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SUBJECT: Responds to NRC 880701 ltr re violations noted in Insp Repts  
 50-528/88-13,50-529/88-14 & 50-530/88-13.Corrective actions:

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## Arizona Nuclear Power Project

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102-00892-DBK/TDS/KLMC/RJR  
August 1, 1988

NRC Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Palo Verde Nuclear Generating Station (PVNGS)  
Unit 1 and Unit 2  
Docket Nos. STN 50-528 (License NPF-41)  
STN 50-529 (License NPF-51)  
Response to Notice of Violations; 50-528/88-13-01 and  
50-529/88-14-01  
File: 88-056-026

Reference: Letter from R. A. Scarano, NRC, to E. E. Van Brunt, Jr., ANPP,  
dated July 1, 1988; Subject: NRC Inspection of Palo Verde Units  
1, 2 and 3 (50-528/88-13, 50-529/88-14 and 50-530/88-13)

Dear Sir:

This letter is provided in response to the routine onsite inspection conducted by Messrs. H. S. North, M. Cillis and G. Cicotte of NRC Region V from May 16 through May 27, 1988. Based upon the results of the inspection, two (2) violations of NRC requirements were identified. The violations are discussed in Appendix A of the referenced letter.

The violations and ANPP's responses are provided in the attachment to this letter. If you should have any questions regarding this response, contact Mr. Timothy Shriver of my staff at (602) 393-2521.

Very truly yours,

Donald B. Karner  
Executive Vice President  
Project Director

DBK/TDS/KLMC/RJR/kj

Attachment

cc: E. E. Van Brunt, Jr. (all w/attachment)  
J. G. Haynes  
J. B. Martin  
T. J. Polich  
E. A. Licitra  
A. C. Gehr

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Appendix A

Notice of Violation

During an inspection conducted May 16-27, 1988, two violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987), the violations are listed below:

Arizona Public Service Company  
Palo Verde Nuclear Generating Station Unit 2

Docket No. 50-529  
License No. NPF-51

A. 10 CFR 20.201, "Survey." states in part:

(a) As used in the regulations in this part, "survey" means an evaluation of the radiation hazards incident to the ... release, disposal, or presence of radioactive materials ... under a specific set of conditions. When appropriate, such evaluation include ... measurements of ... concentrations of radioactive materials present.

(b) Each licensee shall make or cause to be made such surveys as ... (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present."

Contrary to the above, on August 28, 1987, the licensee vented radioactive noble fission product gases from portions of the gaseous radwaste system without prior evaluation of the potential release. A release of approximately 15.3 curies of noble gas occurred which resulted in the declaration and notification of an Unusual Event.

This is a Severity Level IV Violation (Supplement IV).

Palo Verde Nuclear Generating Station Unit 1

Docket No. 50-528  
License No. NPF-41

B. 10 CFR 71.5, "Transportation of licensed material." states, in part:

"(a) Each licensee ... who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the regulations appropriate to the mode of transport of DOT in 49 CFR Parts 170 through 189."

49 CFR 173.425, "Transport requirements for low specific activity (LSA) radioactive materials." states in section (b)(6):

"Shipment must be braced so as to prevent shifting of lading under conditions normally incident to transportation."

In addition, 49 CFR 173.448, "General transportation requirements." states in section (a):

"Each shipment of radioactive materials shall be secured in order to prevent shifting during normal transport conditions."

Contrary to the above, licensee radwaste shipments 88-RW-21 and 88-RW-23 were observed to arrive at the Beatty, Nevada waste disposal site with

loose chain restrains, and further, shipment 88-RW-21 was observed to have shifted during transport as evidenced by loosened or broken bracing.

This is a Severity Level IV Violation (Supplement V).

Response to Notice of Violation  
50-529/88-14-01

I. REASON FOR VIOLATION

On August 27, 1987, a work order was written to repair a relief valve on the "B" Waste Gas Decay Tank (WGDT) in Unit 2 Gaseous Radwaste (GR) System, which was leaking by its seat to the surge tank. On August 28, 1987, the clearance was issued to establish the proper valve alignment to accomplish the repair. A Radiation Exposure Permit (REP) was initiated and issued on August 28, 1987, to perform the valve repair and other associated work. Preparation to perform the valve repair included pumping the contents of the "B" WGDT to another tank, purging the surge header and tank with nitrogen and venting or depressurizing the system through drain valves. As this venting was being accomplished Plant Vent Effluent Monitor RU-143 went into an alarmed condition. Radiation Protection (RP) checked the monitor and verified that the Technical Specification limit of  $6.62\text{E-}04$  uCi/cc was exceeded. Subsequently, the Unit 2 Shift Supervisor declared a Notification of Unusual Event (NUE) in accordance with EPIP-02, Event Classification, and EPIP-03, NUE. The event was immediately terminated since the release was brief and the radiation levels were trending down and the work had been stopped.

An evaluation has been performed to determine the cause of the event. The results of the evaluation have determined that insufficient guidance is provided for sampling radioactive systems prior to system breach. The evaluation showed that the guidance provided in the area of work package development required that a Radiation Exposure Permit (REP) be initiated if the work to be performed was associated with a radioactive system/component. The Planner Coordinator (PC) responsible for the work package development assumed that the initiation of the REP would ensure all potential radiological aspects of the task were evaluated. However, the guidance provided for the development of the REP was designed to ensure personnel protection and does not address all the radiological aspects that may be associated with the performance of a task. Therefore, the lack of specific procedural guidance led the responsible individuals into making assumptions that were not accurate, which in turn resulted in the violation described.

## II. CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

Subsequent to the release, a release permit was generated. Estimates based upon grab sample results show site boundary dose rates to be well within the limits provided by the Technical Specifications.

## III. CORRECTIVE ACTIONS TO BE TAKEN TO AVOID FURTHER VIOLATIONS

ANPP will revise the work planning procedure to instruct the work planner to contact the appropriate Unit RP lead, during the work

planning process, for assistance in work planning if a radioactive or potentially radioactive system is to be breached during the work to be performed. ANPP will also provide additional procedural guidance to RP personnel for preliminary planning of work documents. This guidance will specifically address such areas as potential internal plant releases and system purging requirements.

IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on August 28, 1987, when a grab sample of the GR system was taken and the generation of a release permit for the release was performed. The site boundary gamma and beta air doses related to this release were  $3.37\text{E-}3$  mrad and  $9.38\text{E-}3$  mrad, respectively. These doses are small fractions of the Technical Specification Limits for quarterly and yearly totals.

- ° The Work Control procedure revision is expected to be completed in September 1988. The procedural guidance to the RP personnel is expected to be complete by October 1988.
- ° As an interim measure, a memo has been issued providing this guidance to the RP Technicians.



Response to Notice of Violation  
50-528/88-13-01

I. REASON FOR VIOLATION

On April 12, 1988, ANPP was notified by the state of Nevada that a radwaste shipment (88-RW-21) from Palo Verde Nuclear Generating Station (PVNGS) arrived at the Beatty, Nevada site on March 23, 1988, with a package that had shifted to the rear and right of the transport vehicle and that on April 8, 1988, radwaste shipment (88-RW-23) arrived at the Beatty, Nevada site with loose chain bindings. As a result, ANPP conducted an evaluation to determine the root cause of each of the incidents. The evaluation determined the following:

- There were no deviations from the standard methods used to load, brace, and secure the subject shipments than that of previous shipments in which no infractions or concerns had been identified.
- There were no deviations from ANPP's approved shipping procedures in loading and securing of the containers.
- The appropriate checklist was used which indicated both the licensee-shipper and carrier's concurrence that the load was inspected and was properly secured.
- No notification was made by the driver to ANPP or the carrier company of any unusual conditions encountered during the transport of shipment 88-RW-21.

- The driver who transported shipment number 88-RW-23 did state that he had stopped several times during transport to tighten the bracing chains.

Based on this information, ANPP believes the root cause for the shifting of the package on shipment 88-RW-21 was caused by a condition or situation which is not normally incident to transportation, however, this could not be confirmed during the investigation. The loose chain bracing on shipment 88-RW-23 is attributed to a common occurrence of bracing becoming detensioned by road vibrations.

## II. CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

Based upon the results of the investigation, ANPP concluded that the discrepancies identified at the Beatty, Nevada site occurred during transportation and were not attributable to personnel actions or procedural deficiencies at PVNGS. Therefore the following actions have been implemented to provide more positive control of the shipments during transport:

- During transport, the driver will be required to stop every 2 or 3 hours to inspect the lading including bracing and tighten as necessary.
- Upon the detection of any shifting of lading during transport, the driver will be required to immediately notify the Radwaste Processing

Supervisor or designee, of the current condition of the lading and to adhere to communicated instructions.

- The carrier/driver will be required to sign indicating his acknowledgement of these instructions.
- ANPP has also formally contacted the carrier to reinforce the carrier's responsibilities concerning the lading during transport.

Although no discrepancies were identified with ANPP's on site practices for loading radwaste shipments, areas were identified where specific enhancements may reduce the probability of incidents occurring during transport. Therefore, ANPP has conducted training for ANPP personnel responsible for the loading and bracing of radioactive shipments. The objective of the training was to increase the awareness of the responsibilities and importance of proper bracing and the standard methods to be used for bracing at ANPP. The training was also designed to enhance the responsible personnel's ability to identify potential problems which may occur during the loading and bracing process. Additionally, all chains and bindings are inspected by ANPP shipping personnel for cracked or deformed links or defective welds, prior to departure of each shipment. These additional actions have been instituted for all applicable low level radioactive waste shipments.

To date, ANPP has shipped approximately twenty-seven (27) radwaste shipments since shipment 88-RW-23 with no shifting or bracing

discrepancies identified.

III. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

ANPP believes the actions, as discussed in Section II, are comprehensive and should prevent recurrence, therefore no additional actions are required.

IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

The revision to the Radwaste Directive was effective on May 16, 1988, and training for the applicable ANPP personnel was completed on May 29, 1988.