

Vepco

10 CFR 50.73

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION
P. O. BOX 402
MINERAL, VIRGINIA 23117

June 22, 1990

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

Serial No. N-90-008
NAPS/CSW:csw
Docket No. 50-338
50-339
License No. NPF-4
NFP-7

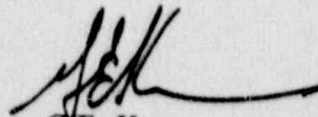
Dear Sirs:

The Virginia Electric and Power Company hereby submits the following Licensee Event Report applicable to North Anna Units 1 and 2.

Report No. LER 90-07-00

This Report has been reviewed by the Station Nuclear Safety and Operating Committee.

Very Truly Yours,



G.E. Kane
Station Manager

Enclosure:

cc: U.S. Nuclear Regulatory Commission
101 Marietta Street, N.W.
Suite 2900
Atlanta, Georgia 30323

Mr. M. S. Lesser
NRC Senior Resident Inspector
North Anna Power Station

9006260496 900622
PDR ADOCK 05000338
S PDC



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.

FACILITY NAME (1) **NORTH ANNA POWER STATION UNIT 1 & 2** DOCKET NUMBER (2) **0 5 0 0 0 3 3 8** PAGE (3) **1 OF 0 4**

TITLE (4) **SERVICE WATER PUMP HOUSE TORNADO MISSILE SHIELD BLOCKS NOT IN PLACE DUE TO INADEQUATE ADMINISTRATIVE CONTROL**

| 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 | 5 | 2 | 3 | 9 | 0 | 9 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 6 | 2 | 2 | 9 | 0 | NORTH ANNA UNIT 2 | 0 5 0 0 0 3 3 9 |

OPERATING MODE (9) **1**

POWER LEVEL (10) **1 0 0**

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)

| | | | |
|--|---|--|--|
| <input type="checkbox"/> 20.402(b) | <input type="checkbox"/> 20.406(e) | <input type="checkbox"/> 50.73(e)(2)(iv) | <input type="checkbox"/> 73.71(b) |
| <input type="checkbox"/> 20.406(a)(1)(i) | <input checked="" type="checkbox"/> 50.36(e)(1) | <input checked="" type="checkbox"/> 50.73(e)(2)(v) | <input type="checkbox"/> 73.71(e) |
| <input type="checkbox"/> 20.406(a)(1)(ii) | <input type="checkbox"/> 50.36(e)(2) | <input type="checkbox"/> 50.73(e)(2)(vii) | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| <input type="checkbox"/> 20.406(a)(1)(iii) | <input type="checkbox"/> 50.73(a)(2)(i) | <input type="checkbox"/> 50.73(a)(2)(viii)(A) | |
| <input type="checkbox"/> 20.406(a)(1)(iv) | <input type="checkbox"/> 50.73(a)(2)(ii) | <input type="checkbox"/> 50.73(a)(2)(viii)(B) | |
| <input type="checkbox"/> 20.406(a)(1)(v) | <input type="checkbox"/> 50.73(a)(2)(iii) | <input type="checkbox"/> 50.73(a)(2)(ix) | |

LICENSEE CONTACT FOR THIS LER (12)

NAME **G. E. Kane, Station Manager** TELEPHONE NUMBER **710 13 8191 41-1211 011**

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
| | | | | | | | | | |
| | | | | | | | | | |

SUPPLEMENTAL REPORT EXPECTED (14)

YES (if yes, complete EXPECTED SUBMISSION DATE) NO X

EXPECTED SUBMISSION DATE (15)

| MONTH | DAY | YEAR |
|-------|-----|------|
| | | |

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

At 1430 hours on May 23, 1990, with both units at 100% power (Mode 1), plant personnel discovered that two sets of concrete roof blocks on the Service Water Pump House were not in their required safe/ position. These blocks are part of the Service Water Pump House missile protection boundary, but are capable of being physically removed to facilitate maintenance on equipment inside the structure. The Service Water Pump House was missing at least one set of blocks from October 30, 1989 to May 23, 1990. This event constitutes a condition that alone could have prevented the fulfillment of a safety function needed to remove residual heat and mitigate the consequences of an accident. This event is reportable pursuant to 10 CFR 50.73 (a)(2)(v) (B&D). A four hour report was made to the NRC on May 23, 1990 in accordance with 10 CFR 50.72 (b)(2)(iii) (B&D).

During the period that roof blocks were not in place, wind velocities were never high enough to create projectiles that could have affected equipment operability in the Service Water Pump House. In addition, during this time, a quarter inch steel plate shield was positioned over the roof holes.

The health and safety of the public were not affected at any time during this event.

**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-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

| | | | | | |
|--|-------------------------------------|----------------|-------------------|-----------------|----------|
| FACILITY NAME (1) NORTH ANNA POWER STATION UNITS 1 & 2 | DOCKET NUMBER (2) 0500033890 | LER NUMBER (6) | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | |
| | | 90 | 007 | 00 | 02 OF 04 |

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

1.0 Description of the Event

At 1430 hours on May 23, 1990, with both units at 100% power (Mode 1), plant personnel discovered that two sets of concrete roof blocks on the Service Water Pump House (EIIS System Identifier BI) were not in their required safety position. These blocks are part of the Service Water Pump House missile protection boundary, but are capable of being physically removed to facilitate maintenance on equipment inside the structure. The Service Water Pump House was missing at least one set of blocks from October 30, 1989 to May 23, 1990. This event constitutes a condition that alone could have prevented the fulfillment of a safety function needed to remove residual heat and mitigate the consequences of an accident and is reportable pursuant to 10 CFR 50.73 (a)(2)(v)(B&D). A four hour report was made to the NRC on May 23, 1990 in accordance with 10 CFR 50.72 (b)(2)(iii)(B&D).

On October 30, 1989, corrective maintenance was started on the Service Water Screen Wash Pump 1-SW-P-2 (Component Identifier P) due to low discharge pressure. One of the initial actions was to remove the first set of concrete roof blocks that are located over Screen Wash Pump 1-SW-P-2 and Service Water Pump 2-SW-P-1A. However, the maintenance was placed on hold prior to working on the pump. A quarter inch steel plate rain shield was placed over the Service Water Pump House roof opening, without replacing the missile shield blocks.

On November 8, 1989, work on Design Change Package (DCP) 89-14, Service Water Pump Cable Replacement was initiated. This DCP was written to replace the power feed cables to the Service Water Pumps (Component identifiers P) and required the removal of the concrete roof blocks. Upon completion of each cable replacement, the steel plate rain shield was reinstalled but the DCP did not require reinstallation of the shield blocks. On January 4, 1990, the second set of blocks over the Service Water Pumps were removed per DCP 89-14.

On May 23, 1990, it was discovered that the blocks were not in place. The blocks were expeditiously restored to their proper locations.

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 (F-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

| | | | | | | |
|--|--------------------------------------|----------------|-------------------|-----------------|----------|-------|
| FACILITY NAME (1) NORTH ANNA POWER STATION UNITS 1 & 2 | DOCKET NUMBER (2) 05000133890 | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| | | 90 | 007 | 00 | 03 | OF 04 |

TEXT (if more space is required, use additional NRC Form 308A's) (17)

2.0 Significant Safety Consequences and Implications

Abnormal Operating Procedure 1-AP-41, Severe Weather Conditions, is used to secure the site against potential projectiles in the event of high wind velocities or severe weather conditions. This procedure was activated four times during the period when the roof blocks were displaced. During this time, wind velocities were never high enough to create projectiles that could have affected equipment in the Service Water Pump House. On every occasion when 1-AP-41 was activated, the Auxiliary Service Water Pumps were operable. In the event the Service Water Pumps were lost while 1-AP-41 was active, the Auxiliary Service Water Pumps which are located in a separate missile protected facility, could have been used.

While the Service Water Pump House roof blocks were displaced, a 1/4 inch steel plate was positioned over the roof holes.

The health and safety of the public were not affected at any time during this event.

3.0 Cause of the Event

The cause of the event was lack of administrative controls on removal and replacement of the Service Water Pump House Concrete Blocks.

4.0 Immediate Corrective Action

The blocks were expeditiously restored to their required locations.

5.0 Additional Corrective Actions

On May 24, 1990, the Operations Department issued instructions requiring an information only Technical Specification Action Statement to be entered whenever a missile shield block is removed. These instructions shall remain in place until an evaluation on the control of missile shield blocks is completed and appropriate recommendations implemented.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

| | | | | | | |
|--|--|----------------|-------------------|-----------------|----------|--------|
| FACILITY NAME (1) NORTH ANNA POWER STATION UNITS 1 & 2 | DOCKET NUMBER (2) 0 5 0 0 0 3 3 8 9 0 | LER NUMBER (8) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| | | 9 0 | 0 0 7 | 0 0 | 0 4 | OF 0 4 |

TEXT (If more space is required, use additional NRC Form 305A's) (17)

6.0 Actions to Prevent Recurrence

A Human Performance Enhancement System (HPES) evaluation is being conducted. Recommendations from the HPES evaluation will be implemented as appropriate.

Missile shield blocks will be labeled with identifying information regarding their function and to contact the control room prior to removal.

The Service Water Pump Maintenance Operating Procedures and Service Water Screenwash Pump Maintenance Operating Procedures will be revised to control the removal and restoration of the missile shield blocks and control of the blocks while removed.

7.0 Similar Events

LER 85-04 was written to address inadequate tornado missile protection of the Service Water System. The protection was inadequate due to insufficient backfill over the service water piping.