



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

April 28, 2015

Mr. David A. Heacock  
President and Chief Nuclear Officer  
Virginia Electric and Power Company  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: SURRY POWER STATION, UNIT NOS. 1 AND 2, ISSUANCE OF  
AMENDMENTS REGARDING RELOCATION OF AUGMENTED INSPECTION  
REQUIREMENTS (TAC NOS. MF4028 AND MF4029)

Dear Mr. Heacock:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 284 to Renewed Facility Operating License No. DPR-32 and Amendment No. 284 to Renewed Facility Operating License No. DPR-37 for the Surry Power Station (SPS) Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated April 11, 2014, as supplemented by a letter dated March 4, 2015.

These amendments revise TS 4.2, "Augmented Inspections," and TS 4.15, "Augmented Inservice Inspection Program for High Energy Lines Outside of Containment," by relocating them to the SPS Technical Requirements Manual (TRM), with the exception of the reactor coolant pump flywheel inspection. In addition, TS 6.4.U, "Augmented Inspections and Examinations," is added to TS 6.4, "Unit Operating Procedures and Programs."

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Cotton", is written over the typed name and title.

Karen Cotton, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosures:

1. Amendment No. 284 to DPR-32
2. Amendment No. 284 to DPR-37
3. Safety Evaluation

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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-280

SURRY POWER STATION, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 284  
Renewed License No. DPR-32

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Surry Power Station, Unit No. 1 (the facility) Renewed Facility Operating License No. DPR-32 filed by Virginia Electric and Power Company (the licensee) dated April 11, 2014, as supplemented by letter dated March 4, 2015, 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 Renewed 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. 284, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to Renewed Facility  
Operating License No. DPR-32  
and the Technical Specifications

Date of Issuance: April 28, 2015



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

VIRGINIA ELECTRIC AND POWER COMPANY

DOCKET NO. 50-281

SURRY POWER STATION, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 284  
Renewed License No. DPR-37

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment to the Surry Power Station, Unit No. 2 (the facility) Renewed Facility Operating License No. DPR-37 filed by Virginia Electric and Power Company (the licensee) dated April 11, 2014, as supplemented by letter dated March 4, 2015, 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.

Enclosure 2

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 Renewed 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. 284, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days:

FOR THE NUCLEAR REGULATORY COMMISSION



Robert J. Pascarelli, Chief  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to Renewed Facility  
Operating License No. DPR-37  
and the Technical Specifications

Date of Issuance: April 28, 2015

ATTACHMENT TO  
LICENSE AMENDMENT NO. 284  
RENEWED FACILITY OPERATING LICENSE NO. DPR-32  
DOCKET NO. 50-280  
  
AND  
LICENSE AMENDMENT NO. 284  
RENEWED FACILITY OPERATING LICENSE NO. DPR-37  
DOCKET NO. 50-281

Replace the following pages of the Licenses and the Appendix A Technical Specifications (TSs) with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

License

License No. DPR-32, page 3  
License No. DPR-37, page 3

TSs

TS ii  
TS iii  
TS 4.2-1  
TS 4.15-1  
TS 6.4-16

Insert Pages

License

License No. DPR-32, page 3  
License No. DPR-37, page 3

TSs

TS ii  
TS iii  
TS 4.2-1  
TS 4.15-1  
TS 6.4-16

3. This 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. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 284, 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

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

E. Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

3. This 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. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 284, are hereby incorporated in this 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



TECHNICAL SPECIFICATION  
TABLE OF CONTENTS

| <u>SECTION</u> | <u>TITLE</u>   | <u>PAGE</u> |
|----------------|--|-------------|
| 3.15           | DELETED  |             |
| 3.16           | EMERGENCY POWER SYSTEM   | TS 3.16-1   |
| 3.17           | LOOP STOP VALVE OPERATION  | TS 3.17-1   |
| 3.18           | MOVABLE INCORE INSTRUMENTATION   | TS 3.18-1   |
| 3.19           | DELETED  |             |
| 3.20           | SHOCK SUPPRESSORS (SNUBBERS)   | TS 3.20-1   |
| 3.21           | MAIN CONTROL ROOM/EMERGENCY SWITCHGEAR ROOM<br>(MCR/ESGR) EMERGENCY VENTILATION SYSTEM (EVS) | TS 3.21-1   |
| 3.22           | AUXILIARY VENTILATION EXHAUST FILTER TRAINS  | TS 3.22-1   |
| 3.23           | MAIN CONTROL ROOM AND EMERGENCY SWITCHGEAR ROOM<br>AIR CONDITIONING SYSTEM                   | TS 3.23-1   |
| 4.0            | <u>SURVEILLANCE REQUIREMENTS</u>   | TS 4.0-1    |
| 4.1            | OPERATIONAL SAFETY REVIEW  | TS 4.1-1    |
| 4.2            | REACTOR COOLANT PUMP FLYWHEEL INSPECTION   | TS 4.2-1    |
| 4.3            | DELETED  |             |
| 4.4            | CONTAINMENT TESTS  | TS 4.4-1    |
| 4.5            | SPRAY SYSTEMS TESTS  | TS 4.5-1    |
| 4.6            | EMERGENCY POWER SYSTEM PERIODIC TESTING  | TS 4.6-1    |
| 4.7            | MAIN STEAM LINE TRIP VALVES  | TS 4.7-1    |
| 4.8            | AUXILIARY FEEDWATER SYSTEM   | TS 4.8-1    |
| 4.9            | RADIOACTIVE GAS STORAGE MONITORING SYSTEM  | TS 4.9-1    |
| 4.10           | REACTIVITY ANOMALIES   | TS 4.10-1   |
| 4.11           | SAFETY INJECTION SYSTEM TESTS  | TS 4.11-1   |
| 4.12           | VENTILATION FILTER TESTS   | TS 4.12-1   |
| 4.13           | RCS OPERATIONAL LEAKAGE  | TS 4.13-1   |
| 4.14           | DELETED  |             |

TECHNICAL SPECIFICATION  
TABLE OF CONTENTS

| <u>SECTION</u> | <u>TITLE</u>   | <u>PAGE</u> |
|----------------|--|-------------|
| 4.15           | AUGMENTED INSERVICE INSPECTION PROGRAM FOR HIGH ENERGY LINES OUTSIDE OF CONTAINMENT (RELOCATED TO TRM) | TS 4.15-1   |
| 4.16           | LEAKAGE TESTING OF MISCELLANEOUS RADIOACTIVE MATERIALS SOURCES   | TS 4.16-1   |
| 4.17           | SHOCK SUPPRESSORS (SNUBBERS)   | TS 4.17-1   |
| 4.18           | MAIN CONTROL ROOM/EMERGENCY SWITCHGEAR ROOM (MCR/ESGR) EMERGENCY VENTILATION SYSTEM (EVS) TESTING      | TS 4.18-1   |
| 4.19           | STEAM GENERATOR (SG) TUBE INTEGRITY  | TS 4.19-1   |
| 4.20           | CONTROL ROOM AIR FILTRATION SYSTEM   | TS 4.20-1   |
| 5.0            | <u>DESIGN FEATURES</u>   | TS 5.0-1    |
| 5.1            | SITE LOCATION  | TS 5.0-1    |
| 5.2            | REACTOR CORE   | TS 5.0-1    |
| 5.3            | FUEL STORAGE   | TS 5.0-2    |
| 6.0            | <u>ADMINISTRATIVE CONTROLS</u>   | TS 6.1-1    |
| 6.1            | ORGANIZATION, SAFETY AND OPERATION REVIEW  | TS 6.1-1    |
| 6.2            | GENERAL NOTIFICATION AND REPORTING REQUIREMENTS  | TS 6.2-1    |
| 6.3            | ACTION TO BE TAKEN IF A SAFETY LIMIT IS EXCEEDED   | TS 6.3-1    |
| 6.4            | UNIT OPERATING PROCEDURES AND PROGRAMS   | TS 6.4-1    |
| 6.5            | STATION OPERATING RECORDS  | TS 6.5-1    |
| 6.6            | STATION REPORTING REQUIREMENTS   | TS 6.6-1    |
| 6.7            | ENVIRONMENTAL QUALIFICATIONS   | TS 6.7-1    |
| 6.8            | PROCESS CONTROL PROGRAM AND OFFSITE DOSE CALCULATION MANUAL  | TS 6.8-1    |

## 4.2 REACTOR COOLANT PUMP FLYWHEEL INSPECTION

### Applicability

Applies to an inservice inspection which augments that required by ASME Section XI.

### Objective

To provide the additional assurance necessary for the continued integrity of an important component involved in safety and plant operation.

### Specification

- A. The Reactor Coolant Pump flywheel shall be inspected once every 20 years by a qualified in-place UT examination over the volume from the inner bore of the flywheel to the circle of one-half the outer radius or a surface examination (MT and/or PT) of the exposed surfaces defined by the volume of the disassembled flywheels.

The provisions of Specification 4.0.2 are not applicable.

### Basis

The inspection program for ASME Section XI of the ASME Boiler and Pressure Vessel Code limits its inspection to ASME Code Class 1, 2, and 3 components and supports. The Reactor Coolant Pump (RCP) flywheel inspection was added because there is no corresponding code requirement. The added requirement provides the inspection necessary to insure the continued integrity of the RCP flywheel.

The augmented inspection requirements for the low head safety injection piping in the valve pit, the low pressure turbine blades, and sensitized stainless steel have been relocated to the TRM.

4.15 AUGMENTED INSERVICE INSPECTION PROGRAM FOR HIGH ENERGY LINES  
OUTSIDE OF CONTAINMENT (RELOCATED TO TRM)

Pages TS 4.15-2 through TS 4.15-4 and TS Figure 4.15 have been deleted.

- a. This program shall meet 10 CFR 50.55a(g) requirements for supports.
- b. The program shall meet the requirements of ISI of supports set forth in subsequent edition of the Code of Record and addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code and the ASME Code for Operation and Maintenance of Nuclear Power Plants (OM Code) that are incorporated by reference in 10 CFR 50.55a(b), subject to its limitations and modifications, and subject to Commission approval.
- c. The program shall, as allowed by 10 CFR 50.55a(b)(3)(V), meet Subsection ISTA, "General Requirements," and Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants," in lieu of Section XI of the ASME BPV Code ISI requirements for snubbers, or meet authorized alternatives pursuant to 10 CFR 50.55a(a)(3).
- d. The 120-month program updates shall be made in accordance with 10 CFR 50.55a (including 10 CFR 50.55a(b)(3)(V)) subject to the limitations and modifications listed therein.

U. Augmented Inspections and Examinations

The following augmented inspections and examinations have been relocated from the Technical Specifications to the Technical Requirements Manual (TRM):

- a. Augmented Inspections - Inservice inspections augmenting those required by ASME Section XI shall be performed to provide the additional assurance necessary for continued integrity of important components involved in safety and plant operation (e.g., the low head safety injection piping in the valve pit, the low pressure turbine blades, and sensitized stainless steel).
- b. Augmented Inservice Inspection of High Energy Lines Outside of Containment - In accordance with the Augmented Inservice Inspection Program for High Energy Lines Outside of Containment, examinations of welds in the main steam and main feedwater lines in the main steam valve house of each unit shall be performed to provide assurance of the continued integrity of the piping systems over their service lifetime. These requirements apply to welds in piping systems or portions of systems located outside of containment where protection from the consequences of postulated ruptures is not provided by a system of pipe whip restraints, jet impingement barriers, protective enclosures and/or other measures designed specifically to cope with such ruptures.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO  
AMENDMENT NO. 284 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-32  
AND  
AMENDMENT NO. 284 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-37  
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 April 11, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14112A073), supplemented by letter dated March 4, 2015 (ADAMS Accession No. ML15075A015), Virginia Electric and Power Company (Dominion, the licensee) submitted a license amendment request (LAR) to the U.S. Nuclear Regulatory Commission (NRC or the Commission), which requested changes to the Technical Specifications (TSs) for the Surry Power Station (SPS) Unit Nos. 1 and 2. The LAR proposed to relocate the entirety of TS 4.2, "Augmented Inspections," and TS 4.15, "Augmented Inservice Inspection Program for High Energy Lines Outside of Containment," to the SPS Technical Requirements Manual (TRM). In addition, the LAR proposed to add TS 6.4.U, "Augmented Inspections and Examinations," to TS 6.4, "Unit Operating Procedures and Programs."

The supplemental letter dated March 4, 2015, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on July 22, 2014 (79 FR 42553). This letter modified the original LAR to propose the relocation of the entirety of TS 4.2 with the exception of the reactor coolant pump flywheel inspection.

The licensee stated that the proposed relocation of the TS 4.2 and TS 4.15 requirements to the TRM is appropriate since these requirements do not satisfy the categories and criteria of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36(c) for inclusion in the TS.

## **2.0 REGULATORY BASIS**

The Commission's regulatory requirements related to the content of the TSs are set forth in 10 CFR 50.36, "Technical specifications." This regulation requires that the TSs include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) Surveillance Requirements (SRs); (4) design features; and (5) administrative controls.

The licensee proposed changing the TSs contained in SPS TS Section 4.0, which addresses the TSs related to surveillances requirements. 10 CFR 50.36(c)(3) states that surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.

Specifically, the licensee proposed to relocate TS 4.2, "Augmented Inspections," and TS 4.15, "Augmented Inservice Inspection Program for High Energy Lines Outside of Containment," to the TRM which is a licensee-controlled document. In addition, the licensee proposed to add TS 6.4.U, "Augmented Inspections and Examinations," to TS 6.4, "Unit Operating Procedures and Programs." The licensee stated that the proposed relocation of TS 4.2 and TS 4.15 to the TRM is appropriate since these requirements do not satisfy the categories and criteria of 10 CFR 50.36(c) for inclusion in the TS.

The SPS TRM is described in Section 16.2, "Technical Requirements," of the SPS updated final safety analysis report (UFSAR), Revision 43, which states the following:

The Technical Requirements Manual (TRM) contains requirements for plant operation and surveillance of systems formerly contained in the Technical Specifications, along with other selected items. Some requirements were removed from the Technical Specifications as part of NRC and industry efforts to simplify Technical Specifications.

The TRM is controlled by station procedure, and a 10 CFR 50.59 review is required to change the TRM. Changes to the TRM may be made without prior NRC approval, provided that the changes do not involve a license amendment as defined in 10 CFR 50.59. Changes to the TRM that are implemented without prior NRC approval are reported to the NRC in accordance with 10 CFR 50.59. Proposed changes that involve a license amendment are reviewed and approved by the NRC prior to implementation.

Accordingly, any changes to the TSs that are relocated to the TRM are subject to the requirements of 10 CFR 50.59.

## **3.0 TECHNICAL EVALUATION**

### **3.1 General discussion**

The LAR proposed to relocate the following specific plant activities related to the Augmented Inspections and Examinations requirements in their entirety from the SPS TSs to the SPS TRM:

- TS 4.2 and the TS 4.2 Bases.
- TS 4.15 and the TS 4.15 Basis.

The LAR also proposed to add TS 6.4.U, "Augmented Inspections and Examinations," to TS 6.4, "Unit Operating Procedures and Programs," in order to provide a description of the augmented inspections and examinations being relocated to the SPS TRM.

The improved Standard Technical Specifications (STSs) (NUREGs 1430-1434) were developed by applying the Commission's Final Policy Statement criterion which identifies design conditions and associated surveillances needed to be retained in the STS. The Policy allows that licensees may, over time, voluntarily make changes to take advantage of the evolution in policy and guidance as to the required content and preferred format of TSS.

The NRC staff has determined that the SPS TSSs are not updated to the latest version of the STS. The NRC encourages licensees to use the improved STS as the basis for complete revisions to their TSSs; however, Commission policy also recognizes selective incorporation of improved STS requirements may occur by noting that "licensees may adopt portions of the improved STS without fully implementing all STS improvements."

In general, a licensee cannot justify TS changes solely on the basis of adopting the model STS. Instead, changes that result in a relaxation (i.e., less restrictive conditions) of TS requirements require detailed justification. When requirements have been shown to give little or no safety benefit, their relaxation or removal from the TSSs may be appropriate. For changes not related to relocating TSSs to licensee-controlled documents, the NRC staff makes a determination whether the proposed changes are consistent with licensing practices and the Commission's regulations and whether the proposed changes maintain adequate safety.

### 3.2 Technical Evaluation

#### 3.2.1 Proposed relocation of TS 4.2, "Augmented Inspections"

The licensee proposed to relocate to the SPS TRM the requirements of TS 4.2, which state:

Applicability: Applies to inservice inspections which augment those required by ASME Section XI.

Objective: To provide the additional assurance necessary for the continued integrity of important components involved in safety and plant operation.

Specifications:

- A. Inspections shall be performed as specified in TS Table 4.2-1. Nondestructive examination techniques and acceptance criteria shall be in compliance with the requirements of ASME Section XI.
- B. The normal inspection interval is 10 years.



- C. Detailed records of each inspection shall be maintained to allow a continuing evaluation and comparison with future inspections.

The licensee also proposed to relocate to the SPS TRM the bases for TS 4.2. These bases state, in part, that: The inspection program for ASME Section XI of the ASME Boiler and Pressure Vessel Code limits its inspection to ASME Code Class 1, 2, and 3 components and supports. Certain components, under Miscellaneous Inspections in this section, were added because of no corresponding code requirement. This added requirement provides the inspection necessary to insure the continued integrity of these components.

Included in SPS TS 4.2 is Table 4.2-1, which provides details on inspection programs for the low pressure turbine rotor blades, primary pump flywheel and sensitized stainless steel piping and components. The licensee's original application, dated April 11, 2014, proposed to relocate this Table in its entirety to the TRM. However, during its review of the application, the NRC staff determined that Item 1.3 in Table 4.2-1, which addresses miscellaneous inspections for the primary pump flywheel, is required to be in the SPS TSs per the requirements of 10 CFR 50.36. As a result, on February 11, 2015, the NRC staff requested additional information from the licensee regarding the relocation of the inspection requirements for the primary pump flywheel to the TRM. The licensee's letter in response, dated March 4, 2015 (ADAMS Accession No. ML15075A015), modified the original LAR to propose the relocation of the entirety of TS 4.2 with the exception of the primary pump flywheel inspection, which is discussed and evaluated in Section 3.2.4 below.

### 3.2.2 Proposed relocation of TS 4.15, "Augmented Inservice Inspection Program for High Energy Lines Outside of Containment"

The licensee proposed to relocate to the SPS TRM the requirements of TS 4.15, which states in part:

**Applicability:** Applies to welds in piping systems or portions of systems located outside of containment where protection from the consequences of postulated ruptures is not provided by a system of pipe whip restraints, jet impingement barriers, protective enclosures and/or other measures designed specifically to cope with such ruptures.

For Surry Units 1 and 2, this specification applies to welds in the main steam and main feedwater lines in the main steam valve house of each unit.

**Objective:** To provide assurance of the continued integrity of the piping systems over their service lifetime.

**Specifications:**

A. For the 20 welds identified in TS Figure 4.15....

B. For all welds other than those identified in TS Figure 4.15....

C. For all welds in the main steam valve house....

The licensee also proposed to relocate to the SPS TRM the bases for TS 4.15. These bases state that:

Under normal plant operating conditions, the piping materials operate under ductile conditions and within the stress limits considerably below the ultimate strength properties of the materials. Flaws which could grow under such conditions are generally associated with cyclic loads that fatigue the metal, and lead to leakage cracks. The inservice examination and the frequency of inspection will provide a means for timely detection even before the flaw penetrates the wall of the piping.

3.2.3 Technical Evaluation for proposed relocation of TS 4.2 (except for the primary pump flywheel inspection requirements, which are discussed in Section 3.2.4) and TS 4.15

Regarding the current TS 4.2 and TS 4.15 augmented inspection requirements, the LAR states that these inspections were incorporated into the SPS TS by TS Change No. 13, issued by an NRC letter dated September 21, 1973 (ADAMS Accession No. ML15104A245), and by Amendment Nos. 128, issued by an NRC safety evaluation dated May 24, 1989 (ADAMS Accession No. ML15104A272). The NRC's approval of these changes allowed the licensee to remove obsolete inservice inspection and testing requirements and replace them with more up-to-date NRC-approved requirements specified in 10 CFR 50.55a(g). The NRC's approval of TS Change No. 13 for TS 4.15 allowed the licensee to implement augmented inservice inspections which would provide assurance of the continued integrity of the piping systems over their service life. According to the NRC's letter, these requirements resulted from the NRC review of the SPS analysis of postulated high energy line breaks outside of containment and apply to welds in the main steam and main feedwater lines in the main steam valve house of both units.

10 CFR 50.55a(g)(6)(ii) states that, "The Commission may require the licensee to follow an augmented inservice inspection program for systems and components for which the Commission deems that added assurance of structural reliability is necessary." Regarding the augmented inservice inspection program, the NRC's Inspection Manual, Attachment 71111.08 (ADAMS Accession No ML14266A049) specifically states:

Verify the activities are performed in accordance with the licensee's augmented inspection program and associated examination procedure (e.g., examinations of components such as vessel internals subject to fatigue, intergranular stress corrosion or irradiation assisted stress corrosion, feedwater pipe subject to flow-accelerated corrosion, nickel based weldments subject to primary water stress corrosion cracking etc).

The licensee's application states that, "The augmented inspections are performed in addition to required ASME Code Section XI inspections/examinations and will continue to be performed as required by the TRM," and that, "plant systems and components to which the augmented inspections apply will not be operated in a different manner." In addition, the licensee proposed to add a new program to the SPS TSs in the Administrative Controls Section 6.4, "Unit Operating Procedures and Programs," as Section 6.4.U. The new TS 6.4.U would state the

description of the augmented inspections and examinations which are relocated to the SPS TRM. Specifically, it would state that:

The following augmented inspections and examinations have been relocated from the Technical Specifications to the Technical Requirements Manual (TRM):

1. Augmented Inspections - Inservice inspections augmenting those required by ASME Section XI shall be performed to provide the additional assurance necessary for continued integrity of important components involved in safety and plant operation (e.g., the low head safety injection piping in the valve pit, the reactor coolant pump flywheel, the low pressure turbine blades, and sensitized stainless steel).
2. Augmented Inservice Inspection of High Energy Lines Outside of Containment - In accordance with the Augmented Inservice Inspection Program for High Energy Lines Outside of Containment, examinations of welds in the main steam and main feedwater lines in the main steam valve house of each unit shall be performed to provide assurance of the continued integrity of the piping systems over their service lifetime. These requirements apply to welds in piping systems or portions of systems located outside of containment where protection from the consequences of postulated ruptures is not provided by a system of pipe whip restraints, jet impingement barriers, protective enclosures and/or other measures designed specifically to cope with such ruptures.

Since the Augmented Inservice Inspection Program will continue to be performed per the proposed TS 6.4.U, which will continue to provide assurance of the continued integrity of the piping systems as required by the current TSs, the NRC staff finds the proposed relocation of TS 4.2 and TS 4.15 to the TRM to be acceptable (with the exception of the reactor coolant pump flywheel inspection, which is discussed below). Furthermore, the requirements to conduct the augmented inspections provided by TS 6.4.u could not be eliminated without NRC approval.

### 3.2.4 TS Table 4.2-1, Item 1.3, "Primary Pump flywheel" inspection

The licensee's original application dated March 11, 2014, proposed to relocate TS Table 4.2-1 in its entirety to the TRM. However, during its review of the application, the NRC staff found that Item 1.3 in the Table, which addresses miscellaneous inspections for the primary pump flywheel, is recommended to be in a licensee's TSs per the guidance provided in NUREG-1431, "Standard Technical Specifications Westinghouse Plants Revision 4.0," since it meets the 10 CFR 50.36(c) requirements. As a result, on February 11, 2015, the NRC staff requested the licensee to justify the relocation of the inspection requirements associated with the primary pump flywheel. The licensee's letter dated March 4, 2015 (ADAMS Accession No. ML15075A015), provided the following response to the Staff's inquiry:

Dominion has reviewed the NRC request for additional information (RAI) regarding relocation of the augmented inspections from Technical Specifications (TS) 4.2 and TS 4.15 to the Technical Requirements Manual (TRM). In response to the RAI, the reactor coolant pump (RCP) flywheel inspection requirement will be maintained in TS 4.2. Consistent with maintaining the RCP flywheel

inspection requirement in TS 4.2, the added TS 6.4.U.1 will not refer to the RCP flywheel inspection. Note that the phrase "primary pump flywheel" is revised to "reactor coolant pump flywheel."

The licensee's response further stated:

Revised marked-up TS and Basis pages are provided in Attachment 2 to this letter. Specifically, revised marked-up pages (Table of Contents) TS ii, TS 4.2-1, and TS 6.4-16 are provided and supersede the affected marked-up pages in Attachment 2 in letter Serial No. 14-158, dated April 11, 2014.

Revised proposed (typed) TS and Basis pages are provided in Attachment 3 to this letter. The revised proposed pages include pages (Table of Contents) TS ii, TS 4.2-1, and TS 6.4-16 and supersede the affected proposed pages in Attachment 3 in letter Serial No. 14-158. Attachment 3 in this letter also includes the proposed pages unaffected by the NRC RAI and the Dominion response; thus, Attachment 3 in this letter supersedes Attachment 3 in letter Serial No. 14-158 in its entirety. The TS 4.2 Basis revision is provided for the NRC's information.

The remainder of the TS 4.2 augmented inspections and TS 4.15 in its entirety will be relocated to the TRM as proposed in letter Serial No. 14-158.

The NRC staff has evaluated the licensee's response and finds it acceptable because the licensee's current RCP flywheel inspection requirements will be maintained in TS 4.2. Also, the NRC staff considers the licensee's proposed change of renaming the "primary pump flywheel" as the "reactor coolant pump flywheel" to be administrative and clarifying in nature. Therefore, it is acceptable.

#### **4.0 STATE CONSULTATION**

In accordance with the Commission's regulations, the Virginia State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### **5.0 ENVIRONMENTAL CONSIDERATION**

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or change the SRs. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding as published in the *Federal Register* on July 22, 2014 (79 FR 42553). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## **6.0 CONCLUSION**

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Ravinder P. Grover

Date: April 28, 2015

April 28, 2015

Mr. David A. Heacock  
President and Chief Nuclear Officer  
Virginia Electric and Power Company  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: SURRY POWER STATION, UNIT NOS. 1 AND 2, ISSUANCE OF  
AMENDMENTS REGARDING RELOCATION OF AUGMENTED INSPECTION  
REQUIREMENTS (TAC NOS. MF4028 AND MF4029)

Dear Mr. Heacock:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment No. 284 to Renewed Facility Operating License No. DPR-32 and Amendment No. 284 to Renewed Facility Operating License No. DPR-37 for the Surry Power Station (SPS) Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated April 11, 2014, as supplemented by a letter dated March 4, 2015.

These amendments revise TS 4.2, "Augmented Inspections," and TS 4.15, "Augmented Inservice Inspection Program for High Energy Lines Outside of Containment," by relocating them to the SPS Technical Requirements Manual (TRM), with the exception of the reactor coolant pump flywheel inspection. In addition, TS 6.4.U, "Augmented Inspections and Examinations," is added to TS 6.4, "Unit Operating Procedures and Programs."

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,  
**/RA/ V. Sreenivas for**  
Karen Cotton, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosures:

1. Amendment No. 284 to DPR-32
2. Amendment No. 284 to DPR-37
3. Safety Evaluation

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