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Docket Nos. 50-280
and 50-281

Virginia Electric & Power Company
ATTN: Mr. W. L. Proffitt
Senior Vice President - Power
Post Office Box 26666
Richmond, Virginia 23261

Gentlemen:

The Commission has issued the enclosed Amendment Nos. 41 and 40 to Facility Operating License Nos. DPR-32 and DPR-37 for the Surry Power Station, Unit Nos. 1 and 2, respectively. These amendments consist of changes to the Technical Specifications in response to your application dated January 13, 1978.

These changes to the Technical Specifications provide limiting conditions for operation and surveillance requirements for emergency diesel generators and batteries.

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

Sincerely,

/s/
A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Enclosures:
1. Amendment No. 41 to DPR-32
2. Amendment No. 40 to DPR-37
3. Safety Evaluation
4. Notice

cc w/encl:
See next page

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

May 10, 1978

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See next page

cc: Mr. Michael W. Maupin
Hunton & Williams
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Richmond, Virginia 23213

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College of William & Mary
Williamsburg, Virginia 23185

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

Commonwealth of Virginia
Council on the Environment
903 Ninth Street Office Building
Richmond, Virginia 23219

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

Chief, Energy Systems
Analyses Branch (AW-459)
Office of Radiation Programs
U.S. Environmental Protection Agency
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Washington, D.C. 20460

U.S. Environmental Protection Agency
Region III Office
ATTN: EIS COORDINATOR
Curtis Building - 6th Floor
6th and Walnut Streets
Philadelphia, Pennsylvania 19106

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

VIRGINIA ELECTRIC & POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 41
License No. DPR-32

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Virginia Electric & Power Company (the licensee) dated January 13, 1978, 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. 41 , 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

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 10, 1978

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

VIRGINIA ELECTRIC & POWER COMPANY

DOCKET NO. 50-281

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 40
License No. DPR-37

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Virginia Electric & Power Company (the licensee) dated January 13, 1978, 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. 40 , 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

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 10, 1978

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 41 TO FACILITY OPERATING LICENSE NO. DPR-32

AMENDMENT NO. 40 TO FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NOS. 50-280 & 50-281

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove	Replace
TS 3.16-2	TS 3.16-2
TS 4.6-4	TS 4.6-4
TS 4.6-5	TS 4.6-5
TS 4.6-6	TS 4.6-6

4. Two physically independent circuits from the offsite transmission newtork to energize the 4,160 and 480 v emergency buses. One of these sources must be immediately available, i.e. primary source; and the other must be capable of being made available within 8 hours; i.e. dependable alternate source.

5. Two operable flow paths for providing fuel to each diesel generator.

6. Two station batteries, two chargers, and the d.c. distribution systems operable.

7. Emergency diesel generator battery, charger and the d.c. control circuitry operable for the unit diesel generator and for the shared back-up diesel generator.

B. During power operation or the return to power from hot shutdown conditions, the requirements of specification 3.16-A may be modified by one of the following:

1. One diesel generator may be unavailable or inoperable provided the operability of the other diesel generator is demonstrated daily. If this diesel generator is not returned to an operable status within 7 days, the reactor shall be brought to a cold shutdown condition. One diesel fuel oil flow path may be "inoperable" for 2 hours provided the other flow is proven operable. If after 24 hours, the inoperable flow path cannot be returned to service, the diesel shall be considered "inoperable". When the emergency diesel generator battery, charger on d.c. control circuitry is inoperable, the diesel shall be considered "inoperable".

f. During the refueling outages connections shall be checked for tightness and anticorrosion coating shall be applied to interconnections.

2. Acceptance Criteria

a. Each test shall be considered satisfactory if the new data when compared to the old data indicate no signs of abuse or deterioration.

b. The load test in (d) and (e) above shall be considered satisfactory if the batteries perform within acceptable limits as established by the manufacturers discharge characteristic curves.

D. EMERGENCY DIESEL GENERATOR BATTERIES

1. TESTS AND FREQUENCIES

a. The specific gravity, electrolytic temperature, cell voltage of the pilot cell in each 56 cell battery and the D.C. bus voltage of each battery shall be measured and recorded weekly.

b. Each month the voltage of each battery cell in each 56 cell battery shall be measured to the nearest 0.01 volts and recorded.

c. Every 3 months the specific gravity of each battery cell, the temperature reading of every fifth cell, the height of electrolyte of each cell, and the amount of water added to any cell shall be measured and recorded.

d. At refueling each battery shall be subjected to a normal load or simulated load test without battery charger. The battery voltage and current as a function of time shall be monitored.

e. Each refueling connections shall be checked for tightness and anticorrosion coating shall be applied to interconnections.

2. ACCEPTANCE CRITERIA

a. Each test shall be considered satisfactory if the new data when compared to the old data indicate no signs of abuse or deterioration.

b. The load test in (d) above shall be considered satisfactory if the batteries perform within acceptable limits as established by the manufacturers discharge characteristic curves.

Basis

The tests specified are designed to demonstrate that the diesel generators will provide power for operation of essential safeguards equipment. They also assure that the emergency diesel generator system controls and the control systems for the safeguards equipment will function automatically in the event of a loss of normal station service power.

The testing frequency specified will be often enough to identify and correct any mechanical or electrical deficiency before it can result in a system failure. The fuel supply and starting circuits and controls are continuously monitored and any faults are alarm indicated. An abnormal condition in these systems would be signaled without having to place the diesel generators themselves on test.

Station batteries may deteriorate with time, but precipitous failure is extremely unlikely. The surveillance specified is that which has been demonstrated by experience to provide an indication of a cell becoming unserviceable long before it fails. In addition alarms have been provided to indicate low battery voltage and low current from the inverters which would make it extremely unlikely that deterioration would go unnoticed.

Emergency diesel generator batteries may deteriorate with time but precipitous failure is extremely unlikely. The surveillance specified is that which has been demonstrated by experience to provide an indication of a cell becoming unserviceable long before it fails.

The equalizing charge, as recommeded by the manufacturer, is vital to maintaining the ampere-hour capability of the battery. As a check upon the effectiveness of the equalizing charge, the battery shall be loaded rather heavily and the voltage monitored as a function of time. If a cell has

deteriorated or if a connection is loose, the voltage under load will drop excessively indicating the need for replacement or maintenance. FSAR Section 8.5 provides further amplification of the basis.

References

FSAR Section 8.5 Emergency Power System

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NOS. 41 AND 40 TO

FACILITY OPERATING LICENSE NOS. DPR-32 AND DPR-37

VIRGINIA ELECTRIC AND POWER COMPANY

SURRY POWER STATION, UNIT NOS. 1 AND 2

DOCKET NOS. 50-280 AND 50-281

Introduction

By letter dated January 13, 1978, Virginia Electric and Power Company (the licensee) requested changes to the Surry Unit Nos. 1 and 2 Technical Specifications which will provide limiting conditions for operation and surveillance requirements for the Surry onsite emergency diesel generators. These changes were proposed in response to an NRC letter request dated November 9, 1977.

Discussion

Our letter of November 9, 1977, noted that additional dedicated separate batteries and chargers are used at the Surry Nuclear Power Station. Based on our review of the current Surry Technical Specifications we concluded that surveillance requirements should be added to demonstrate the operability of these batteries and chargers and that these surveillance requirements should be similar to those currently in the Surry Technical Specifications for other safety batteries and chargers.

Evaluation

We have reviewed the proposed Technical Spedifications for the emergency diesel generator batteries and associated systems. We have also compared these proposed Technical Specifications with the existing Technical Specifications for safety related batteries, and have found them to be similar.

The addition of the proposed Technical Specifications will provide the further assurance desired by us that the emergency diesel generator batteries and associated systems will be operable when called upon to perform.

Therefore, based on our evaluation, we find these changes to be acceptable.

Environmental Consideration

We have determined that these amendments do 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 amendments involve 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 these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of accidents previously considered and do not involve a significant decrease in a safety margin, the amendments do 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: May 10, 1978

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NOS. 50-280 AND 50-281

VIRGINIA ELECTRIC AND POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 41 and 40 to Facility Operating License Nos. DPR-32 and DPR-37, issued to Virginia Electric and Power Company (the licensee), which revised Technical Specifications for operation of the Surry Power Station, Unit Nos. 1 and 2 (the facility) located in Surry County, Virginia. The amendments are effective within 30 days of the date of issuance.

The amendments revise the Technical Specifications to provide limiting conditions for operation and surveillance requirements for emergency diesel generators and batteries.

The application for the amendments 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 amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §515.(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated January 13, 1978, (2) Amendment Nos. 41 and 40 to License Nos. DPR-32 and DPR-37, 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, NW., Washington, D.C. and at the Swem Library, College of William and Mary, Williamsburg, Virginia. 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 Operating Reactors.

Dated at Bethesda, Maryland, this 10th day of May 1978.

FOR THE NUCLEAR REGULATORY COMMISSION

A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors