

March 5, 1993

Docket Nos. 50-280
and 50-281

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Mr. W. L. Stewart
Senior Vice President - Nuclear
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. Stewart:

SUBJECT: SURRY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: NON ESSENTIAL
SERVICE WATER ISOLATION ACTUATION LOGIC (TAC NOS. M84470 AND M84471)

The Commission has issued the enclosed Amendment No. 174 to Facility Operating License No. DPR-32 and Amendment No. 173 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 September 4, 1992.

These amendments provide specific operability requirements for the actuation logic and, as part of the associated action statement, reinstate the permissible bypass condition.

A copy of the Safety Evaluation and the Notice of Issuance are enclosed.

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

Enclosures:

1. Amendment No. 174 to DPR-32
2. Amendment No. 173 to DPR-37
3. Safety Evaluation

cc w/enclosures:
See next page

OFFICE	LA:PDII-2	PM:PDII-2	D:PDII-2	HIGB	OGC <i>CB</i>
NAME	ETana <i>ET</i>	BBuckley <i>BCB</i>	HBerkow <i>HB</i>	JWermiel <i>JW</i>	KBachmann <i>KB</i>
DATE	01/22/93	01/22/93	01/28/93	01/27/93	01/31/93

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FILENAME: SU84470.AMD

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ENCLOSURE CENTER COPY

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Virginia Electric and Power Company

Surry Power Station

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State Health Commissioner
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DATED: March 5, 1993

AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE NO. DPR-32 - SURRY UNIT 1
AMENDMENT NO. 173 TO FACILITY OPERATING LICENSE NO. DPR-37 - SURRY UNIT 2

~~Docket File~~

NRC & Local PDRs

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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 174
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 4, 1992, 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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P PDR

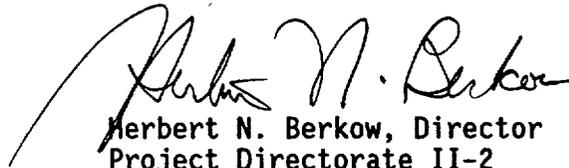
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 174, 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 5, 1993



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-281

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 173
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 4, 1992, 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.

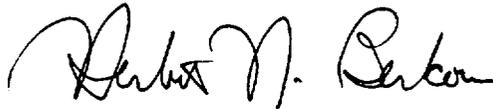
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-37 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 173, 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 5, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 173 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages

TS 3.7-16
TS 4.1-8b

Insert Pages

TS 3.7-16
TS 4.1-8b

TABLE 3.7-2 (Continued)

ENGINEERED SAFEGUARDS ACTION
INSTRUMENT OPERATING CONDITIONS

<u>FUNCTIONAL UNIT</u>	<u>TOTAL NUMBER OF CHANNELS</u>	<u>MINIMUM OPERABLE CHANNELS</u>	<u>CHANNELS TO TRIP</u>	<u>PERMISSIBLE BYPASS CONDITION</u>	<u>OPERATOR ACTIONS</u>
AUXILIARY FEEDWATER (continued)					
e. Trip of main feedwater pumps - start motor driven pumps	2/MFW pump	1/MFW pump	2-1 each MFW pump		21
f. Automatic actuation logic	2	2	1		22
4. LOSS OF POWER					
a. 4.16 kv emergency bus undervoltage (loss of voltage)	3/bus	2/bus	2/bus		20
b. 4.16 kv emergency bus undervoltage (degraded voltage)	3/bus	2/bus	2/bus		20
5. NON-ESSENTIAL SERVICE WATER ISOLATION					
a. Low intake canal level	4	3	3		20
b. Automatic actuation logic	2	2	1		14
6. ENGINEERED SAFEGUARDS ACTUATION INTERLOCKS - Note A					
a. Pressurizer pressure, P-11	3	2	2		23
b. Low-low T _{avg} , P-12	3	2	2		23
c. Reactor trip, P-4	2	2	1		24

Note A - Engineered Safeguards Actuation Interlocks are described in Table 4.1-A

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>
39. Steam/Feedwater Flow and Low S/G Water Level	S	R	M	
40. Non-Essential Service Water Isolation (See Footnote 1)				
a. Low intake canal level	D	R	Q	
b. Automatic actuation logic	N.A.	N.A.	M	
41. Turbine Trip and Feedwater Isolation				
a. Steam generator water level high	S	R	M	
b. Automatic actuation logic and actuation relay	N.A.	R	M(1)	1) Automatic actuation logic only, actuation relays tested each refueling
42. Reactor Trip System Interlocks				
a. Intermediate range neutron flux, P-6	N.A.	R(3)	M(4)	3) Neutron detectors may be excluded from the calibration
b. Low power reactor trips block, P-7	N.A.	R(3)	M(4)	4) With power greater than or equal to the interlock setpoint, the required test shall consist of verifying that the interlock is in the required state by observing the permissive annunciator window
c. Power range neutron flux, P-8	N.A.	R(3)	M(4)	
d. Power range neutron flux, P-10	N.A.	R(3)	M(4)	
e. Turbine impulse pressure	N.A.	R	R	

Footnote 1:

Check . Consists of verifying for an indicated intake canal level greater than 23'-6" that all four low level sensor channel alarms are not in an alarm state.

Calibration Consists of uncovering the level sensor and measuring the time response and voltage signals for the immersed and dry conditions. It also verifies proper action of instrument channel from sensor to electronics to channel output relays and annunciator. Only the two available sensors on the shutdown unit would be tested.

Tests 1) The automatic actuation logic test verifies the three out of four logic development for each train by using the channel test switches for that train.
 2) Low intake canal level test verifies that electronics module responds properly to a superimposed differential millivolt signal which is equivalent to the sensor detecting a "dry" condition.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 174 TO FACILITY OPERATING LICENSE NO. DPR-32
AND AMENDMENT NO. 173 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 4, 1992, Virginia Electric and Power Company (the licensee) requested changes to the Technical Specifications (TS) to reinstate and also increase the allowable outage time for surveillance testing of the non-essential service water isolation actuation logic and include operability requirements and an action statement for the actuation logic. In addition, the licensee has requested to reformat the surveillance requirements to parallel the operability requirements.

2.0 BACKGROUND

TS Amendments Nos. 130/130, dated August 16, 1991, incorporated operability and surveillance requirements for the new canal level monitoring system as Item 5 to TS Table 3.7-2, "Engineered Safeguards Action Instrument Operating Conditions," and Item 40 to TS Table 4.1-1, "Minimum Frequencies for Check, Calibration, and Test of Instrument Channels." Those amendments allowed one train of non-essential service water actuation logic to be blocked for a period not to exceed 2 hours. However, TS Amendments Nos. 165 and 164, dated December 30, 1991, which are meant to incorporate related criteria documented in a report entitled, "Evaluation of the Surveillance Frequencies and the Out of Service Times for the Engineered Safety Features Actuation System," and Supplements (WCAP 10271), inadvertently eliminated the 2-hour permissible bypass condition for performance of the non-essential service water isolation actuation logic surveillance testing. Amendments Nos. 165 and 164 allowed other actuation logic to be blocked for 8 hours for testing. The proposed TS changes would extend the allowed outage time from 2 to 8 hours for the non-essential service water actuation logic testing, which was approved for other actuation logic in Amendments Nos. 165 and 164, include the operability requirements for the actuation logic (Table 3.7-2, Item 5.b), and provide clarity and consistency for Tables 3.7-2 and 4.1-1.

3.0 EVALUATION

The proposed changes to TS Table 3.7-2 add Item 5.b to indicate the total number of channels, minimum operable channels, channels to trip, and Operator Action 14. The action statement requires the unit to be placed in hot shutdown within 12 hours when the minimum channels operable requirement is not met, and allows one channel of the actuation logic to be bypassed for up to 8 hours for surveillance testing. The 8-hour allowed outage time slightly increases actuation logic unavailability; however, it is not significant. The staff has evaluated these changes and has determined that they are consistent with requirements previously approved by the staff in TS Amendments 165/164, and staff safety evaluations related to WCAP 10271, dated February 22, 1989, and April 30, 1990. The proposed changes to TS Table 4.1-1 (Item 40 and Footnote), provide additional clarity and consistency.

4.0 SUMMARY

The staff has reviewed the licensee's proposed revisions to TS Tables 3.7-2, and 4.1-1 and has found them to be consistent with the UFSAR, staff reports on WCAP 10271, and previous Amendments Nos. 165/164. Therefore, the staff finds the proposed revisions to be acceptable.

5.0 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 comments.

6.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.32, an environmental assessment has been published (58 FR 11874) in the Federal Register on March 1, 1993. Accordingly, the Commission has determined that the issuance of this amendment will not result in any environmental impacts other than those evaluated in the Final Environmental Statement.

7.0 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 matter, (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 the health and safety of the public.

Principal Contributors: F. Rinaldi, PDI-2
B. Buckley, PDII-2

Date: March 5, 1993



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

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UNITED STATES NUCLEAR REGULATORY COMMISSION

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NOS. 50-280 AND 50-281

NOTICE OF ISSUANCE OF AMENDMENTS TO

FACILITY OPERATING LICENSES

The U.S. Nuclear Regulatory Commission (Commission) has issued Amendment No. 174 to Facility Operating License No. DPR-32 and Amendment No. 173 to Facility Operating License No. DPR-37, issued to the Virginia Electric and Power Company (the licensee), which revised the Technical Specifications for operation of the Surry Power Station, Units 1 and 2, located in Surry County, Virginia. These amendments are effective as of the date of issuance.

The amendments modified the Technical Specifications to provide specific operability requirements for the actuation logic and, as part of the associated action statement, reinstate the permissible bypass condition.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on October 20, 1992 (57 FR 47884). No request for a hearing or petition for leave to intervene was filed following this notice.

The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement. Based upon the environmental assessment, the Commission has concluded that the issuance of this amendment will not have a significant effect on the quality of the human environment (58 FR 11874).

For further details with respect to the action see (1) the application for amendments dated September 4, 1992, (2) Amendment No.174 to License No. DPR-32 and Amendment No. 173 to License No. DPR-37, (3) the Commission's related Safety Evaluation, and (4) the Commission's Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the local public document room located at the Swem Library, College of William and Mary, Williamsburg, Virginia 23185. A copy of items (2), (3) and (4) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Document Control Desk.

Dated at Rockville, Maryland this 5th day of March 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

Bart C. Buckley
Bart C. Buckley, Senior Project Manager
Project Directorate I-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation