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Barbara Klemstine
Director
Regulation and Pricing

Tel. 602-250-4563
Fax 602-250-3000
e-mail Barbara.Klemstine@aps.com

Mail Station 9708
PO Box 53999
Phoenix, Arizona 85072-3999

AZ CORP COMMISSION
DOCKET CONTROL

February 29, 2008

Docket Control
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

RE: PVNGS SEMI-ANNUAL REPORT
DECISION NO. 69663
DOCKET NO. E-01345A-05-0816, E-01345A-05-0826, E-01345A-05-0827

Dear Sir or Madam:

Pursuant to Decision No. 69663, enclosed please find the semi-annual report for the Palo Verde Nuclear Generating Station for the period of July 1 through December 31 of 2007.

If you have any questions, please call Jeff Johnson at 602-250-2661.

Sincerely,

Barbara Klemstine / SC

Barbara Klemstine

BK/bgs

cc: Brian Bozzo
Ernest Johnson
Terri Ford

Arizona Corporation Commission
DOCKETED

FEB 29 2008

DOCKETED BY
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**SEMI-ANNUAL REPORT
PALO VERDE NUCLEAR GENERATING STATION
IN COMPLIANCE WITH DECISION NO. 69663
FOR THE PERIOD JULY 1, 2007 THROUGH DECEMBER 31, 2007**

In Decision No. 69663 dated June 27, 2007, the Commission required APS to submit a semi-annual report describing plant performance and explaining any negative regulatory reports by the Nuclear Regulatory Commission ("NRC") or the Institute of Nuclear Power Operations ("INPO") as a compliance item in Docket No. E-01345A-05-0816, et. APS submits this report in response to that requirement for the reporting period of July 1, 2007 through December 31, 2007.

PERFORMANCE OVERVIEW

The three Palo Verde units generated over 3.6 million MWh for APS from July through December of 2007, providing almost 25% of the Company's retail customer electricity requirements for the period. In September of 2007, the Company began the final stage of its multi-year program to increase the output and performance of PVNGS when it started the steam generator replacement and low pressure turbine upgrade for unit 3. This significant milestone is expected to result in an estimated 20 MW increase in output for unit 3. Any planned or unplanned outages experienced during the reporting period, including applicable net replacement costs, are described in detail in the Company's PVNGS outage reports that have been previously filed with the Commission pursuant to other compliance requirements in Decision No. 69663.

INPO REPORTS

The Institute of Nuclear Power Operations did not issue any reports for PVNGS during the reporting period.

NRC REPORTS

The Nuclear Regulatory Commission issued three reports during the reporting period. Two of these were quarterly integrated inspection reports issued by Palo Verde's NRC resident inspectors. The Second Quarter Resident's Integrated Inspection Report was issued on July 20, 2007, and the Third Quarter Resident's Integrated Inspection Report was issued on November 8, 2007. The PVNGS Triennial Fire Protection Inspection Report was issued on September 18, 2007. Full copies of each of these reports can be found on the NRC's website at <http://www.nrc.gov/reactors/plant-specific-items/palo-verde-issues.html>.

Under the NRC's Reactor Oversight Process, inspection findings are classified by color based on their safety significance. These three reports collectively identified seven findings, each of which were classified as the low safety significant "Green" findings. In addition, each of the seven findings were classified by the NRC as "non-cited" violations, which means that the findings do not require a written response to the NRC from Palo Verde.

Inspection findings fall into three categories, which are differentiated by how the violation was identified. "Licensee-identified" findings are those findings identified by Palo Verde employees and documented through programs or processes in place at Palo Verde, and the NRC confirms that the licensee has made effective evaluations and has taken (or will take) appropriate corrective actions. "NRC-identified" findings are those findings that were initially identified by NRC inspectors, or those which the licensee had identified but had not fully evaluated or had not taken appropriate actions to correct. "Self-revealing" findings are those that reveal themselves to either the NRC or the licensee through a change in process, capability or functionality of equipment, operations, or programs during routine operation. Although licensee-identified findings are mentioned in NRC reports, the NRC does not list these on their website and those

findings are not included herein. The NRC-identified and self-revealing findings are included in this report.

The following summarizes, for each of the three NRC reports, a description of the findings made and the corrective actions taken.

NRC Integrated Inspection Report 05000528/2007003,
05000529/2007003, and 05000530/2007003
Second Quarter Resident's Integrated Inspection Report
Issued July 20, 2007

The Second Quarter Integrated Inspection Report acknowledged two NRC identified findings and two self-revealing findings that involved compliance with NRC requirements. These findings were: 1) APS had not included a condensate demineralizer system valve into the scope of the plant's program to monitor the effectiveness of maintenance; 2) APS had not identified degraded spray pond pipe supports that were not previously entered into the plant's corrective action program; 3) APS had not recognized industry experience regarding the incorporation of linear variable differential transformer ("LVDT") linkages into preventative maintenance activities may have prevented a control valve functional failure and subsequent loss of feedwater pump; and 4) operations personnel did not make safety significant decisions using a systematic process when faced with uncertain or unexpected refueling machine load error to ensure safety is maintained. Each of these incidents were found to have very low safety significance and were therefore labeled "Green" findings. Because of the incidents' very low safety significance and because these incidents are entered into the Palo Verde correction program, the NRC treated these findings as non-cited violations.

Actions to correct each of these identified violations have been completed. For the first violation listed above, the condensate demineralizer portion of the secondary chemical system has been incorporated into the scope of the Palo Verde's Maintenance Rule Program ("MRP"). In addition, a review was performed of prior unit trips that were caused by other component failures to ensure they were included in the MRP. No other components that had caused a unit trip were identified to not be included in the MRP. The checklist for inclusion of equipment into the MRP was updated to verify that equipment that causes a

unit trip be included. Training has been conducted with Palo Verde's MRP panel members to convey the lessons learned from this event.

For the second violation, initial action was taken to perform a visual inspection of the supports. This was conducted by a qualified inspector who confirmed that the supports were acceptable based on criteria set by the American Society of Mechanical Engineers ("ASME") Code Section XI criteria. As these supports were in compliance with the ASME Code, no action was required. Nevertheless, PVNGS did clean and recoat the pipe supports. Based on Palo Verde's review of this finding, a requirement was added to the procedure for piping support inspections to require the initiation of corrective action documentation for visible degradation, even though the visible degradation may not affect the performance of the component and is in compliance with the ASME Code.

The third violation was corrected by installing a new rod bearing end and new LVDT assembly to replace the failed LVDT. Visual inspections for LVDTs in similar locations were also performed and the inspections confirmed that these other LVDTs remain in good working order. Formal inspections were subsequently performed, which confirmed that the components are in good working order and evidenced no binding of the LVDT armature. Additional actions include revision of the equipment reliability engineering templates and implementation of repetitive tasks to inspect the freedom of movement and cleaning of key LVDTs required for reliable operation of the main feedpump turbine and main turbine electrohydraulic control system.

The final violation documented in the second quarter inspection report related to the operation of a new piece of equipment. PVNGS operations procedures require the use of a fuel handling Event Recovery Checklist ("ERC"), a systematic process, to promptly document and evaluate an event and communicate with the control room. An ERC should have been completed when the overload and underload protection was potentially found to be inadvertently disabled during movement of 11 fuel assemblies in the spent fuel pool. These assemblies were inspected and no damage had occurred; however, the control

room had not been promptly notified of this situation. An ERC was subsequently performed. The refueling machine component (a hoist latch pivot block) was reworked to correct the problem that had inadvertently disabled the protection. Human performance improvements have also been made. The ERC has been simplified and includes clarifications on actions used to assess events, including the involvement of appropriate personnel. Training is being provided to refueling personnel that perform these evaluations to reiterate the use of the ERC, including the requirement to notify the control room.

NRC Integrated Inspection Report 05000528/2007004,
05000529/2007004, and 05000530/2007004
Third Quarter Resident's Integrated Inspection Report
Issued November 8, 2007

The Third Quarter Integrated Inspection Report identified one NRC identified finding and one self-revealing finding which involved compliance with NRC requirements. These findings were: 1) operations personnel had not followed procedures that resulted in a partial vacuum condition in the reactor coolant system while lowering pressurizer levels during start up. Reviews concluded that the affected procedure was inadequate and lacked lower limits for pressurizer pressure during this evolution, and 2) a weakness in the plant's emergency preparedness portion of the NRC Physical Security exercise was not identified and corrected during critiques of the emergency planning process. Both of these incidents were found to have very low safety significance and were therefore labeled "Green" findings. Because of the low safety significance of the findings and because they are entered into the Palo Verde correction program, the NRC treated them as non-cited violations.

Actions to correct each of these violations have been completed or are underway. The affected procedure in the first violation has been revised to specifically list, rather than reference, the steps to be taken when venting the pressurizer during reactor start-up, and to provide clarity regarding the sign-off requirements. In addition, a minimum pressure was added to the procedure to reference expected conditions. An update of "just-in-time" training for Mode 5 operations has been completed to include the lessons learned from this situation. Training is ongoing for operations personnel that includes updated information regarding conducting effective tailboard briefings and reinforcing expectations for procedure use and adherence.

For the second violation, PVNGS has completed the corrective action to provide updated training to all Emergency Coordinators on emergency classifications associated with security related events. This training emphasized

expectations that the emergency classification of Notice of Unusual Event (the lowest classification for an emergency) is to be declared when a Code Red security condition is declared at PVNGS. Additionally, emergency plan drill guidelines have been updated to require an independent review of all emergency action level ("EAL") thresholds to ensure effective critique of drill performance. The specific EAL and corresponding technical basis is under evaluation to determine whether additional clarification is needed.

NRC Triennial Fire Protection Inspection Report
05000528/2007008, 05000529/20007008, and 05000530/2007008
Issued September 18, 2007

The Fire Protection Report documents one NRC-identified finding related to compliance with the Fire Protection Program. The finding identified a potential deficiency in the procedure that might have hindered the ability of control room personnel to complete time-critical steps required to safely shut down a facility following a fire in the control room; specifically, having the necessary tools available. This finding was classified by the NRC as having very low safety significance, and was therefore rated as "Green".

PVNGS has completed the actions required to correct this condition. The Company has committed to Time Critical Actions ("TCA") within the operations procedures to ensure the ability to safely shut down a unit in the case of a control room fire. PVNGS has performed a detailed analysis of the condition and has completed the applicable and corrective actions, which include improving the operator's knowledge and timing through specific classroom and in-field training and performance demonstrations, as well as on-shift briefings. Procedure steps have been clarified to more clearly communicate the expectations for specific actions and to improve the efficiency in which actions are taken. Expectations for procedure use and adherence have been aligned to ensure they are appropriate for these time critical actions. Fire department personnel awareness has also been heightened and the requirements for the use of the tool bag have been removed.