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 FACIL:STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Publi 05000528
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 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-006-00:on 890731,inadvertent ESF actuation.
 W/8 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

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LICENSEE EVENT REPORT (LER)

| | | |
|---|---|-----------------------------|
| FACILITY NAME (1) Palo Verde Unit 1 | DOCKET NUMBER (2) 0 5 0 0 0 5 2 8 | PAGE (3) 1 OF 0 4 |
|---|---|-----------------------------|

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| TITLE (4) Inadvertent Engineered Safety Feature Actuation |
|---|

| EVENT DATE (5) | | | LER NUMBER (6) | | | REPORT DATE (7) | | | OTHER FACILITIES INVOLVED (8) | | | |
|--|-----|------|-------------------|-------------------|-----------------|------------------|-----|------|---|--|------------------|--|
| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH | DAY | YEAR | FACILITY NAMES | | DOCKET NUMBER(S) | |
| 07 | 31 | 89 | 89 | 006 | 00 | 08 | 30 | 89 | N/A | | 0 5 0 0 0 | |
| THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | | | | | | | | | | |
| OPERATING MODE (9) N | | | 20.402(b) | | | 20.406(e) | | | <input checked="" type="checkbox"/> 50.73(a)(2)(iv) | | | 73.71(b) |
| POWER LEVEL (10) 0 0 0 | | | 20.406(a)(1)(i) | | | 50.36(e)(1) | | | <input type="checkbox"/> 50.73(a)(2)(v) | | | 73.71(e) |
| | | | 20.406(a)(1)(ii) | | | 50.36(e)(2) | | | <input type="checkbox"/> 50.73(a)(2)(vi) | | | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| | | | 20.406(a)(1)(iii) | | | 50.73(a)(2)(i) | | | <input type="checkbox"/> 50.73(a)(2)(vii)(A) | | | |
| | | | 20.406(a)(1)(iv) | | | 50.73(a)(2)(ii) | | | <input type="checkbox"/> 50.73(a)(2)(vii)(B) | | | |
| | | | 20.406(a)(1)(v) | | | 50.73(a)(2)(iii) | | | <input type="checkbox"/> 50.73(a)(2)(viii) | | | |

| LICENSEE CONTACT FOR THIS LER (12) | | TELEPHONE NUMBER |
|---|---------------------------|------------------------|
| NAME Timothy D. Shriver, Compliance Manager | AREA CODE 6 0 2 | 3 9 3 - 2 5 2 1 |

| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) | | | | | | | | | | | |
|--|--------|-----------|--------------|---------------------|--|-------|--------|-----------|--------------|---------------------|--|
| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS | | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDOS | |
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| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|-----------------------------|-------------------------------|-------|-----|------|
| <input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) | <input type="checkbox"/> NO | | 1 | 03 | 08 |

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On July 31, 1989, Palo Verde Unit 1 was in a refueling outage with the core off-loaded to the Spent Fuel Pool.

On the night shift of July 31, 1989, Unit 1 personnel were making preparations for an outage of all the Train "B" Class 1E electrical switchgear. Auxiliary Operators were stripping Train "B" loads when at approximately 0115 MST on July 31, 1989, there was a loss of power to panel 1E-PNB-D26 which caused a loss of power to the Remote Indicating and Control (RIC) unit for radiation monitor RU-38 thus initiating a Train "B" Containment Purge Isolation Actuation Signal (CPIAS). The CPIAS cross-tripped Train "B" Control Room Essential Filtration Actuation Signal (CREFAS) which in turn cross-tripped CREFAS "A", all in accordance with design. Due to the planned electrical outage, all safety equipment for CPIAS and CREFAS was in its actuated condition prior to the event with the exception of the Train "B" Control Room Essential Air Handling Unit which started as designed. Approximately one (1) minute after the event initiation, power was restored to 1E-PNB-D26 and RU-38. RU-38 was placed back on line and at approximately 0221 MST on July 31, 1989, the CPIAS and CREFAS were reset.

An investigation of this event is being conducted in accordance with the PVNGS Incident Investigation Program. Following completion of the investigation a supplement to this report is expected to be submitted by October 30, 1989.

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Arizona Public Service Company

P.O. BOX 53999 • PHOENIX, ARIZONA 85072-3999

192-00512-JGH/TDS/JEM

August 30, 1989

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

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 1
Docket No. STN 50-528 (License No. NPF-41)
Licensee Event Report 89-006-00
File: 89-020-404

Attached please find Licensee Event Report (LER) No. 89-006-00 prepared and submitted pursuant to 10CFR 50.73. In accordance with 10CFR 50.73(d), we are herewith forwarding a copy of the LER to the Regional Administrator of the Region V office.

If you have any questions, please contact T. D. Shriver, Compliance Manager at (602) 393-2521.

Very truly yours,

J. G. Haynes

J. G. Haynes
Vice President
Nuclear Production

JGH/TDS/JEM/kj

Attachment

cc: W. F. Conway (all w/a)
D. B. Karner
E. E. Van Brunt, Jr.
J. B. Martin
T. J. Polich
M. J. Davis
A. C. Gehr
INPO Records Center

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO. 3150-0104

EXPIRES: 8/31/88

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| FACILITY NAME (1) Palo Verde Unit 1 | DOCKET NUMBER (2) 0 5 0 0 0 5 2 8 8 9 | LER NUMBER (6) | | | PAGE (3) | | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
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TEXT (if more space is required, use additional NRC Form 366A's) (17)

I. DESCRIPTION OF WHAT OCCURRED:

A. Initial Conditions:

On July 31, 1989, Palo Verde Unit 1 was in a refueling outage with the core (AC) off-loaded to the Spent Fuel Pool (ND).

B. Reportable Event Description (Including Dates and Approximate Times of Major Occurrences):

Event Classification: An event or condition that resulted in an automatic actuation of an Engineered Safety Feature (ESF)(JE).

On the night shift of July 31, 1989, Unit 1 personnel were making preparations for an outage of all the Train "B" Class 1E electrical switchgear (SWGR)(EB)(ED)(EJ). Auxiliary Operators were stripping Train "B" loads when at approximately 0115 MST on July 31, 1989, there was a loss of power to panel 1E-PNB-D26 which caused a loss of power to the Remote Indicating and Control (RIC)(IL) unit for the Containment Power Access Purge Exhaust Radiation Monitor (RU-38)(MON)(IL) thus initiating a Train "B" Containment Purge Isolation Actuation Signal (CPIAS)(JE)(VA). The CPIAS cross-tripped Train "B" Control Room Essential Filtration Actuation Signal (CREFAS)(JE)(VI) which in turn cross-tripped CREFAS "A", all in accordance with design.

Prior to the event on the night shift of July 31, 1989, Unit 1 personnel were preparing for an outage of all the Train "B" Class 1E electrical switchgear to perform preventive maintenance. An exception to the outage was the Class 1E 120 Volt (EF) distribution panel (PL)(EF) 1E-PNB-D26 being supplied by temporary power from 480 Volt (EC) Motor Control Center (MCC)(EC) M10 through the normal supply breaker (BKR) on MCC 36 and voltage regulator (RG)(EF) PNB-V26.

Auxiliary Operators (utility, non-licensed) were in the process of deenergizing loads from the Train "B" MCC's when at approximately 0115 MST on July 31, 1989, Unit 1 experienced a loss of power to distribution panel 1E-PNB-D26 as identified by annunciator (ANN)(IB) and computer (CPU)(IB) alarms (ALM)(IB). This resulted in deenergizing the RIC for RU-38 which then initiated the Containment Purge Isolation Actuation Signal (CPIAS) Train "B". In accordance with system design, CPIAS "B" cross-tripped Control Room Essential Filtration Actuation Signal "B" (CREFAS) which in turn cross-tripped CREFAS "A". Due to the planned electrical outage, all equipment associated with CPIAS and CREFAS was in its actuated condition prior to the event with the exception of the Train "B" Control Room Essential Air Handling Unit (AHU)(VI) which started as designed.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

Approximately one (1) minute after the initiation of the event, power returned to distribution panel 1E-PNB-D26 as identified by annunciator alarms clearing. RU-38 was put back on line and at approximately 0221 MST on July 31, 1989, CPIAS and CREFAS Trains "A" and "B" were reset and the Train "B" Control Room Essential AHU was stopped.

Control Room Operators (utility, licensed) responded properly to the event and did not contribute to the cause of the event.

- C. Status of structures, systems, or components that were inoperable at the start of the event that contributed to the event:

Not applicable - no structures, systems, or components were inoperable at the start of the event that have been determined to have contributed to the event.

- D. Cause of each component or system failure, if known:

Not applicable - no component or system failures have been identified.

- E. Failure mode, mechanism, and effect of each failed component, if known:

Not applicable - no failed components have been identified.

- F. For failures of components with multiple functions, list of systems or secondary functions that were also affected:

Not applicable - no component failures have been identified.

- G. For failures that rendered a train of a safety system inoperable, estimated time elapsed from the discovery of the failure until the train was returned to service:

Not applicable - no failures have been identified.

- H. Method of discovery of each component or system failure or procedural error:

Not applicable - no component or system failures or procedural errors have been identified.

- I. Cause of Event:

The cause of the CPIAS ESF actuation was a loss of power to the RIC for RU-38 due to a loss of power to distribution panel 1E-PNB-D26. The cause of the loss of power to 1E-PNB-D26 is under investigation in accordance with the PVNGS Incident Investigation Program. The

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO 3150-0104

EXPIRES: 8/31/88

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TEXT (If more space is required, use additional NRC Form 366A's) (17)

investigation is expected to be complete by September 30, 1989. Following the completion of the investigation, a supplement to this report is expected to be submitted by October 30, 1989.

J. Safety System Response:

As described above in Section I.B the safety systems were in their actuated positions before the event except for the Train "B" Control Room Essential AHU which started automatically.

K. Failed Component Information:

Not applicable - no failed components have been identified.

II. ASSESSMENT OF THE SAFETY CONSEQUENCES AND IMPLICATIONS OF THIS EVENT:

During this event all fuel was stored in the Spent Fuel Pool (ND). All safety systems required to operate were in their actuated positions or actuated as designed when the event occurred. The event did not result in any challenges to fission product barriers or result in any releases of radioactive materials. Therefore, there were no safety consequences or implications as a result of this event. This event did not adversely affect the safe operation of the plant or health and safety of the public.

III. CORRECTIVE ACTIONS:

A. Immediate:

Power was restored to distribution panel 1E-PNB-D26 which reenergized RU-38. RU-38 was placed back on line and CPIAS and CREFAS were reset.

B. Action to Prevent Recurrence:

An investigation of this event is being conducted in accordance with the PVNGS Incident Investigation Program. The investigation is expected to be completed by September 30, 1989. Following the completion of the investigation, a supplement describing the corrective action to prevent recurrence is expected to be submitted by October 30, 1989.

IV. PREVIOUS SIMILAR EVENTS:

Other ESF actuations have been previously reported. Since the root cause of this event is presently not known, it cannot be determined if previously reported events were similar or if previous corrective actions could have prevented this event.

