once every 18 months, whichever occurs first. The test shall be performed with the isolation valves in the supply lines at the containment blocked closed. Operation of the system is initiated by tripping the normal actuation instrumentation.
- B. The spray nozzles shall be checked for proper functioning at least every five years using either air with telltales or smoke tests to determine that all nozzles are clear.
- C. The test will be considered satisfactory if control board indications or visual observations indicate all components have operated satisfactorily.

3. Containment Fan-Coil Units

Each fan-coil unit shall be tested once every operating cycle or once every 18 months, whichever occurs first, to verify proper operation of the motor-operated service water outlet valves and the fan coil emergency discharge and associated backdraft dampers (RBV034-001 through RBV034-004). 61

b. Component Tests

1. Pumps

- A. The safety injection pumps, residual heat removal pumps, and containment spray pumps shall be started and operated on recirculation flow monthly during power operation and within one week after the plant is returned to power operation, if the test was not performed during plant shutdown.
- B. Acceptable levels of performance shall be that the pumps start, reach their required developed head at miniflow, and operate for at least fifteen minutes on the miniflow line.

The systems tests demonstrate proper automatic operation of the Safety Injection and Containment Vessel Internal Spray Systems. With the pumps blocked from starting, a test signal is applied to initiate automatic action and verification is made that the components receive the safety injection signal in the proper sequence. The test demonstrates the operation of the valves, pump circuit breakers, and automatic circuitry.(1)

During reactor operation, the instrumentation which is depended upon to initiate safety injection and containment spray is checked daily and the initiating and logic circuits are tested monthly (in accordance with Specification 4.1). In addition, the active components (pumps and valves) are to be tested monthly to check the operation of the starting circuits and to verify that the pumps are in satisfactory running order. The test interval of one month is based on the judgment that more frequent testing would not significantly increase the reliability (i.e., the probability that the component would operate when required), yet more frequent testing would result in increased wear over a long period of time.

Testing of the closure of the boric acid tank isolation valves with concurrent opening of the refueling water storage tank valves upon receipt of simulated 10-10 boric acid tank level signal is performed to verify proper operation to prevent inadvertent spillage of refueling water storage tank water through the boric acid tank should the isolation valves fail to close.

Testing of the containment fan coil unit emergency discharge and backdraft dampers is performed to assure the integrity of the duct work post-LOCA. | 61

Other systems that are also important to the emergency cooling function are the accumulators, the Component Cooling System, the Service Water System. The accumulators are a passive safety feature. In accordance with Specification 4.1, the water volume and pressure in the accumulators are checked each shift. The other systems mentioned operate when the reactor is in operation and by these means are continuously monitored for satisfactory performance.

Reference: (1) FSAR Section 6.2