



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 190  
License No. DPR-32

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated December 10, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

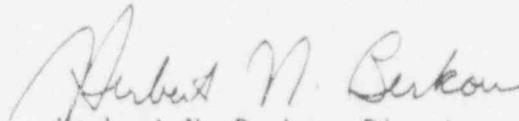
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 190 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 7, 1994



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20545-0001

VIRGINIA ELECTRIC AND POWER COMPANY  
DOCKET NO. 50-281  
SURRY POWER STATION, UNIT NO. 2  
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 190  
License No. DPR-37

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated December 10, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

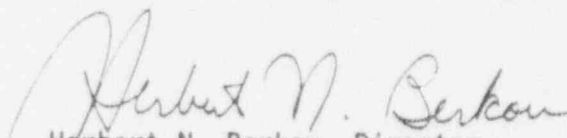
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-37 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 190, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 7, 1994

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 190 TO FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 190 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages

TS 1.0-8  
TS 1.4-9d  
TS 4.8-1  
TS 4.8-2  
TS 4.8-3  
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Insert Pages

TS 1.0-8  
TS 4.1-9d  
TS 4.8-1  
TS 4.8-2  
TS 4.8-3  
TS 4.8-4

W. STAGGERED TEST BASIS

A staggered test basis shall consist of:

- a. A test schedule for n systems, subsystems, trains or other designated components obtained by dividing the specified test interval into n equal subintervals, and
- b. The testing of one system, subsystem, train, or other designated component at the beginning of each subinterval.

TABLE 4.1-2A (CONTINUED)  
 MINIMUM FREQUENCY FOR EQUIPMENT TESTS

UFSAR SECTION  
 REFERENCE

DESCRIPTION	TEST	FREQUENCY	UFSAR SECTION REFERENCE
18. Primary Coolant System	Functional	1. Periodic leakage testing (a)(b) on each valve listed in Specification 3.1.C.7a shall be accomplished prior to entering power operation condition after every time the plant is placed in the cold shutdown condition for refueling, after each time the plant is placed in cold shutdown condition for 72 hours if testing has not been accomplished in the preceding 9 months, and prior to returning the valve to service after maintenance, repair or replacement work is performed.	
19. Containment Purge MOV Leakage	Functional	Semi-Annual (Unit at power or shutdown) if purge valves are operated during interval(c)	
20. Containment Hydrogen Analyzers	a. Channel Functional Test b. Channel Calibration Test	Once per 31 days Once per 92 days on a STAGGERED TEST BASIS	
	1. Sample gas used: One volume percent (±0.25%) hydrogen, balance nitrogen		
	2. Channel Calibration test will include startup and operation of the Heat Tracing System		
21. RCS Flow	Flow ≥ 273,000 gpm	Once per refueling cycle	14
22. RWST Parameters	a. Temperature ≤ 45°F b. Volume ≥ 387,100 gallons	Once per shift Once per shift	

(a) To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.  
 (b) Minimum differential test pressure shall not be below 150 psid.  
 (c) Refer to Section 4.4 for acceptance criteria.  
 See Specification 4.1.D.

## 4.8 AUXILIARY FEEDWATER SYSTEM

Applicability

Applies to the periodic testing requirements of the Auxiliary Feedwater System.

Objective

To verify the operability of the auxiliary feedwater pumps.

SpecificationA. Tests and Frequencies

1. At least once per 31 days:
  - a. Verify that the Auxiliary Feedwater System manual, power operated, and automatic valves in each flow path are in the correct position. This verification includes valves that are not locked, sealed, or otherwise secured in position, valves in the the cross-connect from the opposite unit and valves in the steam supply paths to the turbine driven auxiliary feedwater pump.
2. At least once per 92 days:
  - a. Verify that each motor-operated valve in the auxiliary feedwater flow paths, including the cross-connect from the opposite unit, performs satisfactorily when tested in accordance with Specifications 4.0.5.
3. At least once per 92 days on a STAGGERED TEST BASIS:
  - a. Verify that the auxiliary feedwater pumps perform satisfactorily when tested in accordance with Specification 4.0.5. The provisions of Specification 4.0.4 are not applicable for the turbine driven pump.



- 4a. Within 72 hours prior to Reactor Coolant System temperature and pressure exceeding 350°F and 450 psig, respectively, the motor driven auxiliary feedwater pumps shall be flow tested from the 110,000 gallon above ground Emergency Condensate Storage Tank to the steam generators .
- 4b. Within 72 hours after achieving reactor criticality, the steam turbine driven auxiliary feedwater pump shall be flow tested from the 110,000 gallon above ground Emergency Condensate Storage Tank to the steam generators. The provisions of Specification 4.0.4 are not applicable.
5. During periods of reactor shutdown with the opposite unit's Reactor Coolant System temperature and pressure greater than 350° F and 450 psig, respectively:
  - a. Continue to verify that the motor driven auxiliary feedwater pumps perform satisfactorily when tested at the frequency defined in Specification 4.8.A.3.
  - b. Verify that each motor-operated valve in the auxiliary feedwater cross-connect flow path for the opposite unit performs satisfactorily when tested in accordance with Specifications 4.0.5.

B. Acceptance Criteria

The pump and valve tests, except the system flow test, shall be considered satisfactory if they meet the ASME Section XI Inservice Testing Program acceptance criteria.

The system flow tests during unit startup from COLD SHUTDOWN or REFUELING SHUTDOWN shall be considered satisfactory if the control board indication demonstrates that flow paths exist to each steam generator.

Basis

The correct alignment for manual, power operated, and automatic valves in the Auxiliary Feedwater System steam and water flow paths, including the cross-connect flow path, will provide assurance that the proper flow paths exist for system operation. This position check does not include: 1) valves that are locked, sealed or otherwise secured in position since they are verified to be in their correct position prior to locking, sealing or otherwise securing; 2) vent, drain or relief valves on those flow paths; and, 3) those valves that cannot be inadvertently misaligned such as check valves. This surveillance does not require any testing or valve manipulation. It involves verification that those valves capable of being mispositioned are in the correct position.

The auxiliary feedwater pump will be tested periodically in accordance with ASME Section XI to demonstrate operability. The pumps are flow tested on recirculation to the 110,000 gallon Emergency Condensate Storage Tank. Valves in the flow path to the steam generators and cross-connect flow path are tested periodically in accordance with ASME Section XI.

The auxiliary feedwater pumps are capable of supplying feedwater to the opposite units steam generators. For a main steam line break or fire event in the Main Steam Valve House, one of the opposite units auxiliary feedwater pumps is required to supply feedwater to mitigate the consequences of those accidents. Therefore, when considering a single failure, both motor driven auxiliary feedwater pumps are required to be OPERABLE\* during shutdown to support the opposite unit if the Reactor Coolant System temperature or pressure of the opposite unit is greater than 350°F and 450 psig, respectively. Thus, to establish operability\* the motor driven auxiliary feedwater pumps will continue to be tested quarterly on the same STAGGERED TEST BASIS when the unit is shutdown to support the opposite unit. The turbine driven pump is not required to be OPERABLE when the unit is shutdown and therefore, is not tested during periods of shutdown.

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\* excluding automatic initiation instrumentation

The capacity of the Emergency Condensate Storage Tank and the flow rate of any one of the three auxiliary feedwater pumps in conjunction with the water inventory of the steam generators is capable of maintaining the plant in a safe condition and sufficient to cool the unit down.

Proper functioning of the steam turbine admission valve and the ability of the auxiliary feedwater pumps to start will demonstrate the integrity of the system. Verification of correct operation can be made both from instrumentation within the Main Control Room and direct visual observation of the pumps.

### References

UFSAR Section 10.3.1 Main Steam System  
UFSAR Section 10.3.2 Auxiliary Steam System