



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

September 1, 2015

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

**SUBJECT: MID-CYCLE LETTER FOR SURRY POWER STATION UNITS 1 AND 2 –  
NRC ASSESSMENT REPORT 05000280/2015005 AND 05000281/2015005**

Dear Mr. Heacock:

On August 13, 2015, the 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, 2014, through June 30, 2015. 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, 2017. 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.

In addition to the routine ROP baseline inspections at your facility, we also plan on conducting infrequently performed inspections which include initial operator license examinations.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events." This Order requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." This Order requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The audit was completed for the Surry Power Station, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing TI 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 accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Agency Rules of Practice and Procedure," 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 Website 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  
(07/01/2015 – 06/30/2017)

cc: Distribution via ListServ

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events." This Order requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." This Order requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The audit was completed for the Surry Power Station, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above performing TI 191: "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

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☒ PUBLICLY AVAILABLE   ☐ NON-PUBLICLY AVAILABLE   ☐ SENSITIVE   ☒ NON-SENSITIVE  
ADAMS: ☒ Yes   ACCESSION NUMBER: \_\_\_\_\_   ☒ SUNSI REVIEW COMPLETE   ☒ FORM 665 ATTACHED

|              |           |           |  |  |  |
|--------------|-----------|-----------|--|--|--|
| OFFICE       | RII:DRP   | RII:DRP   |  |  |  |
| SIGNATURE    | SON       | SDR2      |  |  |  |
| NAME         | SNinh     | SRose     |  |  |  |
| DATE         | 8/26/2015 | 8/28/2015 |  |  |  |
| E-MAIL COPY? | YES   NO  | YES   NO  |  |  |  |

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP\PERIODIC ASSESSMENTS & REPORTS\EOC & MID-CYCLE\2015\MID-CYCLE\ADMIN WORKING FOLDER\LETTERS\SURRY MID-CYCLE LTR 2015.DOCX

Letter to David A Heacock from Steven Rose dated September 1, 2015.

SUBJECT: MID-CYCLE LETTER FOR SURRY POWER STATION UNITS 1 AND 2 –  
NRC ASSESSMENT REPORT 05000280/2015005 AND 05000281/2015005

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ROP Assessment

ROP Reports

Institute of Nuclear Power Operations (INPO)

**Surry**  
**Inspection / Activity Plan**  
**09/01/2015 - 06/30/2017**

| Unit Number                                    | Planned Dates |            | Inspection Activity | Title   | No. of Staff on Site |
|--|---------------|------------|---------------------|---|----------------------|
| Start  | End           |            |                     |   |                      |
| <b>MODS - PLANT MODIFICATIONS INSPECTION</b>   |               |            |                     |   | <b>4</b>             |
| 1, 2   | 09/14/2015    | 09/18/2015 | IP 711117T          | Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications                  |                      |
| 1, 2   | 09/28/2015    | 10/02/2015 | IP 711117T          | Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications                  |                      |
| <b>OL EXAM - INITIAL LICENSE EXAM</b>          |               |            |                     |   | <b>3</b>             |
| 1  | 09/21/2015    | 10/02/2015 | V23437              | SURRY/SEPTEMBER 2015 INITIAL EXAM AT POWER FACILITIES   |                      |
| <b>RP - RP OCCUPATIONAL BASELINE</b>           |               |            |                     |   | <b>2</b>             |
| 1, 2   | 10/19/2015    | 10/23/2015 | IP 71124.01         | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2   | 10/19/2015    | 10/23/2015 | IP 71124.08         | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation |                      |
| 1, 2   | 10/19/2015    | 10/23/2015 | IP 71151            | Performance Indicator Verification  |                      |
| <b>ISI - UNIT 2 IN-SERVICE INSPECTION</b>      |               |            |                     |   | <b>1</b>             |
| 2  | 10/26/2015    | 10/30/2015 | IP 7111108P         | Inservice Inspection Activities - PWR   |                      |
| <b>SGISI - UNIT 2 SG IN-SERVICE INSPECTION</b> |               |            |                     |   | <b>1</b>             |
| 2  | 11/02/2015    | 11/06/2015 | IP 7111108P         | Inservice Inspection Activities - PWR   |                      |
| <b>EP - EP PROGRAM INSPECTION</b>              |               |            |                     |   | <b>4</b>             |
| 1, 2   | 04/18/2016    | 04/22/2016 | IP 7111402          | Alert and Notification System Testing   |                      |
| 1, 2   | 04/18/2016    | 04/22/2016 | IP 7111403          | Emergency Preparedness Organization Staffing and Augmentation System                              |                      |
| 1, 2   | 04/18/2016    | 04/22/2016 | IP 7111404          | Emergency Action Level and Emergency Plan Changes   |                      |
| 1, 2   | 04/18/2016    | 04/22/2016 | IP 7111405          | Correction of Emergency Preparedness Weaknesses and Deficiencies                                  |                      |
| 1, 2   | 04/18/2016    | 04/22/2016 | IP 71151            | Performance Indicator Verification  |                      |
| <b>OL EXAM - INITIAL LICENSE EXAM PREP</b>     |               |            |                     |   | <b>3</b>             |
| 1  | 08/22/2016    | 08/26/2016 | V23477              | SURRY SEPTEMBER 2016 INITIAL EXAM AT POWER FACILITIES   |                      |
| <b>RP - RP OCCUPATIONAL INSPECTION WEEK 1</b>  |               |            |                     |   | <b>3</b>             |
| 1, 2   | 09/19/2016    | 09/23/2016 | IP 71124.01         | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2   | 09/19/2016    | 09/23/2016 | IP 71124.02         | Occupational ALARA Planning and Controls  |                      |
| 1, 2   | 09/19/2016    | 09/23/2016 | IP 71124.03         | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1, 2   | 09/19/2016    | 09/23/2016 | IP 71124.04         | Occupational Dose Assessment  |                      |
| 1, 2   | 09/19/2016    | 09/23/2016 | IP 71124.05         | Radiation Monitoring Instrumentation  |                      |
| 1, 2   | 09/19/2016    | 09/23/2016 | IP 71151            | Performance Indicator Verification  |                      |
| <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>RP - RP OCCUPATIONAL INSPECTION WEEK 2</b>  |               |            |                     |   | <b>2</b>             |
| 1, 2   | 10/03/2016    | 10/07/2016 | IP 71124.01         | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2   | 10/03/2016    | 10/07/2016 | IP 71124.02         | Occupational ALARA Planning and Controls  |                      |

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

Enclosure

**Surry**  
**Inspection / Activity Plan**  
**09/01/2015 - 06/30/2017**

| Unit<br>Number | Planned Dates |            | Inspection Activity                                      | Title  | No. of Staff<br>on Site |
|----------------|---------------|------------|--|--|-------------------------|
|                | Start         | End        |  |  |                         |
|                |               |            | <b>RP - RP OCCUPATIONAL INSPECTION WEEK 2</b>            |  | <b>2</b>                |
| 1, 2           | 10/03/2016    | 10/07/2016 | IP 71124.03  | In-Plant Airborne Radioactivity Control and Mitigation |                         |
| 1, 2           | 10/03/2016    | 10/07/2016 | IP 71124.04  | Occupational Dose Assessment                           |                         |
| 1, 2           | 10/03/2016    | 10/07/2016 | IP 71124.05  | Radiation Monitoring Instrumentation                   |                         |
| 1, 2           | 10/03/2016    | 10/07/2016 | IP 71151   | Performance Indicator Verification                     |                         |
|                |               |            | <b>ISI - UNIT 1 IN-SERVICE INSPECTION</b>                |  | <b>1</b>                |
| 1              | 10/31/2016    | 11/04/2016 | IP 7111108P  | Inservice Inspection Activities - PWR                  |                         |
|                |               |            | <b>SGISI - UNIT 1 SG IN-SERVICE INSPECTION</b>           |  | <b>1</b>                |
| 1              | 11/14/2016    | 11/18/2016 | IP 7111108P  | Inservice Inspection Activities - PWR                  |                         |
|                |               |            | <b>ISI - UNIT 2 IN-SERVICE INSPECTION &amp; RVH EXAM</b> |  | <b>1</b>                |
| 2              | 04/24/2017    | 04/28/2017 | IP 7111108P  | Inservice Inspection Activities - PWR                  |                         |
|                |               |            | <b>RP - RAD HAZARDS AND PIV</b>                          |  | <b>1</b>                |
| 1, 2           | 04/24/2017    | 04/28/2017 | IP 71124.01  | Radiological Hazard Assessment and Exposure Controls   |                         |
| 1, 2           | 04/24/2017    | 04/28/2017 | IP 71151   | Performance Indicator Verification                     |                         |
|                |               |            | <b>SGISI - UNIT 2 SG IN-SERVICE INSPECTION</b>           |  | <b>1</b>                |
| 2              | 05/01/2017    | 05/05/2017 | IP 7111108P  | Inservice Inspection Activities - PWR                  |                         |