



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011-4005

March 2, 2006

James M. Levine, Executive
Vice President, Generation
Mail Station 7602
Arizona Public Service Company
P.O. Box 52034
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SUBJECT: ANNUAL ASSESSMENT LETTER - PALO VERDE NUCLEAR GENERATING
STATION (NRC INSPECTION REPORT 05000528/2006001; 05000529/2006001;
05000530/2006001)

Dear Mr. Levine:

On February 8, 2006, the NRC staff completed its performance review of the Palo Verde Nuclear Generating Station. Our technical staff reviewed performance indicators for the most recent quarter and inspection results for the period from January 1 through December 31, 2005. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include physical protection information. A separate letter designated and marked as "Official Use Only - Security Related Information" will include the physical protection review and resultant inspection plan.

Overall, Palo Verde Nuclear Generating Station, Units 1, 2, and 3, operated in a manner that preserved public health and safety and met all cornerstone objectives with moderate degradation in safety performance. Plant performance for the most recent quarter for all three units was within the Degraded Cornerstone column of the NRC's Action Matrix based on one Yellow finding in the Mitigating Systems Cornerstone involving a significant section of containment sump safety injection piping that was void of water at all three Palo Verde Nuclear Generating Station units.

Our May 3, 2005, Assessment Follow-Up Letter identified that Palo Verde Nuclear Generating Station's performance was within the Degraded Cornerstone column of the NRC's Action Matrix. On June 14, 2005, the Arizona Public Service Company requested postponement of the planned NRC supplemental inspection in order to allow sufficient time to complete the root cause evaluations and develop corrective actions. Accordingly, the NRC staff delayed the inspection until the fourth quarter of 2005. In December 2005, the NRC completed the implementation of Supplemental Inspection Procedure 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area." This supplemental inspection reviewed your root cause, extent of cause and condition, as well as, the corrective actions for: (1) the Yellow finding involving the failure to adequately control the design configuration of the containment sump safety injection suction piping of all three units; and

(2) the Severity Level III violation for the failure to perform a 10 CFR 50.59 safety evaluation and receive prior NRC approval of a change to an emergency core cooling system (ECCS) leak test procedure. The results of the supplemental inspection were documented in NRC Inspection Report 05000528/2005012; 05000529/2005012; 05000530/2005012.

The NRC concluded that, while you performed an adequate root cause evaluation of the design control violation for the Yellow finding, certain corrective actions were incomplete at the time of the inspection. Specifically, for each of the root and contributing causes, not all corrective actions were sufficiently developed to ensure that the identified performance deficiencies were adequately addressed. Some of the corrective actions were narrowly focused, or the implementation of those actions was not fully effective at the time of the inspection. Additionally, monitoring criteria and reviews were not fully established to ensure that corrective actions were effective in improving performance. Consequently, we did not have assurance that your planned corrective actions were sufficient to address the causes for the performance deficiencies associated with the violation. We request that you inform us in writing once you have completed steps to assure that your corrective actions are of sufficient scope and breadth to address the subject performance deficiencies. The NRC will then perform additional inspections as necessary to assess the effectiveness of your actions. Pending completion of this follow-up inspection activity, including an NRC assessment that your corrective actions are sufficient to address the performance deficiencies, the Yellow finding in the Mitigating Systems Cornerstone will remain open.

For the violation involving the NRC's identification of a failure to perform a 10 CFR 50.59 safety evaluation and receive prior NRC approval for a change of an ECCS leak test procedure, the NRC concluded that you performed an adequate evaluation and implemented corrective and followup actions necessary to reasonably prevent repetition of the 10 CFR 50.59 Severity Level III violation. Therefore, this violation was closed.

In our Annual Assessment letter, dated March 2, 2005, and our midcycle assessment letter, dated August 30, 2005, we advised you of substantive crosscutting issues in the areas of human performance and problem identification and resolution. During this assessment period, we continued to identify findings with the same causes and common themes in both crosscutting areas. There were 16 Green findings with crosscutting aspects in the area of human performance. Our assessment indicates that your actions to date have not completely corrected the root causes associated with procedural compliance, procedural adequacy, and the interactions between engineering and operations personnel when assessing degraded and nonconforming conditions. Additionally, there were 12 Green and Severity Level IV findings with crosscutting aspects in the area of problem identification and resolution. Our assessment indicates that your actions to date have not completely corrected the root causes associated with the identification of non-conforming conditions, the evaluation of conditions adverse to quality, particularly by engineering and operations personnel, and the implementation of effective corrective actions for deficient conditions.

During the assessment period, the NRC performed periodic reviews of your corrective actions associated with both crosscutting areas. Following the issuance of the August 30, 2005, midcycle assessment letter, you completed re-analyses of the human performance and problem identification and resolution concerns. You also approved the Performance Improvement Plan in November 2005 and began briefing station personnel on improvement initiatives in

January 2006. Nevertheless, as of the end of the period, the implementation of the improvement initiatives had not completely addressed the original causes of the issues identified in our previous letters and discussed during public meetings conducted in April, May, and August 2005.

A meeting has been scheduled for March 30, 2006, in Arlington, Texas, to discuss the Performance Improvement Plan and corrective actions taken or planned to improve performance relative to these substantive crosscutting issues. You are requested to address these two issues during the Annual Assessment Meeting on April 5, 2006, in Tonopah, Arizona. Additionally, you are requested to provide a written response within 30 days of the date of this letter to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011-4005; and the NRC Resident Inspector at the Palo Verde Nuclear Generating Station, Units 1, 2, and 3, facility. Specifically, your written response should identify the probable causes, corrective actions you have taken or plan to take, and the estimated corrective action completion dates for performance deficiencies associated with: (1) the failure of personnel to follow procedures, (2) the use of inadequate procedures, (3) ineffective interactions between engineering and operations personnel when assessing degraded and nonconforming conditions, (4) inadequate identification of nonconforming conditions, (5) inadequate evaluation of conditions adverse to quality by engineering and operations personnel, and (6) inadequate and ineffective corrective actions.

Our midcycle assessment letter, dated August 30, 2005, also discussed the August 18, 2005, public meeting, in which your staff informed us of the results of the site-wide employee survey. The survey results included some conflicting results (e.g., positive statistical results of survey questions relative to negative write-in comments), and your staff discussed the need for further actions. The NRC focused on safety conscious work environment issues, including actions taken in response to the survey, as part of our routine baseline inspection activities and during the January 2006 problem identification and resolution inspection. No instances were identified in which plant personnel would not raise safety concerns. However, several personnel indicated that they did not believe management would resolve minor concerns when identified. Your 2005 Business Plan and Performance Improvement Plan include actions to address safety conscious work environment issues at the Palo Verde Nuclear Generating Station. We will continue to focus on your initiatives in this area as part of our baseline inspection program to monitor your corrective actions for these issues.

The August 30, 2005, midcycle assessment letter also discussed a Severity Level III violation issued on June 27, 2005. The violation involved the NRC's identification of a change to the Palo Verde Nuclear Generating Station Emergency Plan without prior Commission approval, which decreased the plan's effectiveness. The NRC staff conducted an inspection of your root cause analyses and corrective actions as part of the January 2006 problem identification and resolution inspection. The results of this inspection will be documented in NRC Inspection Report 05000528/2006008; 05000529/2006008; 05000530/2006008.

The enclosed inspection plan details the inspections, except those related to physical protection, scheduled through September 30, 2007. In addition to the baseline inspections, NRC will be implementing Inspection Procedure 50001, "Steam Generator Replacement

Inspection," relative to the planned replacement of the Unit 3 steam generators. We will conduct a follow-up Supplemental Inspection Procedure 95002 after receiving notification from you that the corrective actions for the Yellow finding are of sufficient scope and breadth (including the establishment of appropriate effectiveness measures) to address the subject performance deficiencies. We also plan to perform an additional problem identification and resolution inspection in early 2007 to further evaluate the effectiveness of your corrective actions in resolving the substantive crosscutting issues. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 9 months of the inspection plan are tentative and may be revised at the midcycle review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Mr. Troy W. Pruett at (817) 860-8173 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Bruce S. Mallett
Regional Administrator

Dockets: 50-528
50-529
50-530
Licenses: NPF-41
NPF-51
NPF-74

Enclosure:
Palo Verde Nuclear Generating Station
Inspection/Activity Plan

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SUNSI Review Completed: twp ADAMS: Yes No Initials: twp
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2/23/06	2/24/06	2/27/06	2/27/06	2/27/06

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Palo Verde
Inspection / Activity Plan
03/01/2006 - 09/30/2007

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	EB1-08P - U3-ISI		2			
3	IP 7111108P	Inservice Inspection Activities - PWR		04/10/2006	04/14/2006	Baseline Inspections
3	IP 7111108P	Inservice Inspection Activities - PWR		04/24/2006	04/28/2006	Baseline Inspections
	RP-ORS - OCCUPATIONAL RADIATION SAFETY		1			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		04/10/2006	04/14/2006	Baseline Inspections
1, 2, 3	IP 7112102	ALARA Planning and Controls		04/10/2006	04/14/2006	Baseline Inspections
1, 2, 3	IP 71151	Performance Indicator Verification		04/10/2006	04/14/2006	Baseline Inspections
	EB2-07B - HX PERFORMANCE		1			
1, 2, 3	IP 7111107B	Heat Sink Performance		06/05/2006	06/09/2006	Baseline Inspections
	EB1-21 - CDB		8			
1, 2, 3	IP 7111121	Component Design Bases Inspection		07/31/2006	08/04/2006	Baseline Inspections
1, 2, 3	IP 7111121	Component Design Bases Inspection		08/14/2006	08/25/2006	Baseline Inspections
	OB-RQ - PV REQUALIFICATION INSP		2			
1, 2, 3	IP 7111111B	Licensed Operator Requalification Program		09/18/2006	09/22/2006	Baseline Inspections
	EB1-08P - ISI U2		1			
2	IP 7111108P	Inservice Inspection Activities - PWR		10/16/2006	10/20/2006	Baseline Inspections
2	IP 7111108P	Inservice Inspection Activities - PWR		10/30/2006	11/03/2006	Baseline Inspections
	SG REP - U3 SG REPLACEMENT ACTIVITIES		1			
3	IP 50001	Steam Generator Replacement Inspection		01/01/2007	12/31/2007	Other Routine
	RP-ORS - OCCUPATIONAL RADIATION SAFETY		1			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		01/08/2007	01/12/2007	Baseline Inspections
1, 2, 3	IP 7112102	ALARA Planning and Controls		01/08/2007	01/12/2007	Baseline Inspections
1, 2, 3	IP 71151	Performance Indicator Verification		01/08/2007	01/12/2007	Baseline Inspections
	EB2-12B - MAINTENANCE RULE INSPECTION		2			
1, 2	IP 7111112B	Maintenance Effectiveness		01/22/2007	01/26/2007	Baseline Inspections
	PIR - PIR INSPECTION		1			
1, 2, 3	IP 71152B	Identification and Resolution of Problems		01/22/2007	01/26/2007	Baseline Inspections
1, 2, 3	IP 71152B	Identification and Resolution of Problems		02/05/2007	02/09/2007	Baseline Inspections
	RP TEAM - RADIATION SAFETY TEAM		5			
1, 2, 3	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		01/29/2007	02/02/2007	Baseline Inspections
1, 2, 3	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		01/29/2007	02/02/2007	Baseline Inspections
1, 2, 3	IP 7112202	Radioactive Material Processing and Transportation		01/29/2007	02/02/2007	Baseline Inspections
1, 2, 3	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Pr		01/29/2007	02/02/2007	Baseline Inspections
	EP1 - PV EP EXERCISE		3			
1, 2, 3	IP 7111401	Exercise Evaluation		03/05/2007	03/09/2007	Baseline Inspections

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Palo Verde
Inspection / Activity Plan
03/01/2006 - 09/30/2007

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
EP1 - PV EP EXERCISE			3			
1, 2, 3	IP 7111404	Emergency Action Level and Emergency Plan Changes		03/05/2007	03/09/2007	Baseline Inspections
1, 2, 3	IP 71151	Performance Indicator Verification		03/05/2007	03/09/2007	Baseline Inspections
EB1-08P - ISI U1			1			
1	IP 7111108P	Inservice Inspection Activities - PWR		04/02/2007	04/13/2007	Baseline Inspections
RP-ORS - OCCUPATIONAL RADIATION SAFETY			1			
1, 2, 3	IP 7112101	Access Control to Radiologically Significant Areas		04/09/2007	04/09/2007	Baseline Inspections
1, 2, 3	IP 7112102	ALARA Planning and Controls		04/09/2007	04/09/2007	Baseline Inspections
1, 2, 3	IP 71151	Performance Indicator Verification		04/09/2007	04/09/2007	Baseline Inspections
EXAM - INITIAL EXAM			3			
1	X02351	PV UNIT 1 - INITIAL EXAM (08/07)		07/09/2007	07/13/2007	Not Applicable
2	X02352	PV UNIT 2 - INITIAL EXAM (08/07)		07/09/2007	07/13/2007	Not Applicable
3	X02353	PV UNIT 3 - INITIAL EXAM (08/07)		07/09/2007	07/13/2007	Not Applicable
1	X02351	PV UNIT 1 - INITIAL EXAM (08/07)		07/30/2007	08/03/2007	Not Applicable
2	X02352	PV UNIT 2 - INITIAL EXAM (08/07)		07/30/2007	08/03/2007	Not Applicable
3	X02353	PV UNIT 3 - INITIAL EXAM (08/07)		07/30/2007	08/03/2007	Not Applicable
EB2-05T - TRIENNIAL FIRE PROTECTION			4			
1, 2, 3	IP 7111105T	Fire Protection [Triennial]		07/23/2007	07/27/2007	Baseline Inspections
1, 2, 3	IP 7111105T	Fire Protection [Triennial]		08/13/2007	08/17/2007	Baseline Inspections