



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

August 31, 2016

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

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SURRY POWER STATION, UNITS 1  
AND 2 – NRC INSPECTION REPORT 05000280, 281/2016005**

Dear Mr. Heacock:

On August 10, 2016, the Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Surry Power Station, Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2015, through June 30, 2016. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, Surry Power Station, Units 1 and 2, were operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined that the performance at Surry Power Station, Units 1 and 2, during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half of the inspection schedule of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

Additionally, the NRC plans on conducting non-ROP baseline inspections which include two Operating License Initial Examinations and Temporary Instruction 2515/191, Revision 1, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Instrumentation Orders and Emergency Preparedness Communications/Staffing/Multi-Unit Dose Assessment Plans."

The NRC staff received the Surry Power Station, Units 1 and 2, Final Compliance letter for Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC staff issued the Surry Power Station, Units 1 and 2, Safety Evaluation on August 4, 2016, and will confirm full implementation of the orders mentioned above by performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct quarterly assessment meetings and communicate changes in the assessment of licensee performance in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 404-997-4609 with any questions you may have regarding this letter.

Sincerely,

**/RA/**

Steven D. Rose, Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

Docket Nos.: 50-280, 50-281  
License Nos.: DPR-32, DPR-37

Enclosure:  
Surry Inspection / Activity Plan  
(09/01/2016 – 06/30/2018)

cc Distribution via ListServ

The NRC staff received the Surry Power Station, Units 1 and 2, Final Compliance letter for Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC staff issued the Surry Power Station, Units 1 and 2, Safety Evaluation on August 4, 2016, and will confirm full implementation of the orders mentioned above by performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct quarterly assessment meetings and communicate changes in the assessment of licensee performance in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 404-997-4609 with any questions you may have regarding this letter.

Sincerely,

**/RA/**

Steven D. Rose, Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

Docket Nos.: 50-280, 50-281  
License Nos.: DPR-32, DPR-37

Enclosure:  
Surry Inspection / Activity Plan  
(09/01/2016 – 06/30/2018)

cc Distribution via ListServ

PUBLICLY AVAILABLE     NON-PUBLICLY AVAILABLE     SENSITIVE     NON-SENSITIVE  
ADAMS:  Yes    ACCESSION NUMBER: ML16244A126     SUNSI REVIEW COMPLETE     FORM 665 ATTACHED

|              |           |               |           |  |  |  |
|--------------|-----------|---------------|-----------|--|--|--|
| OFFICE       | RII:DRP   | RII:DRP       | RII:DRP   |  |  |  |
| SIGNATURE    | BDB2      | SON via email | SDR2      |  |  |  |
| NAME         | BBishop   | SNinh         | SRose     |  |  |  |
| DATE         | 8/30/2016 | 8/30/2016     | 8/30/2016 |  |  |  |
| E-MAIL COPY? | YES NO    | YES NO        | YES NO    |  |  |  |

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP NEW\RPB7\PERIODIC ASSESSMENTS & REPORTS\EOC & MID-CYCLE\2016\ADMIN WORKING FOLDER\LETTERS\SURRY MID-CYCLE LTR 2016.DOCX

D. Heacock

2

Letter to David A Heacock from Steven D. Rose dated August 31, 2016

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SURRY POWER STATION, UNITS 1  
AND 2 – NRC INSPECTION REPORT 05000280, 281/2016005

**DISTRIBUTION:**

D. Gamberoni, RII

L. Gibson, RII

OE Mail

RIDSNNRRDIRS

PUBLIC

RidsNrrPMSurry Resource

ROP Assessment

ROP Reports

Institute of Nuclear Power Operations (INPO)

**Surry**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

| Unit Number | Planned Dates |            | Inspection Activity                                      | Title   | No. of Staff on Site |
|-------------|---------------|------------|--|---|----------------------|
|             | Start         | End        |  |   |                      |
|             |               |            | <b>OL EXAM - INITIAL LICENSE EXAM</b>                    |   | <b>3</b>             |
| 1           | 09/19/2016    | 09/30/2016 | V23477   | SURRY SEPTEMBER 2016 INITIAL EXAM AT POWER FACILITIES   |                      |
|             |               |            | <b>ISI - UNIT 1 IN-SERVICE INSPECTION</b>                |   | <b>1</b>             |
| 1           | 10/24/2016    | 10/28/2016 | IP 7111108P  | Inservice Inspection Activities - PWR   |                      |
|             |               |            | <b>RP - RP OCCUPATIONAL INSPECTION WEEK 1</b>            |   | <b>2</b>             |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.01  | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.02  | Occupational ALARA Planning and Controls  |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.03  | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.04  | Occupational Dose Assessment  |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.05  | Radiation Monitoring Instrumentation  |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71151   | Performance Indicator Verification  |                      |
|             |               |            | <b>SGISI - UNIT 1 SG IN-SERVICE INSPECTION</b>           |   | <b>1</b>             |
| 1           | 10/31/2016    | 11/04/2016 | IP 7111108P  | Inservice Inspection Activities - PWR   |                      |
|             |               |            | <b>RP - RP OCCUPATIONAL INSPECTION WEEK 2</b>            |   | <b>3</b>             |
| 1, 2        | 11/28/2016    | 12/02/2016 | IP 71124.01  | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 11/28/2016    | 12/02/2016 | IP 71124.02  | Occupational ALARA Planning and Controls  |                      |
| 1, 2        | 11/28/2016    | 12/02/2016 | IP 71124.03  | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1, 2        | 11/28/2016    | 12/02/2016 | IP 71124.04  | Occupational Dose Assessment  |                      |
| 1, 2        | 11/28/2016    | 12/02/2016 | IP 71124.05  | Radiation Monitoring Instrumentation  |                      |
| 1, 2        | 11/28/2016    | 12/02/2016 | IP 71151   | Performance Indicator Verification  |                      |
|             |               |            | <b>OL RQ - REQUAL INSPECTION</b>                         |   | <b>2</b>             |
| 1, 2        | 01/23/2017    | 01/27/2017 | IP 7111111B  | Licensed Operator Requalification Program   |                      |
|             |               |            | <b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>  |   | <b>5</b>             |
| 1, 2        | 01/30/2017    | 02/03/2017 | IP 71152B  | Problem Identification and Resolution   |                      |
| 1, 2        | 02/13/2017    | 02/17/2017 | IP 71152B  | Problem Identification and Resolution   |                      |
|             |               |            | <b>TI-191 - MITIGATING STRATEGIES</b>                    |   | <b>4</b>             |
| 1, 2        | 03/13/2017    | 03/17/2017 | IP 2515/191  | Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012 |                      |
|             |               |            | <b>ISI - UNIT 2 IN-SERVICE INSPECTION &amp; RVH EXAM</b> |   | <b>1</b>             |
| 2           | 05/15/2017    | 05/19/2017 | IP 7111108P  | Inservice Inspection Activities - PWR   |                      |
|             |               |            | <b>RP - RAD HAZARDS AND TRANSPORTATION</b>               |   | <b>2</b>             |
| 1, 2        | 05/15/2017    | 05/19/2017 | IP 71124.01  | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 05/15/2017    | 05/19/2017 | IP 71124.08  | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation |                      |

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

Enclosure

**Surry**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

| Unit Number | Planned Dates |            | Inspection Activity                                | Title  | No. of Staff on Site |
|-------------|---------------|------------|--|--|----------------------|
|             | Start         | End        |  |  |                      |
|             |               |            | <b>SGISI - UNIT 2 SG IN-SERVICE INSPECTION</b>     |  | <b>1</b>             |
| 2           | 05/22/2017    | 05/26/2017 | IP 7111108P  | Inservice Inspection Activities - PWR                                |                      |
|             |               |            | <b>EP - EXERCISE INSPECTION</b>                    |  | <b>3</b>             |
| 1, 2        | 07/24/2017    | 07/28/2017 | IP 7111401   | Exercise Evaluation  |                      |
| 1, 2        | 07/24/2017    | 07/28/2017 | IP 7111404   | Emergency Action Level and Emergency Plan Changes                    |                      |
| 1, 2        | 07/24/2017    | 07/28/2017 | IP 7111408   | Exercise Evaluation – Scenario Review                                |                      |
| 1, 2        | 07/24/2017    | 07/28/2017 | IP 71151   | Performance Indicator Verification                                   |                      |
|             |               |            | <b>CDBI - COMPONENT DESIGN BASIS INSPECTION</b>    |  | <b>7</b>             |
| 1, 2        | 07/24/2017    | 07/28/2017 | IP 7111121   | Component Design Bases Inspection                                    |                      |
| 1, 2        | 08/14/2017    | 08/18/2017 | IP 7111121   | Component Design Bases Inspection                                    |                      |
| 1, 2        | 08/28/2017    | 09/01/2017 | IP 7111121   | Component Design Bases Inspection                                    |                      |
| 1, 2        | 09/18/2017    | 09/22/2017 | IP 7111121   | Component Design Bases Inspection                                    |                      |
|             |               |            | <b>HS - TRIENNIAL HEAT SINK PERFORMANCE</b>        |  | <b>1</b>             |
| 1, 2        | 08/07/2017    | 08/11/2017 | IP 7111107T  | Heat Sink Performance  |                      |
|             |               |            | <b>OL EXAM - INITIAL LICENSE EXAM PREP</b>         |  | <b>3</b>             |
| 1           | 10/02/2017    | 10/06/2017 | V23502   | SURRY OCTOBER 2017 INITIAL EXAM AT POWER FACILITIES                  |                      |
|             |               |            | <b>OL EXAM - INITIAL LICENSE EXAM</b>              |  | <b>3</b>             |
| 1           | 10/30/2017    | 11/17/2017 | V23502   | SURRY OCTOBER 2017 INITIAL EXAM AT POWER FACILITIES                  |                      |
|             |               |            | <b>RP - RP PUBLIC BASELINE INSPECTION</b>          |  | <b>2</b>             |
| 1, 2        | 11/27/2017    | 12/01/2017 | IP 71124.06  | Radioactive Gaseous and Liquid Effluent Treatment                    |                      |
| 1, 2        | 11/27/2017    | 12/01/2017 | IP 71124.07  | Radiological Environmental Monitoring Program                        |                      |
| 1, 2        | 11/27/2017    | 12/01/2017 | IP 71151   | Performance Indicator Verification                                   |                      |
|             |               |            | <b>TFPI - TRIENNIAL FIRE PROTECTION INSPECTION</b> |  | <b>5</b>             |
| 1, 2        | 02/26/2018    | 03/01/2018 | IP 7111105T  | Fire Protection [Triennial]  |                      |
| 1, 2        | 03/12/2018    | 03/16/2018 | IP 7111105T  | Fire Protection [Triennial]  |                      |
|             |               |            | <b>EP - EP PROGRAM INSPECTION</b>                  |  | <b>3</b>             |
| 1, 2        | 04/09/2018    | 04/13/2018 | IP 7111402   | Alert and Notification System Testing                                |                      |
| 1, 2        | 04/09/2018    | 04/13/2018 | IP 7111403   | Emergency Preparedness Organization Staffing and Augmentation System |                      |
| 1, 2        | 04/09/2018    | 04/13/2018 | IP 7111404   | Emergency Action Level and Emergency Plan Changes                    |                      |
| 1, 2        | 04/09/2018    | 04/13/2018 | IP 7111405   | Correction of Emergency Preparedness Weaknesses and Deficiencies     |                      |
| 1, 2        | 04/09/2018    | 04/13/2018 | IP 71151   | Performance Indicator Verification                                   |                      |
|             |               |            | <b>ISI - UNIT 1 IN-SERVICE INSPECTION</b>          |  | <b>1</b>             |
| 1           | 04/30/2018    | 05/04/2018 | IP 7111108P  | Inservice Inspection Activities - PWR                                |                      |

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

Enclosure

**Surry**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

| Unit Number                                    | Planned Dates<br>Start      End |            | Inspection Activity | Title                                 | No. of Staff on Site |
|--|---------------------------------|------------|---------------------|---------------------------------------|----------------------|
| <b>SGISI - UNIT 1 SG IN-SERVICE INSPECTION</b> |                                 |            |                     |                                       |                      |
| 1  | 05/07/2018                      | 05/11/2018 | IP 7111108P         | Inservice Inspection Activities - PWR | 1                    |

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

Enclosure