

ATTACHMENT 2

MARK-UP OF TECHNICAL SPECIFICATIONS

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2**

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3.4 SPRAY SYSTEMS

Applicability

Applies to the operational status of the Spray Systems.

Objective

To define those limiting conditions for operation 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, unless the following }
Spray System conditions in the unit are met:
1. Two Containment Spray Subsystems, including containment spray pumps, piping, and valves shall be OPERABLE. }
 2. Four Recirculation Spray Subsystems, including recirculation spray pumps, coolers, piping, and valves shall be OPERABLE. }
 3. The refueling water storage tank shall contain at least 387,100 gallons of borated water at a maximum temperature of 45°F. The boron concentration shall be at least 2300 ppm but not greater than 2500 ppm. }
 4. The refueling water chemical addition tank shall contain at least 3930 ~~4,200~~ gallons of solution with a sodium hydroxide concentration of at least 17 percent by weight but not greater than 18 percent by weight. }
 5. All valves, piping, and interlocks associated with the above components which are required to operate under accident conditions shall be OPERABLE. }

TABLE 4.1-2B
MINIMUM FREQUENCIES FOR SAMPLING TESTS

<u>DESCRIPTION</u>	<u>TEST</u>	<u>FREQUENCY</u>	<u>REFERENCE</u>
1. Reactor Coolant Liquid Samples	Radio-Chemical Analysis(1)	Monthly(5)	
	Gross Activity(2)	5 days/week(5)	9.1
	Tritium Activity	Weekly (5)	9.1
	* Chemistry (CL, F & O ₂)	5 days/week(9)	4
	* Boron Concentration	Twice/week	9.1
	\bar{E} Determination	Semiannually(3)	
	DOSE EQUIVALENT I-131	Once/2 weeks(5)	
	Radio-iodine Analysis (including I-131, I-133 & I-135)	Once/4 hours(6) and (7) below	
2. Refueling Water Storage	Chemistry (Cl & F)	Weekly	6
3. Boric Acid Tanks	* Boron Concentration	Twice/Week	9.1
4. Chemical Additive Tank	NaOH Concentration	Monthly	6
5. Spent Fuel Pit	* Boron Concentration	Monthly	9.5
6. Secondary Coolant	Fifteen minute degassed beta gamma and g activity DOSE	Once/72 hours	10.3
	EQUIVALENT I-131	Monthly(4) Semiannually(8)	
7. Stack Gas Iodine and Particulate Samples	* I-131 and particulate radioactive releases	Weekly	

* See Specification 4.1.D

- (1) A radiochemical analysis will be made to evaluate the following corrosion products: Cr-51, Fe-59, Mn-54, Co-58, and Co-60.
- (2) A gross beta-gamma degassed activity analysis shall consist of the quantitative measurement of the total radioactivity of the primary coolant in units of $\mu\text{Ci/cc}$.

ATTACHMENT 3

PROPOSED TECHNICAL SPECIFICATIONS

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2**

3.4 SPRAY SYSTEMS

Applicability

Applies to the operational status of the Spray Systems.

Objective

To define those limiting conditions for operation 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, unless the following Spray System conditions in the unit are met:
1. Two Containment Spray Subsystems, including containment spray pumps, piping, and valves shall be OPERABLE.
 2. Four Recirculation Spray Subsystems, including recirculation spray pumps, coolers, piping, and valves shall be OPERABLE.
 3. The refueling water storage tank shall contain at least 387,100 gallons of borated water at a maximum temperature of 45°F. The boron concentration shall be at least 2300 ppm but not greater than 2500 ppm.
 4. The refueling water chemical addition tank shall contain at least 3930 gallons of solution with a sodium hydroxide concentration of at least 17 percent by weight but not greater than 18 percent by weight.
 5. All valves, piping, and interlocks associated with the above components which are required to operate under accident conditions shall be OPERABLE.

TABLE 4.1-2B
MINIMUM FREQUENCIES FOR SAMPLING TESTS

<u>DESCRIPTION</u>	<u>TEST</u>	<u>FREQUENCY</u>	<u>UFSAR SECTION REFERENCE</u>
1. Reactor Coolant Liquid Samples	Radio-Chemical Analysis(1)	Monthly(5)	
	Gross Activity(2)	5 days/week(5)	9.1
	Tritium Activity	Weekly (5)	9.1
	* Chemistry (CL, F & O ₂)	5 days/week(9)	4
	* Boron Concentration	Twice/week	9.1
	\bar{E} Determination	Semiannually(3)	
	DOSE EQUIVALENT I-131	Once/2 weeks(5)	
	Radio-iodine Analysis (including I-131, I-133 & I-135)	Once/4 hours(6) and (7) below	
2. Refueling Water Storage	Chemistry (Cl & F)	Weekly	6
3. Boric Acid Tanks	* Boron Concentration	Twice/Week	9.1
4. Chemical Additive Tank	NaOH Concentration	Monthly	6
5. Spent Fuel Pit	* Boron Concentration	Monthly	9.5
6. Secondary Coolant	Fifteen minute degassed beta and gamma activity	Once/72 hours	
	DOSE EQUIVALENT I-131	Monthly(4) Semiannually(8)	
7. Stack Gas Iodine and Particulate Samples	* I-131 and particulate radioactive releases	Weekly	

* See Specification 4.1.D

- (1) A radiochemical analysis will be made to evaluate the following corrosion products: Cr-51, Fe-59, Mn-54, Co-58, and Co-60.
- (2) A gross beta-gamma degassed activity analysis shall consist of the quantitative measurement of the total radioactivity of the primary coolant in units of $\mu\text{Ci/cc}$.

ATTACHMENT 4

SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

**VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2**

Significant Hazards Consideration

Virginia Electric and Power Company has reviewed the requirements of 10 CFR 50.92 as they relate to the proposed Technical Specifications (TS) change for Surry Power Station Units 1 and 2 and determined that a significant hazards consideration does not exist. The proposed change will reduce the TS minimum volume requirement for the refueling water chemical addition tank (CAT) from a setting limit of 4200 gallons to 3930 gallons. Although the minimum CAT volume is being decreased, the revised limit continues to ensure that the post-LOCA containment spray, containment sump pH, and post-LOCA recirculation switchover are acceptable, and accident analyses assumptions are maintained. The remaining TS changes to Item 6 in TS Table 4.1-2B is strictly administrative in nature. The basis for this determination is provided as follows:

Criterion 1 - Does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The probability or the consequences of an accident previously evaluated are not increased. When the revised Safety Analysis Limit minimum CAT volume of 3800 gallons was implemented, consideration was given to the effects of the proposed reduced CAT volume on containment integrity analyses, containment spray and post-LOCA sump pH analyses, and the post-LOCA recirculation switchover time interval specified in Emergency Operating Procedures. The change was determined to be acceptable as accident analyses assumptions would continue to be met. The proposed TS minimum CAT volume (3930 gallons) includes an allowance for the CAT level Channel Statistical Allowance (CSA), so that the safety analysis limit CAT volume (3800 gallons) will not be violated when the measured CAT volume (i.e., tank level) is at or above the TS minimum CAT volume limit. The proposed reduction in the TS minimum CAT volume has no bearing on the probability of occurrence of any accident previously evaluated, since neither the volume nor the sodium hydroxide inventory of the CAT have any bearing on postulated accident initiators. Furthermore, because the affected accident analyses have been evaluated and found to meet their acceptance criteria with the reduced safety analysis limit CAT volume, the consequences of an accident previously evaluated is not increased.

Criterion 2 - Does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The possibility of a new or different kind of accident than any accident previously evaluated is not created. The proposed reduction in the TS minimum CAT volume does not involve any alterations to the physical plant that would introduce any new or unique operational modes or accident precursors. Only the TS minimum CAT volume is being changed to establish an operationally feasible alarm setpoint to provide the operators additional flexibility in maintaining the required CAT volume.

Criterion 3 - Does not involve a significant reduction in a margin of safety.

The margin of safety is not reduced. It was determined that the affected safety analyses continue to meet their respective acceptance criteria with the revised minimum CAT volume. By implementing the proposed change in the TS minimum CAT volume, a CAT level alarm setpoint may be established which includes a conservative allowance for level measurement uncertainty such that neither the proposed TS minimum CAT volume nor the Safety Analysis Limit CAT volume will be violated at the time a CAT level alarm is received. Therefore, it is concluded that the proposed change will not reduce the margin of safety.

This analysis demonstrates that the proposed amendment to the Surry Units 1 and 2 Technical Specifications does not involve a significant increase in the probability or consequences of a previously evaluated accident, does not create the possibility of a new or different kind of accident and does not involve a significant reduction in a margin of safety.