

March 12, 1999

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

SUBJECT: SURRY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RELATED TO REACTOR TRIP BYPASS BREAKER SEQUENCE (TAC NOS. MA3805 AND MA3806)

Dear Mr. O'Hanlon:

The Commission has issued the enclosed Amendment No. 219 to Facility Operating License No. DPR-32 and Amendment No. 219 to Facility Operating License No. DPR-37 for the Surry Power Station, Unit Nos. 1 and 2, respectively. The amendments change the Technical Specifications (TS) in response to your application transmitted by letter dated September 24, 1998.

Currently the TS require the Reactor Trip Bypass Breakers to be tested "prior to being placed in service" (i.e., racked out to the test position, tested, and then racked into the connect position to commence RPS testing.) These amendments revise the TS to allow the bypass breakers to be tested immediately after being placed in service, but prior to commencing Reactor Protection System (RPS) testing or maintenance. These changes will eliminate unnecessary movement caused by racking the breakers, and reduce the wear and tear on the breakers and the possibility of a reactor trip. At the same time, the operability of the breakers will continue to be ensured.

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:

Gordon E. Edison, Senior Project Manager
Project Directorate II-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosures:

1. Amendment No. 219 to DPR-32
2. Amendment No. 219 to DPR-37
3. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in black ink that reads "G E Edison".

Gordon E. Edison, Senior Project Manager
Project Directorate II-2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosures:

1. Amendment No. 219 to DPR-32
2. Amendment No. 219 to DPR-37
3. Safety Evaluation

cc w/encls: See next page

Mr. J. P. O'Hanlon
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. 219
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 September 24, 1998, 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.

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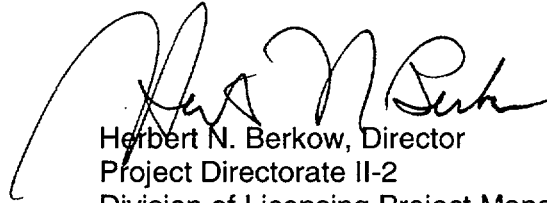
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 219 , 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 Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 12, 1999



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. 219
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 September 24, 1998, 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. 219 , 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 Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: March 12, 1999

ATTACHMENT TO

LICENSE AMENDMENT NO. 219 TO FACILITY OPERATING LICENSE NO. DPR-32

LICENSE AMENDMENT NO. 219 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Page

TS 4.1-8a

Insert Page

TS 4.1-8a

TABLE 4.1-1(Continued)
MINIMUM FREQUENCIES FOR CHECK, CALIBRATIONS AND TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Test</u>	<u>Remarks</u>
32. Auxiliary Feedwater				
a. Steam Generator Water Level Low-Low	S	R	M(1)	1) The auto start of the turbine driven pump is not included in the monthly test, but is tested within 30 days prior to each startup.
b. RCP Undervoltage	S	R	N.A.(1)	1) The actuation logic and relays are tested within 30 days prior to each startup.
c. S.I.	(All Safety Injection surveillance requirements)			
d. Station Blackout	N.A.	R	N.A.	
e. Main Feedwater Pump Trip	N.A.	N.A.	R	
33. Loss of Power				
a. 4.16 KV Emergency Bus Undervoltage (Loss of Voltage)	N.A.	R	M	
b. 4.16 KV Emergency Bus Undervoltage (Degraded Voltage)	N.A.	R	M	
34. Deleted				
35. Manual Reactor Trip	N.A.	N.A.	R	The test shall independently verify the operability of the undervoltage and shunt trip attachments for the manual reactor trip function. The test shall also verify the operability of the bypass breaker trip circuit.
36. Reactor Trip Bypass Breaker	N.A.	N.A.	M(1), R(2)	1) Remote manual undervoltage trip immediately after placing the bypass breaker into service, but prior to commencing reactor trip system testing or required maintenance. 2) Automatic undervoltage trip.
37. Safety Injection Input to RPS	N.A.	N.A.	R	
38. Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	

Amendment Nos. 219 and 219



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 219 TO FACILITY OPERATING LICENSE NO. DPR-32
AND AMENDMENT NO. 219 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

By letter dated September 24, 1998, the licensee, Virginia Electric and Power Company (VEPCO), proposed an amendment to the operating license of Surry Power Station, Units 1 and 2, to revise the plant Technical Specifications (TS). The proposed changes modify the testing sequence requirements for the reactor trip bypass breaker.

2.0 BACKGROUND

On July 8, 1983, the NRC issued Generic Letter (GL) 83-28, "Required Actions Based on Generic Implications of Salem ATWS Events." Item 4.3 of GL 83-28 became the subject of GL 85-09, "Technical Specifications for Generic Letter 83-28, Item 4.3." GL 85-09 specified additional maintenance and testing of the reactor trip and reactor trip bypass breakers.

On October 30, 1997, a compliance issue was identified concerning the testing sequence of the reactor trip bypass breakers at Surry. The reactor trip circuit breaker elements have three designated positions (Disconnect, Test, and Connect) in the switchgear cell. In order to accommodate seismic qualification, the reactor trip bypass breaker is normally physically racked into the Connect position with contacts open. From approximately June 1986 until October 1997, the manual undervoltage trip test at Surry was performed immediately after closing the bypass breaker. Thus, when the bypass breaker was closed to perform the test, the breaker was actually in-service for that very short period of time. This testing sequence was identified in Deviation Report S-97-3167 as not being in compliance with the TS Surveillance Requirement of Table 4.1-1, Item 36, Note 1, which requires a remote manual undervoltage trip of the bypass breaker prior to placing the breaker in service. Licensee Event Report S1-97-011-00 dated November 26, 1997, and Non-Cited Violation 50-280, 281/97012-04 were also issued to address this noncompliance.

In response, the licensee modified the manual undervoltage testing sequence. The modified test sequence requires the reactor trip bypass breaker to be racked from the Connect position to the Test position. The bypass breaker is then closed and tripped manually using the

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undervoltage device. After the undervoltage test, the bypass breaker is returned to the Connect position and closed, thereby placing the breaker in service for testing and maintenance.

In order to implement the modified test sequence, the licensee notes that moving the reactor trip bypass breakers to the Test position and then back to the Connect position increases wear on breaker components and increases chances of mishandling since the 340-pound circuit breakers are awkward to move. The licensee points out that the Westinghouse Vendor Technical Manual reports damage due to mishandling including bent positioning stop brackets, element positioning levers, release latches, miscellaneous brackets, pins, and stops as well as misalignments of the cell rails and the breaker elements.

The licensee has addressed the above concern in the proposed TS change discussed below.

3.0 PROPOSED CHANGE AND EVALUATION

The reactor trip switchgear consists of two reactor trip breakers and two bypass breakers in a series/parallel arrangement. The bypass breakers are connected in parallel with their respective reactor trip breaker and they are interlocked so that only one bypass breaker can be closed at a time. In addition, licensee procedural controls prevent closing of both reactor trip bypass breakers at the same time.

Proposed Change: Revise Note 1) for Item 36, "Reactor Trip Bypass Breaker," in Table 4.1-1 as follows:

- 1) Remote manual undervoltage trip immediately after placing the bypass breaker into service, but prior to commencing reactor trip system testing or required maintenance.

Evaluation:

In its submittal, the licensee stated that the proposed change to the TS notation will return the test sequence to the original testing sequence which was followed until October 30, 1997. In addition, the proposed change will clarify that the bypass breaker manual undervoltage test is coordinated with the trip breaker functional test to ensure that the bypass breaker is tested prior to its associated trip breaker.

The proposed change clarifies the bypass breaker testing sequence regarding Note 1) for Item 36 and resolves the "noncompliance" state identified in October 1997. Testing without racking the breaker to its test position eliminates unnecessary movement, thus reducing wear of components and alignment problems caused over time due to repeated rack-in and rack-out operations. The licensee stated that although the proposed test sequence will render the bypass breakers in service status for a short time before the remote manual test, the operability of the breaker is established by a satisfactory test conducted during the previous surveillance interval. The word "immediately" in the Note will reduce test time to a practical minimum to reestablish the bypass breaker's operability prior to beginning reactor trip system testing or maintenance activities. The proposed revision to the Note is acceptable to the staff, as it meets the intent of the TS-required testing for the reactor trip bypass breakers.

Based on review of the licensee's submittal, the staff concludes that the proposed TS modification for the test sequence and the revised notation for the reactor trip bypass breaker testing will ensure that proper breaker testing is conducted per TS-required surveillances. In addition, the proposed changes will provide clarification for coordinating the trip breakers and bypass breakers functional tests as originally intended in the TS. Therefore, the staff finds the proposed TS change 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 (64 FR 6715). 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: A. Bryant

Date: March 12, 1999

DATED: March 12, 1999

AMENDMENT NO. 219 TO FACILITY OPERATING LICENSE NO. DPR-32 - SURRY UNIT 1
AMENDMENT NO. 219 TO FACILITY OPERATING LICENSE NO. DPR-37 - SURRY UNIT 2

Docket File

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