

February 27, 2009

Mr. Jeffery B. Archie
Vice President, Nuclear Operations
South Carolina Electric & Gas Company
Virgil C. Summer Nuclear Station
Post Office Box 88
Jenkinsville, SC 29065

SUBJECT VIRGIL C. SUMMER NUCLEAR STATION - AUDIT OF THE LICENSEE'S
MANAGEMENT OF REGULATORY COMMITMENTS (TAC NO. ME0386)

Dear Mr. Archie:

In Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000, the U. S. Nuclear Regulatory Commission (NRC) informed licensees that the Nuclear Energy Institute (NEI) guidance document NEI 99-04, "Guidelines for Managing NRC Commitment Changes," contains acceptable guidance for controlling regulatory commitments and encouraged licensees to use the NEI guidance or similar administrative controls to ensure that regulatory commitments are implemented and that changes to the regulatory commitments are evaluated and, when appropriate, reported to the NRC.

The NRC Office of Nuclear Reactor Regulation has instructed its staff to perform an audit of licensees' commitment management programs once every 3 years to determine whether the licensees' programs are consistent with the industry guidance in NEI 99-04 and that the regulatory commitments are being effectively implemented.

An audit of Virgil C. Summer Nuclear Station's (VCNS) commitment management program was performed by Ms. Donna Wright of the NRC staff, at the plant site on January 28 and 29, 2009. The NRC staff concludes, based on the audit, that (1) VCNS has implemented NRC commitments on a timely basis, and (2) VCNS has implemented an effective program for managing NRC commitment changes. Details of the audit are set forth in the enclosed audit report.

J. Archie

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The NRC staff appreciates the resources that were made available by your staff, both before and during the audit. If there are any questions, please contact Donna Wright at (301) 415-3079.

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosure: Audit Report

cc w/encl: Distribution via Listserv

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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION

LICENSEE MANAGEMENT OF REGULATORY COMMITMENTS

VIRGIL C. SUMMER NUCLEAR STATION

DOCKET NO. 50-395

1.0 INTRODUCTION AND BACKGROUND

In Regulatory Issue Summary 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000, the U. S. Nuclear Regulatory Commission (NRC) informed licensees that the Nuclear Energy Institute (NEI) guidance document NEI 99-04, "Guidelines for Managing NRC Commitment Changes," contains acceptable guidance for controlling regulatory commitments and encouraged licensees to use the NEI guidance or similar administrative controls to ensure that regulatory commitments are implemented and that changes to the regulatory commitments are evaluated and, when appropriate, reported to the NRC.

The NRC Office of Nuclear Reactor Regulation (NRR) has instructed its staff to perform an audit of licensees' commitment management programs once every 3 years to determine whether the licensees' programs are consistent with the industry guidance in NEI 99-04, and that the regulatory commitments are being effectively implemented.

NEI 99-04 defines a "regulatory commitment" as 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. NRR guidelines direct 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

An on-site audit of Virgil C. Summer Nuclear Station's (VCNS) commitment management program was performed at the plant site on January 28 and 29, 2009. The audit reviewed commitments made since the previous audit on September 27 and 28, 2004. The audit consisted of two major parts: (1) verification of the licensee's implementation of NRC commitments that have been completed and (2) verification of the licensee's program for managing changes to NRC commitments.

2.1 Verification of Licensee's Implementation of NRC Commitments

The primary focus of this part of the audit is to confirm that the licensee has implemented commitments made to the NRC as part of past licensing actions/activities. For commitments not yet implemented, the NRC staff determines whether they have been captured in an effective program for future implementation.

Enclosure

2.1.1 Audit Scope

The audit addressed a sample of commitments made during the review period. The audit focused on regulatory commitments (as defined above) made in writing to the NRC as a result of past licensing actions (amendments, exemptions, etc.) or licensing activities (bulletins, generic letters, etc.). Commitments made in Licensee Event Reports or in response to Notices of Violation may be included in the sample, but the review will be limited to verification of restoration of compliance, not the specific methods used. Before the audit, the NRC staff requested VCNS to provide a list of all known regulatory commitments. The NRC staff also searched the Agencywide Documents Access and Management System for the licensee's submittals since the last audit and selected a representative sample for verification.

The audit excluded the following types of commitments that are internal to licensee processes:

- (1) Commitments made on the licensee's own initiative among internal organizational components.
- (2) Commitments that pertain to milestones of licensing actions/activities (e.g., respond to an NRC request for additional information by a certain date). Fulfillment of these commitments was indicated by the fact that the subject licensing action/activity was completed.
- (3) Commitments made as an internal reminder to take actions to comply with existing regulatory requirements such as regulations, Technical Specifications (TSs), and Updated Final Safety Analysis Reports. Fulfillment of these commitments was indicated by the licensee having taken timely action in accordance with the subject requirements.

2.1.2 Audit Results

The licensee has implemented Nuclear Licensing Procedure, NL-102, "Processing Regulatory and Industry Documents," Station Administrative Procedure, SAP-999, "Corrective Action Program," and Station Administrative Procedure SAP-0630 "Procedure/Commitment Accountability Program," which contribute to managing regulatory commitments.

The Computerized Maintenance Management System database is used in conjunction with other information sources to address and track regulatory commitments. The licensee enters the regulatory commitments made to the NRC under a Condition Report (CR) into the database. The applicable regulatory commitments are labeled as NRC commitments and briefly described. The commitments selected for this audit were traceable in the database. The status of the commitments, implementation dates, documents that capture the commitment (i.e., plant procedures, examination or training records), document information associated with each specific commitment, and comments are captured in the database. SAP-0630 was used to identify the specific commitment within the procedure, making it easily traceable within the implementation procedure.

The NRC staff's audit of the licensee's commitment management program for VCNS did not identify any regulatory commitments that were not satisfied or incorporated. Based on the results of the audit, the NRC staff concludes that the licensee has implemented the regulatory

commitments management program effectively in accordance with LIC-105, "Managing Regulatory Commitments Made by Licensees to the NRC," and consistent with NEI 99-04.

The attached Audit Summary Table provides further details of the sample audit and its results.

2.2 Verification of the Licensee's Program for Managing NRC Commitment Changes

The primary focus of this part of the audit is to verify that the licensee has established administrative controls for modifying or deleting commitments made to the NRC. The NRC staff compared the licensee's process for controlling regulatory commitments to the guidelines in NEI 99-04, which the NRC has found to be an acceptable guide for licensees to follow for managing and changing commitments. The process used at VCNS is contained in procedure Nuclear Licensing, NL-121, "Regulatory Commitment Reduction, Revision 5." The audit reviewed a sample of commitment changes that included changes that were or will be reported to the NRC, and changes that were not or will not be reported to the NRC.

2.2.1 Audit Results

The NRC staff reviewed the licensee's procedure NL-121 against NEI 99-04. In general, the NRC staff found that NL-121 follows closely 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 which includes notifying the NRC. NL-121 also explicitly states that NEI 99-04 should be referred to during preparation and review of commitment change request packages.

2.3 Observations and Recommendations

The NRC staff noted in the exit meeting that although the licensee has an established procedure, consistent with NEI 99-04, for changing, reducing or eliminating commitments, the procedure was not used in one of the sample commitments audited (CR-05-03666). The change did not meet the threshold for prior NRC approval; however, the licensee could not provide documentation of the commitment change decision process. The licensee opened CR-09-00400 to address this concern.

The NRC staff has made several observations during the audit and believes that the licensee may want to consider conducting an internal audit of the NRC regulatory commitments and establish a frequency of future internal audits based on the results. It is believed that it may enhance the commitment program as follows:

- given that there is not a dedicated database to NRC regulatory commitments, help compile a repository of NRC regulatory commitments
- would address the seemingly burdensome tasks of searching the entire CR database for NRC regulatory commitments once every 3 years to support the NRC audit
- ensure CR actions are appropriately flagged for "NRC regulatory commitments" if applicable
- help resolve issues (if any) related to new software used to track the CRs
- help filter commitment change process issues

3.0 CONCLUSION

Based on the results of the audit, the NRC staff concludes that VCNS has implemented the regulatory commitments management program effectively, and implemented regulatory commitment changes appropriately in accordance with LIC-105 and consistent with NEI 99-04.

4.0 LICENSEE PERSONNEL CONTACTED FOR THIS AUDIT

Arnie Cribb**
Joel Ferris
Leo Kachnik
Chuck McKinney**
Donna Railey*
Bruce Thompson**
Shaun Zarandi**

*Attended entrance meeting

**Attended entrance and exit meeting

Principal Contributor: Donna Wright

Attachment: Summary of Audit Results

**VCNS Regulatory Commitment Management Audit
October 2004 – December 2008**

Regulatory Issue/ Description	CR#	RC #	Licensee Ltr Date	Commitment (as summarized)	Status	Audit Results
License Condition 2.C(5) - SW Pond surveillance not performed.	06-04268	06-0216	12/13/06	Action 4: Surveillance tasking to be revised to prevent extension.	Closed 4/9/07	No deficiencies identified. Commitments implemented in a timely manner.
				Action 8: Complete surveillance.	Closed 4/9/07	
GL 1996-06 - RAI Concerning Waterhammer and Two-Phase Flow	02-03455	05-0204 07-0143 07-0184	12/12/05 10/25/07 12/21/07	Action 7: Implement ECR 50567 during RF16. Outage later modified to RF17.	Closed 6/3/08	No deficiencies identified. Change from RFO 16 to 17 documented to NRC. Bases change and FSAR revision notice approved in a timely manner. All applicable procedures revised to implement commitments in a timely manner.
				Action 12: TS Bases will be changed to reflect mitigation of water hammer.	Closed 9/11/08	
				Action 13: Revise FSAR	Closed 9/11/08	
				Action 15: IST of ASME Code valve procedure revisions. STP-223.002A on 5/9/08	Closed 5/09/08	
				Action 16: Revise STPs to satisfy TS 4.8.1.1.2.g.4. STPs 125.017 & 18.	Closed 5/2008	
				Action 17: Revise STPs to satisfy TS 4.6.2.3.4. STPs 125.010 & 11.	Closed 5/10/08	
				Action 18: EOP upgrade to address SWBP placed in pull-to-lock. EOP-1.0,6.0,6.1,6.2 & 17.0	Closed 6/03/08	
				Action 19: SOP-117, Service Water System, to be revised to provide a means of recovery and train restoration after failure of 3107A(B) to close on demand.	Closed 5/11/08	
GL 2006-01 - SG Tube Integrity and assoc. TS.	06-00382 05-03594	06-0038 06-0084	2/17/06 5/24/06	Submit LAR to modify the SG portion of TS to be consistent with TSTF-449. (Ref. TS Amendment 179)	Closed 5/24/06	No deficiencies identified. Commitment implemented in a timely manner.
GL 2006-02 - Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power	06-00465	06-0066 07-0016	4/03/06 1/31/07	Action 7: Revise OAP 100.4 for notification of TSO	Closed 5/03/06	No deficiencies identified. Commitments implemented in applicable procedures in a timely manner. Training records validate commitment.
				Action 8: Revise SAP-116 for management oversight prior to plant restart.	Closed 5/17/06	
				Action 9: Revise EE-01 for communication between Engineering and TSO on proposed design changes.	Closed 8/31/06	
				Action 10: Operations to develop AOP-301.1, Response to Grid Issues.	Closed 5/04/06	
				Action 11 & 12: Training on AOP-301.1, Response to Grid Issues. Initial training comp. on 4/6/06.	Closed 3/02/07	
				Action 13: Training on Interface Agreement with maintenance and P&S.	Closed 4/26/06	

**VCNS Regulatory Commitment Management Audit
October 2004 – December 2008**

LAR 05-2926 (TS AMD 177) - Implementation of WCAP-14333-P-A, Rev. 1, PRA of the RPS and ESFAS Test Times and Completion Times	05-02926	05-0143 06-0087 06-0173	11/15/05	Action 10: Scheduling restrictions (OAP 102.1) when a logic cabinet is inoperable for maintenance.	Closed 12/04/06	No deficiencies identified. Commitments implemented in applicable procedures. Confirmed with PRA staff that fault tree & PRA model was revised appropriately.
			5/31/06	Action 9: Develop procedure (STP-550.002) to monitor affected components of LAR.	Closed 12/22/06	
			9/29/06	Action 6: PRA fault tree gate to be changed from an "and" gate to an "or" gate.	Closed 11/09/06	
				Action 7: Update PRA and EIOS	Closed 12/18/06	
				Action 11: ECCS Train availability during maintenance (OAP 102.1).	Closed 12/04/06	
				Action 12: Scheduling of activities with potential impact to master or slave relays (OAP 102.1)	Closed 12/04/06	
				Action 13: Scheduling of activities when a logic cabinet is inoperable for maintenance (OAP 102.1).	Closed 12/04/06	
LAR 05-03666 (TS Amendment 178) - RAI questions on Alternate AC Line	05-03666	06-0160	8/31/06	Action 8: AAC conductor temperature limits.	Closed 9/21/06	Observation: Commitment change procedure not used to document change. Licensee opened CR-09-00400 to address concern. Commitment implemented in a timely manner.
				Action 11 & 12: TS approval mandated commitments for testing, reverse power relay, computer monitoring, Design, and conductor performance.	Closed 12/13/06	No deficiencies identified. Procedure created to implement commitment and all other actions completed or implemented in a timely manner.
Request to Use Alternatives - ASME Code Case N-740 (RR-III-05)	07-00439	07-0085	6/1/07	<p>Action 14: Information submitted to NRC prior to entry into Mode 4 start-up from 17th RFO:</p> <ul style="list-style-type: none"> • Action 1: Weld overlay examination results • Disposition of indications using IWB-3514-2 and/or IWB-3514-3 criteria and, if possible, the type and nature of the indications. • A discussion of any repairs to the weld overlay material and/or base metal and the reason for the repairs. • A stress analysis summary 	Closed 5/22/08	No deficiencies identified. Commitments implemented in a timely manner.

**VCNS Regulatory Commitment Management Audit
October 2004 – December 2008**

Application to Use Weighting Factors for External Exposure	08-01017	08-0006	2/19/08	<p>Action 1: Monitor the part of the whole body within each compartment (and/or combined compartment) that receives the highest dose. Revise HPP-041 1, consistent with NRC IP 71121.01.</p> <p>Action 2: Revise HPP-0517 such that the EDE (when used) will be reported in place of the DDE, as discussed in NRC Regulatory Issue Summary 2004-01</p> <p>Action 3: Account for dose consistent with the guidance of the standard in applicable Health Physics procedures, as follows: The DDE for each compartment will be determined from dosimeters worn at that location. When no dosimeter is worn at a particular compartment, DDE will be determined from the dosimeter positioned where the exposure is judged to be similar. The assigned EDE will be the sum of each DDE measurement multiplied by its appropriate compartment factor. If an eye dosimeter is not used, the assigned lens dose equivalent (LDE) will be the higher of the head or chest dosimeters. The assigned shallow dose equivalent (SDE) will be the highest of any whole body dosimeter.</p>	Closed	No deficiencies identified. Commitments implemented and procedures revised in a timely manner.
Supplied-air containment suits with Assigned Protection Factor (APF) of 5000	08-02080	08-0019	2/19/08	<p>Action 1: The manufacturer's instructions for use and storage of the Delta Protection Mururoa V4F1 and V4 MTH2 suits will be integrated into VCSNS1 respiratory program with the minor clarification that the suits will be inspected and removed from their protective packaging outside of the plant's radiological controlled area in a way that maintains the integrity of the suit, but does not lead to the unnecessary generation of solid radioactive waste.</p> <p>Action 2: Lesson plans will be developed and used to train workers and radiation protection technicians on the Delta Protection Mururoa V4F1 and V4 MTH2 suits features, donning, use and removal, and use of mouth strip and tear off strips for routine and emergency egress.</p> <p>Action 3: VCSNS radiation protection personnel will be provided additional training for selection, approval, issue, equipment set-up, operation and maintenance instructions for the Delta Protection Mururoa V4F1 and V4 MTH2 suits.</p>	Open,	<p>Due date is 5/2009.</p> <p>Observation: Commitments captured and described accurately in database but not flagged as "NRC commitment."</p> <p>"Flagging" discussion initiated by VCNS staff; noted additional training/awareness to VCNS staff that input CR info.</p>

**VCNS Regulatory Commitment Management Audit
October 2004 – December 2008**

				<p>Action 4: The Delta Protection Mururoa V4F1 and V4 MTH2 suits will be discarded after a single use and will not be used in atmospheres that are immediately dangerous to life and health (IDLH).</p> <p>Action 5: Any defects discovered will be entered into the VCSNS Corrective Action Program and reported to the manufacturer, as necessary. Industry notifications, when required, will be made through the Operating Experience Program</p>		
GL 08-01: 9-Month Response	08-00162	08-0129	10/13/08	<p>Action 30: Piping Design Specifications (DSP544EA, DSP-544AA, DSP-544DA, DSP-544EC and DSP-544J) for the RH, CS, SI and SP Systems will be revised to include as a new loading condition the water hammer loads resulting from possible gas voids during system startup.</p>	Closed 10/23/08	No deficiencies identified. Piping design specs revised appropriately and in a timely manner.
				<p>Action 28: ES-427 will be revised to add a program design change review checklist to address the issues of potential gas intrusion in the RH, CS, SI and SP Systems.</p>	Closed 10/31/08	No deficiencies identified. Commitment implemented & procedure revised in a timely manner.
				<p>Action 35: Develop a Station Administrative Procedure to provide the administrative controls for a Gas Accumulation Management Program.</p>	Open	No deficiencies identified. Commitment effectively captured and flagged in database. Due date 8/2009
				<p>Action 37: Perform an evaluation to determine if there is a better method of limiting gas intrusion due to quarterly stroke testing of the RH System sump isolation valves</p>	Open	No deficiencies identified. Commitment effectively captured and flagged in database. Due date 7/2009