

April 20, 2005

Mr. David A. Christian
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SUBJECT: SURRY POWER STATION, UNITS 1 AND 2 - AUDIT OF VIRGINIA ELECTRIC
AND POWER COMPANY'S MANAGEMENT OF REGULATORY
COMMITMENTS (TAC NOS. MC3325 AND MC3326)

Dear Mr. Christian:

On May 27, 2003, the Office of Nuclear Reactor Regulation Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC [Nuclear Regulatory Commission]," was published. LIC-105 provides the NRC staff and its stakeholders with a common reference for handling regulatory commitments made to the NRC by licensees for commercial nuclear reactors. The guidance is consistent with the industry guidance prepared by the Nuclear Energy Institute's (NEI's) NEI 99-04, "Guidance for Managing NRC Commitment Changes." LIC-105 specifies that once every 3 years the NRC staff will audit a licensee's commitment management program.

On July 22, 2004, the NRC staff performed an audit of Virginia Electric and Power Company's (VEPCO's) commitment management program at Surry Power Station, Units 1 and 2. The NRC staff concludes that based on the audit (1) VEPCO had implemented NRC commitments on a timely basis, and (2) VEPCO had implemented an effective program for managing NRC commitment changes. Details of the audit are set forth in the enclosed audit report.

Sincerely,

/RA/

Stephen Monarque, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-280 and 50-281

Enclosure: Audit Report

cc w/encl: See next page

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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION
REGULATORY COMMITMENTS MADE BY VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-280 AND 50-281

1.0 INTRODUCTION

On May 27, 2003, NRR Office Instruction LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC," was published. LIC-105, which is publicly available electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the Internet at the NRC web site (Accession Number ML022750041), provides the NRC staff and its stakeholders with a common reference for handling regulatory commitments made by licensees for commercial nuclear reactors to the NRC staff. The guidance is consistent with the industry guidance prepared by the Nuclear Energy Institute's (NEI's) NEI 99-04, "Guidance for Managing NRC Commitment Changes."

According to LIC-105 a "regulatory commitment" is an explicit statement to take a specific action agreed to, or volunteered by, a licensee and submitted in writing on the docket to the NRC. LIC-105 further directs the NRR Project Manager to "audit the licensee's commitment management program by assessing the adequacy of the licensee's implementation of a sample of commitments made to the NRC in past licensing actions (amendments, reliefs, exemptions, etc.) and activities (bulletins, generic letters, etc.)." The audit is to be performed every 3 years.

2.0 AUDIT PROCEDURE AND RESULTS

Since no such audit was performed before issuance of LIC-105, the NRC staff defined the period covered by this audit to go back approximately 3 years from the date of the audit. The audit was performed at Surry Power Station on July 22, 2004.

The primary focus of the audit was to confirm that Virginia Electric and Power Company (VEPCO) has implemented those commitments made to the NRC as part of past licensing actions/activities. For commitments that had not yet been implemented, the NRC staff ascertained that they had been captured in an effective program for future implementation.

2.1 Audit Scope

Before the audit, the NRC staff searched ADAMS for VEPCO's licensing action and licensing activity submittals dated in the last 3 years. These commitments are shown on Table 1.

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VEPCO's commitments are tracked by the Corrective Action System. The Corrective Action System is a computer database that is used to assign and track commitments to an effective completion. Commitments that are entered into the Corrective Action System are either tracked as a Plant Issue Resolution or on a Commitment Data form. All of VEPCO's commitments that are shown on Table 1 were tracked as a Plant Issue Resolution. During the July 22, 2004 audit, the NRC staff reviewed the Plant Issue Resolution reports, VEPCO's submittals, and other documents related to the commitments.

LIC-105 limits the audit of commitments to those made in writing to the NRC as a result of past licensing actions (amendments, exemptions, etc.) or licensing activities (bulletins, generic letters, etc.). Accordingly, the audit excluded the following types of commitments:

- (1) Commitments as a result of Licensee Event Reports (LERs) - These commitments are controlled by VEPCO's LER process, which is imposed by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.73.
- (2) Commitments made on VEPCO's own initiative among internal organizational components and not reported to the NRC staff.
- (3) Commitments integrated into the Updated Final Safety Analysis Reports, Quality Assurance Program, Site Security Plan, Emergency Plan, or other documents governed by a change control mechanism contained in regulations such as 10 CFR 50.59 or 50.54.

2.2 Audit Results

The NRC staff reviewed reports generated by the Corrective Action System for the commitments listed in Table 1 in order to evaluate the status of completion. The NRC staff found that VEPCO's commitment tracking program had captured all of the pending regulatory commitments that were identified by the NRC staff. The NRC staff also reviewed Plant Issue Resolutions that had been revised as a result of commitments made by VEPCO to NRC. These procedures are identified in the right-hand column of Table 1.

2.3 Verification of VEPCO's Program for Managing NRC Commitment Changes

The NRC staff reviewed VEPCO's procedure entitled "Commitment Management," VPAP-2801, Revision 3, against NEI 99-04. Attachments 3 and 4 of VPAP-2801, Revision 3 provide details on the commitment management process that closely follow the guidance of NEI-99-04. In general, VPAP-2801, Revision 3 follows the guidance of NEI-99-04; it sets forth the need for identifying, tracking, and reporting commitments, and it provides a mechanism for changing commitments.

The NRC staff found that VEPCO had properly addressed each regulatory commitment selected for this audit. As a result of reviewing VEPCO's information, as well as information from other sources, the NRC staff found no reason to differ from VEPCO's reported status of the audited commitments. Thus, the NRC staff concludes that the procedure used by VEPCO to manage commitments is appropriate and effective.

3.0 CONCLUSION

The NRC staff concludes that based on the above audit: (1) VEPCO had implemented, or is tracking for future implementation, regulatory commitments; and (2) VEPCO had implemented an effective program to manage regulatory commitment changes.

4.0 VEPCO PERSONNEL CONTACTED FOR THIS AUDIT

B. Garber
P. Kershner

Principal Contributor: S. Monarque

Date: April 20, 2005

TABLE 1 - LISTING OF REGULATORY COMMITMENTS FOR SURRY

VEPCO'S Submittal	TAC NO.	VEPCO Issuance	Summary of Commitment	Implementation Status
April 22, 2004 Ser 03-373C	MB9861 and MB9862	Response to Generic Letter 2003-01- "Control Room Habitability Control Room Testing and Technical Information Submittal" - for Surry, Units 1 and 2.	This letter provided the following commitment. "Submit an amendment request to incorporate a control room habitability program into the Technical Specifications within six months following either the approval of TSTF-448 or TSTF-448 being made available for adoption in the Consolidated Line Item Improvement Process (CLIP) by the NRC, whichever is later."	Pending. The NRC staff has not issued TSTF-448. Plant Issue Resolutions S-2004-1673-R1 and R2 are tracking this action item.
January 5, 2004 Ser 02-689A	MB4583 and MB4584	Response to Bulletin 2002-01, "Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity" for Surry, Units 1 and 2.	This letter provided the following commitments. (1) The Surry RCS resistance temperature detector (RTD) Alloy 600 thermowells will be incorporated into the boric acid corrosion control program. (2) Bare metal visual inspections of the reactor coolant system RTD Alloy 600 thermowells will be performed during future refueling outages at Surry.	Pending Plant Issue Resolution S-2003-5130-R4 The Surry procedures need to be revised to include these commitment actions. Personnel at Surry Power Station are requesting an extension of the commitment date.

VEPCO'S Submittal	TAC NO.	VEPCO Issuance	Summary of Commitment	Implementation Status
Sep. 22, 2003 Ser 03-459	MC0569 and MC0570	Response to Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower head penetrations and Reactor Coolant Pressure Boundary Integrity" for Surry, Units 1 and 2	This letter provided the following commitments. (1) A bare-metal visual examination of the 50 bottom mounted instrumentation penetration nozzles will be performed during the Surry, Unit 2 fall 2003 refueling outage as described in Attachment 1. (2) A bare-metal visual examination of the 50 bottom mounted instrumentation penetration nozzles will be performed during the Surry, Unit 1 fall 2004 refueling outage as described in Attachment 2. (3) A bare-metal visual examination of the 50 bottom mounted instrumentation penetration nozzles will be performed during subsequent refueling outages for Surry, Units 1 and 2. This schedule may be adjusted in the future should ongoing research and inspection results justify a less frequent performance based sample inspection schedule.	Plant Issue Resolution S-2003-4245-R1 is complete as it addressed the Surry, Unit 2 inspection during the fall 2003 refueling outage. Plant Issue Resolution S-2003-4245-R2 is complete, as the Surry, Unit 1 reactor vessel lower head penetration exam was done during the fall 2004 refueling outage. Plant Issue Resolutions S-2003-4245-R3 and R4 are pending as they address the inspection at Surry Units 1 and 2 during subsequent outages, beyond the fall 2003 and fall 2004 outages. Surry procedures need to be revised. Plant Issue Resolution S-2003-4245-R6 has been completed. 60-day response to Bulletin 2003-02 was submitted for Surry, Unit 2.
Nov. 14, 2001 Ser 01-490B	MB2667 and MB2668	Response to Bulletin 2001-01, "Circumferential Cracking of Reactor Vessel Head Penetrations," for Surry, Units 1 and 2	This letter provided the following commitment. Commence a qualified bare-metal visual inspection of the reactor vessel head penetrations for Surry, Unit 2 prior to December 31, 2001.	Plant Issue Resolution S-2001-2536-R14 has been completed. The inspections did not identify any penetrations that required additional inspection. Plant Issue Resolution S-2001-2536-R20 states that VEPCO will provide the results of the above inspection to the NRC staff. This was completed on January 2, 2002.

VEPCO'S Submittal	TAC NO.	VEPCO Issuance	Summary of Commitment	Implementation Status
August 31, 2001 Ser 01-490	MB2667 and MB2668	Response to Bulletin 2001-01, "Circumferential Cracking of Reactor Vessel Head Penetrations," for Surry, Units 1 and 2	<p>This letter provided the following commitments. (1) It is our intention to perform an effective visual inspection of the reactor vessel heads under the insulation for Surry, Unit 1 to inspect for signs of leakage around each of the control rod drive housings and the reactor head vent where they penetrate the head during the fall 2001 refueling outages. (2) It is our intention to perform additional inspections from under the head of North Anna, Unit 1 or Surry, Unit 1 with an eddy current procedure capable of detecting small surface connected flaws on the inner diameter of the housings, on the outer diameter of the housings below the inside surface of the head, and on the J-groove attachment welds. The inspections are contingent upon the availability and acceptable performance of the necessary equipment and personnel to accomplish the inspections. (3) The NRC staff will be contacted prior to the evaluation or repair of any identified circumferential flaws. (4) It is our intention to perform an effective visual inspection of the reactor vessel heads under the insulation for Surry, Unit 2 during the spring 2002 refueling outage.</p>	<p>Plant Issue Resolution S-2001-2536-R1 has been completed for commitment (1). Plant Issue Resolution S-2001-2536-R3 has been completed for commitment (2). Ultrasonic inspections and liquid penetrant testing was performed instead of eddy current testing since these tests are more able to locate cracks. Plant Issue Resolutions S-2001-2536-R9 and S-2001-2536-R10 have been completed for commitment (3). Circumferential and axial indications were identified and six penetrations were repaired on Surry, Unit 1. Plant Issue Resolutions S-2001-2536-R16 and S-2001-2536-R17 have been completed for commitment (3) for Surry, Unit 2. No circumferential flaws were found. Plant Issue Resolution S-2001-2536-R5 has been completed for commitment (4). The Surry, Unit 2 inspection was completed in November 2001.</p>

VEPCO'S Submittal	TAC NO.	VEPCO Issuance	Summary of Commitment	Implementation Status
August 31, 2001 Ser 01-490	MB2667 and MB2668	Response to Bulletin 2001-01, "Circumferential Cracking of Reactor Vessel Head Penetrations," for Surry, Units 1 and 2	<p>(5) If any of the visual inspections discover evidence of leakage at the junction of the CRDM housings or head vent and the vessel head, it is our intention to perform supplemental inspections from under the vessel head using eddy current and ultrasonic inspection procedures, as appropriate, to locate the source of the leakage and to characterize any flaws. It is our intention to perform eddy current and/or ultrasonic inspection procedures, as appropriate, of an additional number of housings based on statistical determination of a relevant sample size. The inspections are contingent upon the availability and acceptable performance of the necessary equipment and personnel to accomplish the inspections. (6) Any axial indications discovered and sized by the combination of eddy current and ultrasonic inspection will be evaluated in accordance with requirements consistent with ASME Section XI and as delineated in the ASME paper entitled, "Inspection and Evaluation of the Reactor Vessel Head Penetrations at DC Cook, Unit 2," by WH Bamford, et al., 1994. (7) We anticipate that the statistical analysis for determining appropriate scope and schedule for future inspection activities for Surry, Unit 2 will be completed and communicated to the NRC by mid-November of this year, along with the inspection results from under the head inspections of North Anna, Unit 1 or Surry, Unit 1.</p>	<p>Plant Issue Resolution S-2001-2536-R12 has been completed for commitment (5). The inspection of the Surry, Unit 2 reactor head was clean. Additionally, Plant Issue Resolution S-2001-2536-R12 has been completed for commitment (5). The inspections of the Surry, Unit 1 reactor vessel head identified potential leaking penetrations. Ultrasonic testing and liquid penetrant testing were performed instead of eddy current inspection since they are more able to locate cracks in the tube or J-groove weld. A total of 16 penetrations were inspected with ultrasonic testing and /or liquid penetrant testing and there were six penetrations that required repairs.</p> <p>Plant Issue Resolutions S-2001-2536-R2 and R13 have been completed for commitment (6) for Surry, Units 1 and 2. There were no axial indications discovered at either site. For commitment (7), Plant Issue Resolutions S-2001-2536-R11 and R6 were completed at Surry, Units 1 and 2. The licensee determined that statistical analysis was not needed to delay the schedule of the reactor vessel head inspections. These heads were inspected in 2001.</p>

VEPCO'S Submittal	TAC NO.	VEPCO Issuance	Summary of Commitment	Implementation Status
May 21, 2003 Ser 03-350	N/A	Annual Report and 30-Day Report of Emergency Core Cooling System Evaluation Model Changes for Surry Power Station, Units 1 and 2	This letter provided a commitment to complete the re-analysis of the large-break loss-of-coolant accident for Surry Power Station by March 31, 2006.	Plant Issue Resolution S-2003-2304-R1 is not expected to be completed until March 31, 2006.

<p>May 14, 2002 Ser 02-306</p>	<p>MB5114 and MB5115</p>	<p>Proposed Technical Specification Change on Containment Spray and Recirculation Spray Nozzles Surveillance Frequency for Surry Power Station, Units 1 and 2</p>	<p>This letter provided a commitment to modify the Post Maintenance Testing (PMT) program to address the need for a specific evaluation to determine if a spray nozzle inspection or test is necessary to ensure the nozzles remain unobstructed after maintenance on the spray ring headers and other appropriate portions of the systems.</p>	<p>Plant Issue Resolution S-2002-1729-R1 has been completed. The licensee made several procedural changes to revise the frequency to require testing to be performed following maintenance that could cause nozzle blockage. Plant Issue Resolution S-2002-1729-R2 has been completed. Training class was conducted. Plant Issue Resolution S-2002-1729-R3 has been completed. On January 8, 2003, the PMT Program was revised to address this license amendment. Plant Issue Resolution S-2002-1729-R4 has been completed. The spray nozzle periodic tests have been removed from the periodic test scheduling system as the PMT program will determine when the periodic tests are performed. Plant Issue Resolution S-2002-1729-R5 has been completed. The Updated Final Safety Analysis Report, Rev. 34 incorporated this amendment.</p>
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VEPCO'S Submittal	TAC NO.	VEPCO Issuance	Summary of Commitment	Implementation Status
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<p>April 16, 2003 Ser 03-150</p>	<p>MB6291 and MB6292</p>	<p>Proposed Technical Specifications Change Buried Fuel Oil Storage Tank Inspection and Related Repair Request for Additional Information for Surry Power Station, Units 1 and 2</p>	<p>This letter provided the following commitments. (1) The licensee will ensure that provisions to obtain fuel from Gravel Neck using the station tanker truck are verified prior to a buried fuel oil tank being removed from service. (2) In addition to the actions required by the proposed TS regarding fuel oil availability, the licensee's planning and scheduling activities to remove a buried fuel oil tank from service will specifically identify restrictions / contingency measures. (3) Transfer pump operability will be verified prior to removing a buried fuel oil storage tank from service.</p>	<p>Plant Issue Resolution S-2002-2814-R1 was completed for commitment 1. Procedures were developed to remove from service and return to service the underground fuel oil tanks. Plant Issue Resolution S-2002-2814-R2 was completed for commitment 2. Procedures were developed to support the cleaning and inspection of the fuel oil tanks. Plant Issue Resolution S-2002-2814-R2 was completed for these commitments. The provisions for Emergency Diesel Generator Fuel Oil Storage Repair was incorporated into the Updated Final Safety Analysis Report. Plant Issue Resolution S-2002-2814-R9 was completed for these commitments. The licensee has revised its procedure for obtaining fuel oil from Gravel Neck, if needed. The licensee closed this Plant Issue Resolution because this issue was tracked by Plant Issue Resolution S-2002-2814-R2. Plant Issue Resolution S-2002-2814-R8 was completed for these commitments. Several procedures were reviewed and were found to be adequate to address fuel oil quality based on tank cleaning.</p>
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VEPCO'S Submittal	TAC NO.	VEPCO Issuance	Summary of Commitment	Implementation Status
June 9, 2003 Ser 03-150A	MB6291 and MB6292	Proposed Technical Specifications Change Buried Fuel Oil Storage Tank Inspection and Related Repair Request for Additional Information for Surry Power Station, Units 1 and 2	This letter provided the following commitments. (1) The implementing procedures for buried fuel oil tank inspection activities will specify that arrival of the first tanker truck will be within 12 hours following identification of the need for the offsite replacement fuel oil. (2) The implementing procedures for buried fuel oil tank inspection activities will specify that the out of service tank will be returned to an available status in an expeditious manner, if a hurricane or severe thunderstorm / tornado condition is impending or in the event that emergency diesel generator operation is required while a buried tank is out of service.	Plant Issue Resolution S-2002-2814-R3 was completed for these commitments. The licensee determined the specific procedures to needed to obtain oil from offsite location. Plant Issue Resolution S-2002-2814-R4 was completed for these commitments. Operators were trained by September 5, 2003. Plant Issue Resolution S-2002-2814-R5 was completed for these commitments. Plant Issue Resolution S-2002-2814-R4 tracked the employee training. Plant Issue Resolution S-2002-2814-R6 was completed for these commitments.

Surry Power Station, Units 1 & 2

cc:

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