



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

March 2, 2016

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

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR SURRY POWER STATION,
UNITS 1 AND 2 – NRC INSPECTION REPORT 05000280/2015006 AND
05000281/2015006**

Dear Mr. Heacock:

On February 11, 2016, the Nuclear Regulatory Commission (NRC) completed its end-of-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 January 1 through December 31, 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, operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined 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 December 31, 2017. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the mid-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 two non-ROP baseline inspections for Operating License Initial 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 Surry Power Station, Units 1 and 2, and the information gathered will aid staff in development of the 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 by 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 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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
(03/01/2016 – 12/31/2017)

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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 Surry Power Station, Units 1 and 2, 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 by 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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 Surry Inspection/Activity Plan
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PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE
 ADAMS: Yes ACCESSION NUMBER: ML16062A273 SUNSI REVIEW COMPLETE FORM 665 ATTACHED

| | | | | | |
|--------------|-----------|-----------|-----------|--|--|
| OFFICE | RII:DRP | RII:DRP | RII:DRP | | |
| SIGNATURE | BDB | SON | SDR2 | | |
| NAME | B. Bishop | S. Ninh | S. Rose | | |
| DATE | 2/22/2016 | 2/29/2016 | 2/29/2016 | | |
| E-MAIL COPY? | YES NO | YES NO | YES NO | | |

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP\PERIODIC ASSESSMENTS & REPORTS\EOC & MID-CYCLE\2015\END OF CYCLE\INPUT\RPB5\SURRY EOC LETTER 2015.DOCX

D. Heacock

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Letter to David A. Heacock from Steven D. Rose dated March 2, 2016

SUBJECT: ANNUAL ASSESSMENT LETTER FOR SURRY POWER STATION,
UNITS 1 AND 2 – NRC INSPECTION REPORT 05000280/2015006 AND
05000281/2015006

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Institute of Nuclear Power Operations (INPO)

Surry
Inspection / Activity Plan
03/01/2016 - 12/31/2017

| Unit Number | Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|--|---------------|------------|---------------------|--|----------------------|
| | Start | End | | | |
| EP - EP PROGRAM INSPECTION | | | | | 5 |
| 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 | |
| OL EXAM - INITIAL LICENSE EXAM PREP | | | | | 3 |
| 1 | 08/22/2016 | 08/26/2016 | V23477 | SURRY SEPTEMBER 2016 INITIAL EXAM AT POWER FACILITIES | |
| OL EXAM - INITIAL LICENSE EXAM | | | | | 3 |
| 1 | 09/19/2016 | 09/30/2016 | V23477 | SURRY SEPTEMBER 2016 INITIAL EXAM AT POWER FACILITIES | |
| ISI - UNIT 1 IN-SERVICE INSPECTION | | | | | 1 |
| 1 | 10/31/2016 | 11/04/2016 | IP 7111108P | Inservice Inspection Activities - PWR | |
| RP - RP OCCUPATIONAL INSPECTION WEEK 1 | | | | | 2 |
| 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 | |
| SGISI - UNIT 1 SG IN-SERVICE INSPECTION | | | | | 1 |
| 1 | 10/31/2016 | 11/04/2016 | IP 7111108P | Inservice Inspection Activities - PWR | |
| RP - RP OCCUPATIONAL INSPECTION WEEK 2 | | | | | 3 |
| 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 | |
| OL RQ - REQUAL INSPECTION | | | | | 2 |
| 1, 2 | 01/23/2017 | 01/27/2017 | IP 7111111B | Licensed Operator Requalification Program | |
| ISI - UNIT 2 IN-SERVICE INSPECTION & RVH EXAM | | | | | 1 |
| 2 | 04/24/2017 | 04/28/2017 | 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
03/01/2016 - 12/31/2017

| Unit Number | Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|-------------|---------------|------------|---|---|----------------------|
| | Start | End | | | |
| | | | RP - RAD HAZARDS | | 1 |
| 1, 2 | 05/01/2017 | 05/05/2017 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| | | | SGISI - UNIT 2 SG IN-SERVICE INSPECTION | | 1 |
| 2 | 05/01/2017 | 05/05/2017 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | PI&R - PROBLEM IDENTIFICATION AND RESOLUTION | | 5 |
| 1, 2 | 07/10/2017 | 07/14/2017 | IP 71152B | Problem Identification and Resolution | |
| 1, 2 | 07/24/2017 | 07/28/2017 | IP 71152B | Problem Identification and Resolution | |
| | | | EP - EXERCISE INSPECTION | | 3 |
| 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 | |
| | | | CDBI - COMPONENT DESIGN BASIS INSPECTION | | 7 |
| 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 | |
| | | | HS - TRIENNIAL HEAT SINK PERFORMANCE | | 1 |
| 1, 2 | 08/07/2017 | 08/11/2017 | IP 7111107T | Heat Sink Performance | |
| | | | OL EXAM - INITIAL LICENSE EXAM PREP | | 3 |
| 1 | 10/02/2017 | 10/06/2017 | V23502 | SURRY OCTOBER 2017 INITIAL EXAM AT POWER FACILITIES | |
| | | | OL EXAM - INITIAL LICENSE EXAM | | 3 |
| 1 | 10/30/2017 | 11/17/2017 | V23502 | SURRY OCTOBER 2017 INITIAL EXAM AT POWER FACILITIES | |
| | | | RP - RP PUBLIC BASELINE INSPECTION | | 3 |
| 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 71124.08 | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation | |
| 1, 2 | 11/27/2017 | 12/01/2017 | IP 71151 | Performance Indicator Verification | |

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