

ATTACHMENT 2

MARKUPS OF PROPOSED CHANGE
TO TECHNICAL SPECIFICATIONS

9011080023 901030
PDR ADOCK 05000498
P PNU

CONTAINMENT SYSTEMS

ATTACHMENT 2

ST-HL-AE-3378

PAGE 1 OF 5

SPRAY ADDITIVE SYSTEM

INSERT B

LIMITING CONDITION FOR OPERATION

3.6.2.2 The Spray Additive System shall be OPERABLE with:

- a. Three spray additive tanks each containing a volume of between 1061 and 1342 gallons of between 30 and 32% by weight NaOH solution, and
- b. Three spray additive eductors each capable of adding NaOH solution from its associated spray additive tank to its Containment Spray System pump flow.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With the Spray Additive System inoperable, restore the system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the Spray Additive System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 The Spray Additive System shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position;
- b. At least once per 6 months by:
 - 1) Verifying the contained solution volume in each spray additive tank, and
 - 2) Verifying the concentration of the NaOH solution by chemical analysis.
- c. At least once per 18 months during shutdown, by verifying that each automatic valve in the flow path actuates to its correct position on a Containment Pressure High 3 test signal; and

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 5 years by verifying:
- 1) Each eductor suction flow rate is greater than or equal to 30 gpm using the RWST as the test source to the eductor inlet, and under the following conditions:
 - a) CS pump suction pressure is ≥ 15 psig,
 - b) Valve CS0019A, B, or C, as applicable, is in the full open position, and
 - c) CS pump recirculation flow rate to the RWST is 800 gpm \pm 100 gpm.
 - 2) The lines between the spray additive tank and the eductors are not blocked by verifying flow.

DELETE PAGE

INSERT B (page 3/4 6-15)

RECIRCULATION FLUID PH CONTROL SYSTEM

LIMITING CONDITIONS FOR OPERATION

3.6.2.2 The recirculation fluid pH control system shall be operable with between 11,500 lbs. (213 cu. ft.) and 15,100 lbs. (252 cu. ft.) of trisodium phosphate (w/12 hydrates) available in the storage baskets in the containment.

APPLICABILITY: Modes 1, 2, 3, and 4

ACTION:

With less than the required amount of trisodium phosphate available, restore the system to the correct amount within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the system to the correct amount within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 During each refueling outage, as a minimum, the recirculation fluid pH control system shall be demonstrated operable by visually verifying that:

- 1) 6 trisodium phosphate storage baskets are in place, and
- 2) have maintained their integrity, and
- 3) are filled with trisodium phosphate such that the level is above the indicated fill mark.

BASESCONTAINMENT VENTILATION SYSTEM (Continued)

fore, the SITE BOUNDARY dose guideline of 10 CFR Part 100 would not be exceeded in the event of an accident during containment PURGING operation.

Leakage integrity tests with a maximum allowable leakage rate for containment purge supply and exhaust supply valves will provide early indication of resilient material seal degradation and will allow opportunity for repair before gross leakage failures could develop. The 0.60 L leakage limit of Specification 3.6.1.2b. shall not be exceeded when the leakage rates determined by the leakage integrity tests of these valves are added to the previously determined total for all valves and penetrations subject to Type B and C tests.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS3/4.6.2.1 CONTAINMENT SPRAY SYSTEM

The OPERABILITY of the Containment Spray System ensures that containment depressurization and cooling capability will be available in the event of a LOCA or steam line break. The pressure reduction and resultant lower containment leakage rate are consistent with the assumptions used in the safety analyses.

The Containment Spray System and the Containment Cooling System both provide post-accident cooling of the containment atmosphere. However, the Containment Spray System also provides a mechanism for removing iodine from the containment atmosphere and therefore the time requirements for restoring an inoperable Spray System to OPERABLE status have been maintained consistent with that assigned other inoperable ESF equipment.

INSERT A

3/4.6.2.2 SPRAY ADDITIVE SYSTEM

The OPERABILITY of the Spray Additive System ensures that sufficient NaOH is added to the containment spray and containment sump in the event of a LOCA. The limits on NaOH volume and concentration ensure a pH value of between 7.5 and 10.0 for the solution recirculated within containment after a LOCA. This pH band minimizes the evolution of iodine and minimizes the effect of chloride and caustic stress corrosion on mechanical systems and components. The contained solution volume limit includes an allowance for solution not usable because of tank discharge line location or other physical characteristics. These assumptions are consistent with the iodine removal efficiency assumed in the safety analyses.

INSERT A

3/4.6.2.2 RECIRCULATION FLUID PH CONTROL SYSTEM

The operability of the recirculation fluid pH control system ensures that there is sufficient trisodium phosphate available in containment to guarantee a sump pH of ≥ 7.0 during the recirculation phase of a postulated LOCA. This pH level is required to reduce the potential for chloride induced stress corrosion of austenitic stainless steel and assure the retention of iodine in the recirculating fluid. The specified amounts of TSP will result in a recirculation fluid pH between 7.0 and 9.5.

ATTACHMENT 3

WCAP 12477, "SPRAY ADDITIVE ELIMINATION
ANALYSIS FOR THE SOUTH TEXAS PROJECT"