NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| Susquehanna Steam Electric Station - Unit 1 | 0 5 0 0 0 3 1 8 7 | 1 OF 0 2 |

TITLE (4)
Reactor Scram Caused by Ice in Isophase Bus Ducts.

| 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 1 | 2 4 | 8 5 | 8 5 | 0 0 3 | 0 0 | 0 2 | 2 2 | 8 5 | | 0 5 0 0 0 |
| | | | | | | | | | | 0 5 0 0 0 |

| OPERATING MODE (9) | 1 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | |
|---|---|---|---|---|---|
| POWER LEVEL (10) | 0 8 2 | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) |
| | | 20.405(a)(1)(i) | 50.36(c)(1) | 50.73(a)(2)(v) | 73.71(c) |
| | | 20.405(a)(1)(ii) | 50.36(c)(2) | 50.73(a)(2)(vii) | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| | | 20.405(a)(1)(iii) | 50.73(a)(2)(i) | 50.73(a)(2)(viii)(A) | |
| | | 20.405(a)(1)(iv) | 50.73(a)(2)(ii) | 50.73(a)(2)(viii)(B) | |
| | | 20.405(a)(1)(v) | 50.73(a)(2)(iii) | 50.73(a)(2)(x) | |

LICENSEE CONTACT FOR THIS LER (12)

| NAME | TELEPHONE NUMBER |
|---|---|
| L.A. Kuczynski - Nuclear Plant Specialist, III | AREA CODE 7 1 7 5 4 2 - 1 3 7 5 1 9 |

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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C | T B | B D U C | G 0 8 0 | | | | | | | | |
| | | | | | | | | | | | |

| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|---|---|---|---|---|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | X NO | | | | |

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


On January 24, 1985, with the reactor at 82% power, the Unit scrammed on a main turbine control valve fast closure signal resulting from a main generator lockout. Throughout the transient, the Unit functioned as designed. No Emergency Core Cooling Systems actuated and no system isolations occurred.

The main turbine trip which resulted in the reactor scram was caused by a main generator primary lockout. The lockout relay was triggered by the generator neutral overvoltage relay. The overvoltage relay's calibration was checked and found satisfactory. Further investigation found ice formations in the main generator's 'A' and 'C' isophase bus ducts at the low point in the ducts where they make 90 degree turns to connect to the Unit's auxiliary transformer. The ice had formed a bridge between the buses themselves and the ducts. Removal of the ice was accomplished on January 25, 1985. Main generator doble tests as well as doble testing looking back at the transformers through the isophase buses had acceptable results.

A drainage hole was drilled in each isophase bus duct inspection cover as an interim action to prevent recurrence. Preventive maintenance activities which will be performed during refueling outages will be reviewed to assure the cleanliness and integrity of the neutral grounding system and isophase bus ducts.


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SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 85-003-00
ER 100450 FILE 841-23
PLAS-043

Docket No. 50-387
License No. NPF-14

Attached is Licensee Event Report 85-003-00. This event was determined reportable per 10CFR50.73(a)(2)(iv), in that the Unit experienced an unanticipated Reactor Protection System actuation when the reactor scrammed on a main turbine control valve fast closure signal resulting from a main generator lockout. Ice formation in the 'A' and 'C' isophase ducts, forming a bridge between the buses and the ducts, was the root cause of the generator lockout.

H.W. Keiser
Superintendent of Plant-Susquehanna

IAK/pjg

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