



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

January 22, 2019

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

SUBJECT: SURRY POWER STATION, UNIT NOS. 1 AND 2, PLAN FOR THE IN-OFFICE REGULATORY AUDIT REGARDING THE SUBSEQUENT LICENSE RENEWAL APPLICATION REVIEW (EPID NOS. L-2018-RNW-0023 AND L-2018-RNW-0024)

Dear Mr. Stoddard,

By letter dated October 15, 2018, (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML18291A842), the Virginia Electric and Power Company (Dominion Energy Virginia or Dominion) submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew the Renewed Facility Operating License Nos. DPR-32 and DPR-37 for the Surry Power Station, Unit Nos. 1 and 2 (SPS). Dominion requested renewal of the SPS operating licenses for an additional 20 years beyond the current renewed 60-year current license terms, which expire on May 25, 2032, for Unit 1 and January 29, 2033, for Unit 2. The staff is reviewing this application in accordance with the guidance in NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants."

The NRC plans to conduct an in-office regulatory audit at NRC headquarters offices from February 4 – March 1, 2019, in accordance with the enclosed regulatory audit plan. If you have any questions, please contact me at 301-415-4084 or by e-mail at Emmanuel.Sayoc@nrc.gov.

Sincerely,

/RA/

Emmanuel Sayoc, Project Manager
License Renewal Project Branch
Division of Materials and License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosure:

1. Regulatory Audit Plan
2. Audit Schedule

SUBJECT: SURRY POWER STATION, UNIT NOS. 1 AND 2, PLAN FOR THE IN-OFFICE REGULATORY AUDIT REGARDING THE SUBSEQUENT LICENSE RENEWAL APPLICATION REVIEW (EPID NOS. L-2018-RNW-0023 AND L-2018-RNW-0024)

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ADAMS Accession Nos. ML19015A243

*** Concurred via email**

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DATE	1/14/2019	1/17/2019	1/15/2019	1/16/2019

OFFICE	PM:MRPB:DMLR
NAME	ESayoc*
DATE	1/22/2019

OFFICIAL RECORD COPY



Audit Plan

In-Office Regulatory Audit Surry Power Station, Units. 1 and 2 Subsequent License Renewal Application

February 4 - March 1, 2019

**Division of Materials and License Renewal
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission**

Enclosure

**Audit Plan
In-Office Regulatory Audit
Surry Power Station, Units. 1 and 2
Subsequent License Renewal Application**

1. Background

By letter dated October 15, 2018, (Agencywide Documents Access and Management System (ADAMS) Package Accession No. ML18291A842), the Virginia Electric and Power Company (Dominion Energy Virginia or Dominion) submitted to the U.S. Nuclear Regulatory Commission (NRC or staff) an application to renew the Renewed Facility Operating License Nos. DPR-32 and DPR-37 for the Surry Power Station, Units. 1 and 2 (SPS). Dominion requested renewal of the SPS operating licenses for an additional 20 years beyond the current renewed 60-year current license terms, which expire on May 25, 2032, for Unit 1 and January 29, 2033, for Unit 2. The staff is reviewing this application in accordance with the guidance in NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants."

In accordance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 54, the NRC will perform an in-office regulatory audit to gain a better understanding of (1) Dominion's methodology to identify the systems, structures, and components (SSCs) to be included within the scope of license renewal and subject to an aging management review (AMR), and (2) Dominion's aging management programs (AMPs), AMR items, Time-Limited Aging Analyses (TLAAs) and associated bases and documentation as applicable.

2. Regulatory Audit Bases

License renewal requirements are specified in 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants." Guidance is provided in NUREG-2192, Rev. 0, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants" (SRP-SLR), dated July 2017, and NUREG-2191, Rev. 0, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," dated July 2017.

3. Regulatory Audit Scope

Scoping and Screening Review

The range of scoping and screening review of this regulatory audit is to review the applicant's scoping and screening methodology used to identify SSCs within the scope of license renewal and subject to AMR. The review is performed to evaluate the scoping and screening process as documented in the license renewal application, implementing procedures, reports and drawings, such that the NRC staff:

- Obtains an understanding of the process used to identify the SSCs within the scope of license renewal and to identify the structures and components subject to an AMR.
- Has sufficient docketed information to allow the NRC staff to reach a conclusion on the adequacy of the scoping and screening methodology as documented and applied.

AMP, AMR, and TLAA Review

The scope of the AMP, AMR, and TLAA review of this regulatory audit is to: (a) examine Dominion's AMPs, AMR items, and TLAAs for SPS; (b) verify Dominion's claims of consistency with the corresponding GALL-SLR Report AMPs, and AMR items, and (c) assess the adequacy of the TLAAs. Enhancements and exceptions will be evaluated on a case-by-case basis. The NRC staff's review of enhancements and exceptions will be documented in the safety evaluation report.

During this portion of the audit, the NRC staff will audit Program Elements 1 - 10 (scope, preventive actions, parameters monitored or inspected, detection of aging effects, monitoring and trending, acceptance criteria, corrective actions for general recommendations such as compliance with Appendix B, confirmation process, administrative controls, and operating experience) of the applicant's AMPs against the elements of the associated AMP described in the GALL-SLR Report. In addition, the NRC staff will verify that the conditions at the plant are bounded by the conditions for which the GALL-SLR Report program was evaluated.

The NRC staff will also examine the applicant's program bases documents and related references for AMPs, AMR items, and TLAAs, and interview applicant representatives to obtain additional clarification. Walk downs, if necessary will be performed in a subsequent audit to be performed onsite.

The NRC staff will use risk insights to inform the prioritization of its review of documentation associated with AMPs, AMR items, and TLAAs. The NRC staff will use risk insights to focus the breadth and depth of its review of plant specific operating procedures and operating experience. However, the NRC staff's review is not limited to risk-significant systems and components because 10 CFR Part 54 is a deterministic rule and the NRC staff must conclude that there is reasonable assurance that activities will continue to be conducted in accordance with the current licensing basis and the effects of aging will be managed during the period of extended operation for all structures and components within the scope of Part 54.

The NRC staff has reviewed the list of risk-significant systems and components provided by Dominion for setting priorities for application of their scoping and screening methodology.

4. Information and Other Material Necessary for the Regulatory Audit

For the in-office audit February 4 – March 1, 2019, the project team will review the license renewal application, as supplemented and revised, the AMP basis documents and other Dominion supporting documents as appropriate and requested

- The project team would like continued Dominion document review capability via the document portal. Document requests for upload to the portal shall be made as needed via the NRC safety project manager to the appropriate Dominion licensing manager.
- The NRC staff would like to hold break-out sessions, via telephone conference calls and/or official internet-based desktop sharing means, with Dominion and Surry subject matter experts to discuss various basis documents, references, condition/corrective action reports, and to interview Dominion representatives to obtain additional clarification related to the license renewal review. Break-out sessions for various technical review areas will occur at predesignated time slots during the audit, with preassigned NRC and Dominion representatives, see general schedule provided in Enclosure 2. NRC staff will

provide discussion topics and technical requests and questions to the NRC safety project manager, who will then relay the information to the Dominion licensing manager at least a week before the break-out session. All break-out sessions will be coordinated via the NRC safety project manager and the Dominion licensing manager.

5. Team Assignments

Team Member	Assignment
Alan Huynh	Reviewer - Mechanical
Alexander Chereskin	Reviewer - Chemical
Andrew Johnson	Reviewer - Mechanical
Angela Buford	Reviewer - Structural
Angela Wu	Project Manager
Austin Young	Reviewer - Mechanical
Bart Fu	Reviewer - Mechanical
Brian Allik	Reviewer - Mechanical
Bryce Lehman	Reviewer - Structural
Dan Hoang	Reviewer - Structural
David Dijamco	Reviewer - Vessel Internals
David Nold	Reviewer - Scoping and Screening
Demetrius Murray	Reviewer - Electrical
Duc Nguyen	Reviewer - Electrical
Emmanuel Sayoc	Project Manager
Ganesh Cheruvenki	Reviewer - Mechanical
George Thomas	Reviewer - Structural
George Wang	Reviewer - Structural
James Gavula	Reviewer - Mechanical
James Medoff	Reviewer - Vessel Internals
Juan Lopez	Reviewer - Structural
Keith Hoffman	Reviewer - Mechanical
Mark Yoo	Reviewer - Vessel Internals
Mo Sadollah	Reviewer - Electrical
Naeem Iqbal	Reviewer – Fire Protection
Robert Davis	Reviewer - Mechanical

Team Assignments (continued)

Roger Kalikian	Reviewer - Mechanical
Sam Cuadrado	Reviewer - Structural
Seung Min	Reviewer - Mechanical
Sheila Ray	Reviewer - Electrical
Shie-Jeng Peng	Reviewer - Scoping and Screening
Stephen Cumblidge	Reviewer - Mechanical
William Gardner	Reviewer - General Science
William Gardner	Reviewer - Mechanical
William Holston	Reviewer - Mechanical

6. Logistics

The regulatory audit will be conducted as an in-office (at NRC HQ) audit from February 4, 2019, to March 1, 2019. Entrance and exit briefings will be held at the beginning and end of the in-office audit via conference calls. Status calls during the in-office (at NRC HQ) audit will occur at least weekly, more if deemed necessary.

7. Special Requests

The NRC staff requests the applicant to make available the license renewal application program basis documentation and license renewal drawings, and other documents as requested for independent searches by the regulatory audit team via the portal.

8. Deliverables

An audit report should be issued to Dominion within 90 days from the end of the audit.

In-Office Audit Schedule

	Monday 2/4/2019	Tuesday 2/5/2019	Wednesday 2/6/2019	Thursday 2/7/2019	Friday 2/8/2019	Monday 2/11/2019	Tuesday 2/12/2019	Wednesday 2/13/2019	Thursday 2/14/2019	Friday 2/15/2019
NRC HQ Room	HQ-OWFN-10B04-25p, HQ-OWFN-09B06-12p	HQ-OWFN-16D00-10p, HQ-OWFN-07B06-12p	HQ-OWFN-08B06-12p, HQ-OWFN-09B02-12p	HQ-OWFN-11B04-25p, HQ-OWFN-11B02-12p	HQ-OWFN-11B04-25p	HQ-OWFN-12B06-12p, HQ-OWFN-12B04-25P	HQ-OWFN-12B06-12p, HQ-OWFN-14D00-10p	HQ-OWFN-11B06-12p, HQ-OWFN-09B06-12p	HQ-OWFN-11B04-25p, HQ-OWFN-11B06-12p	HQ-OWFN-11B02-12p
8:30AM-9:00AM	Kick Off/Entrance Meeting	Clarification Calls Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB, SRXB	Clarification Calls Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB, SCPB	Clarification Calls Mechanical, Chemical, Corrosion, and Steam Generator, Fire Protection, Scoping and Screening, MCCB, DRAFO	No Audit Activities	Break Out Sessions Structural, Scoping and Screening, Fire Protection, ESEB (TRP 18, 23, 41, 42, 43, 44, 45, 46), DRAFO	Break Out Sessions Structural, Scoping and Screening, Fire Protection, ESEB (TRP 47, 71, 72, 73, 74, 75, 77, 78), DRAFO	Break Out Sessions Structural, Scoping and Screening, Fire Protection, ESEB (TRP 79, 80, 81, 145, 146, 147, 147.01, 147.04), DRAFO	Break Out Sessions Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB (TRP 4, 9, 16a, 31, 37, 61, 93, 141), SRXB (TRP 142.01)	No Activities Scheduled, But Back Up Day if Needed
9:00AM-11:30AM	Clarification Calls Electrical, Structural, Scoping and Screening, EENB, ESEB									
Lunch										
12:30PM-5:30PM	Clarification Calls Electrical, Structural, Scoping and Screening, EENB, ESEB	Clarification Calls Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB, SRXB	Clarification Calls Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB, SCPB	Clarification Calls Mechanical, Chemical, Corrosion, and Steam Generator, Fire Protection, Scoping and Screening, MCCB, DRAFO		Break Out Sessions Structural, Scoping and Screening, Fire Protection, ESEB (TRP 18, 23, 41, 42, 43, 44, 45, 46), DRAFO	Break Out Sessions Structural, Scoping and Screening, Fire Protection, ESEB (TRP 47, 71, 72, 73, 74, 75, 77, 78), DRAFO	Break Out Sessions Structural, Scoping and Screening, Fire Protection, ESEB (TRP 79, 80, 81, 145, 146, 147, 147.01, 147.04), DRAFO	Break Out Sessions Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB (TRP 4, 9, 16a, 31, 37, 61, 93, 141), SRXB (TRP 142.01)	

	Monday 2/18/2019	Tuesday 2/19/2019	Wednesday 2/20/2019	Thursday 2/21/2019	Friday 2/22/2019	Monday 2/25/2019	Tuesday 2/26/2019	Wednesday 2/27/2019	Thursday 2/28/2019	Friday 3/1/2019
NRC HQ Room	HQ-OWFN-10B04-25p, HQ-OWFN-12B04-25P	HQ-OWFN-14D00-10p, HQ-OWFN-09B06-12p	HQ-OWFN-09B06-12p, HQ-OWFN-12B02-12p	HQ-OWFN-11B04-25p, HQ-OWFN-11B02-12p	HQ-OWFN-11B02-12p	HQ-OWFN-11B04-25p, HQ-OWFN-10B04-25p	HQ-OWFN-12B06-12p, HQ-OWFN-14D00-10p	HQ-OWFN-11B06-12p, HQ-OWFN-09B04-25p	HQ-OWFN-11B04-25p, HQ-OWFN-11B02-12p	HQ-OWFN-11B02-12p
8:30AM-11:30AM	Break Out Sessions Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB (TRP 142, 142.02, 142.03, 142.04, 142.05, 142.06, 147.02, 147.07, 148), SRXB (TRP 142.01)	Break Out Sessions Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB (TRP 60, 143, 143.01a, 143.01c, 143.01e, 143.01f, 143.03, 143.04)	Break Out Sessions Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB (TRP 1, 3, 7, 8, 11, 12, 16b), MRPB, SCPB	Break Out Sessions Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB (TRP 25, 35), SCPB	No Audit Activities	Break Out Sessions Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB (TRP 147.03, 147.05, 147.06), SCPB	Break Out Sessions Mechanical, Chemical, Corrosion, and Steam Generator, Scoping and Screening, Electrical, MCCB (TRP 19, 20, 21, 22, 24), EENB (TRP 51, 52, 53, 54)	Break Out Sessions Mechanical, Chemical, Corrosion, and Steam Generator, Scoping and Screening, Electrical, MCCB (TRP 27, 33, 36, 38, 39), EENB (TRP 55, 56, 57, 58)	Break Out Sessions Mechanical, Chemical, Corrosion, and Steam Generator, Scoping and Screening, Electrical, MCCB (TRP 83, 84, 85, 90, 147.08, 147.09), EENB (TRP 59, 63, 144)	No Activities Scheduled, But Back Up Day if Needed
		Piping and Head Penetrations MPHB (TRP 143.01-b, 143.01-d, 143.01-g, 143.01-h, 134.01i, 143.02)		Mechanical, MCCB (TRP 2, 10, 15, 26, 29, 40, 48)			Mechanical, MCCB (TRP 14, 17, 30, 32, 82)			
Lunch										
12:30PM-4:30PM	Break Out Sessions Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB (TRP 142, 142.02, 142.03, 142.04, 142.05, 142.06, 147.02, 147.07, 148), SRXB (TRP 142.01)	Break Out Sessions Vessel and Internals, Reactor Systems, Scoping and Screening, MVIB (TRP 60, 143, 143.01a, 143.01c, 143.01e, 143.01f, 143.03, 143.04)	Break Out Sessions Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB (TRP 1, 3, 7, 8, 11, 12, 16b), MRPB, SCPB	Break Out Sessions Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB (TRP 25, 35), SCPB		Break Out Sessions Piping and Head Penetrations, Balance of Plant, Scoping and Screening, MPHB (TRP 147.03, 147.05, 147.06), SCPB	Break Out Sessions Mechanical, Chemical, Corrosion, and Steam Generator, Scoping and Screening, Electrical, MCCB (TRP 19, 20, 21, 22, 24), EENB (TRP 51, 52, 53, 54)	Break Out Sessions Mechanical, Chemical, Corrosion, and Steam Generator, Scoping and Screening, Electrical, MCCB (TRP 27, 33, 36, 38, 39), EENB (TRP 55, 56, 57, 58)	Break Out Sessions Mechanical, Chemical, Corrosion, and Steam Generator, Scoping and Screening, Electrical, MCCB (TRP 83, 84, 85, 90, 147.08, 147.09), EENB (TRP 59, 63, 144)	
4:30PM-5:00PM		Piping and Head Penetrations MPHB (TRP 143.01-b, 143.01-d, 143.01-g, 143.01-h, 134.01i, 143.02)		Mechanical, MCCB (TRP 2, 10, 15, 26, 29, 40, 48)		Mechanical, MCCB (TRP 14, 17, 30, 32, 82)			Exit Meeting	