

January 30, 1985

Docket Nos. 50-325/324

Mr. E. E. Utley
Executive Vice President
Carolina Power & Light Company
Post Office Box 1551
Raleigh, North Carolina 27602

Dear Mr. Utley:

SUBJECT: REQUEST FOR ASSISTANCE IN OBTAINING INFORMATION ON SHARED
EMERGENCY DIESEL GENERATORS AT SELECTED NUCLEAR FACILITIES

Re: Brunswick Steam Electric Plant Units 1 and 2

For certain conditions of the onsite power system the engine louvers (a support auxiliary) for the swing diesel would not be provided with electrical power. This being the case, the swing diesel generator set may not be able to perform its safety function due to overheating, since for such a situation the engine louvers would not open to permit proper ventilation. This condition, which has been identified at the Surry Station (see Enclosure 1), may be similar in design to other multi unit sites which use shared emergency diesel generator sets. Unfortunately, from the information provided in Final Safety Analysis Reports and readily available electrical diagrams we are unable to determine if this or similar problems are applicable to other nuclear facilities.

Accordingly, we request your assistance in obtaining the specific information requested in Enclosure 2. A response in 45 days would be appreciated.

The reporting and/or recordkeeping requirements contained in this letter affect fewer than ten respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Original signed by/

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Enclosures:
As stated

cc w/enclosures:
See next page

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Mr. E. E. Utley
Carolina Power & Light Company
Brunswick Steam Electric Plant, Units 1 and 2

cc:

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ENCLOSURE 2

Request For Information Concerning Shared Emergency Diesel Generator Sets

In view of the licensee event report provided as Enclosure 1, we request your assistance in obtaining the following information which relates to shared emergency diesel generator sets.

1. A list of all support auxiliaries which require electrical power to support proper operation of the shared emergency diesel generator sets. For cases where all of the shared emergency diesel generator sets are identical only a single list of such support auxiliaries should be provided.
2. Supplement the list of items provided in item 1 with appropriate electrical single line and other schematic diagrams which will permit verifying that all of the identified support auxiliaries are provided with electrical power for all conditions of the station which require the use of the shared emergency diesel generator sets.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **SURRY POWER STATION, UNIT 2** DOCKET NUMBER (2) **0 5 0 0 0 2 8 1** PAGE (3) **1 OF 0 3**

TITLE (4) **POTENTIAL FAILURE OF NO. 3 EDG**

| 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 | 4 | 17 | 84 | 84 | 011 | 01 | 05 | 08 | 84 | | 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 8 5 | 20.402(b) | 20.406(a) | 60.73(a)(2)(iv) | 73.71(b) |
| | 20.406(a)(1)(ii) | 60.36(e)(1) | 60.73(a)(2)(iv) | 73.71(c) |
| | 20.406(a)(1)(iv) | 60.36(e)(2) | 60.73(a)(2)(iv) | OTHER (Specify in Abstract below and in Text, NRC Form 364A) |
| | 20.406(a)(1)(iii) | 60.73(a)(2)(i) | 60.73(a)(2)(iv)(A) | |
| | 20.406(a)(1)(iv) | 60.73(a)(2)(iv) | 60.73(a)(2)(iv)(B) | |
| | 20.406(a)(1)(v) | 60.73(a)(2)(iii) | 60.73(a)(2)(v) | |

LICENSEE CONTACT FOR THIS LER (12)

NAME **J. L. WILSON, STATION MANAGER** TELEPHONE NUMBER **Ext. 266**
AREA CODE **8 1 0 4 3 5 7 - 3 1 8 4**

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

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

SUPPLEMENTAL REPORT EXPECTED (14) YES NO EXPECTED SUBMISSION DATE (15)

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

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

During a review of 10 CFR 50, Appendix R compliance, Vepco was informed of a potentially significant deficiency in the No. 3 Emergency Diesel Generator (EDG) louver control system that would result in an unanalyzed condition. During a design basis event on Unit 2, the No. 3 EDG could overheat within 5-7 minutes due to the failure of the engine louvers to open. During the original design of the units, the condition was not identified. Upon discovery, the engine louvers for No. 3 EDG were mechanically blocked open. Appropriate modifications will be evaluated and implemented as necessary.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

| | | | | | | | |
|-------------------|-------------------|----------------|-------------------|-----------------|----------|----|----|
| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) | | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| | | 84 | 011 | 01 | 02 | OF | 03 |

SURREY POWER STATION, UNIT 2

TEXT (If more space is required, use additional NRC Form 266A's) (17)

1. Description of the Event

During a review of 10 CFR 50, Appendix R compliance, Veeco was informed by a contractor of a potentially significant deficiency in the No. 3 Emergency Diesel Generator (EDG) louver control system that would result in an unanalyzed condition. Specifically, during a design basis event on Unit 2, including a loss of off-site power and accompanied by a failure of the No. 2 EDG to start, the No. 3 EDG could overheat within 5-7 minutes due to the failure of the engine louvers to open. Electrical power to open the louvers is supplied by Unit No. 1 1J emergency bus, which would be de-energized in this situation.

2. Safety Consequences and Implications

Surry has three EDGs which will supply power to two units. The No. 3 EDG is a swing diesel that can supply power to either Unit 1 or 2 emergency buses. During an accident, the No. 3 EDG will be automatically dedicated to the unit experiencing the accident. The safety analysis requires the assumption of a single failure of the emergency power system, hence the postulated failure of No. 2 EDG. The accident analysis also requires the assumption of worst case parameters or conditions such as environment, loading and loss of all off-site power. Due to the arrangement of the switchyard, i.e. multiple rights-of-way, any one of three transformers is capable of supplying power to the unit 1 and 2 electrical system. It is very unlikely, as experience has shown, that Unit 1 and 2 would experience a complete loss of off-site power. In addition, Surry has procedures in place designed to detect premature failures of EDGs.

3. Cause

During the original design of the units, this situation was not identified.

4. Immediate Corrective Action

Upon discovery of the condition, the engine louvers for No. 3 EDG were mechanically blocked open.

5. Additional Corrective Action

The appropriate modifications will be evaluated to provide the required reliability for EDG operation.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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|---|--|----------------|-------------------|-----------------|----------|--------|
| FACILITY NAME (1) SURREY POWER STATION, UNIT 2 | DOCKET NUMBER (2) 0 5 0 0 0 2 8 1 | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| | | 8 4 | 0 1 1 | 0 1 | 0 3 | OF 0 3 |

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

6. Action Taken to Prevent Recurrence

None.

7. Generic Implications

None.

Vepco

VIRGINIA ELECTRIC AND POWER COMPANY

Surry Power Station
 P. O. Box 315
 Surry, Virginia 23883

JUN 8 1984

Serial No: 84-023

Docket No: 50-281

License No: DPR-37

U.S. Nuclear Regulatory Commission
 Document Control Desk
 016 Phillips Building
 Washington, D. C. 20555

Gentlemen:

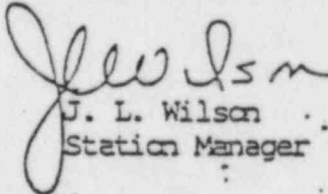
Pursuant to Surry Power Station Technical Specifications, the Virginia Electric and Power Company hereby submits the following Licensee Event Report for Surry Unit 2.

REPORT NUMBER

84-011-01

This report has been reviewed by the Station Nuclear Safety and Operating Committee and will be reviewed by Safety Evaluation and Control.

Very truly yours,


 J. L. Wilson
 Station Manager

Enclosure

cc: Mr. James P. O'Reilly
 Regional Administrator
 Suite 2900
 101 Marietta Street, NW
 Atlanta, Georgia 30303

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