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ACCESSION NBR:9002080142 DOC.DATE: 90/01/29 NOTARIZED: NO DOCKET #
 FACIL:STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
 AUTH.NAME AUTHOR AFFILIATION
 BRADISH,T.R. Arizona Public Service Co. (formerly Arizona Nuclear Power
 LEVINE,J.M. Arizona Public Service Co. (formerly Arizona Nuclear Power
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-008-03:on 890630,surveillance requirements not performed satisfactorily.

DISTRIBUTION CODE: IE22T COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 6
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:Standardized plant.

05000530

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Ad 4.



Arizona Public Service Company
PALO VERDE NUCLEAR GENERATING STATION
P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

192-00625-JML/TRB/JEM
January 29, 1990

JAMES M. LEWIS
VICE PRESIDENT
NUCLEAR SERVICES

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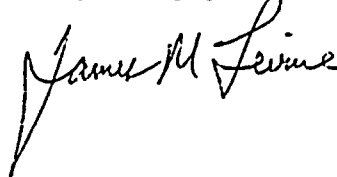
Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 3
Docket No. STN 50-530 (License No. NPF-74)
Licensee Event Report 89-008-03
File: 90-020-404

Attached please find Supplement Number 3 to Licensee Event Report (LER) No. 89-008-00 prepared and submitted pursuant to 10CFR50.73. In accordance with 10CFR50.73(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. R. Bradish, (Acting) Compliance Manager at (602) 393-2521.

Very truly yours,



JML/TRB/JEM/kj

Attachment

cc: W. F. Conway (all w/a)
E. E. Van Brunt
J. B. Martin
D. H. Coe
A. C. Gehr
INPO Records Center

9002080142 900129
FDR ADDCK 05000530
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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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

Surveillance Requirements Not Performed Satisfactorily

| 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) | | | | | | | | | | | | | | | |
| 0 | 6 | 3 | 0 | 8 | 9 | 8 | 9 | 0 | 0 | 8 | 0 | 3 | 0 | 1 | 2 | 9 | 9 | 0 | N/A | | | | | | 0 5 0 0 0 | | | | | |
| | | | | | | | | | N/A | | | | | | 0 5 0 0 0 | | | | | | | | | | | | | | | |
| OPERATING MODE (9) N | | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| POWER LEVEL (10) 0 1 0 0 | | | 20.402(b) | | | 20.405(c) | | | 50.73(a)(2)(iv) | | | | | | 73.71(b) | | | | | | | | | | | | | | | |
| | | | 20.405(a)(1)(i) | | | 50.38(c)(1) | | | 50.73(a)(2)(v) | | | | | | 73.71(c) | | | | | | | | | | | | | | | |
| | | | 20.405(a)(1)(ii) | | | 50.38(c)(2) | | | 50.73(a)(2)(vii) | | | | | | OTHER (Specify in Abstract below and in Text, NRC Form 365A) | | | | | | | | | | | | | | | |
| | | | 20.405(a)(1)(iii) | | | 50.73(a)(2)(ii) | | | 50.73(a)(2)(viii)(A) | | | | | | | | | | | | | | | | | | | | | |
| | | | 20.405(a)(1)(iv) | | | 50.73(a)(2)(iii) | | | 50.73(a)(2)(viii)(B) | | | | | | | | | | | | | | | | | | | | | |
| 20.405(a)(1)(v) | | | 50.73(a)(2)(iii) | | | 50.73(a)(2)(ix) | | | | | | | | | | | | | | | | | | | | | | | | |

LICENSEE CONTACT FOR THIS LER (12)

| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| NAME Thomas R. Bradish, (Acting) Compliance Manager | | | | | | | | | | TELEPHONE NUMBER 6 1 0 1 2 3 1 9 3 1 - 1 2 5 1 2 1 1 | | | | | | | | | |
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFAC- TURER | REPORTABLE TO NPRDS | | CAUSE | SYSTEM | COMPONENT | MANUFAC- TURER | REPORTABLE TO NPRDS | |
|-------|--------|-----------|-------------------|------------------------|--|-------|--------|-----------|-------------------|------------------------|--|
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SUPPLEMENTAL REPORT EXPECTED (14)

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| <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) | | | | | | | | | | <input checked="" type="checkbox"/> NO | | | | | | | | | | EXPECTED SUBMISSION DATE (15) | | | | | | | | | | MONTH DAY YEAR | | | | | | | | | |
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On June 30, 1989, Palo Verde Unit 3 was in a refueling outage with the core off-loaded to the Spent Fuel Pool when maintenance personnel identified a sixth trip lever arm on the ten (10) ton fuel handling crane rails. These trip lever arms rotate a star wheel which actuates limit switches to prevent loads in excess of 2000 pounds from travel over fuel assemblies in the Spent Fuel Storage Pool. The sixth trip lever arm rotated the star wheel a sixth time activating the limit switches which allow the crane trolley/hook to travel over the Spent Fuel Storage Pool when in the container mode.

In accordance with a Field Change Request in an authorized Design Change Package (DCP) there should only be five (5) trip lever arms for the crane interlocks. This DCP was completed in March of 1986.

An investigation has been completed and determined the cause of the event to be a personnel error (contractor, non-licensed) on the part of craft personnel when implementing a DCP during plant construction.

Immediate corrective action was to move the crane trolley/hook from over the Spent Fuel Storage Pool and declare the crane inoperable. As corrective action to prevent recurrence, the sixth trip lever arm was removed.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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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 June 30, 1989, Palo Verde Unit 3 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: Operation or condition prohibited by the Plant's Technical Specifications.

At approximately 1730 MST on June 21, 1989, Surveillance Test (ST) 31ST-9FH01 (Fuel Building Crane Travel) was completed; however, all applicable Technical Specification Surveillance Requirements were not satisfied. At approximately 1800 MST on June 21, 1989, the ACTION for Technical Specification 3.9.7 was entered and the 10 Ton New Fuel Crane (CRN) (ND) was declared inoperable.

All portions of the Surveillance Test were performed satisfactorily except the step verifying that the crane trolley/hook (CRN) (DF) does not enter over the Spent Fuel Storage Pool (ND) area with the crane control in the container mode. During performance of this step, the crane trolley/hook did enter the Spent Fuel Storage Pool area and therefore, did not satisfy the Surveillance Requirements.

The 10 Ton New Fuel Crane has three (3) modes of operation, normal mode, container mode, and fuel bundle mode. In the normal mode, loads up to 10 tons may be transported to within 15 feet of the Spent Fuel Storage Pool. In the container mode, loads up to 5000 pounds may be transported to the edge of the Spent Fuel Storage Pool. In the fuel bundle mode, loads up to 2000 pounds may be transported over the Spent Fuel Storage Pool.

A work control document was then initiated to troubleshoot and repair the crane. On June 30, 1989, during performance of an approved work document, maintenance personnel (utility, non-licensed) identified a sixth trip lever arm on the crane rail. In accordance with a Field Change Request (FCR) in an approved Design Change Package (DCP) there should only be five (5) trip lever arms for the crane interlocks. The trip lever arms rotate a star wheel which actuates limit switches to prevent loads in excess of 2000 pounds from traveling over fuel assemblies in the Spent Fuel

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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DOCKET NUMBER (2)

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PAGE (3)

Palo Verde Unit 3

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YEAR SEQUENTIAL REVISION

NUMBER NUMBER NUMBER

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

Storage Pool. The Sixth trip lever arm was then removed in accordance with the approved work control document which referenced the Field Change Request from the Design Change Package that was completed in 1986.

At approximately 0439 MST on July 2, 1989, surveillance test 31ST-9FH01 was completed satisfactorily and the crane was declared operable at approximately 1448 MST on July 2, 1989.

With the sixth trip lever arm in place, the Surveillance Requirements of Technical Specification 3.9.7 have not been satisfied since the receipt of the Unit 3 Facility Operating License in April of 1987. Therefore in accordance with Technical Specification 4.0.3 the 10 Ton New Fuel Crane has not met OPERABILITY requirements until July 2, 1989, when the sixth trip lever arm was removed.

The 10 ton cranes in Units 1 and 2 were inspected to ensure the sixth trip lever arm does not exist. Both Unit 1 and 2 cranes are in accordance to design with only 5 trip lever arms.

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

Not applicable - no structures, systems, or components were inoperable which contributed to this event.

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

Not applicable - no component or system failures were involved.

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

Not applicable - no component failures were involved.

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

Not applicable - no component failures were involved.

- 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:

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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

Not applicable - no failures were involved. However, the crane was declared inoperable at approximately 1800 MST on June 21, 1989 and returned to OPERABLE status at approximately 1448 MST on July 2, 1989. Approximately 10 days, 20 hours and 48 minutes had elapsed with the crane discovered inoperable.

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

Not applicable - there were no component or system failures or procedural errors.

I. Cause of Event:

An investigation has been completed and determined the cause of the event to be a personnel error (contractor, non-licensed) on the part of craft personnel when implementing a DCP during plant construction.

This is based on the fact that no work orders were found documenting installation or adjustments of the trip lever arms. No documentation has been found that details the existence of the sixth trip lever arm. Documentation reviewed includes: superseded drawings, DCP's, FCR's, and vendor installation manuals.

It is believed that the sixth trip lever arm was installed when implementing a DCP which described adjusting the four (4) trip lever arms existing on the bridge and installing an extra trip lever arm on the trolley. It is believed that the personnel misinterpreted the DCP.

J. Safety System Response:

Not applicable - no safety system responses occurred and none were necessary.

K. Failed Component Information:

Not applicable - no component failures were involved.

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

The restriction on movement of loads in excess of 2000 pounds over other fuel assemblies in the storage pool ensures that in the event this load is dropped the activity release will be limited to that contained in a

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

single fuel assembly and any possible distortion of fuel in the storage racks (RK) will not result in a critical array. Administrative controls such as 31ST-9FH01 ensure that the crane shall not enter over spent fuel with a load in excess of 2000 pounds. There have not been any events where a load in excess of 2000 pounds has been transported over fuel in the Spent Fuel Storage Pool. Therefore there was not threat to the health and safety of the public.

III. CORRECTIVE ACTIONS:

A. Immediate:

The crane trolley/hook was moved from over the Spent Fuel Storage Pool and declared inoperable.

B. Action to Prevent Recurrence:

The sixth trip lever arm was removed.

An Engineering Evaluation Request was initiated to evaluate the trip lever arm configuration in Units 1 and 2. Both Unit 1 and 2 cranes are in accordance to design with only 5 trip lever arms.

IV. PREVIOUS SIMILAR EVENTS:

No similar events have been previously reported.

