

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

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October 8, 2010

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2 - AUDIT OF

EXELON GENERATION COMPANY, LLC'S (EGC), MANAGEMENT OF REGULATORY COMMITMENTS (TAC NOS. ME4232 AND ME4233)

Dear Mr. Pacilio:

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) 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, 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 regulatory commitments are being effectively implemented.

An audit of the Quad Cities Nuclear Power Station, Units 1 and 2, commitment management program was performed at the plant site during the period of August 16 - 17, 2010. The NRC staff concludes, based on the audit, EGC had implemented NRC commitments on a timely basis.

Sincerely,

Christopher Gratton, Senior Project Manager

Plant Licensing Branch III-2

Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket Nos. 50-254 and 50-265

Enclosure: Audit Report

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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION LICENSEE MANAGEMENT OF REGULATORY COMMITMENTS QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

DOCKET NOS. 50-254 AND 50-265

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) 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, 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 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 audit of the Quad Cities Nuclear Power Station, Units 1 and 2 (QCNPS), commitment management program was performed at the plant site during the period of August 16 -17, 2010. The audit reviewed commitments made since the last audit conducted in June 2007. The audit consisted of two 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.

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.). Before the audit, the NRC staff searched Agencywide Documents Access and Management System for the licensee's submittals since the last audit and selected a representative sample for verification. The staff also coordinated with the licensee representative to get a listing of regulatory commitments.

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 attached Audit Summary provides details of the audit and its results.

The NRC staff reviewed documents generated by the licensee supporting the closure of commitments listed in Table 1. After identification, most commitments were managed within the electronic database "Passport," an element of the corrective action process. The NRC staff found that Exelon Generation Company, LLC (EGC), was able to identify the regulatory commitments contained within the licensing actions selected for this audit and provide documentation of the status of the commitment implementation.

The NRC staff also sampled documents generated between 2007 and 2010 to determine whether regulatory commitments generated in those documents were included in the regulatory commitment management process. The staff selected the documents listed in Table 2 for review, and found that the commitments were being managed consistent with the licensee's program.

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 staff focused on changes to the program that became effective after the last commitment management audit in 2007.

2.2.1 Audit Results

The process used at QCNPS to manage commitments is contained in procedure LS-AA-110, Revision 7, "Commitment Management." The staff reviewed the licensee's procedure against the guidance contained in NEI 99-04, "Guidance for Managing NRC Commitment Changes," focusing on changes to the program implemented after the NRC staff's 2007 program audit. In general, the NRC staff found that LS-AA-110 follows closely with the guidance in NEI 99-04, and that the procedure is comprehensive and generally effective.

However, the NRC staff observed an inconsistency in the procedure for reporting regulatory commitment changes to the NRC by the licensee. LS-AA-110, Section 4.7, "NRC Notification of Commitments Changes/Deletions," was compared with the guidance in NEI 99-04 for regulatory commitments that are relied upon by the NRC staff as part of an action of regulatory interest. In this instance, a regulatory commitment was deemed appropriate in lieu of other regulatory actions, such as an Order or license condition. Guidance on changes to these regulatory commitments states that if the original commitment has yet to be implemented, the licensee may proceed with the change, but the NRC staff should be notified of the change "as soon as practicable after the change is approved by licensee management, but before any committed completion date." The licensee's procedure includes a flowchart prompting "Timely Notification of Intended Change to NRC," however, the associated procedural steps do not define the "timely notification" aspects of this action. Rather, the step prompts the licensee to submit the information in an annual report to the NRC. If the revised commitment had an implementation date before the annual report is due, the licensee could implement the revised regulatory commitment before the NRC was notified, which would be inconsistent with NEI 99-04 guidance. The licensee was informed of this inconsistency. The NRC staff reviewed regulatory commitment changes that have taken place since 2007, but did not identify any changes to commitments that were relied upon by the NRC staff and implemented before the NRC staff was notified.

The NRC staff also reviewed actions the licensee took as a result of the 2007 commitment management audit to address observations from that audit. The licensee revised LS-AA-110-1001, "Commitment Tracking Program T&RM," to include a separate Passport code for non-regulatory commitments. This change addressed the finding that Passport did not differentiate between regulatory and non-regulatory commitments. In addition, while the licensee indicated that the Passport software was not coded to provide time sensitive information for documenting changes to the database, the licensee stated that Passport does provide a date stamp when assignments are taken to a "complete" status. Finally, Revision 3 to LS-AA-110-1001 added a new attachment that includes a template providing guidance on the level of detail for the commitment tracking. The template addresses the NRC staff concern that the commitment tracking database entries lacked sufficient detail.

Based on the above, the NRC staff's review concluded that the licensee maintained records of commitments and documented commitment changes appropriately.

3.0 <u>CONCLUSION</u>

The NRC staff concludes that, based on the above findings, (1) EGC identified the regulatory commitments contained within the licensing actions selected for this audit and was able to document the status of the commitment implementation; (2) EGC's commitment management program could be improved in the area of tracking commitments with future implementation; and (3) the NRC staff could not confirm that SNC has established a well-defined process for managing commitment changes.

4.0 <u>LICENSEE PERSONNEL CONTACTED FOR THIS AUDIT</u>

M. Wagner

Principal Contributor: C. Gratton, NRR

Attachment: Summary of Audit Results

<u>Table 1</u>
Sample of Closed Commitments for Quad Cities Nuclear Power Station – August 2010

Submittal	Regulatory Issue	Commitment(s)	Scheduled Completion Date (Type)	Status
2/15/2007 RS-07-018 ML070470639	Authorization to use Delta Protection Mururoa BLU suits	 The BLU suits will be used in a configuration consisting of. Mururoa BLU one-piece encapsulating suit (of either PVC or Ethyfuge construction), fitted with 1) a Micronel C500X-012EK-AB60 blower with a C501A- 012AK-A battery (consistent with the parts list in Section 7 of Attachment 6.6.6 to the Topical Report TR MURUBLU05NP), and 2) four Scott PF 10 P3, or four Delta Protection P3, high efficiency particulate filter cartridges. All four filter cartridges must be matching and replaced as a set. Procedures for use of the suit systems are integrated into the respiratory programs required by 10 CFR Part 20, Subpart H. Fit testing of user is not applicable to fully encapsulating suits. Prior to use, wearers are trained on these conditions of use as well as the emergency escape features of the suits. Suits are used in accordance with recommendations in Attachments 6.6.4, 6.6.5, and 6.6.6 of the Topical Report TR MURUBLU05NP (ADAMS Accession No. ML053060280). Suit enclosures are single use only, (other than those segregated for training purposes only) and are discarded after use. Unused suit enclosures are stored in their original manufacturer's packing (in an environment not colder than 32 deg. F, nor hotter than 140 deg. F, with a maximum storage shelf-life of 3 years. Suits are not to come in contact with anything colder than 41 deg. F, nor hotter than 140 deg. F, during use. Suits are donned with a fully charged battery pack installed on the blower. The maximum period of use (timed from a fully charged battery), is 4 hours with the blower set at 600 l/min; and 7 hours with the blower at the 400 l/min setting. Suits are used only in atmospheres containing specific contaminants in concentrations that are not immediately dangerous to life or health (IDLH), as given in NIOSH "Concept for Industrial Power, Airpurifying Respiratory Standard," Draft for Comment, May 30, 2005, and have an oxygen content of at least 19.5 percent by volume.	Prior to use for each commitment	Closed

		device, and to ensure that any manufacturer's notifications concerning the suit systems are received in a timely manner. 8) The following elements and controls found in Section 6.4 of Topical Report TR MURUBLU05NP will be incorporated into EGC and AmerGen respiratory protection program: a. Prior to use, the Mururoa BLU self-fed suits will be integrated into the respiratory protection program, using the information provided by the manufacturer. b. Prior to use, the lesson plans will be developed to train workers on Mururoa BLU's features, donning, use and removal, cautions and use of mouth strips and tear off strips for routine and emergency egress. c. Prior to use, Radiation Protection personnel will be provided additional training for selection, approval, issue, equipment set-up, operation and maintenance instructions for Mururoa BLU suits.		
10/10/2002 RS-02-174 ML022940292 06/30/2004 ES-06-063	Request to Implement an Alternative Source Term	Training will be provided on the new SLC injection function as part of operator re-qualification training and EOP and SAMG training.	Upon completion of training	Closed (Completed 9/07)
ML041830426 12/13/2006 RS-06-179 ML063530361	Application to Use Weighting Factors for External Exposure	Exelon/AmerGen procedures will be revised to require that when using the weighting factors in Table 1 ANSI/HPS N13.41-1997, dosimetry is to be placed at the highest exposed part of the compartment or composite compartment.	Upon implementation of NRC of approved use of revised weighting factors.	Closed
04/30/2004 RS-04-067 ML072280298 ML072280301	Amendment to TS Regarding Mode Change Limitations Using the CLIIP Process	Exelon/AmerGen will establish the TS Bases as adopted with the applicable license amendment.	Concurrent with implementation of the license amendment.	Closed

10/3/2007	Request for Amendment to	Exelon Generation Company, LLC (EGC) is making a	Implemented by TS	Closed
NL-07-1709	Technical Specifications to	regulatory commitment to provide to the NRC using an	Amendment	
ML072820527	Eliminate Requirements to	industry database the operating data (for each calendar	implementation date.	
	Provide Monthly Operating	month) that is described in Generic Letter 97-02 "Revised		
	Reports and Annual	Contents of the Monthly Operating Report," by the last day		
	Occupational Radiation	of the month following the end of each calendar quarter.		
	Exposure	The regulatory commitment will be based on use of an		
	Reports	industry database (e.g., the industry's Consolidated Data		
		Entry (CDE) program, currently being developed and		
		maintained by the Institute of Nuclear Power Operations).		
		This regulatory commitment will be implemented to prevent		
		any gaps in the monthly operating statistics and shutdown		
		experience provided to the NRC (i .e ., data for all months		
		will be provided using one or both systems (monthly		
		operating reports and CDE)).		

<u>Table 2</u>
Sample of Commitments Opened Since the 2007 Audit

Submittal	Regulatory Issue	Commitment(s)	Scheduled Completion Date (Type)
4/21/2008 RS-08-023 ML081120430	License Amendment Request to Remove References to NRC Generic Letter 82-12, "Nuclear Power Plant Staff Working Hours"	Exelon Generation Company, LLC and AmerGen Energy Company, LLC will implement the 10 CFR 26, Subpart I, requirements for managing fatigue at each operating nuclear facility, concurrently with, implementation of the Technical Specification (TS) amendment to remove work hour limitations from TS. The intent of this commitment is to ensure that work hour limitations are controlled by either TS or regulation at all times.	By October 1, 2009 (Closed)
6/9/2008 RS-07-061 ML081620236	Licensing action to modify the CRD Surveillance frequency	EGC and AmerGen will establish the Technical Specifications Bases for TS Bases 3.1.3 and 3.3.1.2 consistent with those shown in TSTF-475, Revision 1, "Control Rod Notch Testing Frequency" and SRM Insert Control Rod Action."	Implement with amendment (Closed)
10/09/2007 RS-07-117 ML072830096	Licensing action TSTF-423 Cold Shutdown End States Elimination	 EGC will follow the guidance established in Section 11 of NUMARC 93-01, "Industry Guidance for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," Nuclear Management and Resource Council, Revision 3, July 2000. 	Ongoing
		 EGC will follow the guidance established in TSTF-IG- 05-02, "Implementation Guidance for TSTF-423, Revision 0, "Technical Specifications End States, NEDC-32988-A," Revision 1, March 2007. 	Implement with amendment (Closed)

Mr. Michael J. Pacilio President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

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Sincerely,

/RA/

Christopher Gratton, Senior Project Manager Plant Licensing Branch III-2 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

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NRR-106

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