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

July 27, 1976

Pastel
Amm-23 to
DPR-37

Dockets Nos.: 50-280
and 50-281

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

Gentlemen:

The Commission has issued the enclosed Amendments No. 23 to Facility Licenses Nos. DPR-32 and DPR-37 for the Surry Power Station, Units Nos. 1 and 2. The amendments consist of changes to your Technical Specifications for each license and are in response to your request dated March 19, 1976. At a meeting in Bethesda, Maryland, on March 24, 1976, you agreed to withdraw change requests related to Technical Specifications 3.11.A-4, -5, and -9.

The amendments revise the portions of the Technical Specifications related to effluent release monitoring.

Copies of the related Safety Evaluation and the Federal Register Notice are also enclosed.

Sincerely,

Robert W. Reid

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Enclosures:
1. Amendment No. 23 to DPR-32
2. Amendment No. 23 to DPR-37
3. Safety Evaluation
4. Federal Register Notice

cc w/enclosures: See next page

cc w/enclosures:
Michael W. Maupin, Esq.
Hunton, Williams, Gay & Gibson
P. O. Box 1535
Richmond, Virginia 23213

Swem Library
College of William & Mary
Williamsburg, Virginia 23185

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

cc w/enclosures & incoming:
Ms. Susan T. Wilburn
Commonwealth of Virginia
Council on the Environment
903 9th Street Office Building
Richmond, Virginia 23219

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. 23
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 March 19, 1976, 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.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the
Technical Specifications

Date of Issuance: July 27, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 23

FACILITY OPERATING LICENSE NO. DPR-32

DOCKET NO. 50-280

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.7-14 (Table 3.7-5)	3.7-14 (Table 3.7-5)
3.11-4	3.11-4
3.13-2	3.13-2

Changes on the revised pages are shown by marginal lines.

TABLE 3.7-5

AUTOMATIC FUNCTIONS

OPERATED FROM RADIATION MONITORS ALARM

	MONITOR CHANNEL	AUTOMATIC FUNCTION AT ALARM CONDITIONS	MONITORING REQUIREMENTS	ALARM SETPOINT µCi/cc
1.	Process vent particulate and gas monitors (RM-GW-101 & RM-GW-102)	Stops discharge from containment vacuum systems and waste gas decay tanks (Shuts Valve Nos. RCV-GW-160, FCV-GW-260, FCV-GW-101)	See Specifications 3.11 and 4.9	Particulate $\leq 4 \times 10^{-8}$ Gas $\leq 9 \times 10^{-2}$
2.	Component cooling water radiation monitors (RM-CC-105 & RM-CC-106)	Shuts surge tank vent valve HCV-CC-100	See Specification 3.13 and 4.9	$\leq$ Twice Background
3.	Liquid waste disposal radiation monitor (RM-LW-108)	Shuts effluent discharge valves FCV-LW-104A and FCV-LW-104B	See Specifications 3.11 and 4.9	$\leq 1.5 \times 10^{-3}$
4.	Condensor air ejector radiation monitors (RM-SV-111 & RM-SV-211)	Diverts flow to the containment of the affected unit (Opens TV-SV-102 and shuts TV-SV-103 or opens TV-SV-202 and shuts TV-SV-203)	See Specifications 3.11 and 4.9	$\leq$ 1.3
5.	Containment particulate and gas monitors (RM-RMS-159 & RM-RMS-160, RM-RMS-259 & RM-RMS-260)	Trips affected unit's purge supply and exhaust fans, closes affected unit's purge air butterfly valves (MOV-VS-100A, B, C & D or MOV-VS-200A, B, C & D)	See Specifications 3.10 and 4.9	Particulate $\leq 9 \times 10^{-9}$ Gas $\leq 1 \times 10^{-5}$
6.	Manipulator crane area monitors (RM-RMS-162 & RM-RMS-262)	Trips affected unit's purge supply and exhaust fans, closes affected unit's purge air butterfly valves (MOV-VS-100A, B, C & D or MOV-VS-200A, B, C & D	See Specifications 3.10 and 4.9	$\leq$ 50 mrem/hr

b. The process vent gas monitor and particulate monitor shall be operating.

6. All effluents to be discharged to the atmosphere from the waste gas decay tanks of the gaseous waste disposal system shall be sampled and analyzed to demonstrate compliance with specification B-1 above prior to release via the process vent.

7. During periods of primary to secondary leakage, the alarm setpoint of $\leq$ 1.3 μCi/cc will be based on actual isotopic content of samples obtained and analyzed on the multichannel analyzer.

8. Whenever the air ejector discharge monitor is inoperable and the steam generator blowdown monitors indicate a primary to secondary leak, the automatic divert feature shall be defeated and samples shall be taken from the air ejector discharge and analyzed from gross activity on a daily basis. If the gross activity reaches the alarm setpoint as specified in Table 3.7-5, the air ejector flow shall be manually diverted to the containment.

9. The maximum activity to be contained in one gas decay tank shall not exceed 95,400 curies equivalent of Xenon 133.

10. Purging of the containment shall be governed by the following conditions:

a. Containment purge shall be filtered through the high efficiency particulate air filters and charcoal absorbers whenever the concentration of iodine and particulate isotopes exceed the occupational MPC inside the containment.

b. Containment purge shall be filtered through the high efficiency particulate air filters and charcoal absorbers whenever irradiated fuel is being handled or any object is being handled over irradiated

heat exchangers shall be operable.

2. For two unit operation, three component cooling water pumps and heat exchangers shall be operable.

3. The Component Cooling Water Subsystem shall be operable for immediate supply of cooling water to the following components, if required:

   a. Two operable residual heat removal heat exchangers.

   b. Seal water ans stuffing box jacket of two operable residual heat removal pumps.

4. During power operation, Specification A-1, A-2, or A-3 above may be modified to allow one of the required components to be inoperable provided immediate attention is directed to making repairs. If the system is not restored within 24 hours to the requirements of Specification A-1, A-2, or A-3, an operating reactor shall be placed in the hot shutdown condition. If the repairs are not completed within an additional 48 hours, the affected reactor shall be placed in the cold shutdown condition.

5. Whenever the component cooling water radiation monitor is inoperable, the surge tank vent valve shall remain closed.

B. For each unit whose Reactor Coolant System exceeds a temperature of 350°F and a pressure of 450 psig, or when a unit's reactor is critical,

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. 23
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 March 19, 1976, 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.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the
Technical Specifications

Date of Issuance: July 27, 1976

ATTACHMENT TO LICENSE AMENDMENT NO. 23

FACILITY OPERATING LICENSE NO. DPR-37

DOCKET NO. 50-281

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.7-14 (Table 3.7-5)	3.7-14 (Table 3.7-5)
3.11-4	3.11-4
3.13-2	3.13-2

Changes on the revised pages are shown by marginal lines.

TABLE 3.7-5

AUTOMATIC FUNCTIONS

OPERATED FROM RADIATION MONITORS ALARM

	MONITOR CHANNEL	AUTOMATIC FUNCTION AT ALARM CONDITIONS	MONITORING REQUIREMENTS	ALARM SETPOINT μCi/cc
1.	Process vent particulate and gas monitors (RM-GW-101 & RM-GW-102)	Stops discharge from containment vacuum systems and waste gas decay tanks (Shuts Valve Nos. RCV-GW-160, FCV-GW-260, FCV-GW-101)	See Specifications 3.11 and 4.9	Particulate $\leq 4 \times 10^{-8}$ Gas $\leq 9 \times 10^{-2}$
2.	Component cooling water radiation monitors (RM-CC-105 & RM-CC-106)	Shuts surge tank vent valve HCV-CC-100	See Specification 3.13 and 4.9	$\leq$ Twice Background
3.	Liquid waste disposal radiation monitor (RM-LW-108)	Shuts effluent discharge valves FCV-LW-104A and FCV-LW-104B	See Specifications 3.11 and 4.9	$\leq 1.5 \times 10^{-3}$
4.	Condensor air ejector radiation monitors (RM-SV-111 & RM-SV-211)	Diverts flow to the containment of the affected unit (Opens TV-SV-102 and shuts TV-SV-103 or opens TV-SV-202 and shuts TV-SV-203)	See Specifications 3.11 and 4.9	$\leq$ 1.3
5.	Containment particulate and gas monitors (RM-RMS-159 & RM-RMS-160, RM-RMS-259 & RM-RMS-260)	Trips affected unit's purge supply and exhaust fans, closes affected unit's purge air butterfly valves (MOV-VS-100A, B, C & D or MOV-VS-200A, B, C & D)	See Specifications 3.10 and 4.9	Particulate $\leq 9 \times 10^{-9}$ Gas $\leq 1 \times 10^{-5}$
6.	Manipulator crane area monitors (RM-RMS-162 & RM-RMS-262)	Trips affected unit's purge supply and exhaust fans, closes affected unit's purge air butterfly valves (MOV-VS-100A, B, C & D or MOV-VS-200A, B, C & D	See Specifications 3.10 and 4.9	$\leq$ 50 mrem/hr

b. The process vent gas monitor and particulate monitor shall be operating.

6. All effluents to be discharged to the atmosphere from the waste gas decay tanks of the gaseous waste disposal system shall be sampled and analyzed to demonstrate compliance with specification B-1 above prior to release via the process vent.

7. During periods of primary to secondary leakage, the alarm setpoint of $\leq$ 1.3 μCi/cc will be based on actual isotopic content of samples obtained and analyzed on the multichannel analyzer.

8. Whenever the air ejector discharge monitor is inoperable and the steam generator blowdown monitors indicate a primary to secondary leak, the automatic divert feature shall be defeated and samples shall be taken from the air ejector discharge and analyzed from gross activity on a daily basis. If the gross activity reaches the alarm setpoint as specified in Table 3.7-5, the air ejector flow shall be manually diverted to the containment.

9. The maximum activity to be contained in one gas decay tank shall not exceed 95,400 curies equivalent of Xenon 133.

10. Purging of the containment shall be governed by the following conditions:

a. Containment purge shall be filtered through the high efficiency particulate air filters and charcoal absorbers whenever the concentration of iodine and particulate isotopes exceed the occupational MPC inside the containment.

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heat exchangers shall be operable.

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3. The Component Cooling Water Subsystem shall be operable for immediate supply of cooling water to the following components, if required:

   a. Two operable residual heat removal heat exchangers.

   b. Seal water ans stuffing box jacket of two operable residual heat removal pumps.

4. During power operation, Specification A-1, A-2, or A-3 above may be modified to allow one of the required components to be inoperable provided immediate attention is directed to making repairs. If the system is not restored within 24 hours to the requirements of Specification A-1, A-2, or A-3, an operating reactor shall be placed in the hot shutdown condition. If the repairs are not completed within an additional 48 hours, the affected reactor shall be placed in the cold shutdown condition.

5. Whenever the component cooling water radiation monitor is inoperable, the surge tank vent valve shall remain closed.

B. For each unit whose Reactor Coolant System exceeds a temperature of 350°F and a pressure of 450 psig, or when a unit's reactor is critical,

UNITED STATES
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WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENTS NO. 23 TO LICENSES NOS. DPR-32 AND DPR-37

VIRGINIA ELECTRIC & POWER COMPANY

SURRY POWER STATION UNITS NOS. 1 AND 2

DOCKETS NOS. 50-280 AND 50-281

Introduction

By application for Amendment to Operating License submitted by letter dated March 19, 1976, the Virginia Electric and Power Company (VEPCO) proposed changes to the Technical Specifications appended to Facility Operating Licenses Nos. DPR-32 and DPR-37 for Surry Power Station. The proposed changes to Table 3.7-5 and Sections 3.11 and 3.13 would revise 1) the monitoring requirements for the component cooling water surge tank vent radiation monitor, 2) the monitoring requirements for the air ejector radiation monitor, and 3) the method of sampling and monitoring radioactive liquid waste.

Evaluation

1. The proposed change to Table 3.7-5 and Section 3.13 would require that the component cooling water surge tank vent valve remain closed whenever the component cooling water radiation monitor is inoperable. This change would require the same action to be taken when the monitor is inoperable as when an alarm condition exists. The proposed requirement assures that during periods when the monitor is inoperable, radioactive gases, which could result from Primary System to Component Cooling System leakage, are not inadvertently vented to the atmosphere, thus the change is acceptable.

2. The present Technical Specifications do not contain an action requirement in the event the air ejector discharge radioactivity monitor is inoperable at the same time a primary to secondary leak occurs, for example, a steam generator tube leak. The proposed change to Table 3.7-5 and Section 3.11 would now require that when the air ejector discharge monitor is inoperable and a primary to secondary leak is indicated by blowdown radioactivity monitor, the air ejector flow shall be manually diverted to containment. In addition the change would allow the diversion valve from the air ejector discharge to be placed on manual operation when the air ejector discharge monitor is inoperable. The proposed change also specifies that the alarm setpoint (1.3 μCi/cc) will be based on the actual isotopic content of the sample as analyzed on a multi-channel analyzer and specifies the method of calibrating the radiation monitor. This change is acceptable as it prevents radioactive gaseous releases to the atmosphere under the conditions discussed above and the use of the multi-channel analyzer provides for rapid and accurate analysis of the effluent.

3. The proposed changes to Sections 3.11.A-4 and 3.11.A-5, relating to methods of sampling and monitoring radioactive liquid waste, would permit the discharge of effluent from the ion exchangers prior to sample analysis of the effluent. The present Technical Specifications require that before discharge of liquid waste a sample shall be taken and analyzed to demonstrate compliance with the requirements of 10 CFR Part 20, Standards for Protection Against Radiation, for discharges of radioactive liquids to unrestricted areas. The change would have permitted continuous discharge from the ion exchangers without initial sampling and analysis. This part of the change is unacceptable since it would allow discharge prior to verification of compliance with the 10 CFR Part 20 concentration limits. In addition, the proposed change would have altered Sepcification 3.11.A-9 by including the words "as necessary" for the maintenance and operation of the liquid radioactive waste system; this part of the change is unacceptable under the requirements of 10 CFR Part 50.36a. The licensee agreed to delete these portions of the proposed Technical Specification changes from his license amendment request of March 19, 1976, at a meeting between members of the NRC staff and VEPCO on March 24, 1976, held in Bethesda, Maryland.

We have determined that the amendments to 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 statement, negative declaration, or 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 change does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the change 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 these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: July 27, 1976

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKETS NOS. 50-280 AND 50-281

VIRGINIA ELECTRIC & POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES

Notice is hereby given that the U. S. Nuclear Regulatory Commission (the Commission) has issued Amendments No. 23 to Facility Operating Licenses Nos. DPR-32 and DPR-37 issued to Virginia Electric & Power Company which revised Technical Specifications for operation of the Surry Power Station, Units Nos. 1 and 2, located in Surry County, Virginia. The amendments are effective as of the date of issuance.

The amendments revise the effluent release monitoring requirements in the Technical Specifications.

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 §51.5(d)(4) an environmental statement, negative declaration or 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 March 19, 1976, (2) Amendments No. 23 to Licenses 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, N.W., 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.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Dated at Bethesda, Maryland this
27th day of July 1976