

#### UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

October 12, 2022

Mr. Daniel G. Stoddard Senior Vice President and Chief Nuclear Officer Innsbrook Technical Center 5000 Dominion Boulevard Glen Allen, VA 23060-6711

SUBJECT: SURRY POWER STATION, UNITS 1 AND 2 – CORRECTION TO ISSUANCE OF AMENDMENT NOS. 304 (EPID L-2020-LLA-0255), 305 (EPID L-2020-LLA-0219) 306 (EPID L-2020-LLA-0258), 307 (EPID L-2021-LLA-0195) and 308 (EPID L-2021-LLA-0179)

Dear Mr. Stoddard:

The license pages for several Surry Power Station, Unit 1 and 2 (Surry) amendments did not properly reflect Surry's Subsequent Renewed Facility Operating License that was issued on May 4, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20091L981).

Surry's Amendment No. 304, submitted on August 20, 2021 (ML21175A185), reflects this administrative error, which made changes to the Surry Updated Final Safety Analysis Report to apply the leak-before-break methodology to specific portions of accumulator piping, residual heat removal piping, safety injection piping, pressurizer surge line piping, and reactor coolant system loop bypass piping, to eliminate the dynamic effects of postulated pipe ruptures in specific portions of the auxiliary system attached to the primary reactor coolant system.

Amendment 305 for Surry, submitted on October 26, 2021 (ML21188A174), also reflects this administrative error. This amendment modified the technical specifications by revising the Reactor Core Safety Limit 2.1.A.1.b peak fuel centerline temperature to reflect the fuel centerline temperature specified in Topical Report WCAP-17642-P-A, Revision 1, "Westinghouse Performance Analysis and Design Model (WCAP-17642-P-A)."

Submitted on November 19, 2021 (ML21253A063), Amendment No. 306 for Surry changes the facilities as described in the Updated Final Safety Analysis Report by updating the Alternate Source Term analysis following a loss-of-coolant accident by increasing the assumed containment depressurization profile and reducing the refueling water storage tank back leakage limit. This amendment had administrative errors.

Surry Amendment No. 307 (ML22095A107), which includes these administrative errors, revises the respective Technical Specifications (TS) regarding "Unit Staff Qualifications," by removing the licensee's staff qualification requirements from the TS and relocating the control of unit staff qualification requirements to the licensee controlled Dominion Energy Nuclear Facility Quality Assurance Program Description (QAPD) consistent with the guidance in NRC Administrative Letter 95-06, "Relocation of Technical Specification Administrative Controls Related to Quality Assurance (ML021110271)."

On August 26, 2022 (ML22193A295), Surry Amendment No. 308 to revises Technical Specification Section 3.4.A.4, "Spray Systems" to eliminate the Refueling Water Chemical Addition Tank and allow the use of sodium tetraborate decahydrate to replace sodium hydroxide as a chemical additive for containment sump pH control following a loss-of-coolant accident at Surry, Units 1 and 2. This change will also eliminate active components from the Containment Spray system.

The corrections for Surry amendment nos. 304, 305, 306, 307, and 308 include;

- 1. Page 3 of Surry Unit 1 and 2 licenses which should have properly reflected Surry's Subsequent Renewed Facility Operating License, as appropriate, and include
- 2. Corrections to the safety evaluations, as needed.

These licensing administrative errors are corrected with this letter's enclosure.

These were administrative errors on the part of the NRC staff and their corrections do not change the NRC's conclusions associated with amendment Nos. 304, 305, 306, 307 and 308 to Subsequent Renewed Facility Operating License No. DPR-32 or DPR-37, and do not, respectively, affect the no significant hazards considerations published in the *Federal Register on;* 86 FR 7118, January 26, 2021, 85 FR 85678, December 29, 2020, *86 FR 7112, January 26, 2021. 86 FR 73817* December 28, 2021, *87 FR 3848, January 25, 2022.* 

If you have any questions, please contact me at 301-415-5136, or via email at <u>John.Klos@nrc.gov</u>.

Sincerely,

L. John Klos, Project Manager Plant Licensing Branch II-1 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosure:

- 1) Surry Units 1 & 2 corrected license page 3 for amendments 304, 305, 306, 307, and 308
- 2) Surry Units 1 & 2 corrected Safety Evaluation page 1 for amendments 304 and 306

cc: Listserv

#### ATTACHMENT TO

#### SURRY POWER STATION, UNIT NOS. 1 AND 2

## LICENSE AMENDMENT NOS. 304, 305, 306, 307 AND 308

#### **RENEWED FACILITY OPERATING LICENSE NO. DPR-32**

#### DOCKET NO. 50-280

#### LICENSE AMENDMENT NOS. 304, 305, 306, 307 AND 308

#### RENEWED FACILITY OPERATING LICENSE NO. DPR-37

#### DOCKET NO. 50-281

Replace the following pages of the Renewed Facility Operating Licenses with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

#### <u>Remove</u>

DPR-32, page 3 (Amendment 304)
DPR-32, page 3 (Amendment 305)
DPR-32, page 3 (Amendment 306)
DPR-32, page 3 (Amendment 307)
DPR-32, page 3 (Amendment 308)
DPR-37, page 3 (Amendment 304)
DPR-37, page 3 (Amendment 305)
DDD 07 is a size 0 (A is a size disc a set 0.00)
DPR-37, page 3 (Amendment 306)
DPR-37, page 3 (Amendment 306) DPR-37, page 3 (Amendment 307)

#### <u>Insert</u>

DPR-32, page 3 (Amendment 304) DPR-32, page 3 (Amendment 305) DPR-32, page 3 (Amendment 306) DPR-32, page 3 (Amendment 307) DPR-32, page 3 (Amendment 308) DPR-37, page 3 (Amendment 304) DPR-37, page 3 (Amendment 305) DPR-37, page 3 (Amendment 307) DPR-37, page 3 (Amendment 308)

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A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2587 megawatts (thermal).

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 304 are hereby incorporated in the subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

- E. Deleted by Amendment 65
- F. Deleted by Amendment 71
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227
- I. Fire Protection

The licensee shall implement and maintain in effect the provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report and as approved in the SER dated September 19, 1979, (and Supplements dated May 29, 1980, October 9, 1980, December 18, 1980, February 13, 1981, December 4, 1981, April 27, 1982, November 18, 1982, January 17, 1984, February 25, 1988, and

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A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 305 are hereby incorporated in the subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

- E. Deleted by Amendment 65
- F. Deleted by Amendment 71
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227
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The licensee shall implement and maintain in effect the provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report and as approved in the SER dated September 19, 1979, (and Supplements dated May 29, 1980, October 9, 1980, December 18, 1980, February 13, 1981, December 4, 1981, April 27, 1982, November 18, 1982, January 17, 1984, February 25, 1988, and

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A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 306 are hereby incorporated in the subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

- E. Deleted by Amendment 65
- F. Deleted by Amendment 71
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227
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The licensee shall implement and maintain in effect the provisions of the approved fire protection program as described in the Updated Final Safety Analysis Report and as approved in the SER dated September 19, 1979, (and Supplements dated May 29, 1980, October 9, 1980, December 18, 1980, February 13, 1981, December 4, 1981, April 27, 1982, November 18, 1982, January 17, 1984, February 25, 1988, and

- 3. This subsequent renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of 10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:
  - A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 307 are hereby incorporated in the subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

- E. Deleted by Amendment 65
- F. Deleted by Amendment 71
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227

## A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2587 megawatts (thermal).

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 308 are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

- E. Deleted by Amendment 65
- F. Deleted by Amendment 71
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227

- E. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such by product and special nuclear materials as may be produced by the operation of the facility.
- This subsequent renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of

10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power Levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 304 are hereby incorporated in this subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the Requirements of the Technical Specifications.

- E. Deleted by Amendment 54
- F. Deleted by Amendment 59 and Amendment 65
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227

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- E. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such by product and special nuclear materials as may be produced by the operation of the facility.
- This subsequent renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of

10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power Levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 305 are hereby incorporated in this subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the Requirements of the Technical Specifications.

- E. Deleted by Amendment 54
- F. Deleted by Amendment 59 and Amendment 65
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227

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- This subsequent renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations: 10 CFR Part 20, Section 30.34 of 10 CFR Part 30, Section 40.41 of 10 CFR Part 40, Sections 50.54 and 50.59 of

10 CFR Part 50, and Section 70.32 of 10 CFR Part 70; and is subject to all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified below:

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power Levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 306 are hereby incorporated in this subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the Requirements of the Technical Specifications.

- E. Deleted by Amendment 54
- F. Deleted by Amendment 59 and Amendment 65
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227

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#### A. <u>Maximum Power Level</u>

The licensee is authorized to operate the facility at steady state reactor core power Levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 307 are hereby incorporated in this subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

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The licensee shall keep facility operating records in accordance with the Requirements of the Technical Specifications.

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- F. Deleted by Amendment 59 and Amendment 65
- G. Deleted by Amendment 227
- H. Deleted by Amendment 227

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  - A. Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2587 megawatts (thermal).

B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 308 are hereby incorporated in the subsequent renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

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- G. Deleted by Amendment 227
- H. Deleted by Amendment 227



# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

## LICENSE AMENDMENT REQUEST REGARDING APPLICATION OF

# LEAK-BEFORE-BREAK METHODOLOGY

# FOR REACTOR COOLANT SYSTEM BRANCH PIPING

# AMENDMENT NO. 304 TO SUBSEQUENT RENEWED FACILITY

# **OPERATING LICENSE NO. DPR-32**

## AMENDMENT NO. 304 TO SUBSEQUENT RENEWED FACILITY

# **OPERATING LICENSE NO. DPR-37**

# VIRGINIA ELECTRIC AND POWER COMPANY

## SURRY POWER STATION, UNITS 1 AND 2, DOCKET NOS. 50-280 AND 50-281

## 1.0 INTRODUCTION

By letter dated October 22, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20296A623), as supplemented by letter dated March 24, 2021 (ADAMS Accession No. ML21084A273), Virginia Electric and Power Company (Dominion Energy Virginia, licensee) submitted a license amendment request (LAR) for Surry Power Station (Surry), Units 1 and 2. The proposed amendment would apply the leak-before-break (LBB) methodology to specific portions of accumulator piping, residual heat removal (RHR) piping, safety injection (SI) piping, pressurizer surge line piping, and reactor coolant system (RCS) loop bypass piping. The subject piping within the scope of the LAR is the branch (auxiliary) piping attached to the primary reactor coolant loop (RCL) piping.

The LAR proposes to eliminate the dynamic effects of postulated pipe ruptures in the subject piping from the design basis of Surry Units 1 and 2. The licensee submitted the LAR in accordance with General Design Criterion (GDC) 4, "Environmental and dynamic effects design bases," of Appendix A, "General Design Criteria for Nuclear Power Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic licensing of production and utilization facilities." The request does not propose changes to the technical specifications (TS). Attachment 2 to the licensee's request contains sensitive unclassified non-safeguards information. As the licensee requested, the U.S. Nuclear Regulatory Commission (NRC) has withheld the sensitive information from public disclosure pursuant to 10 CFR 2.390, "Public inspections, exemptions, requests for withholding."



#### UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

# SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

# LICENSE AMENDMENT REQUEST TO UPDATE OF THE LOSS-OF-COOLANT ACCIDENT

# ALTERNATE SOURCE TERM DOSE ANALYSIS

# AMENDMENT NO. 306 TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO.

# <u>DPR-32</u>

# AMENDMENT NO. 306 TO SUBSEQUENT RENEWED FACILITY OPERATING LICENSE NO.

# <u>DPR-37</u>

# VIRGINIA ELECTRIC AND POWER COMPANY

# SURRY POWER STATION, UNIT NOS. 1 AND 2, DOCKET NOS. 50-280 AND 50-281

## 1.0 INTRODUCTION

By letter dated December 3, 2020, as supplemented by letter dated May 13, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML20338A542 and ML21133A421, respectively), Virginia Electric and Power Company (the licensee) requested to make a change, as described in the Updated Final Safety Analysis Report (USFAR), to the Alternative Source Term (AST) analysis following a loss-of-coolant accident (LOCA) for the Surry Power Station, Units 1 and 2 (Surry) by increasing the containment depressurization profile and reducing refueling water storage tank (RWST) back leakage.

The supplement dated May 13, 2021, provided additional clarifying information that did not change the scope of the proposed change as described in the U.S. Nuclear Regulatory Commission (NRC) staff's original no significant hazards consideration published in the *Federal Register* on January 26, 2021 (86 FR 7112).

## 2.0 REGULATORY EVALUATION

2.1 <u>Applicable Regulations</u>

The NRC issued construction permits for Surry, Units 1 and 2, before May 21, 1971; consequently, Surry was not subject to the requirements in 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix A, "General Design Criteria [GDC] for Nuclear Power Plants" (see SECY-92-223, "Resolution of Deviations Identified during the Systematic Evaluation Program," ADAMS Accession No. ML003763736 dated September 18,

#### D. Stoddard

SUBJECT: SURRY POWER STATION, UNITS 1 AND 2 – CORRECTION TO ISSUANCE OF AMENDMENT NOS. 304 (EPID L-2020-LLA-0255), 305 (EPID L-2020-LLA-0219) 306 (EPID L-2020-LLA-0258), 307 (EPID L-2021-LLA-0195) and 308 (EPID L-2021-LLA-0179) DATED OCTOBER 12, 2022

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NAME	JKlos	KGoldstein	MMarkley (EMiller for)	JKlos
DATE	9/7/2022	10/11/2022	10/12/2022	10/12/2022

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