



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

February 27, 2013

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

SUBJECT LIMERICK GENERATING STATION, UNITS 1 AND 2 - AUDIT OF THE
LICENSEE'S MANAGEMENT OF REGULATORY COMMITMENTS
(TAC NOS. ME8803 AND ME8804)

Dear Mr. Pacilio:

The U.S. Nuclear Regulatory Commission (NRC) informed licensees in Regulatory Issue Summary (RIS) 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000, that the Nuclear Energy Institute (NEI) document NEI 99-04, "Guidelines for Managing NRC Commitment Changes," contains acceptable guidance for controlling regulatory commitments. RIS 2000-17 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 regulatory commitments are being effectively implemented. An audit of the commitment management program for Limerick Generating Station (LGS), Units 1 and 2, was performed during the period of June 6, 2012, through January 29, 2013. The previous audit of the licensee's commitment management program for LGS was documented in an NRC letter dated June 15, 2009.

As discussed in the enclosed audit report, the NRC staff concludes that the licensee's procedure used to manage commitments provides the necessary attributes for an effective commitment management program. However, although the commitment management procedure is adequate, there were two findings related to adherence to the procedure.

The NRR staff has discussed the results of this audit with NRC Region I staff. Further follow-up on the issues discussed in the audit report may be considered as part of the reactor oversight process baseline inspections.

M. Pacilio

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If you have any questions, please contact me at (301) 415-1420.

Sincerely,

A handwritten signature in black ink, appearing to read "R B Ennis". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Richard B. Ennis, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosure:
Audit Report

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**UNITED STATES
NUCLEAR REGULATORY COMMISSION
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AUDIT REPORT BY THE OFFICE OF NUCLEAR REACTOR REGULATION

LICENSEE MANAGEMENT OF REGULATORY COMMITMENTS

LIMERICK GENERATING STATION, UNITS 1 AND 2

DOCKET NOS. 50-352 AND 50-353

1.0 INTRODUCTION AND BACKGROUND

The U.S. Nuclear Regulatory Commission (NRC) informed licensees in Regulatory Issue Summary (RIS) 2000-17, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," dated September 21, 2000 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML003741774), that the Nuclear Energy Institute (NEI) document NEI 99-04, "Guidelines for Managing NRC Commitment Changes," (ADAMS Accession No. ML003680088) contains acceptable guidance for controlling regulatory commitments. RIS 2000-17 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. 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.

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. 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 (e.g., amendments, reliefs, exemptions) and activities (e.g., bulletins, generic letters).

An audit of the commitment management program for Limerick Generating Station (LGS), Units 1 and 2, was performed during the period of June 6, 2012, through January 29, 2013. The audit was performed at NRC Headquarters in Rockville, Maryland using documentation provided by Exelon Generation Company, LLC (Exelon, the licensee) as requested by the NRC staff. The previous audit of the licensee's commitment management program for LGS was documented in an NRC letter dated June 15, 2009 (ADAMS Accession No. ML091540661).

2.0 AUDIT PROCEDURE AND RESULTS

The audit was performed in accordance with the guidance in NRR Office Instruction LIC-105, Revision 4, "Managing Commitments Made by Licensees to the NRC," dated September 10, 2012 (ADAMS Accession No. ML12251A203).

Enclosure

The NRC staff reviewed commitments made during the period approximately 3 years prior to the audit (i.e., since the last audit). The audit consisted of three major parts: (1) verification of the licensee's implementation of NRC commitments that have been completed; (2) verification of the licensee's program for managing changes to NRC commitments; and (3) verification that all regulatory commitments were correctly applied.

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. The audit also verifies that the licensee's commitment management system includes a mechanism to ensure traceability of commitments following initial implementation. This ensures that licensee personnel are able to recognize that future proposed changes to the affected design features or operating practices require evaluation in accordance with the commitment change control process.

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 ADAMS for licensee submittals since the last audit and selected a representative sample for verification. The commitments included in the review are shown in Table 1.

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, 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

Table 1 provides the specific details and results of the audit for verification of the licensee's implementation of commitments. There were no findings identified as a result of this part of the audit.

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

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 LGS is contained in Exelon procedure LS-AA-110, Revision 8, "Commitment Management."

The audit reviewed a sample of commitment changes as shown in Table 2 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 LS-AA-110, Revision 8, against NEI 99-04. Section 6.1 of the procedure lists NEI 99-04 as a reference.

The NRC staff found that the process described in LS-AA-110 generally follows the guidance of NEI 99-04 and provides detailed instructions for: (1) making and identifying commitments; (2) tracking commitments; (3) annotating implementing documents to provide traceability of commitments; (4) changing commitments; and (5) periodic reporting of commitment changes. The NRC staff concludes that the procedure used by the licensee to manage commitments provides the necessary attributes for an effective commitment management program.

Table 2 provides the specific details and results of the audit of commitment changes for LGS. There were 2 findings identified as a result of this part of the audit as follows:

- (1) Table 2, Item 2: In accordance with step 3.4.5 of Exelon procedure LS-AA-110, the licensee is required to ensure that the commitment tracking database is annotated to reflect implementing document creation, revision, or replacement as appropriate. Although the implementing document for the commitment was created on August 2, 2000, the commitment database was not annotated until October 14, 2009.
- (2) Table 2, Item 3: Implementation of the commitment was not completed until approximately 2.5 years after the date committed to in the original commitment (i.e., January 31, 2005 versus August 15, 2002). The licensee should have either implemented the commitment prior to August 15, 2002, or changed the commitment due date, prior to that date, in accordance with step 4.5.1 in Exelon procedure LS-AA-110.

The above issues were addressed in the licensee's corrective action process as discussed in Table 2.

2.3 Verification That All Regulatory Commitments Were Correctly Applied

On September 19, 2011, the NRC's Office of the Inspector General (OIG) issued an audit report titled, "Audit of NRC's Management of Licensee Commitments" (ADAMS Accession No. ML112620529). The audit identified, in part, that the definition and use of commitments is not consistently understood throughout the NRC. The OIG concluded that this could potentially result in the misapplication of commitments by the NRC staff. A commitment is considered to be misapplied if the action comprising the commitment was relied on by the NRC staff in making a regulatory decision such as a finding of public health and safety in an NRC safety evaluation (SE) associated with a licensing action. A commitment is also considered to have been misapplied if the commitment involves actions that were safety significant (i.e., commitments used to ensure safety).

As one of the corrective actions taken in response to the issues raised in the OIG audit, the NRC staff added further guidance on proper use of regulatory commitments in NRR Office Instruction LIC-101, Revision 4, "License Amendment Review Procedures," dated May 25, 2012 (ADAMS Accession No. ML113200053). As stated in Section 4.4.1 of LIC-101, NRC staff SEs may rely on a commitment if the commitment is escalated into an obligation (e.g., a license condition or technical specification requirement) or is subsequently incorporated into a mandated licensing basis document (e.g., Updated Final Safety Analysis Report). In cases where a commitment has been escalated to an obligation or incorporated into a mandated licensing basis document, the "commitment" is no longer considered a commitment and is no longer subject to change via the licensee's commitment management program since other regulatory processes would govern the change (e.g., 10 CFR 50.90, 10 CFR 50.59).

Another corrective action taken in response to the issues raised in the OIG audit included further guidance, concerning performance of commitment audits, being added in Revision 4 of NRR Office Instruction LIC-105, "Managing Commitments Made by Licensees to the NRC," dated September 10, 2012 (ADAMS Accession No. ML12251A203). Revision 4 of LIC-105 states that the NRC staff should take the following actions to identify misapplied commitments:

- 1) Determine if the commitment reviewed involves actions that were safety significant (i.e., commitments used to ensure safety).
- 2) Determine if the commitment reviewed involves actions that were necessary for approval of a proposed licensing action.

As discussed in LIC-105, the scope of this portion of the audit includes reviewing each of the commitments selected for the audit sample (i.e., Tables 1 and 2) to determine if any had been misapplied (i.e., per the 2 criteria shown above). In addition, the NRC staff is directed to identify all license amendments, relief requests and exemptions that have been issued for a facility in the previous 3 years. Table 3 lists each of these documents for LGS. The NRC staff is directed to identify all commitments discussed in these documents and evaluate each commitment to determine if it has been misapplied based on the 2 criteria discussed above.

As discussed in Table 3, Item 4, there were 6 commitments relied on by the NRC staff's SE for LGS Units 1 and 2, Amendments 201 and 163, "Measurement Uncertainty Recapture Power Uprate and Standby Liquid Control System Changes," dated April 8, 2011 (ADAMS Accession No. ML110691095). In order to determine if any additional action was needed due to these misapplied commitments, the specific commitments were included in the audit sample (see Table 1, Item 3). Table 1 evaluates the licensee's implementation of commitments. As such, even if the NRC relied on the commitment, if the commitment has already been implemented, no further action would be required. If the commitment has not been implemented, further action would need to be evaluated. The specific commitments that were relied on in the staff's SE (as discussed on pages 4 and 5 of the SE) are as follows:

- The LEFM [leading edge flowmeter] system for LGS, Units 1 and 2 will be installed.
- Plant maintenance and calibration procedures will be revised to incorporate Cameron's maintenance and calibration requirements.
- Modifications for the power uprate will be implemented.
- The plant simulator will be modified for the uprated conditions and the changes will be validated in accordance with plant configuration control processes.
- Maintenance personnel will be qualified on the LEFM system.
- Operator training will be completed prior to implementation of the proposed power uprate changes.

As shown in Table 1, all of the commitments that were relied on in the staff's SE have been implemented by the licensee (i.e., promised actions have been taken). As such, there is no impact due to the misapplied commitments. It is concluded that no further action is required with respect to these misapplied commitments.

3.0 CONCLUSION

Based on the above audit, the NRC staff concludes that the licensee's procedure used to manage commitments provides the necessary attributes for an effective commitment management program. However, although the commitment management procedure is adequate, there were two findings related to adherence to the procedure.

4.0 LICENSEE PERSONNEL CONTACTED FOR THIS AUDIT

David Helker
Glenn Stewart
Stan Gamble
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Principal Contributors: R. Ennis
J. Rankin
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Date: February 27, 2013

Attachments:

- 1) Table 1 - Verification of Licensee's Implementation of NRC Commitments
- 2) Table 2 - Verification of the Licensee's Program for Managing NRC Commitment Changes
- 3) Table 3 - Review of NRC License Amendments, Relief Requests and Exemptions

TABLE 1
Verification of Licensee's Implementation of NRC Commitments
(See Note 1)

Item No.	Licensee Submittal (ADAMS Acc. No.)	Subject	Commitment as stated in Licensee Submittal (Licensee Tracking No.)	Commitment Status/Audit Results
1	Letter dated 3/8/11 (ML110670307) Note - this letter updates and resubmits information previously submitted in letters dated 4/23/10 (ML101130451) and 1/25/11 (ML110250144).	LGS Units 1 and 2 - Special Report - Seismic Monitoring Instrumentation Inoperability, Rev. 2	This submittal made the following 2 commitments: 1) The degraded seismic monitor sensor array (XE-VA-105) that is located in the drywell of Unit 1 will be repaired, tested, and returned to operable status by the end of the 1R14 refueling outage (April 2012). (A1757227-01) 2) The triaxial response spectrum analyzer will be repaired, tested and returned to operable status by July 29, 2011. (A1791920-01)	Both commitments are closed. 1) Per Action Request (A/R) No. A1757227, the seismic monitor was repaired on 12/24/11. 2) Per A/R No. A1791920, the triaxial response spectrum analyzer was operable on 6/29/11. No findings.
2	Letter dated 1/23/12 (ML12023A049) Note - this letter changed a commitment previously made in a letter dated 4/9/10 (ML101060265). See Table 2 for evaluation of the commitment change.	LGS Unit 1 - Update to Generic Letter 2008-01 Commitment	This submittal made the following commitment: For the high-pressure coolant injection (HPCI) system, one new vent will be installed on LGS Unit 1 prior to completion of the spring 2014 refueling outage (1R15). (A1683497-08)	Commitment is open. Per A/R No. A1683497, this commitment will be tracked for completion in refueling outage 1R15 (spring 2014). No findings.
3	Letter dated 3/25/10 (ML100850380)	LGS Units 1 and 2, Request for License Amendment regarding Measurement Uncertainty	Attachment 5 to this submittal made the following 11 commitments:	All one-time commitments are closed. Programmatic commitment (number 8) is open but has been implemented

Item No.	Licensee Submittal (ADAMS Acc. No.)	Subject	Commitment as stated in Licensee Submittal (Licensee Tracking No.)	Commitment Status/Audit Results
	Note - Commitments are listed in Attachment 5 to the letter (ML100850401).	Recapture Power Uprate	<p>1) Limitations regarding operation with an inoperable LEFM [leading edge flowmeter] system will be included in the TRM [Technical Requirements Manual]. (A1769430-01, Unit 1) (A1769430-12, Unit 2)</p> <p>2) The LEFM system for LGS, Units 1 and 2 will be installed. (A1769430-02, Unit 1) (A1769430-13, Unit 2)</p> <p>3) Plant maintenance and calibration procedures will be revised to incorporate Cameron's maintenance and calibration requirements. (A1769430-03, Unit 1) (A1769430-14, Unit 2)</p> <p>4) Final acceptance of the site-specific uncertainty analyses will occur after the completion of the commissioning process. (A1769430-04, Unit 1) (A1769430-15, Unit 2)</p> <p>5) Modifications for the power uprate will be implemented. (A1769430-05, Unit 1) (A1769430-16, Unit 2)</p> <p>6) Necessary procedure revisions for the power uprate will be completed. (A1769430-06, Unit 1)</p>	<p>and is being appropriately tracked.</p> <p>1) Commitment is closed. The TRM was reviewed. Limitations regarding operation with an inoperable LEFM were added to limiting condition for operation 3.3.7.13.</p> <p>2) Commitment is closed. Per A/R No. A1769430, the LEFMs were installed on Unit 1 during the 1R13 outage and on Unit 2 during the 2R11 outage.</p> <p>3) Commitment is closed. Per A/R A1769430, commitment was met by creating several maintenance activities (recurring work orders). Maintenance activities were reviewed. No issues noted.</p> <p>4) Commitment is closed. A/R A1769430 documents implementation of this commitment.</p> <p>5) Commitment is closed. A/R A1769430 documents implementation of this commitment.</p> <p>6) Commitment is closed. A/Rs A1769430, A1746446-28 and A1695445-40 document</p>

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			<p>(A1769430-17, Unit 2)</p> <p>7) The plant simulator will be modified for the uprated conditions and the changes will be validated in accordance with plant configuration control processes. (A1769430-07)</p> <p>8) Maintenance personnel will be qualified on the LEFM system. (A1769430-11) (T04704)</p> <p>9) Operator training will be completed prior to implementation of the proposed power uprate changes. (A1769430-08)</p> <p>10) Plant testing for the proposed changes will be completed as described in Attachment 6, Section 10.4, "Testing." (A1769430-09, Unit 1) (A1769430-18, Unit 2)</p> <p>11) Plant-specific analyses for all potentially limiting events will be performed on a cycle-specific basis as part of the reload licensing process.</p>	<p>implementation of this commitment.</p> <p>7) Commitment is closed. A/R A1769430 documents implementation of this commitment.</p> <p>8) Commitment is open since it is a programmatic commitment (tracked via commitment T04704). Qualification database item for training associated with the LEFM system (N-LM-IM-334A) is annotated with reference to commitment T04704 and indicates that the qualification should not be deleted without referencing the commitment.</p> <p>9) Commitment is closed. Per A/R A1769430, all training has been completed.</p> <p>10) Commitment is closed. Per A/R A1769430, plant testing has been completed.</p> <p>11) Commitment is closed. A/R A1769430 documents implementation of this commitment.</p> <p>No findings.</p>

Item No.	Licensee Submittal (ADAMS Acc. No.)	Subject	Commitment as stated in Licensee Submittal (Licensee Tracking No.)	Commitment Status/Audit Results
			<p>(A1769430-10, Unit 1) (A1769430-19, Unit 2)</p> <p>Attachment 5 stated that commitments 1-7, 9, and 11 are one-time actions that would be completed prior to uprate implementation. Attachment 5 stated that commitment 8 was a programmatic type commitment that would be performed prior to work on the system. Attachment 5 stated that commitment 10 was a one-time action that would be completed as described in Section 10.4 of Attachment 6.</p>	
4	<p>Letters dated: 3/19/10 (ML100810151)</p> <p>10/29/10 (ML103060379)</p> <p>12/3/10 (ML103370328)</p> <p>3/23/11 (ML110840186)</p>	LGS Units 1 and 2, Proposed Technical Specifications Allowed Outage Time (AOT) Extensions to Support Residual Heat Removal Service Water Maintenance	<p>The submittals associated with this amendment request made a number of commitments, some revised several times. The final version of each of the commitments is shown in the following submittals:</p> <p>Commitment 1 - 12/3/10 letter Commitment 2 - 3/23/11 letter Commitment 3 - 12/3/10 letter Commitment 4 - 10/29/10 letter Commitment 5 - 3/19/10 letter Commitment 6 - 3/19/10 letter Commitment 7 - 10/29/10 letter</p> <p>The 7 commitments are as follows:</p> <p>1) The following action will taken prior entry into proposed configuration:</p> <ul style="list-style-type: none"> • Proper standby alignment of the 	<p>See Table 3, Item 6. The associated amendment implementation statement escalated these commitments into a mandated licensing basis document (UFSAR). A review of Chapter 9 of the UFSAR confirmed it was updated to incorporate the commitments associated with this amendment request.</p> <p>No findings.</p>

Item No.	Licensee Submittal (ADAMS Acc. No.)	Subject	Commitment as stated in Licensee Submittal (Licensee Tracking No.)	Commitment Status/Audit Results
			<p>operable RHRSW [residual heat removal service water] subsystem will be ensured local verification of boundary valve and power supply position in accordance with a check-off list contained in the special procedure developed specifically to govern plant operations in the extended AOTs.</p> <p>2) Also, the following actions will be taken prior to entry into the proposed configuration:</p> <ul style="list-style-type: none"> • When the 'A' RHRSW subsystem is inoperable to allow for repairs of the RHRSW A subsystem piping with Limerick Generating Station Unit 2 shutdown, reactor vessel head removed and reactor cavity flooded, the following equipment will be verified as available and protected as defined in procedure OP-AA-1 08-117: <ul style="list-style-type: none"> ◦ ESW [emergency service water] loop A ◦ Unit 1 RHR [residual heat removal] subsystems A and C ◦ D11, D13, and D23 4kV buses and emergency diesel generators ◦ Unit 1 Division 1 and Division 3 Safeguard DC • When the 'A' RHRSW subsystem is inoperable to allow for repairs of the RHRSW A subsystem piping with 	

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			<p>Limerick Generating Unit 1 shutdown, reactor vessel head removed and reactor cavity flooded, equipment be verified as available and protected as defined in procedure OP-108-117:</p> <ul style="list-style-type: none"> ◦ ESW loop A ◦ Unit 2 RHR subsystems A and C ◦ D11, D21, and D23 4kV buses and emergency diesel generators ◦ Unit 2 Division 1 and Division 3 Safeguard DC <p>● When the 'B' RHRSW subsystem is inoperable to allow for repairs of the RHRSW B subsystem piping with Limerick Generating Unit 2 shutdown, reactor vessel head removed and reactor cavity flooded, equipment be verified as available and protected as defined in procedure OP-108-117:</p> <ul style="list-style-type: none"> ◦ ESW loop B ◦ Unit 1 RHR subsystems B and D ◦ D12, D14, and D24 4kV buses and emergency diesel generators ◦ Unit 1 Division 2 and Division 4 Safeguard DC <p>● When the 'B' RHRSW subsystem is inoperable to allow for repairs of the RHRSW B subsystem piping with Limerick Generating Unit 1 shutdown, reactor vessel head removed and reactor cavity flooded, equipment be verified as available and protected as defined in procedure OP-108-117:</p>	

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			<ul style="list-style-type: none"> ◦ ESW loop B ◦ Unit 2 RHR subsystems B and D ◦ D12, D22, and D24 4kV buses and emergency diesel generators ◦ Unit 2 Division 2 and Division 4 Safeguard DC <p>3) Activities in the switchyard that adversely affect risk exposure are those that have the potential to cause a loss of offsite power, such as testing and maintenance activities. Therefore, testing and discretionary maintenance will be prohibited during the RHRSW subsystem piping repairs in the at-power unit switchyard and on equipment in the outage unit switchyard supporting operability of its offsite source. Accordingly, during the RHRSW subsystem piping repairs, the at-power unit switchyard will be protected in its entirety using either a lock and/or chain different than that used for normal access to the switchyard, or a physical barrier placed in front of the gate used for normal access to the switchyard. In addition, equipment in the outage unit switchyard supporting operability of its offsite source will be protected during the RHRSW subsystem piping repairs using protected equipment signs and physical barriers, such as barrier rope, physical devices, tape, etc., to prevent access to the equipment. This will be controlled through applicable</p>	

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			<p>corporate and station procedures for equipment protection, and through the special procedure developed specifically to govern plant operation while in the extended AOTs.</p> <p>4) Operational Risk Activities (ORAs), as defined in procedure WC-AA-104, involve activities on risk significant systems that have the potential to derate the plant, i.e., cause a loss of planned generation. Typical ORAs involve: an activity that could cause equipment actuations that could cause loss of planned generation; instrument, fuse, or circuit board removal/installation; an activity that will cause a 112 scram or Y2 trip; pressurization of common instrument sensing lines; placing of jumpers or lifting energized leads; an activity that could cause vibration or impact near operational risk sensitive equipment, etc. Such activities will be prohibited on the online unit during the RHRSW piping repairs. Exceptions to this must be approved by the senior plant management. This will be controlled as part of the special procedure developed specifically to govern plant operation while in the extended AOTs.</p> <p>5) The extended weather forecast will be examined to ensure severe weather conditions that would threaten the loss of offsite power are</p>	

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			<p>not predicted prior to entry into the AOT. In the event of an unforeseen severe weather condition due to rapidly changing conditions, such as severe high winds, a briefing with crew operators will be performed to reinforce operator actions and responses in the event of a loss of offsite power (E-10/20).</p> <p>6) Shift briefs will be performed to reinforce other potentially important operator actions associated with the performance of the extended AOT (i.e., operator actions to refill the condensate storage tank (CST), operator actions to vent containment, operator actions to maximize control rod drive (CRD) injection to the vessel, and operator actions to support continued use of feedwater and condensate post-trip as necessary and if available). Additionally, during the 'A' RHRSW subsystem outage, a shift brief on alternate remote shutdown operations will be performed since some of the normally operated equipment from the remote shutdown panel will not be available.</p> <p>7) Unattended transient combustibles and hot work will be prohibited in areas listed below during the extended AOT. This will be controlled via the special procedure developed specifically to govern plant operation</p>	

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			<p>while in the extended AOTs.</p> <p>For an 'A' RHRSW subsystem outage window:</p> <ul style="list-style-type: none"> • Fire Area 15, Unit 1 Division 2 (D12) safeguard 4kV switchgear room • Fire Area 17, Unit 2 Division 2 (D22) safeguard 4kV switchgear room • Fire Area 24, Main Control Room (ECCS B panel 10-C601 (Bay A, B)) • Fire Area 24, Main Control Room (ECCS B panel 20-C601 Bay A, B)) • Fire Area 25, Auxiliary Equipment Room <p>For an 'B' RHRSW subsystem outage window:</p> <ul style="list-style-type: none"> • Fire Area 13, Unit 1 Division 1 (D11) safeguard 4kV switchgear room • Fire Area 19, Unit 2 Division 1 (D21) safeguard 4kV switchgear room • Fire Area 24, Main Control Room (ECCS A panel 10-C601 (Bay C, D, E, F)) • Fire Area 24, Main Control Room (ECCS A panel 20-C601 Bay C, D, E, F)) 	

Item No.	Licensee Submittal (ADAMS Acc. No.)	Subject	Commitment as stated in Licensee Submittal (Licensee Tracking No.)	Commitment Status/Audit Results
			<ul style="list-style-type: none"> • Fire Area 25, Auxiliary Equipment Room • Fire Area 26, Remote Shutdown Panel 	
5	Letter dated 6/14/11 (ML111650563)	LGS Units 1 and 2 - License Amendment Request to Include an Alternate Method of Verifying Drywell Leakage	<p>This submittal made the following 2 commitments:</p> <p>1) EGC will verify through historical or new test data that the drywell floor drain sump overflows into the drywell equipment drain sump at LGS, Unit 1. (A1814782-01)</p> <p>2) EGC will verify through historical or new test data that the drywell floor drain sump overflows into the drywell equipment drain sump at LGS, Unit 2. (A1814782-02)</p> <p>The submittal stated that these commitments are one-time actions that would be done prior to initial use of the alternate sump monitoring method for the respective unit.</p>	<p>Both commitments are closed.</p> <p>Per A/R A1814782, the historical data during refueling outages 1R12 and 1R13 (Unit 1) and 2R10 (Unit 2) was verified, which shows the floor drain trend level off at tank top while the equipment drain trend increases. This proves that the floor drain sump overflows into the equipment drain sump.</p> <p>No findings.</p>

Note 1: The scope of this portion of the audit includes verification of the licensee's implementation of commitments associated with NRC licensing actions (e.g., amendments, relief requests, exemptions, orders) or licensing activities (e.g., bulletins, generic letters) during the previous 3 years. For purposes of this audit, the scope included samples based on review of licensee submittals dated June 15, 2009 through June 15, 2012. See Audit Report Section 2.1 for further details.

TABLE 2
Verification of the Licensee's Program for Managing NRC Commitment Changes
(See Note 1)

Item No.	Licensee Tracking No.	Description of Commitment Change	Audit Results - Verification of Licensee's Program for Managing Commitment Changes
1	A1683497-08	<p>In the licensee's 9-month response to Generic Letter 2008-01 dated 10/14/08 (ML082880706), the licensee committed to installing 3 new vents on the Unit 1 HPCI [high-pressure coolant injection] system during refueling outage 1R13 (Spring 2010). These vents were to be installed as a result of a review of system design basis and field walkdowns of areas determined to be susceptible to air entrainment.</p> <p>In the licensee's letter dated 4/9/10 (ML101060265), the licensee stated that the 3 vents were installed as committed, however it was determined that a 4th vent on the HPCI system needed to be installed. The vent involves the HPCI condensate storage tank (CST) suction piping. The licensee stated that they were unable to install the 4th vent during 1R13 due to leakage through a valve that could not be isolated. The licensee made the following commitment:</p> <p>"For the HPCI system, one new vent will be installed on LGS Unit 1 prior to completion of the next scheduled refueling outage (1R14)." Note, 1R14 pertains to the spring 2012 outage.</p> <p>In a letter dated 1/23/12 (ML12023A049), the licensee changed the commitment to delay the installation of the event to the next outage. The licensee stated that the installation of the HPCI CST suction line vent was rescheduled to align the work with a CST internal inspection scheduled for the spring 2014 refueling outage, which also requires draining of the CST. The current commitment reads as follows:</p> <p>"For the HPCI system, one new vent will be installed on LGS Unit 1 prior to completion of the spring 2014 refueling outage (1R15)."</p>	<p>Commitment is open. The planned completion of the new vent installation on LGS Unit 1 prior to completion of the spring 2014 refueling outage (1R15) is documented in A/R A1683497.</p> <p>No findings.</p>

Item No.	Licensee Tracking No.	Description of Commitment Change	Audit Results - Verification of Licensee's Program for Managing Commitment Changes
2	T04263 T04265	<p>In a licensee event report dated 5/30/00 (ML003720892), the licensee made the following 2 commitments:</p> <p>1) "A T&S [transmission and substation] standard will be developed to ensure the electrical connections on the main step-up transformers are independently verified and tested following maintenance. This action will be complete by August 1, 2000." (T04263)</p>	<p>1) The Commitment Change Evaluation Form (Attachment 1 to LS-AA-110) dated April 2, 2012, was reviewed. The form states that the commitment was being deleted. The form further states that the justification for deletion of the commitment was because the commitment was satisfied by implementing document M-035-003, step 5.3.9. The current revision (Revision 10) of M-035-003 does not show this commitment. The licensee stated that the commitment was incorporated in Revision 9 of M-035-003 (on March 19, 2010) then subsequently deleted in Revision 10 (on April 19, 2012). In addition, the commitment tracking database for T04263 indicates that M-0035-003 was added as the annotated implementing document for this commitment on October 14, 2009.</p> <p>Based on review of the Commitment Change Evaluation Form and the commitment tracking database, it appeared that this one-time commitment was implemented either on March 19, 2010, or October 14, 2009 (i.e., significantly later than the August 1, 2000, date included in the original commitment). Further discussion with the licensee indicated that the commitment was actually implemented one day late on August 2, 2000, as documented in A/R A1268379-02. The licensee stated that the Transmission and Substation standard issued on August 2, 2000, is a document that is not part of the nuclear organization documentation. As such, commitment annotations would not be included in this type of document. Main transformer maintenance was later transferred to station maintenance and, subsequently, M-0035-003 was created. This document was annotated with commitment T04263 on March 19, 2010.</p>

Item No.	Licensee Tracking No.	Description of Commitment Change	Audit Results - Verification of Licensee's Program for Managing Commitment Changes
		<p>2) "The site maintenance organization will provide oversight of T&S [transmission and substation] maintenance activities on the main transformers, generator output breakers, and interconnecting equipment." (T04265)</p> <p>Based on review of a spreadsheet provided by the licensee of commitments that have been changed (i.e., modified or deleted) for the last 3 years, the above 2 commitments were shown as having been deleted. The spreadsheet indicated that these commitment changes were not reported to the NRC.</p>	<p>Finding: In accordance with step 3.4.5 of Exelon procedure LS-AA-110, the licensee is required to ensure that the commitment tracking database is annotated to reflect implementing document creation, revision, or replacement as appropriate. Although the implementing document for commitment T04263 was created on August 2, 2000, the commitment database was not annotated until October 14, 2009. Note, on January 3, 2007, the licensee initiated Issue Report (IR) 574721 which documented that the commitment tracking database had not been updated to list the implementing document for 61 commitments (including T04263).</p> <p>Observation: The recommended action in the IR was to either delete the commitments, in accordance with LS-AA-110, or provide a valid implementing document for each commitment. As noted above, the commitment tracking database was annotated on October 14, 2009 (almost 3 years after the IR). As such, this indicates a potential issue regarding whether corrective actions associated with the commitment management program are performed in a timely manner.</p> <p>2) The Commitment Change Evaluation Form (Attachment 1 to LS-AA110) was reviewed. The form states that the commitment was being deleted. The form further states that the justification for deletion of the commitment was because T&S oversight is covered by FERC standards of conduct, NERC standards, the Maintenance Rule, and an interface procedure between COMED/PECO and Exelon Nuclear. Therefore, it no longer meets the definition of an NRC commitment.</p> <p>No findings.</p>

Item No.	Licensee Tracking No.	Description of Commitment Change	Audit Results - Verification of Licensee's Program for Managing Commitment Changes
3	T04434	<p>In a licensee event report dated 5/16/02 (ML021560539), the licensee made the following commitment:</p> <p>"The charger load test surveillance procedure will be revised to verify proper setting of all alarm points during the test and ensure the chart data is reviewed prior to test acceptance and performer signoff. This action will be completed by August 15, 2002."</p> <p>Based on review of a spreadsheet provided by the licensee of commitments that have been changed (i.e., modified or deleted) for the last 3 years, the above commitment was shown as having been deleted. The spreadsheet indicated that this commitment change was not reported to the NRC.</p>	<p>The Commitment Change Evaluation Form dated May 19, 2010 (Attachment 1 to LS-AA110) was reviewed. The form states that the commitment was being deleted. The form further states that the justification for deletion of the commitment was because it no longer meets the definition for a commitment. During the audit, the NRC Project Manager requested the licensee to provide documentation showing when the original commitment was implemented. As a result of this request, the licensee generated Issue Report (IR) 01462289 dated January 14, 2013. However, this IR does not clearly indicate when the commitment was actually implemented. Further discussion with the licensee indicates that the Unit 1 procedures were revised on August 12, 2003, and the Unit 2 procedures were revised on January 31, 2005.</p> <p>Finding: Implementation of the commitment was not completed until approximately 2.5 years after the date committed to in the original commitment (i.e., January 31, 2005 versus August 15, 2002). The licensee should have either implemented the commitment prior to August 15, 2002, or changed the commitment due date, prior to that date, in accordance with step 4.5.1 in Exelon procedure LS-AA-110. This issue has been entered into the licensee's corrective action process (reference Issue Report 01462289).</p>

Item No.	Licensee Tracking No.	Description of Commitment Change	Audit Results - Verification of Licensee's Program for Managing Commitment Changes
4	T04574	<p>In a licensee event report dated 5/26/05 (ML051460339), the licensee made the following commitment:</p> <p>"The procedure for periodic maintenance of Westinghouse 250 VDC magnetic starters will be revised to include a closer examination of the fuse block rivets by July 29, 2005."</p> <p>Based on review of a spreadsheet provided by the licensee of commitments that have been changed (i.e., modified or deleted) for the last 3 years, the above commitment was shown as having been deleted. The spreadsheet indicated that this commitment change was not reported to the NRC.</p>	<p>The Commitment Change Evaluation Form dated April 2, 2012 (Attachment 1 to LS-AA110) was reviewed. The form states that the commitment was being deleted. The form further states that the justification for deletion of the commitment was because the commitment was satisfied by implementing document M-095-002, step 5.9.2. The current revision (Revision 5) of M-095-002 was reviewed and step 5.9.2 addresses the issue in the commitment. The licensee stated this step was revised in Revision 2 which was issued on June 20, 2005 (i.e., prior to date in commitment).</p> <p>No findings.</p>

Note 1: The scope of this portion of the audit includes verifying that the licensee has established appropriate administrative controls for modifying or deleting regulatory commitments made to the NRC. The scope includes commitment changes reported to the NRC and commitment changes not reported to the NRC for the previous 3 years. See Audit Report Section 2.2 for further details.

TABLE 3
Review of NRC License Amendments, Relief Requests and Exemptions
(See Note 1)

Item No.	NRC letter date (Accession No.)	Description	Safety Evaluation Discusses Commitments? (Yes/No)	Audit Results
1	2/24/10 (ML100130562)	LGS Units 1 and 2, Amendments 199 and 160, Removal of Technical Specifications Concerning Structural Integrity Requirements	No	No findings.
2	3/31/11 (ML110610163)	LGS Units 1 and 2, Amendments 200 and 161, Administrative Changes to the Technical Specifications	No	No findings.
3	4/5/11 (ML110750446)	LGS Unit 2, Amendment 162, Safety Limit Minimum Critical Power Ratio Changes	No	No findings.
4	4/8/11 (ML110691095)	LGS Units 1 and 2, Amendments 201 and 163, Measurement Uncertainty Recapture Power Uprate and Standby Liquid Control System Changes	Yes	<p>Finding: The NRC's safety evaluation (SE) relies on a number of commitments as part of the basis for acceptance of the proposed amendment (i.e., misapplied commitments).</p> <p>In order to determine if any additional action is needed due to these misapplied commitments, the specific commitments were included in the audit sample (see Table 1, Item 3). Table 1 evaluates the licensee's implementation of commitments. As such, even if the NRC relied on the commitment, if the commitment has already been implemented, no further action would be required. If the commitment has not been implemented, further action would need to be evaluated.</p> <p>The specific commitments relied on in the staff's SE (ML110691095) were Table 1, Item 3, commitments 2, 3, 5, 7, 8 and 9 (see SE pages 4 and 5). As shown in Table 1, all of the one-time commitments (commitments 1-7, 9, 10, and 11) are closed (i.e., implemented). The one programmatic</p>

Item No.	NRC letter date (Accession No.)	Description	Safety Evaluation Discusses Commitments? (Yes/No)	Audit Results
				commitment (commitment 8) is still open but has been implemented and is being appropriately tracked. As such, no further action is required.
5	5/11/11 (ML111101429)	LGS Units 1 and 2, Amendments 202 and 164, High Pressure Coolant Injection Equipment Room Delta-Temperature High Isolation Trip Setpoint and Allowable Value Changes	No	No findings.
6	7/29/11 (ML111960066)	LGS Units 1 and 2, Amendments 203 and 165, Allowed Outage Time Extensions to Support Residual Heat Removal Service Water Maintenance	Yes	<p>The safety evaluation (SE) discusses a number of commitments made by the licensee associated with the amendment request. It is not clear from the SE whether these commitments are relied upon. However, the license amendment implementation statement stated, in part, that:</p> <p>“Implementation of the amendment shall include updating the UFSAR in accordance with 10 CFR 50.71(e). This update shall include, but not be limited to, a description of the regulatory commitments made by letter dated October 29, 2010, Attachment 4, as updated by the supplements dated December 3, 2010, and March 23, 2011.”</p> <p>Consistent with the discussion in Section 4.4.1 of NRR Office Instruction LIC-101, in cases where a commitment has been escalated to an obligation or incorporated into a mandated licensing basis document (e.g., the UFSAR as is the case for this amendment), the “commitment” is no longer considered a commitment and is no longer subject to change via the licensee’s commitment management program since other regulatory processes would govern the change (e.g., 10 CFR 50.90, 10 CFR 50.59).</p> <p>Based on the amendment implementation statement, it appears that the staff relied on the commitments.</p>

Item No.	NRC letter date (Accession No.)	Description	Safety Evaluation Discusses Commitments? (Yes/No)	Audit Results
				<p>However the commitments were appropriated escalated via incorporation into a mandated licensing basis document (i.e., no misapplied commitments).</p> <p>No findings.</p>
7	8/10/11 (ML111861341)	Exelon Fleet Amendment (including LGS Units 1 and 2, Amendments 204 and 166) Cyber Security Plan	Yes	<p>The safety evaluation stated that:</p> <p>“The NRC staff acknowledges that, in its submittal dated July 23, 2010, Exelon proposed several CSP [cyber security plan] milestone implementation dates as regulatory commitments. The NRC staff does not regard the CSP milestone implementation dates as regulatory commitments that can be changed unilaterally by the licensee, particularly in light of the regulatory requirement at 10 CFR 73.54 that “[i]mplementation of the licensee’s cyber security program must be consistent with the approved schedule.” As the NRC staff explained in its letter to all operating reactor licensees dated May 9, 2011 (ADAMS Accession No. ML110980538), the implementation of the plan, including the key intermediate milestone dates and the full implementation date, shall be in accordance with the implementation schedule submitted by the licensee and approved by the NRC. All subsequent changes to the NRC-approved CSP implementation schedule thus will require prior NRC approval pursuant in 10 CFR 50.90.”</p> <p>Based on the above, the commitments are being relied on by the NRC staff, however, they are appropriately being treated as obligations (i.e., no misapplied commitments).</p> <p>No findings.</p>

Item No.	NRC letter date (Accession No.)	Description	Safety Evaluation Discusses Commitments? (Yes/No)	Audit Results
8	12/19/11 (ML113210213)	LGS Units 1 and 2, Amendments 205 and 167, Revise Actions for Reactor Coolant System Instrumentation	No	No findings.
9	2/17/12 (ML120330196)	LGS Unit 1, Amendment 206, Safety Limit Minimum Critical Power Ratio	No	No findings.
10	3/14/12 (ML120670065)	LGS Units 1 and 2, Amendments 207 and 168, Reactivity Anomalies Surveillance	No	No findings.
11	3/29/12 (ML120690073)	LGS Units 1 and 2, Amendments 208 and 169, Alternate Method of Verifying Drywell Leakage	Yes	No findings. The safety evaluation discusses two commitments made by the licensee associated with the amendment request. However, the staff did not rely on any of the commitments as part of the basis for acceptance of the amendment (i.e., no misapplied commitments).
12	11/17/09 (ML093080382)	LGS Units 1 and 2, Evaluation of Relief Requests Associated with the Third Inservice Testing Interval	No	No findings.
13	7/23/10 (ML101110324)	Exelon Fleet Relief Request (including LGS Units 1 and 2), Request to use Specific Provisions from a Later Edition of the ASME Code Section XI	No	No findings.
14	12/2/10 (ML103330539)	LGS Units 1 and 2, Proposed Relief Request I3R-13, Pressure Testing of Primary Containment Instrument Gas Piping	No	No findings.
15	9/9/10 (ML102390467)	LGS Units 1 and 2, Proposed Alternative Request RR-I3R-14, Nozzle-to-Vessel Weld and Inner Radii Examinations	No	No findings.

Item No.	NRC letter date (Accession No.)	Description	Safety Evaluation Discusses Commitments? (Yes/No)	Audit Results
16	3/29/12 (ML120820266)	Exelon Fleet Relief Request (including LGS Units 1 and 2), Request to use a Later Edition of the ASME Code Section XI	No	No findings.
17	5/10/12 (ML12121A637)	Exelon Fleet Relief Request (including LGS Units 1 and 2), Request to use ASME Code Case N-789	No	No findings.

Note 1: The scope of this portion of the audit includes a review of all license amendments, relief requests and exemptions issued during the previous 3 years for LGS Units 1 and 2. The intent of the review is to determine the extent to which commitments have been misapplied (e.g., commitment relied on by NRC staff rather than making the commitment an obligation or incorporating the commitment into a mandated licensing basis document). See Audit Report Section 2.3 for further details.

M. Pacilio

- 2 -

If you have any questions, please contact me at (301) 415-1420.

Sincerely,

/ra/

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Office of Nuclear Reactor Regulation

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