

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

| ACCESSION NBR:9605280222 | DOC.DATE: 96/05/22   | NOTARIZED: NO | DOCKET # |
|--------------------------|--|---------------|----------|
| FACIL:STN-50-528         | Palo Verde Nuclear Station, Unit 1, Arizona Publi          |               | 05000528 |
| STN-50-529               | Palo Verde Nuclear Station, Unit 2, Arizona Publi          |               | 05000529 |
| STN-50-530               | Palo Verde Nuclear Station, Unit 3, Arizona Publi          |               | 05000530 |
| AUTH.NAME                | AUTHOR AFFILIATION   |               |          |
| STEWART,W.L.             | Arizona Public Service Co. (formerly Arizona Nuclear Power |               |          |
| RECIP.NAME               | RECIPIENT AFFILIATION                                      |               |          |
|                          | Document Control Branch (Document Control Desk)            |               |          |

SUBJECT: Forwards response to NRC 960502 ltr re violations noted in  
insp repts 50-528/96-05-01, 50-529/96-05-01 & 50-530/96-05-01  
on 960310-0420.C/A:SDC was restored by placing Train B LPSI  
pump into svc.

DISTRIBUTION CODE: IE01D COPIES RECEIVED: LTR ENCL SIZE:  
TITLE: General (50 Dkt)-Insp Rept/Notice of Violation Response

NOTES: STANDARDIZED PLANT  
Standardized plant.  
Standardized plant.

05000528  
05000529  
05000530

RECIPIENT  
ID CODE/NAME  
PD4-2 PD  
THOMAS,C

| COPIES |      |
|--------|------|
| LTR    | ENCL |
| 1      | 1    |
| 1      | 1    |

RECIPIENT  
ID CODE/NAME  
CLIFFORD, J

COPIES  
LTR ENCL  
1 1

INTERNAL: ACRS  
AEOD/TTC  
FILE CENTER  
NRR/DRCH/HHFB  
NRR/DRPM/PERB  
OE DIR  
RGN4 FILE 01

|   |   |
|---|---|
| 2 | 2 |
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |

AEOD/SPD/RAB  
DEDRO  
NRR/DISP/PIPB  
NRR/DRPM/PECB  
NUDOCS-ABSTRACT  
OGC/HDS2

|   |   |
|---|---|
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |
| 1 | 1 |

EXTERNAL: LITCO BRYCE,J H  
NRC PDR

|   |   |
|---|---|
| 1 | 1 |
| 1 | 1 |

NOAC

1 1

NOTE TO ALL "RIDS" RECIPIENTS:  
PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK,  
ROOM OWFN 5D-5(EXT. 415-2083) TO ELIMINATE YOUR NAME FROM  
DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 20 ENCL 20

IA4

Arizona Public Service

PALO VERDE NUCLEAR GENERATING STATION  
P.O. BOX 52034 PHOENIX, ARIZONA 85072-2034

102-03707-WLS/AKK/RJH

May 22, 1996

WILLIAM L. STEWART  
EXECUTIVE VICE PRESIDENT  
NUCLEAR

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Station: P1-37  
Washington, DC 20555-0001

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)**  
**Units 1, 2, and 3**  
**Docket Nos. STN 50-528/529/530**  
**Reply to Notice of Violation 50-529/96-05-01,**

Arizona Public Service Company (APS) has reviewed NRC Inspection Report 50-528/529/530/96-05 and the Notice of Violation (NOV) dated May 2, 1996. Pursuant to the provisions of 10 CFR 2.201, APS' response is enclosed.

In response to the concerns identified in the Inspection Report, APS believes that existing programmatic controls are adequate to address this type of adverse condition; however, the failure to properly implement the controls is the root cause of the problem.

The subject violation identified that operations personnel incorrectly performed control room equipment manipulations without properly communicating their intentions with control room supervision and without following appropriate procedures. Existing procedure requirements, had they been followed, would have assured that the appropriate electrical configuration would be maintained and available to provide class power to plant equipment.

In summation, APS believes that the current procedure administrative controls and management expectations for manipulating plant equipment are adequate to provide control room operators with sufficient guidance to perform their specified duties. This particular weakness in communication and adherence to procedure requirements is believed to be an isolated operator performance issue and is being addressed by senior management to prevent recurrence.

9605280222 960522  
PDR ADOCK 05000528  
Q PDR  
200000

JEH  
11

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Reply to Notice of Violation 50-529/96-05-01  
Page 2

Should you have any further questions, please contact Ms. Angela K. Krainik at (602) 393-5421.

Sincerely,

WLS/AKK/RJH/pv  
Enclosure

cc: L. J. Callan  
C. R. Thomas  
K. E. Johnston  
K. E. Perkins

**ENCLOSURE**

**RESTATEMENT OF NOTICE OF VIOLATION 50-529/96-05-01**

**AND**

**REPLY TO NOTICE OF VIOLATION 50-529/96-05-01**

**NRC INSPECTION CONDUCTED MARCH 10, 1996**

**THROUGH APRIL 20, 1996**

**INSPECTION REPORT No. 50-528/529/530/96-05**

**ENCLOSURE**

**RESTATEMENT OF NOTICE OF VIOLATION 50-529/96-05-01**

**AND**

**REPLY TO NOTICE OF VIOLATION 50-529/96-05-01**

**NRC INSPECTION CONDUCTED MARCH 10, 1996**

**THROUGH APRIL 20, 1996**

**INSPECTION REPORT No. 50-528/529/530/96-05**

## RESTATEMENT OF NOTICE OF VIOLATION 50-529/96-05-01

During an NRC inspection conducted on March 10 through April 20, 1996, one violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (60 FR 34381; June 30, 1995), the violation is listed below:

- A. Unit 2 Technical Specification 6.8.1 requires, in part, that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Regulatory Guide 1.33, Appendix A, Revision 2, requires, in part, written procedures for the operation of electrical systems.

Procedure 420P-2NB01, "4.16 Kv Non-Class IE Power," Revision 6, Step 13.3.3 states, in part, to close 4.16 Kv Bus S02 supply breaker (NBN-HS-S02A).

Contrary to the above, on April 1, 1996, the reactor operator failed to close the 4.16 Kv Bus S02 supply breaker (NBN-HS-S02A) and closed 4.16 Kv Bus S04 alternate supply breaker (PBB-HS-S04L). As a result, a momentary loss-of-offsite power occurred to the safety-related Train B 4.16 Kv bus and the momentary loss of shutdown cooling to the core.

This is a Severity Level IV violation (Supplement I) applicable to Unit 2.

## REPLY TO NOTICE OF VIOLATION 50-529/96-05-01

### Reason For The Violation

PVNGS accepts the violation.

On April 1, 1996, at approximately 2230 hours MST, Unit 2 was in Mode 6 for its sixth refueling outage, and reactor core offload was in process. The Train A Safety Systems were removed from service for maintenance activities.

Outage work had been completed on the normal service transformer (NBN-X02, Non-Class 1E 13.8 to 4.16 kV), and an electrical clearance restoration was in progress to align power through the normal supply breaker (NBN-S02A). An Auxiliary Operator (AO, utility non-licensed operator) was dispatched to observe the breaker operation in the field while a Reactor Operator (RO, utility licensed operator) was to perform the breaker manipulations from the Control Room.

At approximately 2236 MST, the RO, believing he was operating the controls for the Non-Class 1E 4.16 kV bus, erroneously closed the alternate supply breaker to the Train B Class 1E 4.16 kV bus PBB-S04. The configuration for the normal supply breaker (PBB-S04K) is interlocked with the alternate supply breaker (PBB-S04L). Therefore, after the handswitch was taken to the closed position, the normal supply breaker opened when the handswitch was returned to the neutral position.

After the breaker manipulation, the RO requested that an AO perform a local verification of the breaker position. The AO informed the RO that breaker NBN-S02A did not operate. Concerned that there might be a fault with the Non-Class 1E breaker, the RO then took the control switch for PBB-S04L to open. This resulted in the Class 1E 4.16 kV bus PBB-S04 being disconnected from both the normal and alternate power sources and subsequent loss of power (LOP) to Shutdown Cooling (SDC) and Spent Fuel Pool (SFP) cooling pumps. The LOP condition signal was initiated on the Train B Class 1E 4.16 kV bus which resulted in an ESFAS actuation to start the Train B EDG. In addition the following Train B safety systems actuated as designed:

- Control Room Essential Ventilation
- Diesel Generator Building Essential Exhaust Fans
- Essential Cooling Water pump
- Essential Spray Pond pump
- Essential Chillers

The cause of this event has been determined to be an individual performance weakness on the part of the Control Room Supervisor (CRS) and Reactor Operator. The CRS failed to ensure that adequate communications were established with the Reactor Operator and lost his ability to effectively control the evolution. The Reactor Operator failed to adequately communicate with the CRS, failed to adequately self-check while manipulating controls, and failed to stop and inform the CRS when the initial control board manipulations did not achieve expected results. Management discussions held with both individuals confirm that they were aware of expectations established for these evolutions and that they normally implement these expectations. Therefore, it is concluded that this event resulted from an isolated individual performance weakness.

#### Corrective Steps That Have Been Taken and Results Achieved

1. On April 1, 1996, at approximately 2237 MST, SDC was restored by placing the Train B Low Pressure Safety Injection (LPSI)(BP) pump into service.
2. On April 1, 1996, at approximately 2245 MST, SFP cooling was restored by manually starting the Train B SFP cooling pump.
3. On April 1, 1996, at approximately 2300 MST, Unit 2 Control Room personnel secured the Train B EDG and restored offsite power to the Train B 4.16 kV Class 1E bus (PBB-S04) via the normal electrical system lineup.



### **Corrective Steps That Will Be Taken To Avoid Further Violations**

1. On April 2, 1996, a Night Order was issued to all three unit's operations crews, describing the event and stating that management expectations were not met regarding command and control, use of self-verification, communications, and supervision's responsibility to evaluate the best way to implement a task.
2. Shift Supervisors in all three units will brief the respective operating crews on expectations for procedure usage and self-verification techniques. This action will be completed by June 30, 1996.
3. A review of this event for lessons learned will be covered in continuing licensed operator training with an expected completion date of September 30, 1996.

### **Date When Full Compliance Will Be Achieved**

Full compliance was achieved on April 1, 1996, when shutdown cooling was restored by placing the Train B Low Pressure Safety Injection (LPSI) pump into service and restoring spent fuel pool cooling by manually starting the "B" Train spent fuel pool cooling pump.

Subsequent to restoring cooling systems, Unit 2 Control Room personnel secured the Train B Emergency Diesel Generator (EDG) and restored offsite power to the Train B 4.16 kV Class 1E bus (PBB-S04) via the normal electrical system lineup.

Arizona Public Service

102-03706-WLS/AKK/DRL

May 22, 1996

WILLIAM STEWART  
VICE PRESIDENT  
GENERAL MANAGER

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Station: P1-37  
Washington, DC 20555-0001

24

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)**  
**Units 1, 2, and 3**  
**Docket Nos. STN 50-528/529/530**  
**Reply to Notice of Violation 50-529/96-04-01**

Arizona Public Service Company (APS) has reviewed NRC Inspection Report 50-528/529/530/96-04 and the Notice of Violation (NOV) dated April 23, 1996. Pursuant to the provisions of 10 CFR 2.201, APS' response is enclosed. Enclosure 1 to this letter is a restatement of the NOV. APS' response is provided in Enclosure 2.

APS agrees with the NRC that the actual safety consequences of these two occurrences were minimal, however the need to follow the existing procedures and guidance is essential. Our program does allow flexibility to adjust for conditions less stringent than originally expected and controls are not to be relaxed until appropriately evaluated. Individual awareness and compliance of radiation exposure permit (REP) controls is critical to our program integrity, to which we are firmly dedicated. It is APS' intent to perform further evaluation of this issue in the continuance of our commitment to excellence.

Should you have any further questions, please contact Ms. Angela K. Krainik at (602) 393-5421.

Sincerely,

WLS Stewart

96-1425

~~9605280222~~ 96

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Reply to Notice of Violation 50-529/96-04-01  
Page 2

WLS/AKK/DRL

Enclosures:

1. Restatement of Notice of Violation
2. Reply to Notice of Violation

cc: L. J. Callan  
C. R. Thomas  
K. E. Johnston  
K. E. Perkins

**ENCLOSURE 1**

**RESTATEMENT OF NOTICE OF VIOLATION 50-529/96-04-01**

**NRC INSPECTION CONDUCTED MARCH 18 THROUGH**

**MARCH 22, 1996**

**INSPECTION REPORT No. 50-528/529/530/96-04**

## RESTATEMENT OF NOTICE OF VIOLATION 50-529/96-04-01

During an NRC inspection conducted on March 18-22, 1996, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (60 FR 34381; June 30, 1995), the violation is listed below:

- Technical Specification 6.8.1.a. requires, in part, that written procedures be established, implemented, and maintained covering the activities recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Section 7.e(1) of Appendix A of Regulatory Guide 1.33 includes procedures for the radiation exposure permit system.

Plant Procedure 75RP-9RP02, "Radiation Exposure Permits," Revision 9, Section 3.5.1.1 states in part, that workers shall ensure they have read and understood the conditions of the radiation exposure permit prior to signing the "REP Sign-In Sheet." Section 4.1.13 states that a signature indicates that the individual has read and understood the radiation exposure permit and will comply with all instructions and requirements. Section 4.1.12 states, in part, that the radiation protection technician (providing job coverage) shall ensure that the workers are aware of the requirements of the radiation exposure permit. Section 4.1.12.2 states, in part, that the radiation protection technician shall monitor work . . . to ensure that the requirements of the radiation exposure permit are met.

Radiation Exposure Permit 2-96-3504A required workers to notify radiation protection personnel prior to working in the overhead and to review current radiological survey maps for the work area.

Radiation Exposure Permit 2-96-3306A instructed workers to wear face shields.

Contrary to the above,

1. On March 19, 1996, an individual authorized to perform work under Radiation Exposure Permit 2-96-3504A failed to contact radiation protection personnel and review radiation survey information before working in the overhead area of the cooling water tank/pump room on the 40-foot elevation of the auxiliary building.
2. On March 19, 1996, two workers were observed cleaning steam generator manway stud holes without wearing face shields. Two radiation protection

technicians provided continuous job coverage but did not instruct the two workers to follow the requirements of Radiation Exposure Permit 2-96-3306A.

This is a Severity Level IV violation (Supplement IV) (529/9604-01).

**ENCLOSURE 2**

**REPLY TO NOTICE OF VIOLATION 50-529/96-04-01**

**NRC INSPECTION CONDUCTED MARCH 18 THROUGH**

**MARCH 22, 1996**

**INSPECTION REPORT Nos. 50-528/529/530/96-04**

REPLY TO NOTICE OF VIOLATION 50-529/96-04-01

Reason For The Violation

PVNGS accepts the violation.

1. The individual authorized to perform work under Radiation Exposure Permit (REP) 2-96-3504A failed to notify RP that he needed to work in the overhead which was not covered by the REP. Personnel are given training (NGW01-11-RC-001-004) which informs radiological workers of their responsibility to inform Radiation Protection (RP) personnel of any change in job scope/task while working in the Radiological Controlled Area (RCA). This training specifically discusses the concerns and requirements for accessing the overheads which is defined as six feet or greater from the floor level. The individual's signature on the REP sign-in - sheet denotes that the worker has read and understands the conditions of the Radiation Exposure Permit. The individual's failure to inform RP personnel prior to performing work in the overhead is identified as a cognitive personnel error.
2. REP 2-96-3306A required the use of faceshields. Faceshields are used at Palo Verde Nuclear Generating Station (PVNGS) as a part of protective clothing. The purpose of the face shield is to prevent contamination. Radiological evaluation and work scope determine the need or benefit of their use. Steam generator manway stud hole cleaning has, historically, presented a low potential for facial contamination or a localized airborne hazard but the REP is designed to cover these potentials. Prior to the commencement of work, Radiation Protection technicians assigned to cover this task surveyed the manway studs and stud holes



noting 3,000-15,000 disintegration per minute (dpm) per 100 square centimeters. These contamination levels did not represent the need for face shields. In many circumstances, REP allowing, the RP technicians are permitted to make adjustments to the protective clothing based on the work and survey results. In this case, the RP technicians were not fully aware of the REP requirements. The failure of the workers to follow REP requirements and the RP technicians failure to properly enforce or properly downgrade this provision is determined to be cognitive personnel error.

#### **Corrective Steps That Have Been Taken and Results Achieved**

1. The individual working under REP 2-96-3504A was coached by RP management on the importance of REP/procedural compliance. The individual understands the potential impact of failure to comply with REP/procedural compliance.
2. Both workers and the RP technicians associated with REP 2-96-3306A were coached on the importance of fully complying with the requirements of the Radiation Exposure Permit. The RP technicians were also coached to ensure the administrative process, outlined in REP's, for downgrading protective clothing requirements is followed.

#### **Corrective Steps That Will Be Taken To Avoid Further Violations**

1. RP management will evaluate the process used for authorization of protective clothing downgrades in the field. The results of this evaluation and any necessary

corrective actions will be documented in accordance with the PVNGS Corrective Action Program.

**Date When Full Compliance Will Be Achieved**

1. For REP 2-96-3504A, full compliance was achieved on March 19, 1996 when the area was surveyed and evaluated by RP and the worker was informed of the radiological conditions.
2. For REP 2-96-3306A, full compliance was achieved on March 19, 1996 when the RP Section Leader reviewed the as-found radiological conditions data and determined that, in accordance with REP requirements for downgrade options, steam generator manway stud hole cleaning could continue without face shields.