

May 17, 1993

Docket Nos. 50-280  
and 50-281

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See next page

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

Dear Mr. Stewart:

SUBJECT: SURRY UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS RE: SERVICE  
WATER SUPPLY LIMITING CONDITION FOR OPERATIONS  
(TAC NOS. M84893 AND M84894)

The Commission has issued the enclosed Amendment No. 178 to Facility  
Operating License No. DPR-32 and Amendment No. 178 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 November 10, 1992.

These amendments allow one of two service water flow paths to the main control  
and emergency switchgear rooms' air conditioning condensers to be removed from  
service for system maintenance.

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

Sincerely,

(Original Signed By H. Berkow For)

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. 178 to DPR-32
- 2. Amendment No. 178 to DPR-37
- 3. Safety Evaluation

cc w/enclosures: See next page

OFC	:LA:PDII-2	:PM:PDII-2	:D:PDII-2	:SPLB	:OGC	:
NAME	:ETana	:BBuckley	:HBer	:McCracken:		:
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DATED: May 17, 1993

AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE NO. DPR-32 - SURRY UNIT 1  
AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE NO. DPR-37 - SURRY UNIT 2

Docket File  
NRC & Local PDRs  
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Mr. W. L. Stewart  
Virginia Electric and Power Company

Surry Power Station

cc:

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Virginia Department of Health  
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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. 178  
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 November 10, 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.

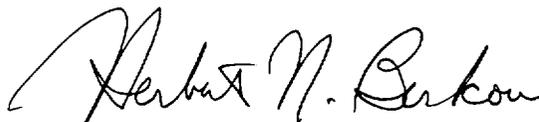
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-32 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 178, 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: May 17, 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. 178  
License No. DPR-37

- I. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Virginia Electric and Power Company (the licensee) dated November 10, 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.

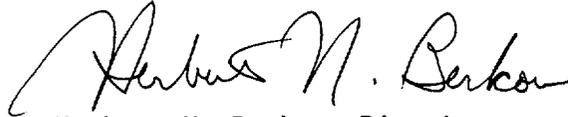
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B of Facility Operating License No. DPR-37 is hereby amended to read as follows:

(B) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 178, 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: May 17, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 AND 50-281

Revise Appendix A as follows:

Remove Pages

3.14-2  
3.14-2a  
3.14-3

Insert Pages

3.14-2  
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3.14-3

5. Two service water flow paths to the charging pump service water subsystem are OPERABLE.
  6. Two service water flow paths to the recirculation spray subsystems are OPERABLE.
- B. The requirements of Specification 3.14.A.4 may be modified to allow one Emergency Service Water pump to remain inoperable for a period not to exceed 7 days. If this pump is not OPERABLE in 7 days, then place both units in HOT SHUTDOWN within the next 6 hours and COLD SHUTDOWN within the next 30 hours.

The requirements of 3.14.A.4 may be modified to have two Emergency Service Water pumps OPERABLE with one unit in COLD SHUTDOWN with combined Spent Fuel pit and shutdown unit decay heat loads of 25 million BTU/HR or less. One of the two remaining pumps may be inoperable for a period not to exceed 7 days. If this pump is not OPERABLE in 7 days, then place the operating unit in HOT SHUTDOWN within the next 6 hours and COLD SHUTDOWN within the next 30 hours.

- C. There shall be an operating service water flow path to and from one operating main control and emergency switchgear rooms air conditioning condenser and at least one OPERABLE service water flow path to and from at least one OPERABLE main control and emergency switchgear rooms air conditioning condenser whenever fuel is loaded in the reactor core. Refer to Section 3.23.C for air conditioning system operability requirements above COLD SHUTDOWN.
- D. The requirements of Specifications 3.14.A.5, 3.14.A.6, and 3.14.C may be modified to allow unit operation with only one OPERABLE flow path to the charging pump service water subsystem, the recirculation spray subsystems, and to the main control and emergency switchgear rooms air conditioning condensers. If the affected systems are not restored to the requirements of Specifications 3.14.A.5, 3.14.A.6, and 3.14.C within 24 hours,

the reactor shall be placed in HOT SHUTDOWN. If the requirements of Specifications 3.14.A.5, 3.14.A.6, and 3.14.C are not met within an additional 48 hours, the reactor shall be placed in COLD SHUTDOWN.

### Basis

The Circulating and Service Water Systems are designed for the removal of heat resulting from the operation of various systems and components of either or both of the units. Untreated water, supplied from the James River and stored in the high level intake canal is circulated by gravity through the recirculation spray coolers and the bearing cooling water heat exchangers and to the charging pumps lubricating oil cooler service water pumps which supply service water to the charging pump lube oil coolers.

In addition, the Circulating and Service Water Systems supply cooling water to the component cooling water heat exchangers and to the main control and emergency switchgear rooms air conditioning condensers. The Component Cooling heat exchangers are used during normal plant operations to cool various station components and when in shutdown to remove residual heat from the reactor. Component Cooling is not required on the accident unit during a loss-of-coolant accident. If the loss-of-coolant accident is coincident with a loss of off-site power, the nonaccident unit will be maintained at HOT SHUTDOWN with the ability to reach COLD SHUTDOWN.

The long term Service Water requirement for a loss-of-coolant accident in one unit with simultaneous loss-of-station power and the second unit being brought to HOT SHUTDOWN is greater than 15,000 gpm. Additional Service Water is necessary to bring the nonaccident unit to COLD SHUTDOWN. Three diesel driven Emergency Service Water pumps with a design capacity of 15,000 gpm each, are provided to supply water to the High Level Intake canal during a loss-of-station power incident. Thus, considering the single active failure of one pump, three Emergency Service Water pumps are required to be OPERABLE. The allowed outage time of 7 days provides operational flexibility to allow for repairs up to and



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 178 TO FACILITY OPERATING LICENSE NO. DPR-32  
AND AMENDMENT NO. 178 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, by letter dated November 10, 1992, the Virginia Electric and Power Company (the licensee) requested a revision to Technical Specifications (TS) Section 3.14 of Facility Operating License Nos. DPR-32 and DPR-37 for the Surry Power Station, Units 1 and 2. The proposed revision would allow one of the two service water flow paths to the main control and emergency switchgear rooms' air conditioning condensers to be removed from service for system maintenance. In addition, other administrative changes are proposed, e.g., terms defined in Section 1.0 of the TS will be shown in capital letters.

2.0 EVALUATION

Section 14.A.5 of the TS requires two operable service water flow paths to the main control and emergency switchgear rooms' air conditioning condensers whenever reactor fuel is in the reactor vessel, otherwise TS Section 3.0.1 would apply. Section 3.0.1 of the TS would potentially require bringing both Surry units to hot shutdown within 6 hours and to at least cold shutdown within the following 30 hours unless timely corrective action is taken. The proposed revision would allow one of the two redundant service water flow paths to be taken out-of-service for system maintenance for a period of 24 hours prior to bringing the reactor to hot shutdown and an additional 48 hours prior to requiring a cold shutdown. The proposed change would allow performance of maintenance on system components which cannot be isolated individually by providing time to isolate a flow path for routine maintenance. Without such operational flexibility, the current TS would require shutting down both Surry units, since both units share a common control room and air conditioning system. Routinely performing maintenance of this system will increase the reliability of the service water supply to the main control and emergency switchgear rooms' air conditioning condensers. Since an adequate supply of water is being maintained by the redundant service water train, the existing analysis envelope remains bounding. Moreover, the proposed allowed outage times conform with the requirements of the Westinghouse Standard TS. Based on the NRC staff review, we find the proposed amendments acceptable.

## 2.1 Proposed changes to the TS

The following changes are being proposed to Section 3.14 of the TS:

- . Terms defined in TS Section 1.0 are being shown in all capital letters.
- . Action Statement 3.14.C.1 and its associated footnotes are being deleted since these provisions expired on March 31, 1990. As a consequence, page TS 3.14-2a will be deleted as well.
- . The requirements of 3.14.C concerning the service water flow paths to the main control and emergency switchgear rooms' air conditioning condensers are being added to Action Statement 3.14.D. Thus, one of the subject flow paths will be allowed to be out-of-service for 24 hours before HOT SHUTDOWN is required and an additional 48 hours before COLD SHUTDOWN is required.

## 3.0 SUMMARY

The staff has reviewed the licensee's proposed revision to TS Section 4.17 and finds it to be 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

Pursuant to 10 CFR 51.32 an environmental assessment has been published (58 FR 14224) in the Federal Register on March 16, 1993. Accordingly, the Commission has determined that the issuance of this amendment will not result in any environmental impact other than those evaluated in the Final Environmental Statement.

## 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: May 17, 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. 178 to Facility Operating License No. DPR-32 and Amendment No. 178 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 allow one of two service water flow paths to the main control and emergency switchgear rooms' air conditioning condensers to be removed from service for system maintenance.

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 December 10, 1992 (57 FR 58523). 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 14224).

For further details with respect to the action see (1) the application for amendments dated November 10, 1992, (2) Amendment No. 178 to License No. DPR-32 and Amendment No. 178 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 17<sup>th</sup> day of May 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

(Original Signed By H. Berkow For)

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