NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

# LICENSEE EVENT REPORT (LER)

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

TITLE (4)
Entry Into LCO 3.0.3 To Perform 4KV ESS Bus Degraded Voltage Relay Surveillances

| 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 2 | 2 0 | 8 7 | 8 7 | — 0 0 6 | — 0 0 | 0 3 | 2 0 | 8 7 | SSES - Unit 2 | 0 5 0 0 0 3 8 8 |
| | | | | | | | | | | 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 9 0 | 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) | X 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 |
|---|---|
| Craig L. Wallen - Compliance Evaluator | AREA CODE 7 1 7 5 4 2 - 3 9 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | |
| | | | | | | | | | | |

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 February 20, 1987 with Unit 1 operating at 90% and Unit 2 operating at 100% power, Limiting Condition for Operation (LCO) 3.0.3 was entered and cleared four (4) times on each Unit to perform surveillances on the 4.16 KV Engineered Safeguard System (ESS) buses (EIIS Code: EB).

To perform the monthly degraded voltage channel functional tests on the ESS buses, all degraded voltage protection on the bus is taken out of service although the bus remains energized. Technical specifications require 2 channels of degraded voltage protection per bus, and both channels must be operable.

The loss of both channels of degraded voltage protection is not addressed by the action statement, therefore entering Tech Spec 3.0.3 is required.

A Tech Spec change request has been submitted to the NRC to clarify the action statement of table 3.3.3-1 section 5 to address the situation where both channels of degraded voltage protection are inoperable at the same time. This will prevent the necessity of entering Tech Spec 3.0.3 to perform this testing.


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Description of Event

Limiting Condition for Operation (LCO) 3.0.3 was entered and cleared four (4) times on each unit to perform surveillances on the 4.16 KV Engineered Safeguard System (ESS) Buses (EIIS Code: EB). The event occurred on February 20, 1987 while Unit 1 was operating at 90% power and Unit 2 was operating at 100% power.

To perform the monthly degraded voltage channel functional tests on an ESS bus, all degraded voltage protection on the bus is taken out of service although the bus remains energized. Technical Specifications require 2 channels of degraded voltage protection per bus, and both channels must be operable. Action Statement 36 of Tech Spec Table 3.3.3-1 section 5 states: "With the number of OPERABLE channels one less than the total number of channels, place the inoperable channel in the tripped condition within 1 hour; operation may then continue until performance of the next required CHANNEL FUNCTIONAL TEST."

Cause Of The Event:

The loss of both channels of degraded voltage protection is not addressed by the action statement, therefore entering Tech Spec. 3.0.3 is required.

Analysis Of The Event:

The amount of time spent in LCO 3.0.3 for each bus was minimal as shown below:

| BUS | TIME LCO DECLARED | TIME LCO CLEARED | MINUTES IN LCO |
|---|---|---|---|
| 1A201 | 0615 | 0634 | 19 |
| 1A202 | 0645 | 0655 | 10 |
| 1A203 | 0710 | 0715 | 5 |
| 1A204 | 0725 | 0739 | 14 |
| 2A201 | 0915 | 0292 | 14 |
| 2A202 | 0930 | 0940 | 10 |
| 2A203 | 0941 | 0952 | 11 |
| 2A204 | 0953 | 10:03 | 10 |

Disabling the degraded voltage protection for an ESS bus while the bus remains energized means that if the bus experienced a degraded voltage condition, there would be no automatic transfer to the alternate source of the associated Diesel Generator. The alternate source and the Diesel Generator operability are not in question for they would operate properly if any other bus (with operable degraded voltage protection) was to see a degraded voltage condition. The resulting situation is that a bus which is energized during degraded voltage protection testing would become inoperable if an actual degraded voltage condition occurred.

Due to redundancy of ESS supplied systems and the restrictions of Technical Specifications allowing testing of only one bus at a time, the safety implications of losing the bus under test are vounded by the current safety analysis.

This event has been determined reportable per 10CFR50.73 (a)(2)(i)(B) in that entry into LCO 3.0.3 means the plant is operating in a "Condition Prohibited by Technical Specifications" as identified in NUREG-1022 Supplement No. 1.

Corrective Action

A Tech Spec change request has been submitted to the NRC to clarify the action statements of table 3.3.3-1 section 5 to address the situation where both channels of degraded voltage protection are inoperable at the same time. This will prevent the necessity of entering Tech spec 3.0.3 to perform this testing.

Additional Information:

There have been 9 other LERs addressing the entry into LCO 3.0.3 to perform the Degraded Voltage Relay Surveillances. Refer to LERs - 86-019, 86-025, 86-027, 86-030, 86-032, 86-036, 86-037, 86-042 and 87-002.

PP&L Pennsylvania Power & Light Company
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March 20, 1987

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

SUSQUEHANNA STEAM ELECTRIC STATION
LICENSEE EVENT REPORT 87-006-00
FILE R41-2
PLAS -240

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

Attached is Licensee Event Report 87-006-00. This event was determined reportable per 10CFR50.73 (a)(2)(i)(B), in that the plant entered LCO Action Statement 3.0.3 four times on each unit to perform surveillance testing in the 4.16 KV Engineered Safeguard System (ESS) buses.

R. G. Byram
Superintendent of Plant - Susquehanna

CLW/cmw

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