

December 23, 1994

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Mr. J. P. O'Hanlon
Senior Vice President - Nuclear
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. O'Hanlon:

SUBJECT: SURRY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: HYDROGEN ANALYZER
SURVEILLANCE FREQUENCY (TAC NOS. M90653 AND M90654)

The Commission has issued the enclosed Amendment No. 195 to Facility Operating License No. DPR-32 and Amendment No. 195 to Facility Operating License No. DPR-37 for the Surry Power Station, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TS) in response to your application transmitted by letter dated October 11, 1994.

These amendments revise the surveillance frequencies of the hydrogen analyzer channel functional test and channel calibration.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
(Original Signed By)

Bart C. Buckley, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosures:

- 1. Amendment No. 195 to DPR-32
- 2. Amendment No. 195 to DPR-37
- 3. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	LA:PDII-2	PM:PDII-2	AD:PDII-2	SCSB	HICB
NAME	Dunnington <i>ETD</i>	Buckley <i>12/15</i>	Mthadani	RBarrett	M. Chisama
DATE	11/23/94	11/23/94	11/17/94	11/13/94	12/6/94
COPY	Yes/No	Yes/No	Yes/No	Yes/No	

CP 1
OGC
CMW10
12/19/94
Yes/No

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Virginia Electric and Power Company

Surry Power Station

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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. 195
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 October 11, 1994, 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. 195, 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



Mohan C. Thadani, Acting 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: December 23, 1994



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-281

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 195
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 October 11, 1994, 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. 195, 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



Mohan C. Thadani, Acting 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: December 23, 1994

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Page

Insert Page

TS 4.1-9d

TS 4.1-9d

TABLE 4.1-2A (CONTINUED)

<u>MINIMUM FREQUENCY FOR EQUIPMENT TESTS</u>			
<u>DESCRIPTION</u>	<u>TEST</u>	<u>FREQUENCY</u>	<u>UFSAR SECTION REFERENCE</u>
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 after every time the plant is placed in COLD SHUTDOWN for refueling, after each time the plant is placed in COLD SHUTDOWN 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 1. Sample gas used: One volume percent (±0.25%) hydrogen, balance nitrogen Four volume percent (±0.25%) hydrogen, balance nitrogen 2. CHANNEL CALIBRATION will include startup and operation of the Heat Tracing System	Once per 92 days Once per 18 months	
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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-32
AND AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-37
VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-280 AND 50-281

1.0 INTRODUCTION

Pursuant to 10 CFR 50.90, the Virginia Power and Electric Company (the licensee), by letter dated October 11, 1994, submitted proposed changes to the Surry Power Station, Units 1 and 2 Technical Specifications (TS). The proposed changes would revise the surveillance frequencies of the hydrogen analyzers Channel Functional Test from once per 31 days to once per 92 days, and change the surveillance frequency of the Channel Calibration from one per 92 days on a staggered basis to once per 18 months.

2.0 TS CHANGES

The surveillance test requirements for hydrogen analyzers in the TS Table 4.1-2A Item 20.a. and b. are being changed as follows:

- ° the frequency of the Channel Functional Test is changed from once per 31 days to once per 92 days, and
- ° the frequency of the Channel Calibration is changed from once per 92 days on a staggered test basis to once per 18 months.

Defined terms are capitalized on the pages affected by this change. These terms include Channel Calibration, Channel Functional Test, Power Operation, and Cold Shutdown.

3.0 EVALUATION

The staff's SER dated April 22, 1983, requires continuous indication of the containment hydrogen concentration in the control room within 30 minutes of the initiation of safety injection. A hydrogen analyzer is dedicated to each Surry unit having the capability to be cross-connected to the opposite unit. The containment hydrogen monitors are capable of providing continuous indication of the containment hydrogen concentration in the control room within 30 minutes of the initiation of safety injection. The analyzers are maintained in a standby mode during normal operation and are used to alert the control room operator to take planned manual actions to activate the hydrogen recombiners following a loss-of-coolant accident. These analyzers have no automatic safety function. Although a channel check is not performed in the

standby mode, the analyzers have alarms to indicate electronic system or power failures. NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," dated December 1992, provided a comprehensive examination of surveillance requirements in technical specifications that require testing at power. In performing this study, the NRC staff found that, while the majority of the testing at power is important, safety can be improved, equipment degradation decreased, and an unnecessary burden on personnel resources eliminated by reducing the amount of testing that the TS require during power operation. The study also indicated that only a small fraction of the TS surveillance intervals warranted relaxation. The proposed change being addressed in this safety evaluation falls into this latter category. The licensee also stated that, based on their surveillance test experience, the hydrogen analyzers have been shown to be stable with repeatable results. The proposed reduced testing of the hydrogen analyzers remains adequate to ensure operability of the analyzers when required. Based on all of the above, the staff finds the proposed changes conform with the provisions of NUREG-1366 and Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation," dated September 27, 1993, and are, therefore, acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Virginia State official was notified of the proposed issuance of the amendments. The State official had no comment.

5.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding (59 FR 55893). Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations,

and (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: B. Buckley

Date: December 23, 1994

REQUEST FOR ADDITIONAL INFORMATION REGARDING

GENERIC LETTER 92-08

"THERMO-LAG 330-1 FIRE BARRIERS"

PURSUANT TO 10 CFR 50.54(f)

BROWNS FERRY NUCLEAR PLANT UNITS 1, 2, AND 3

1. Thermo-Lag Materials

- a. Describe the specific tests and analyses that will be performed to verify that the Thermo-Lag fire barrier materials that are currently installed at the Browns Ferry Nuclear Plant Units 1, 2 and 3, or that will be installed in the future, are representative of the materials that were used to address the technical issues associated with Thermo-Lag barriers and to construct the fire endurance and ampacity derating test specimens. The tests and analyses shall address the material properties and attributes that were determined or controlled by TSI during the manufacturing process and the quality assurance program. The tests and analyses shall also address the material properties and attributes that contribute to conclusions that the Thermo-Lag materials and barriers conform to NRC regulations. These include:
 - (1) chemical composition
 - (2) material thickness
 - (3) material weight and density
 - (4) the presence of voids, cracks, and delaminations
 - (5) fire endurance capabilities
 - (6) combustibility
 - (7) flame spread rating
 - (8) ampacity derating
 - (9) mechanical properties such as tensile strength, compressive strength, shear strength, and flexural strength.
- b. Describe the methodology that will be used to determine the sample size and demonstrate that the sample size will be large enough to ensure that the information and data obtained will be sufficient to assess the total population of in-plant Thermo-Lag barriers and the materials that will be installed in the future. In determining the sample size, consider the time of installation and manufacture of the various in-plant materials and barrier installations. Give the number and types (e.g., panels, conduit preshapes, trowel-grade material, stress skin) of samples that will be tested or analyzed.
- c. Submit the schedule for verifying the Thermo-Lag materials.
- d. After the analyses and tests have been completed, submit a written supplemental report that confirms that this effort has been completed and provide the results of the tests and analyses. Describe any changes to previously submitted plans or schedules that result from the

ENCLOSURE

DATED: December 23, 1994

AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-32 - SURRY UNIT 1
AMENDMENT NO. 195 TO FACILITY OPERATING LICENSE NO. DPR-37 - SURRY UNIT 2

Distribution

Docket File

PUBLIC

PDII-2 Reading

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