

APR 26 1983

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Docket No. 50-280

Mr. W. L. Stewart
 Vice President-- Nuclear Operations
 Virginia Electric and Power Company
 Post Office Box 26666
 Richmond, Virginia 23261

Dear Mr. Stewart:

The Commission has issued the enclosed Amendment No. 87 to Facility Operating License No. DPR-32 for the Surry Power Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated April 14, 1983.

The amendment revises the Technical Specifications to raise the control rod bank insertion limits.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

ORIGINAL SIGNED

Joseph D. Neighbors, Project Manager
 Operating Reactors Branch #1
 Division of Licensing

Enclosures:

1. Amendment No. 87 to DPR-32
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
 See next page

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 P PDR

*No legal objection to
 signing of PR notice
 by Dan Cadenhead.
 SER Review was
 not requested.*

*see memo
 dated 4/22/83*

OFFICE	ORB#1:DL	ORB#1:DL	ORB#1:DL	AD/DR:DL	OELD	AD/OPS
SURNAME	CParrish	DNeighbors:dm	Varga	GLainas	LUTCHIN	RUBINSTEIN
DATE	04/22/83	04/22/83	04/27/83	04/22/83	04/22/83	4/18/83

Mr. W. L. Stewart
Virginia Electric and Power Company

cc: Mr. Michael W. Maupin
Hunton and Williams
Post Office Box 1535
Richmond, Virginia 23213

Mr. J. L. Wilson, Manager
P. O. Box 315
Surry, Virginia 23883

Donald J. Burke, Resident Inspector
Surry Power Station
U. S. Nuclear Regulatory Commission
Post Office Box 166
Route 1
Surry, Virginia 23883

Mr. Sherlock Holmes, Chairman
Board of Supervisors of Surry County
Surry County Courthouse, Virginia 23683

Attorney General
1101 East Broad Street
Richmond, Virginia 23219

Mr. James R. Wittine
Commonwealth of Virginia
State Corporation Commission
Post Office Box 1197
Richmond, Virginia 23209

Regional Radiation Representative
EPA Region III
Curtis Building - 6th Floor
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

Mr. J. H. Ferguson
Executive Vice President - Power
Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

James P. O'Reilly
Regional Administrator - Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303



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. 87
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 April 14, 1983, 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. 87, 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Steven A. Varga
Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 26, 1983

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NO. DPR-32

DOCKET NO. 50-280

Revise Appendix A as follows:

Remove Pages

3.12-12

Figure 3.12-1A

Insert Pages

3.12-12

Figure 3.12-1A

on the maximum inserted rod worth in the unlikely event of a hypothetical assembly ejection and provide for acceptable nuclear peaking factors. The limit may be determined on the basis of unit startup and operating data to provide a more realistic limit which will allow for more flexibility in unit operation and still assure compliance with the shutdown requirement. The maximum shutdown margin requirement occurs at end of core life and is based on the value used in the analysis of the hypothetical steam break accident. The rod insertion limits are based on end of core life conditions. The shutdown margin for the entire cycle length is established at 1.77% reactivity. All other accident analysis with the exception of the chemical and volume control system malfunction analysis are based on 1% reactivity shutdown margin. Relative positions of control rod banks are determined by a specified control rod bank overlap. This overlap is based on the consideration of axial power shape control. The specified control rod insertion limits have been established to limit the potential ejected rod worth in order to account for the effects of fuel densification. The Unit 1 limits have been raised as shown in Figure 3.12-1A to ensure acceptable radial power peaking during Cycle 7 core life. The various control rod assemblies (shutdown banks, control banks A, B, C, and D) are each to be moved as a bank; that is, with all assemblies in the bank within one step (5/8 inch) of the bank position. Position indication is provided by two methods: a digital count of actuating pulses which shows the demand position of the banks, and a linear position indicator, Linear Variable Differential Transformer, which indicates the actual assembly position. The position indication accuracy of the Linear Differential Transformer is approximately $\pm 5\%$ of span (± 12 steps) under steady state conditions. The relative accuracy of the linear position indicator has been considered in establishing the maximum allowable deviation of a control rod assembly from its indicated group step demand position. In the event that the linear position indicator is not

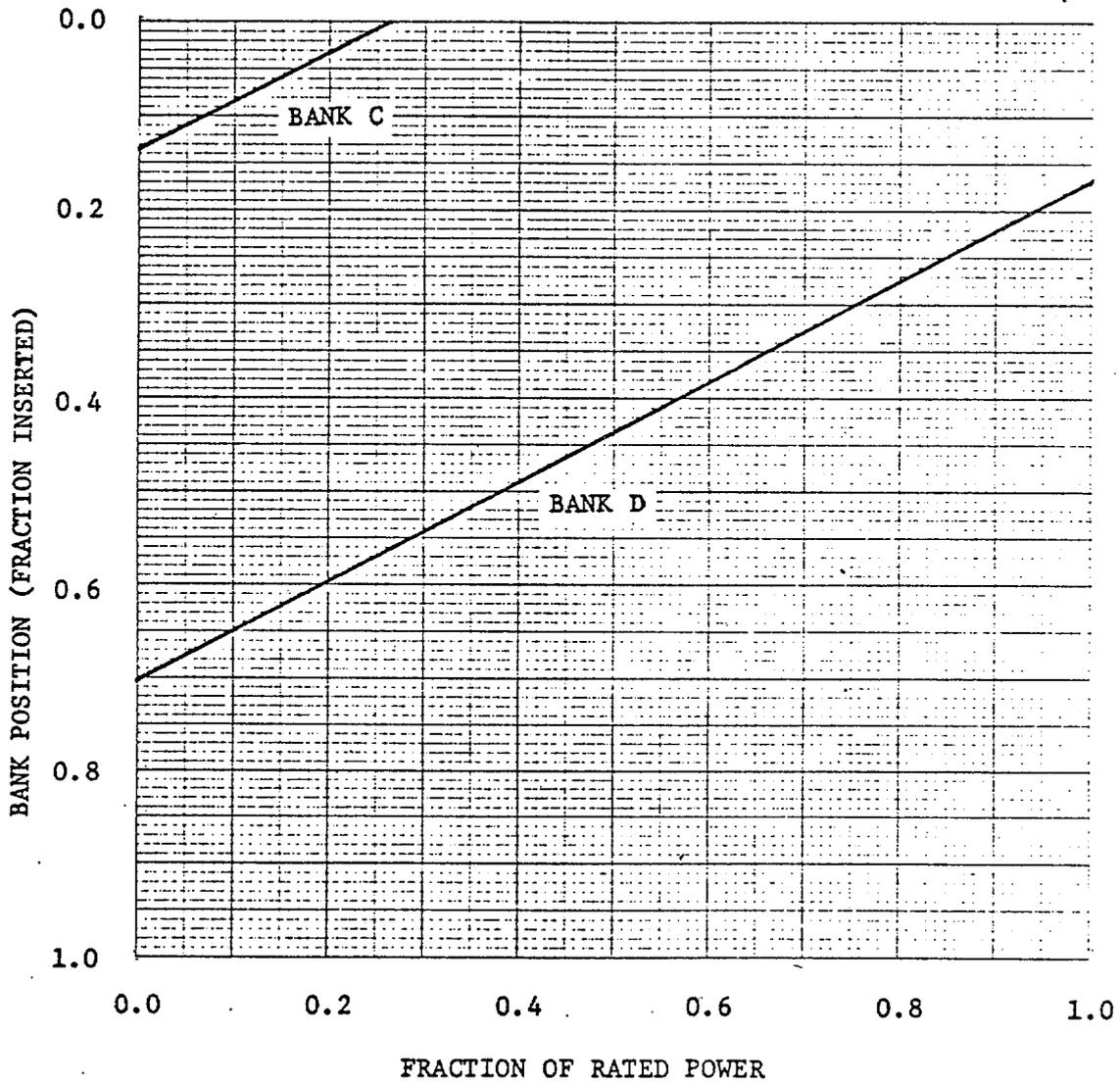


FIGURE 3.12-1A CONTROL BANK INSERTION LIMITS FOR 3-LOOP
NORMAL OPERATION-UNIT 1



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NO. DPR-32

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION, UNIT NO. 1

DOCKET NO. 50-280

Introduction

By letter dated April 14, 1983, Virginia Electric and Power Company (the licensee) requested an amendment to Surry Power Station, Unit No. 1. This amendment would revise the Technical Specifications to change the control rod insertion limits.

Discussion and Evaluation

As a result of inspections performed of the fuel assemblies in Unit 1 during the current refueling outages, the licensee has had to develop a different loading pattern than was anticipated for the upcoming Cycle 7. The results of these inspections are discussed in the licensee's letter dated March 23, 1983.

The revised core loading configuration required another reload Safety Evaluation. The reload Safety Evaluation provided is based on analysis performed by Westinghouse in accordance with the methodology documented in Westinghouse Topical Report WCAP-9272. The results indicated that no key analysis parameters would become more limiting during Cycle 7 operation than the values assumed in the currently applicable safety analysis. The basis of this evaluation include the assumption of a revision to the presently approved control rod insertion limits. The revised insertion limits are required to meet the current radial power peaking factor design limits for Cycle 7 operation.

We have reviewed the proposed Technical Specification on control rod insertion limits and conclude that they are acceptable since the insertion limits have been obtained using methods previously approved by NRC.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: April 26, 1983

Principal Contributor:
Margaret Chatterton

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-280VIRGINIA ELECTRIC AND GAS COMPANYNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 87 to Facility Operating License No. DPR-32 issued to Virginia Electric and Power Company (the licensee), which revised Technical Specifications for operation of the Surry Power Station, Unit No. 1 (the facility) located in Surry County, Virginia. The amendment is effective as of the date of issuance.

The amendment revises the Technical Specifications to raise the control rod bank insertion limits.

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. Prior public notice of this amendment was not required since this amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

- 2 -

For further details with respect to this action, see (1) the application for amendment dated April 14, 1983, (2) Amendment No. 87 to License No. DPR-32, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Swem Library, College of William and Mary, Williamsburg, Virginia 23185. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 26th day of April, 1983.

FOR THE NUCLEAR REGULATORY COMMISSION


Steven A. Varga, Chief
Operating Reactors Branch #1
Division of Licensing