



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

September 1, 2011

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: MID-CYCLE LETTER FOR SURRY POWER STATION UNITS 1 AND 2 - NRC  
ASSESSMENT REPORT 05000280, 281/2011006**

Dear Mr. Heacock:

On August 11, 2011, 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, 2010, through June 30, 2011. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This performance review and enclosed inspection plan do not include security information. A separate letter will include the NRC's assessment of your performance in the Security Cornerstone and its security-related inspection plan.

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. We also plan to conduct a non-ROP inspection, IP 71003, Post Approval Site Inspection for License Renewal.

The enclosed inspection plan lists the inspections scheduled through December 31, 2012. 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 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.

In the days following the Fukushima Daiichi nuclear accident in Japan, the Commission directed the staff to establish a senior-level agency task force to conduct a methodical and systematic review of the NRC's processes and regulations to determine whether the agency should make additional improvements to its regulatory system. The NRC has since completed Temporary Instruction (TI) 183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event," and TI-184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)" at your facility. Results of these inspections can be found here:

<http://www.nrc.gov/japan/japan-activities.html>. Additionally, on May 11, 2011, the agency issued NRC Bulletin 2011-01, "Mitigating Strategies," to confirm compliance with Order EA-02-026, subsequently imposed license conditions, and 10 CFR 50.54(hh)(2), and to determine the status of licensee mitigating strategies programs. On July 12, 2011, the NRC's Task Force made its recommendations to the Commission in its report, "Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century: The Near-Term Task Force Review of Insights from the Fukushima Daiichi Accident." The Commission is currently reviewing the Task Force's recommendations to determine whether additional actions may be warranted.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document 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 404-997-4551 with any questions you may have regarding this letter.

Sincerely,

*/RA/*

Gerald J. McCoy, 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 (09/01/2011 – 12/31/2012)

In the days following the Fukushima Daiichi nuclear accident in Japan, the Commission directed the staff to establish a senior-level agency task force to conduct a methodical and systematic review of the NRC's processes and regulations to determine whether the agency should make additional improvements to its regulatory system. The NRC has since completed Temporary Instruction (TI) 183, "Follow-up to Fukushima Daiichi Nuclear Station Fuel Damage Event," and TI-184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)" at your facility. Results of these inspections can be found here: <http://www.nrc.gov/japan/japan-activities.html>. Additionally, on May 11, 2011, the agency issued NRC Bulletin 2011-01, "Mitigating Strategies," to confirm compliance with Order EA-02-026, subsequently imposed license conditions, and 10 CFR 50.54(hh)(2), and to determine the status of licensee mitigating strategies programs. On July 12, 2011, the NRC's Task Force made its recommendations to the Commission in its report, "Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century: The Near-Term Task Force Review of Insights from the Fukushima Daiichi Accident." The Commission is currently reviewing the Task Force's recommendations to determine whether additional actions may be warranted.

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Gerald J. McCoy, Chief  
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Enclosure: Surry Inspection/Activity Plan (09/01/2011 – 12/31/2012)

X PUBLICLY AVAILABLE                       NON-PUBLICLY AVAILABLE                       SENSITIVE                      X NON-SENSITIVE  
 ADAMS: X Yes      ACCESSION NUMBER: PKG: ML112440101                      X SUNSI REVIEW COMPLETE X FORM 665 ATTACHED

|              |            |            |           |           |           |           |           |           |           |           |           |           |           |
|--------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| OFFICE       | RII:DRP    | RII:DRP    |           |           |           |           |           |           |           |           |           |           |           |
| SIGNATURE    | GJM1 for   | GJM1       |           |           |           |           |           |           |           |           |           |           |           |
| NAME         | SNinh      | GMcCoy     |           |           |           |           |           |           |           |           |           |           |           |
| DATE         | 09/01/2011 | 09/01/2011 |           |           |           |           |           |           |           |           |           |           |           |
| E-MAIL COPY? | YES    NO  | YES    NO  | YES    NO | YES    NO | YES    NO | YES    NO | YES    NO | YES    NO | YES    NO | YES    NO | YES    NO | YES    NO | YES    NO |

VEPCO

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cc w/encl:  
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Letter to David A. Heacock from Gerald J. McCoy dated September 1, 2011

SUBJECT: MID-CYCLE LETTER FOR SURRY POWER STATION UNITS 1 AND 2 - NRC  
ASSESSMENT REPORT 05000280, 281/2011006

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Institute of Nuclear Power Operations (INPO)

## Surry

## Inspection / Activity Plan

09/01/2011 - 12/31/2012

| Unit Number | Planned Dates Start | Planned Dates End | Inspection Activity | Title   | No. of Staff on Site |
|-------------|---------------------|-------------------|---------------------|---|----------------------|
|             |                     |                   | <b>PSB1-RP</b>      | <b>- PUBLIC RADI PROTECTION BASELINE WEEK1</b>  | 4                    |
| 1, 2        | 10/03/2011          | 10/07/2011        | IP 71124.01         | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 10/03/2011          | 10/07/2011        | IP 71124.04         | Occupational Dose Assessment  |                      |
| 1, 2        | 10/03/2011          | 10/07/2011        | IP 71124.06         | Radioactive Gaseous and Liquid Effluent Treatment   |                      |
| 1, 2        | 10/03/2011          | 10/07/2011        | IP 71124.07         | Radiological Environmental Monitoring Program   |                      |
| 1, 2        | 10/03/2011          | 10/07/2011        | IP 71124.08         | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation |                      |
| 1, 2        | 10/03/2011          | 10/07/2011        | IP 71151            | Performance Indicator Verification  |                      |
|             |                     |                   | <b>PSB1-RP</b>      | <b>- PUBLIC RAD SAFETY WEEK2 -INSTRUMENTS</b>   | 1                    |
| 1, 2        | 10/10/2011          | 10/14/2011        | IP 71124.05         | Radiation Monitoring Instrumentation  |                      |
|             |                     |                   | <b>CDBI</b>         | <b>- COMPONENT DESIGN BASES INSPECTION</b>  | 8                    |
| 1, 2        | 10/24/2011          | 10/28/2011        | IP 7111121          | Component Design Bases Inspection   |                      |
| 1, 2        | 11/14/2011          | 11/18/2011        | IP 7111121          | Component Design Bases Inspection   |                      |
| 1, 2        | 11/28/2011          | 12/02/2011        | IP 7111121          | Component Design Bases Inspection   |                      |
| 1, 2        | 12/12/2011          | 12/16/2011        | IP 7111121          | Component Design Bases Inspection   |                      |
|             |                     |                   | <b>PSB1-RP</b>      | <b>- OCCUPATIONAL RP BASELINE WK1</b>   | 3                    |
| 1, 2        | 04/23/2012          | 04/27/2012        | IP 71124.01         | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 04/23/2012          | 04/27/2012        | IP 71124.02         | Occupational ALARA Planning and Controls  |                      |
| 1, 2        | 04/23/2012          | 04/27/2012        | IP 71124.03         | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1, 2        | 04/23/2012          | 04/27/2012        | IP 71124.04         | Occupational Dose Assessment  |                      |
| 1, 2        | 04/23/2012          | 04/27/2012        | IP 71124.05         | Radiation Monitoring Instrumentation  |                      |
| 1, 2        | 04/23/2012          | 04/27/2012        | IP 71151            | Performance Indicator Verification  |                      |
|             |                     |                   | <b>EB3-LR</b>       | <b>- UNIT 1 POST APPROVAL LR - PHASE 1</b>  | 1                    |
| 1           | 04/30/2012          | 04/30/2012        | IP 71003            | Post-Approval Site Inspection for License Renewal   |                      |
|             |                     |                   | <b>EB3 ISI</b>      | <b>- UNIT 1 INSERVICE INSPECTION</b>  | 1                    |
| 1           | 04/30/2012          | 05/04/2012        | IP 7111108P         | Inservice Inspection Activities - PWR   |                      |
|             |                     |                   | <b>LR</b>           | <b>- SURRY 1 LR</b>   | 2                    |
| 1           | 04/30/2012          | 05/04/2012        | IP 71003            | Post-Approval Site Inspection for License Renewal   |                      |
|             |                     |                   | <b>7111108</b>      | <b>- SUR 1 SGISI</b>  | 1                    |
| 1           | 05/07/2012          | 05/11/2012        | IP 7111108P         | Inservice Inspection Activities - PWR   |                      |
|             |                     |                   | <b>PSB1-RP</b>      | <b>- OCCUPATIONAL RP BASELINE WK2</b>   | 3                    |
| 1, 2        | 05/14/2012          | 05/18/2012        | IP 71124.01         | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 05/14/2012          | 05/18/2012        | IP 71124.02         | Occupational ALARA Planning and Controls  |                      |
| 1, 2        | 05/14/2012          | 05/18/2012        | IP 71124.03         | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1, 2        | 05/14/2012          | 05/18/2012        | IP 71124.04         | Occupational Dose Assessment  |                      |
| 1, 2        | 05/14/2012          | 05/18/2012        | IP 71124.05         | Radiation Monitoring Instrumentation  |                      |

This report does not include INPO and OUTAGE activities.

This report shows only on-site and announced inspection procedures.

| Unit Number | Planned Dates Start | Planned Dates End | Inspection Activity            | Title  | No. of Staff on Site |
|-------------|---------------------|-------------------|--------------------------------|--|----------------------|
| 1, 2        | 05/14/2012          | 05/18/2012        | <b>PSB1-RP</b><br>IP 71151     | <b>- OCCUPATIONAL RP BASELINE WK2</b><br>Performance Indicator Verification  | 3                    |
| 1, 2        | 07/09/2012          | 07/13/2012        | <b>PSB1EP</b><br>IP 7111402    | <b>- EMERGENCY PREPAREDNESS INSPECTION</b><br>Alert and Notification System Testing                                  | 1                    |
| 1, 2        | 07/09/2012          | 07/13/2012        | IP 7111403                     | Emergency Preparedness Organization Staffing and Augmentation System   |                      |
| 1, 2        | 07/09/2012          | 07/13/2012        | IP 7111404                     | Emergency Action Level and Emergency Plan Changes  |                      |
| 1, 2        | 07/09/2012          | 07/13/2012        | IP 7111405                     | Correction of Emergency Preparedness Weaknesses and Deficiencies   |                      |
| 1, 2        | 07/09/2012          | 07/13/2012        | IP 71151                       | Performance Indicator Verification   |                      |
| 1, 2        | 07/30/2012          | 08/03/2012        | <b>SUR TFPI</b><br>IP 7111105P | <b>- TRIENNIAL FIRE PROTECTION INSPECTION</b><br>Fire Protection-NFPA 805 Transition Period [Triennial]              | 9                    |
| 1, 2        | 08/13/2012          | 08/17/2012        | IP 7111105P                    | Fire Protection-NFPA 805 Transition Period [Triennial]   |                      |
| 1           | 07/23/2012          | 07/27/2012        | <b>OL EXAM</b><br>V23377       | <b>- INITIAL EXAM PREP</b><br>SURRY / AUGUST 2012 EXAM AT POWER FACILITIES   | 3                    |
| 1           | 08/13/2012          | 08/17/2012        | <b>OL EXAM</b><br>V23377       | <b>- INITIAL EXAM - WEEK 1</b><br>SURRY / AUGUST 2012 EXAM AT POWER FACILITIES                                       | 3                    |
| 1           | 08/20/2012          | 08/24/2012        | <b>OL EXAM</b><br>V23377       | <b>- INITIAL EXAM - WEEK 2</b><br>SURRY / AUGUST 2012 EXAM AT POWER FACILITIES                                       | 3                    |
| 1, 2        | 10/09/2012          | 10/12/2012        | <b>MODS</b><br>IP 7111117T     | <b>- MODIFICATIONS INSPECTION</b><br>Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications | 4                    |
| 1, 2        | 10/22/2012          | 10/26/2012        | IP 7111117T                    | Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications                                      |                      |
| 2           | 11/05/2012          | 11/09/2012        | <b>EB3 ISI</b><br>IP 7111108P  | <b>- UNIT 2 INSERVICE INSPECTION</b><br>Inservice Inspection Activities - PWR  | 1                    |
| 2           | 11/12/2012          | 11/16/2012        | <b>EB3SGISI</b><br>IP 7111108P | <b>- UNIT 2 SG INSERVICE INSPECTION</b><br>Inservice Inspection Activities - PWR                                     | 1                    |