

LICENSEE EVENT REPORT (LER)

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------|---|----------------|---------------------|-----------------|------------------|-----------------|-----------|--------------------------|---|---|-------------------------------|-------------------------------------|--|-----|------|---|---|---|---|---|---|---|---|---|
| FACILITY NAME (1) Susquehanna Steam Electric Station Unit 1 | | | | | | | | | | DOCKET NUMBER (2) 0 5 0 0 0 3 8 7 1 | | | | PAGE (3) OF 0 2 | | | | | | | | | | | |
| TITLE (4) Unintentional Initiation of CREOASS and SBT | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 Unit 2 | | | | DOCKET NUMBER(S) 0 5 0 0 0 3 8 8 | | | | | | | | | | | | |
| 0 | 3 | 0 | 1 | 8 | 4 | 8 | 4 | 0 | 1 | 1 | 0 | 0 | 0 | 3 | 3 | 0 | 8 | 4 | 0 | 5 | 0 | 0 | 0 | 1 | 1 |
| OPERATING MODE (9) 4 | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11) | | | | | | | | | | | | | | | | | | | | | | | |
| POWER LEVEL (10) 0 0 0 | | 20.402(b) | | | | 20.406(c) | | | | <input checked="" type="checkbox"/> 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) | | | | | | | | | | | |
| | | 20.406(a)(1)(ii) | | | | 50.36(c)(2) | | | | 50.73(a)(2)(vii) | | | | OTHER (Specify in Abstract below and in Text, NRC Form 365A) | | | | | | | | | | | |
| | | 20.406(a)(1)(iii) | | | | 50.73(a)(2)(i) | | | | 50.73(a)(2)(viii)(A) | | | | | | | | | | | | | | | |
| | | 20.406(a)(1)(iv) | | | | 50.73(a)(2)(ii) | | | | 50.73(a)(2)(viii)(B) | | | | | | | | | | | | | | | |
| | | 20.406(a)(1)(v) | | | | 50.73(a)(2)(iii) | | | | 50.73(a)(2)(ix) | | | | | | | | | | | | | | | |
| LICENSEE CONTACT FOR THIS LER (12) | | | | | | | | | | | | | | | | | | | | | | | | | |
| NAME D.C. Wood | | | | | | | | | | TELEPHONE NUMBER AREA CODE 7 1 7 5 4 2 - 3 2 4 0 | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | |
| B | * | 1 5 2 | G 0 8 0 | NO | | | | | | | | | | | | | | | | | | | | | |
| A | * | 1 5 2 | G 0 8 0 | NO | | | | | | | | | | | | | | | | | | | | | |
| SUPPLEMENTAL REPORT EXPECTED (14) | | | | | | | | | | | | EXPECTED SUBMISSION DATE (15) | | MONTH | DAY | YEAR | | | | | | | | | |
| <input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) | | | | | | | | | | | | NO | | 0 | 6 | 3 | 0 | 8 | 4 | | | | | | |

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

Two initiations of the Control Room Emergency Outside Air Supply System (CREOASS) and Standby Gas Treatment System (SBGTS) were caused by pre-licensing work on Unit 2. Unit 1 is operational and the CREOASS and SBT systems are common to both units. The first initiation occurred when a Reactor Protection System (RPS) bus tripped as designed, due to a voltage drop. The bus was connected to its alternate power supply. Unlike the primary supply, which uses a motor-generator set, the alternate supply undergoes a voltage drop during motor starts, a plant modification to install a constant voltage transformer on the alternate power supply and prevent this type of unintentional safety system initiation is under investigation. The second initiation occurred when a set of test jumper cables were incorrectly removed, causing a temporary loss of power to the RPS bus. Electrical personnel will be counseled on jumper cable procedures.

* Codes unavailable.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) | | |
|---|---------------------|----------------|-------------------|-----------------|----------|-----|--------|
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| | | | | | | | |
| Susquehanna Steam Electric Station Unit 1 & Unit 2 | 0 5 0 0 0 3 8 7 8 4 | — | 0 1 1 | — | 0 0 | 0 2 | OF 0 2 |

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

On 3/1/84, with Unit 1 at 50% power, and then again on 3/8/84, with Unit 1 in cold shutdown, pre-licensing work being done on Unit 2 caused the CREOASS and SBT systems to automatically initiate. Both initiations occurred when the power supply to the "B" RPS bus was interrupted. This power interruption causes an automatic isolation of Zones II and III, ventilation zones in Secondary Containment, which as designed, causes CREOASS and SBT to initiate. In addition, loss of the "B" RPS bus causes certain primary containment isolations to occur which affect equipment important to Unit availability, but not associated with Nuclear Safety. These isolations include Reactor Building Chilled Water to Recirculation Pump Motor Coolers (Unit 1 only), Containment Instrument Gas to Containment, and the Reactor Water Cleanup System. Also, a shutdown cooling loop, if in service, would isolate. Adequate procedures are in place and are used to recover from a RPS bus trip.

The first initiation occurred when a Unit 2 Recirculation Pump was started while the "B" RPS bus was connected to its alternate power supply. The starting load degraded the bus voltage by 20%, causing the bus to trip off-line as designed. This type of bus trip has occurred before, however, it will not occur when the bus is on primary power supply. A plant modification to install a constant voltage transformer in the RPS bus alternate power supply is being investigated. This modification will prevent the voltage degradation and the RPS bus trip which lead to the isolations described above. An update will report the results of the investigation.

The second initiation occurred when the "B" RPS bus power supply was inadvertently interrupted by an Electrician. The Electrician was removing a bypass jumper cable that had been installed on the RPS power supply for pre-licensing testing. Due to the configuration of the installation, the jumper was on the bottom lug of the terminal, the RPS bus power supply was interrupted when the jumper was removed. This type of installation will no longer be used and the jumper installation practices will be reviewed with Electrical personnel.

The CREOASS and SBT systems are engineered safeguards systems that are designed to filter and control airborne contamination. During the activities described above, both systems responded properly to the challenges. These activities were electrical in nature only, and no contamination was involved. After each initiation, the RPS bus power and containment ventilation were restored to normal. These initiations do not increase the risk to public health and safety, even if both reactors were at full power.



Pennsylvania Power & Light Company

Two North Ninth Street • Allentown, PA 18101 • 215 / 770-5151

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SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 84-011-00
ER 100450 FILE 841-23
PLA- 2158

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

Attached is LER 84-011-00. The Standby Gas Treatment System and the Control Room Emergency Outside Air Supply System were unintentionally initiated on March 1, 1984, and then again on March 8, 1984. These events are reportable per 10CFR 50.73(A)(2)(IV).

H.W. Keiser
Superintendent of Plant-Susquehanna

DCW/ct

cc: Dr. Thomas E. Murley
Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Mr. R.H. Jacobs
Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 52
Shickshinny, PA 18655

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