

October 31, 2007

Mr. Randall K. Edington  
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SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 - AUDIT  
OF LICENSEE REGULATORY COMMITMENT MANAGEMENT PROGRAM  
(TAC NOS. MD6157, MD6158 AND MD6159)

Dear Mr. Edington:

On July 31 and August 1, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an audit at the Palo Verde Nuclear Generating Station (Palo Verde), Units 1, 2, and 3. This audit examined the Arizona Public Service Company (APS) regulatory commitment management program. The enclosed report documents the audit results, which were discussed on August 1, 2007, with Mr. Scott Bauer, APS Director of Regulatory Affairs, and other members of your staff.

On July 21, 2000, the NRC issued Regulatory Issue Summary 00-017, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," to inform licensees that the Nuclear Energy Institute (NEI) guidance document, NEI 99-04, "Guidelines for Managing NRC Commitments," describes an acceptable way for licensees to control commitments. The NRC normally conducts an audit of a licensee's regulatory commitment management program every 3 years.

Based on the results of this audit, the NRC concludes that APS has an adequate program to implement and manage regulatory commitments. Details of the audit are provided in the enclosed audit report, including our observations and recommendations.

Sincerely,

/RA/

Michael T. Markley, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-528, STN 50-529,  
and STN 50-530

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 THE LICENSEE TO  
THE U.S. NUCLEAR REGULATORY COMMISSION  
ARIZONA PUBLIC SERVICE COMPANY, ET AL.  
PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3  
DOCKET NOS. STN 50-528, STN 50-529, AND STN 50-530

1.0 INTRODUCTION AND BACKGROUND

On July 21, 2000, the U.S. Nuclear Regulatory Commission (NRC) issued Regulatory Issue Summary (RIS) 00-017, "Managing Regulatory Commitments Made by Power Reactor Licensees to the NRC Staff," Agencywide Documents Access and Management System (ADAMS) Accession No. ML0037417740) to inform licensees that the Nuclear Energy Institute (NEI) guidance document, NEI 99-04, "Guidelines for Managing NRC Commitments," (ADAMS Accession No. ML003680088) describes an acceptable way for licensees to control commitments. The staff determined that NEI 99-04 provides definitions and other guidance are consistent with the NRC Commission papers and internal guidance. In RIS 00-017, the NRC 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 normally conducts an audit of a licensee's regulatory commitment management program every 3 years. The NRC licensing project manager (PM) audits the licensee's 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, relief requests, exemptions) and activities (e.g. bulletins, generic letters). The audit consists 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 NRC commitment changes. The last NRC audit of the Arizona Public Service Company (APS, the licensee) commitment management program for Palo Verde Nuclear Generating Station (Palo Verde), Units 1, 2, and 3, was completed October 6-8, 2004 (ADAMS Accession No. ML052710481).

2.0 AUDIT PROCEDURE AND RESULTS

On July 31-August 1, 2007, the PM for Palo Verde completed an audit at Palo Verde, Units 1, 2, and 3. This audit examined the APS regulatory commitment management program since completion of the prior 3-year audit in September 2004 (ADAMS Accession No. ML052710481).

The audit results were discussed on August 1, 2007, with Mr. Scott Bauer, APS Director of Regulatory Affairs, and other members of the APS staff.

## 2.1 Verification of Licensee's Implementation of NRC Commitments

The primary focus of this part of the audit was to confirm that APS 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 aimed to ascertain that they have been captured in an effective program for future implementation.

### 2.1.1 Audit Scope

NEI 99-04 states that "Regulatory Commitment means 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." NEI 99-04 also states that "[a] Regulatory Commitment is an intentional undertaking by a licensee to (1) restore compliance with regulatory requirements, or (2) complete a specific action to address an NRC issue or concern (e.g., generic letter, bulletin, order, etc.)." The audit excluded the following types of commitments:

- Commitments made on the licensee's own initiative among internal organizational components;
- Verbal offers to pursue courses of action that were not docketed subsequently as written commitments;
- 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.
- 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.

Before the audit, a search was conducted of the APS licensing action and licensing activity submittals dated within the last 3 years. Several of the commitments contained in those submittals that met the definition of NEI 99-04 were selected for this audit.

### 2.1.2 Audit Results

The NRC staff reviewed reports generated by the APS tracking program for the commitments listed in the attached table to evaluate the status of completion. The NRC staff found that the APS commitment tracking program had incorporated all the regulatory commitments that were selected by the NRC staff for this audit. Although the NRC identified some database entry errors in the coding and traceability of commitments in the Regulatory Commitment Tracking System

Action Items (RCTSAI) and in the licensee's self-assessment, the APS regulatory affairs staff was able to quickly identify the errors and correct the record.

The NRC staff verified that commitments were implemented in plant procedures or other applicable management systems. The NRC verified that the current version of procedures in the control room as well as in the electronic database had the latest version of selected procedures that executed certain commitments. The NRC staff also verified that certain commitments were executed through incorporation in engineering and/or maintenance packages. The attached table summarizes the NRC staff understanding of the current status of selected licensee regulatory commitments.

## 2.2 Verification of APS's Program for Managing NRC Commitment Changes

At Palo Verde, Palo Verde Procedure 93DP-0LC08, "Regulatory Commitment Tracking," is used for managing regulatory commitments. The NRC staff reviewed this procedure and concluded that this procedure contains most of the guidance in NEI-99-04 and sets forth the process for identifying, tracking, and reporting commitments, and provides a mechanism for changing commitments. The NRC noted the following two areas in which Procedure 93DP-0LC08 varies from the guidance in NEI 99-04:

- Figure A-2, "Safety Significance Assessment," of NEI 99-04 is not provided explicitly in Palo Verde Procedure 93DP-0LC08.
- Part V (Items 5.1 and 5.2) of NEI 99-04, Figure A-3, "Commitment Evaluation Summary," on commitments made to minimize the recurrence of conditions adverse to quality is not provided explicitly in Palo Verde Procedure 93DP-0LC08.

The licensee expressed the belief that the questions presented in Figure A-2 of NEI 99-04 are included in the Appendix C, Part 2, concerning use of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.92 criteria for determination of no significant hazards consideration. The NRC determined that sufficient guidance is available in Appendices B and C of Palo Verde Procedure 93DP-0LC08 for making safety evaluations using the criteria in 10 CFR 50.92(c)(1) through (3), as suggested. Licensee personnel were knowledgeable of its application and use of the procedure for making safety significance assessments.

The licensee stated that Part V of NEI 99-04 was, in some ways, contradictory to the overall guidance provided in the body of NEI 99-04 with regard to the handling of licensee event reports (LERs). In particular, the licensee noted that NEI 99-04, Section 3.1, "Definitions," states that, "[w]ith respect to corrective actions identified in a NOV [Notice of Violation] or LER, the specific method(s) used by licensees to restore compliance with an obligation are not normally considered a Regulatory Commitment." The licensee stated that it considers LERs to be corrective actions and has been managing LERs via the corrective action program, subject to the Reactor Oversight Process, since the issuance of NEI 99-04. The NRC reviewed Palo Verde's documentation since September 2004 and found no examples where the licensee made commitments in LERs.

The NRC concluded that Palo Verde Procedure 93DP-0LC08, in general, follows the guidance in NEI 99-04 and that alternative processes used by the licensee are acceptable for resolving

safety issues pertinent to the associated commitment. During the meeting with APS representatives on August 1, 2007, the licensee stated that they would issued Palo Verde Action Request (PVAR) No. 304663 to reexamine the NRC-identified variances from NEI 99-04 and Palo Verde Procedure 93DP-0LC08.

### 2.3 Use of Regulatory Commitment Tracking System (RCTS)

Palo Verde Procedure 93DP-0LC08 states that a regulatory commitment is "[a]n explicit, written, docketed statement by PVNGS [Palo Verde] agreeing or volunteering to take specific action(s). A regulatory commitment is an intentional undertaking by a licensee to (1) restore compliance with regulatory requirements, or (2) complete a specified action to address an NRC issue or concern (e.g., generic letter, bulletin, order, etc.). Regulatory Commitments will be clearly annotated as commitments in letters issued by PVNGS." Palo Verde Procedure 93DP-0LC08 requires commitments to be identified as "Active Y" or "Active N" in RCTS Regulatory Commitment Tracking System Action Item (RCTSAI).

- An "Active Y" commitment is an action which must be maintained in station documents to ensure continued compliance with the regulatory commitment. "Active Y" commitments are maintained via the Site Work Management System (SWMS).
- An "Active N" is a one-time commitment. "Active N" commitments are maintained via the Administrative Control Process (work control).

The NRC reviewed a representative sample of both "Active Y" and "Active N" commitments to ensure that outputs associated with these licensing activities were complete, accurate, and timely. Although the RCTS is difficult to use, licensee personnel were knowledgeable of the system and were able to demonstrate the status of open and closed commitments, traceability of changes, and the actions leading to closure. During review with the NRC, licensee personnel had difficulty in finding two commitments because of data entry errors. The licensee was able to reconcile the errors during the course of the audit.

Based on the sample of commitments reviewed, the NRC concluded that the license had, when appropriate, provided written notification to NRC of changes to commitment schedules and that those changes were accurately reflected in the RCTS.

### 2.4 APS Self-Assessment of the Regulatory Commitment Management Program

The NRC staff requested information from APS regarding any self-assessments performed on the regulatory commitment management program. The NRC staff learned that a self-assessment had been performed at Palo Verde on July 24-27, 2007. The self-assessment was performed by the APS regulatory affairs staff and issued on July 30, 2007, as SWMS Report No. 3043220. The self-assessment was intended as a "snapshot" or sample of the program and did not attempt to explore all program features. The self-assessment concluded that overall the commitment management program at Palo Verde was working and did not identify any significant deficiencies. The self-assessment determined that there was some ambiguous wording in commitment letters that impacted the scope of the RCTSAI documentation. The self-assessment also concluded that APS procedures establish sufficient process control and that

most regulatory affairs personnel were knowledgeable of their use. The self-assessment team identified areas for improvement that were included in a PVAR. Most of the areas for improvement were related to documentation clarity and the phrasing of commitments that obscured tracking system designation of the materials classification (e.g., Safeguards, Classified, etc.).

The NRC identified two errors in the self-assessment's traceability of observations/findings to RCTSAI documents. The licensee acknowledged these errors and took immediate action to correct the record within the self-assessment report.

The NRC also noted that self-assessment SWMS Report No. 3043220 did not address issues or corrective actions from prior self-assessments or audits. The NRC commitment management audit in 2004 made two recommendations: (1) that outgoing APS correspondence include a statement indicating whether or not a commitment is made by the licensee's letter, and (2) that consideration be given to providing an annual statement of commitments when there are no changes in commitments and that such reporting might easily be done via the annual report of 10 CFR 50.59 changes. The NRC notes that both of these actions were taken by the licensee, but no statement is made regarding the completeness or sufficiency of prior audit findings.

The NRC recommends that future APS self-assessments of the commitment management program address the status and/or closure of prior audit findings.

### 3.0 CONCLUSION

The NRC staff concludes, based on the above audit findings, that (1) APS has an adequate program to implement and manage regulatory commitments, (2) APS has an adequate program to implement and manage changes to regulatory commitments, and (3) APS has an adequate program for identifying regulatory commitments in outgoing correspondence to the NRC.

### 4.0 APS PERSONNEL CONTACTED FOR THIS AUDIT

Rob Roehler  
Rich Rogalski  
Ray Buzard  
Dan Hautala  
Tom Weber  
Scott Bauer

Principal Contributor: Michael Markley

Date: October 31, 2007

**TABLE - APS REGULATORY COMMITMENTS REVIEWED**

External Source Documents / ADAMS Accession No.	Licensee Internal Document/ Tracking #	Description	Status
<p>NRC Generic Letter (GL) 2003-01</p> <p>APS letters:            7/19/05 (ML052070713)            8/28/06 (ML062490502)            12/8/06 (ML063530482)</p>	<p>Documents:</p> <p>102-05312            102-05556            102-05609</p>	<p>APS committed to perform tracer gas testing in Palo Verde Units 1 and 3, in accordance with ASTM Standard E741, to confirm that unfiltered in-leakage into the control room envelope is less than what is assumed in the design basis radiological analysis for control room habitability. The licensee submitted several letters to the NRC providing the results of testing and updating plans for completing specified actions. The commitments were appropriately incorporated in the commitment tracking system. The licensee closed this item based on plans to provide a submittal using Technical Specification Task Force Traveler 448 (TSTF). The NRC accepted this approach and closed GL 2003-01 for the Palo Verde units (ADAMS Accession No. ML062790336). This item is tracked and discussed weekly as an upcoming licensing action request (RCTSAI #2944874).</p>	<p>Closed</p>
<p>NRC GL 2004-02</p> <p>APS Letters:            9/1/05 (ML052500306)            6/29/06 (ML061880306)            8/30/06 (ML062490561)            3/2/07 (ML070790245)</p>	<p>Documents:</p> <p>102-05336            102-05523            102-05560            102-05651</p>	<p>Multiple Commitments – APS has 19 commitments associated with GL 2004-02 on the impact of debris blockage on emergency recirculation during design-basis accidents at pressurized-water reactors (PWRs). Several are dependent on outage completion and others are pending completion of industry research and testing (e.g., chemical effects testing). The licensee’s staff was able to use RCTS to identify the status and demonstrate tracking of commitments for the sample selected by the NRC. Although the licensee has changed the schedule for completing a number of GL 2004-02 commitments, these changes were reflected in RCTSAI and in letters to the NRC. The NRC verified that a sample of completed items was incorporated in plant procedures and/or design modification packages, as appropriate.</p>	<p>Partially Complete</p>

ATTACHMENT

External Source Documents / ADAMS Accession No.	Licensee Internal Document/ Tracking #	Description	Status
<p>NRC Bulletin 2004-01</p> <p>APS Letters:            7/22/2004 (ML042120323)            2/4/2005 (ML050460219)            7/18/2005 (ML052070715)            2/23/2006 (ML060720026)</p>	<p>Documents:</p> <p>102-05130            102-05207            102-05311            102-05424</p>	<p>Multiple Commitments – APS made three commitments associated with Bulletin 2004-01 on the inspection of Alloy 82/182/600 materials used in the fabrication of pressurizer penetrations and steam space piping at PWRs. These commitments provided for inspections, modifications, and reporting of actions to detect and mitigate the potential for primary water stress-corrosion cracking. The licensee submitted several letters to the NRC providing the results of testing and updating plans for completing specified actions. The commitments were appropriately incorporated in the commitment tracking system. The NRC accepted the licensee’s actions and closed Bulletin 2004-01 (ADAMS Accession No. ML061520459). This audit verified that a sample of completed actions (e.g., RCTSAI #2723063) had been incorporated in engineering packages (e.g., APS Work Order 2513813). The licensee’s commitment management program was effective in tracking the unit-specific issues and overlap with other regulatory items such as GL 2003-02 and NRC Order EA-03-009.</p>	<p>Closed</p>
<p>License Amendment #164</p> <p>APS Letters:            12/23/05 (ML060040310)            5/4/06 (ML061310140)            8/3/06 (ML062410236)</p>	<p>Documents:</p> <p>102-05391            102-05484            102-05539</p>	<p>Commitment – The licensee committed to include compensatory measures identified in Amendment #164 for extended allowed time for emergency diesel generators in the TS Bases in accordance with APS Letter 102-05484. This audit verified the incorporation of 13 compensatory measures was appropriately included in TS Bases Revision #44, issued on June 20, 2007. This audit verified completion of commitments and associated tracking in RCTS via RCTSAI #2888100.</p>	<p>Closed</p>
<p>Relief Request #31</p> <p>APS Letter:            8/16/05 (ML052550368)</p>	<p>Document:</p> <p>102-05324</p>	<p>Commitment – APS reaffirmed its commitment to continue to track the time at cold shutdown conditions against each of the assumptions made in the corrosion analysis for alternative repair criteria for reactor coolant system hot-leg Alloy 600 nozzles. The licensee closed this via RCTSAI #2782960 which requires continued monitoring via plant procedures and reporting to the NRC if any analysis assumptions are exceeded. This is an Active Y commitment that maintains ongoing action “specified action,” even though the commitment management system considers it to be closed.</p>	<p>Closed</p>