

DEC 26 1974

Docket Nos. 50-280  
and 50-281 ✓

Virginia Electric and Power Company  
ATTN: Mr. Stanley Ragone  
Senior Vice President  
P. O. Box 26666  
Richmond, Virginia 23261

Gentlemen:

The Commission has issued the enclosed Amendments No. 3 to Facility Licenses No. DPR-32 and DPR-37. These amendments incorporate Change No. 18 to the Technical Specifications of each license for the Surry Power Station, Units 1 and 2, and are in response to your request dated September 13, 1974.

The amendments delete specification 3.11.B.8 which required that radioactive gaseous wastes be provided a minimum holdup of 60 days during normal plant operating conditions, except for low radioactivity gaseous wastes resulting from purge and fill operations associated with refueling and reactor startup. This requirement has been found unduly restrictive of plant operations.

However, paragraph 20.1(c) of 10 CFR Part 20 and paragraphs 50.34a and 50.36a of 10 CFR Part 50 provide that licensees should make every reasonable effort to keep radiation exposures and releases of radioactive materials to unrestricted areas as low as practicable. Consistent with this objective, specification 3.11.B.2 is also modified by these amendments so as to restrict release rates of activity within limits considered by the staff to be as low as practicable. Concurrence with this additional proposed change was received by telephone from Mr. Walter Bennett of your company on November 6, 1974.

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

Sincerely,

Original signed by  
Robert A. Purple

Robert A. Purple, Chief  
Operating Reactors Branch 1  
Directorate of Licensing

Enclosures and cc's: See attached sheet  
LETTER RETYPED PER R. PURPLE

OFFICE >								
SURNAME >								
DATE >								

*Robert A. Purple*

Enclosures:

1. Amendment No. 3 to DPR-32
2. Amendment No. 3 to DPR-37
3. Environmental and Safety Evaluation
4. Federal Register Notice

cc: George D. Gibson, Esq.  
 Hunton, Williams, Gay & Gibson  
 P. O. Box 1535  
 Richmond, Virginia 23212

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

Swem Library  
 College of William & Mary  
 Williamsburg, Virginia 23185

cc w/enclosures and Vepco ltr dtd 9/13/74:  
 Ms. Susan T. Wilburn  
 Commonwealth of Virginia  
 Council on the Environment  
 Eighth Street Office Building  
 Richmond, Virginia 23219

Mr. Robert Blanco  
 Environmental Protection Agency  
 Curtis Building  
 6th and Walnut Streets  
 Philadelphia, Pennsylvania 19106

bcc: H. J. McAlduff, ORO  
 J. R. Buchanan, ORNL  
 T. B. Abernathy, DTIE  
 A. Rosenthal, ASLAB  
 N. H. Goodrich, ASLBP

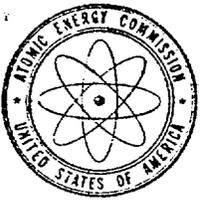
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 Chebron  
 ACRS (16)  
 JMalaro  
 VBearoya

*with changes as indicated.*

L:TR JMaLaro 11/20/74  
 L:ETS VBearova 11/21/74

NOTE: Concurrence here indicates concurrence with entire package.

OFFICE >	L:EP-2 <i>pkb</i>	L:EP <i>GKD</i>	L:OR-1 <i>ams</i>	L:OR-1 <i>ams</i>	DGC 12/19/74	L:OR <i>ams</i>
SURNAME >	PKreutzer PLEech	GKDicker <del>DMuller</del>	SSheppard MFairtile	RAPurple		KGoller
DATE >	11/7/74	11/11/74	11/22/74	12/4/74	12/1/74	12/26/74



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

VIRGINIA ELECTRIC & POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 3  
License No. DPR-32

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by Virginia Electric & Power Company (the licensee) dated September 13, 1974, as modified by the Commission staff, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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;
  - E. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration; and
  - F. An environmental impact statement is not required since the amendment will not result in a significant environmental impact.
2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 3.B of Facility License No. DPR-32 is hereby amended to read as follows:

"B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 18."

3. This license amendment is effective ten days after the date of issuance indicated below.

FOR THE ATOMIC ENERGY COMMISSION

Original signed by  
Karl R. Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:  
Change No. 18 to Technical  
Specifications

Date of Issuance: DEC 26 1974

ATTACHMENT TO LICENSE AMENDMENT NO. 3  
CHANGE NO. 18 TO THE TECHNICAL SPECIFICATIONS  
FACILITY OPERATING LICENSE NO. DPR-32  
VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION UNIT NO. 1  
DOCKET NO. 50-280

Revise Appendix A as follows:

1. Remove pages 3.11-3 and 3.11-4.
2. Insert revised pages 3.11-3 and 3.11-4.

A-1 above are met.

B. Gaseous Wastes

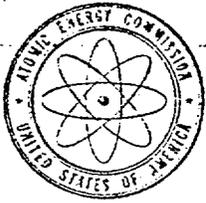
1. The controlled release rates of gaseous and airborne particulate wastes originating from station operation shall be limited as follows:

$$\frac{\sum Q_i}{(MPC)_i} \leq 2.0 \times 10^5 \frac{\text{m}^3}{\text{sec}}$$

where  $Q_i$  is the controlled release rate (curies per second) of any radioisotope  $i$  and  $(MPC)_i$ , in unit of microcuries per cubic centimeter is defined in Column 1, Table II of Appendix B to 10 CFR 20, except that for halogen and particulate isotopes with half-lives greater than 8 days, the values of  $(MPC)_i$  shall be reduced by a factor of 700.

2. The release rates of activity shall not exceed 16 percent of those specified in paragraph B.1. above when averaged over any calendar quarter or 8 percent of those specified in paragraph B.1. above when averaged over any 12 consecutive months.
3. The release rate of Iodine 131, when averaged over any calendar quarter shall be such that if continued at the same release rate for a year would not exceed 0.9 curies per year.
4. Gaseous waste, gross and particulate activity and flow rate shall be continuously monitored and recorded during release of radioactive gaseous wastes to the process vent.
5. During release of radioactive gaseous waste to the process vent, the following conditions shall be met:
- a. At least one process vent blower shall be operating.

- 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. Whenever the air ejector discharge monitor is inoperable and the steam generator blowdown monitors indicate an increase in secondary side activity, samples shall be taken from the air ejector discharge and analyzed from gross activity on a daily basis.
8. (Deleted)
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



UNITED STATES

ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

VIRGINIA ELECTRIC & POWER COMPANY

DOCKET NO. 50-281

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 3  
License No. DPR-37

1. The Atomic Energy Commission (the Commission) having found that:
  - A. The application for amendment by Virginia Electric & Power Company (the licensee) dated September 13, 1974, as modified by the Commission staff, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, 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;
  - E. Prior public notice of this amendment is not required since the amendment does not involve a significant hazards consideration; and
  - F. An environmental impact statement is not required since the amendment will not result in a significant environmental impact.
2. Accordingly, the license is amended by a change to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 3.B of Facility License No. DPR-37 is hereby amended to read as follows:

"B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications, as revised by issued changes thereto through Change No. 18."

3. This license amendment is effective ten days after the date of issuance indicated below.

FOR THE ATOMIC ENERGY COMMISSION

Original signed by  
Karl R. Goller

Karl R. Goller, Assistant Director  
for Operating Reactors  
Directorate of Licensing

Attachment:  
Change No. 18 to Technical  
Specifications

Date of Issuance: DEC 26 1974

ATTACHMENT TO LICENSE AMENDMENT NO. 3  
CHANGE NO. 18 TO THE TECHNICAL SPECIFICATIONS  
FACILITY OPERATING LICENSE NO. DPR-37  
VIRGINIA ELECTRIC & POWER COMPANY  
SURRY POWER STATION UNIT NO. 2  
DOCKET NO. 50-281

Revise Appendix A as follows:

1. Remove pages 3.11-3 and 3.11-4.
2. Insert revised pages 3.11-3 and 3.11-4.

A-1 above are met.

B. Gaseous Wastes

1. The controlled release rates of gaseous and airborne particulate wastes originating from station operation shall be limited as follows:

$$\frac{\sum Q_i}{(MPC)_i} \leq 2.0 \times 10^5 \frac{m^3}{sec}$$

where  $Q_i$  is the controlled release rate (curies per second) of any radioisotope  $i$  and  $(MPC)_i$ , in unit of microcuries per cubic centimeter is defined in Column 1, Table II of Appendix B to 10 CFR 20, except that for halogen and particulate isotopes with half-lives greater than 8 days, the values of  $(MPC)_i$  shall be reduced by a factor of 700.

2. The release rates of activity shall not exceed 16 percent of those specified in paragraph B.1. above when averaged over any calendar quarter or 8 percent of those specified in paragraph B.1. above when averaged over any 12 consecutive months.

3. The release rate of Iodine 131, when averaged over any calendar quarter shall be such that if continued at the same release rate for a year would not exceed 0.9 curies per year.

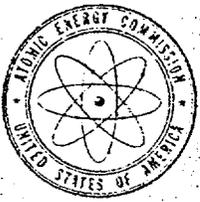
4. Gaseous waste gross and particulate activity and flow rate shall be continuously monitored and recorded during release of radioactive gaseous wastes to the process vent.

5. During release of radioactive gaseous waste to the process vent, the following conditions shall be met:

- a. At least one process vent blower shall be operating.

- 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. Whenever the air ejector discharge monitor is inoperable and the steam generator blowdown monitors indicate an increase in secondary side activity, samples shall be taken from the air ejector discharge and analyzed from gross activity on a daily basis.
8. (Deleted)
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

DEC 26 1974



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

ENVIRONMENTAL AND SAFETY EVALUATION BY THE  
DIRECTORATE OF LICENSING

AMENDMENTS NO. 3 TO FACILITY OPERATING LICENSE NOS. DPR-32 AND DPR-37  
(CHANGE NO. 18 TO TECHNICAL SPECIFICATIONS)

VIRGINIA ELECTRIC AND POWER COMPANY  
SURRY POWER STATION, UNITS 1 & 2

INTRODUCTION

In a letter dated September 13, 1974, VEPCO requested that paragraph 3.11.B.8 on page TS 3.11-4 of the Technical Specifications appended to Facility Operating Licenses DPR-32 and DPR-37 for the Surry Power Station be deleted. The subject paragraph reads as follows:

"During normal conditions of plant operation, radioactive gaseous wastes shall be provided a minimum holdup of 60 days except for low radioactivity gaseous wastes resulting from purge and fill operations associated with refueling and reactor startup."

DISCUSSION

1. The licensee's letter stated that the 60-day holdup period had been found unduly restrictive since radioactive waste gas production at Surry had exceeded original expectations due to many recent unanticipated transients. There have been several operational periods when the station has had to operate close to the upper limit of the inservice waste decay tank, while the other tank contained gas with a low level of activity and little or no I-131 which could not be released since the 60-day minimum holdup time had not passed.
2. The licensee submitted these proposed amendments in response to the staff's suggestion that an appropriate change be made in the Technical Specifications following an instance on August 21, 1974 when permission was granted by the Commission for a controlled radioactive release from a waste gas holdup tank at the Surry station prior to expiration of the 60-day holdup period. If permission had not been granted, Unit 2 could not have been placed on line during a heavy load period. Similarly, permission for early releases had been requested and granted on June 28, 1974 and

November 30, 1973. On each of these occasions, the total activity to be released was calculated to be less than 4 percent of 10 CFR Part 20 release limits.

3. The licensee's letter states that specification 3.11.B.8 is not necessary since specifications 3.11.B.1 through 3.11.B.6 specify the allowable gaseous release quantity and rate so that the concentration limits in 10 CFR Part 20 will not be exceeded.

#### EVALUATION

1. In order to provide nuclear power plants with maximum flexibility of operation compatible with considerations of public health and safety, a specific amount of holdup time is no longer being included in the Technical Specifications for recently licensed reactors. However, other restrictions are imposed to assure that radioisotope releases are as low as practicable.
2. From examination of paragraphs 3.11.B.1 through 3.11.B.6 of the Surry Technical Specification, the staff has determined that radioisotope releases by Surry Units 1 and 2 can be maintained as low as practicable without paragraph 3.11.B.8 by modifying paragraph 3.11.B.2 to read as follows:

"The release rates of activity shall not exceed 16 percent of those specified in paragraph B-1 above when averaged over any calendar quarter or 8 percent of those specified in paragraph B-1 above when averaged over any 12 consecutive months."

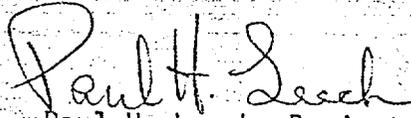
This modified activity release limit will assure that the yearly average releases of radioactive material from the decay tanks will not significantly exceed those resulting from the imposition of a 60 day minimum holdup time.

The licensee has agreed to the above change in paragraph 3.11.B.2 as a modification of its request, to be implemented in addition to deletion of paragraph 3.11.B.8.

#### CONCLUSION

We have concluded, based on the reasons discussed above, that the authorization of this change will not result in a significant increase in the amounts of radioactive material released from the Surry Power Station and does not involve a significant hazards consideration or significant adverse environmental impacts pursuant to 10 CFR 51.5(d)(3). Therefore, neither an environmental impact statement nor a negative declaration is required. We also conclude that 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 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.



Paul H. Leech, Project Manager  
Environmental Projects Branch 2  
Directorate of Licensing

Original signed by  
Gordon K. Dicker

Gordon K. Dicker, Chief  
Environmental Projects Branch 2  
Directorate of Licensing

Date: DEC 26 1974

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NOS. 50-280 AND 50-281

VIRGINIA ELECTRIC AND POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSES

Notice is hereby given that the U. S. Atomic Energy Commission (the Commission) has issued Amendments No. 3 to Facility Operating License Nos. DPR-32 and DPR-37 issued to Virginia Electric and Power Company which revised Technical Specifications for operation of the Surry Power Station, Units 1 and 2, located in Surry County, Virginia. The amendments are effective ten days after the date of issuance.

The amendments delete specification 3.11.B.8 which required that radioactive gaseous wastes be provided a minimum holdup of 60 days during normal plant operating conditions, except for low radioactivity gaseous wastes resulting from purge and fill operations associated with refueling and reactor startup. Specification 3.11.B.2 is also modified by these amendments so as to restrict release rates of activity within limits considered by the staff to be as low as practicable.

The amendments comply 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.

For further details with respect to this action, see (1) the application for amendments dated September 13, 1974, (2) Amendments No. 3 to License Nos. DPR-32 and DPR-37, with any attachments, and (3) the Commission's related Environmental and 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 & Mary, Williamsburg, Virginia 23185.

A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Atomic Energy Commission, Washington, D. C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing - Regulation.

Dated at Bethesda, Maryland, this *26th* day of *December* 1974.

FOR THE ATOMIC ENERGY COMMISSION

Original signed by  
Gordon K. Dicker

Gordon K. Dicker, Chief  
Environmental Projects Branch 2  
Directorate of Licensing