

AUG 18 1972

Docket No. 50-280

Virginia Electric and Power Company  
ATTN: Stanley Ragone  
Vice President  
P. O. Box 1194  
Richmond, Virginia 23209

Change No. 1  
License No. DPR-32

Gentlemen:

Your letter dated August 16, 1972, requested a change in the Technical Specifications attached as Appendix A to Facility Operating License No. DPR-32. The change was requested to permit operation of Surry Power Station Unit 1 with the turbine drives for the containment spray pumps out of service. Your request has been designated Change No. 1.

Each containment spray pump is equipped with dual drives, one motor-driven and one turbine-driven. Adequate spray system redundancy is available using the motor drives alone. Accordingly, we have concluded that the proposed change does not involve significant hazards considerations not described or implicit in the Final Safety Analysis Report and that there is reasonable assurance that the health and safety of the public will not be endangered.

Accordingly, pursuant to Section 50.59 of 10 CFR Part 50, the Technical Specification change outlined in your letter dated August 16, 1972, is hereby authorized. To effect this change, Specification 3.4 is revised as indicated below:

1. Specification 3.4.A.1 is changed to read "Two Containment Spray Subsystems, including containment spray pumps and motor drives, piping, and valves shall be operable."
2. Specification 3.4.B.2 is deleted.
3. Specifications 3.4.B.3 and 3.4.B.4 are renumbered as 3.4.B.2 and 3.4.B.3, respectively.

*Just AW*

In the Basis for Specification 3.4, delete the fourth sentence of the second paragraph and substitute the following in its place:

"In each Containment Spray Subsystem, the water flows from the tank through an electric motor driven pump and is sprayed into the containment atmosphere through two separate sets of spray nozzles. The containment spray pumps have provisions to utilize turbine drives in addition to motor drives; however, they are not required for the functioning of the spray system and no credit is taken for these turbine drives in this specification."

To facilitate use in subsequent licensing actions, revised pages 3.4-1, 3.4-3, and 3.4-4, incorporating the changes authorized above, are enclosed.

Sincerely,

*K. DeYoung*

R. C. DeYoung, Assistant Director  
for Pressurized Water Reactors  
Directorate of Licensing

Enclosure:

Revised pages 3.4-1,  
3.4-3, and 3.4-4

cc: George D. Gibson, Esq.  
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DATE ▶	8/18/72	8/18/82	8/18/72		

Applicability

Applies to the operational status of the Spray Systems.

Objective

To define those conditions of the Spray Systems necessary to assure safe unit operation.

Specification

- A. A unit's Reactor Coolant System temperature or pressure shall not be made to exceed 350°F or 450 psig, respectively, or the reactor shall not be made critical unless the following Spray System conditions in that unit are met:
1. Two Containment Spray Subsystems, including containment spray pumps and motor drives, piping, and valves shall be operable. | 1
  2. Four Recirculation Spray Subsystems, including recirculation spray pumps, coolers, piping, and valves shall be operable.
  3. The refueling water storage tank shall contain not less than 350,000 gal of borated water at a maximum temperature as shown in TS Fig. 3.8-1.

2. One outside Recirculation Spray Subsystem may be out of service provided immediate attention is directed to making repairs and the subsystem can be restored to operable status within 24 hours. The other Recirculation Spray subsystems shall be tested as specified in Specification 4.5-A to demonstrate operability prior to initiating repair of the inoperable system. | 1

3. One inside Recirculation Spray Subsystem may be out of service provided immediate attention is directed to making repairs and the subsystem can be restored to operable status within 72 hours. The other Recirculation Spray subsystems shall be tested as specified in Specification 4.5-A to demonstrate the operability prior to initiating repair of the inoperable subsystem. | 1

C. Should the refueling water storage tank temperature fail to be maintained at or below 45°F, the containment pressure and temperature shall be maintained in accordance with TS Fig. 3.8-1 to maintain the capability of the Spray System with the higher refueling water temperature. If the containment temperature and pressure cannot be maintained within the limits of TS Fig. 3.8-1, the reactor shall be placed in the cold shutdown condition.

Basis

The Spray Systems in each reactor unit consist of two separate parallel Containment Spray Subsystems, each of 100 percent capacity, and four separate parallel Recirculation Spray Subsystems, each of 50 percent capacity.

Each Containment Spray Subsystem draws water independently from the 350,000 gal capacity refueling water storage tank. The water in the tank is cooled to 45°F or below by circulating the tank water through one of the two refueling water storage tank coolers through the use of one of the two refueling water recirculation pumps. The water temperature is maintained by two mechanical refrigerating units as required. In each Containment Spray Subsystem, the water flows from the tank through an electric motor driven containment spray pump and is sprayed into the containment atmosphere through two separate sets of spray nozzles. The containment spray pumps have provisions to utilize turbine drives in addition to motor drives; however, they are not required for the functioning of the spray system and no credit is taken for these turbine drives in this specification. The capability of the Spray Systems to depressurize the containment in the event of a Design Basis Accident is a function of the pressure and temperature of the containment atmosphere, the service water temperature, and the temperature in the refueling water storage tank as discussed in Specification 3.8-B.

1

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