

VIRGINIA ELECTRIC AND POWER COMPANY  
Surry Power Station  
P. O. Box 315  
Surry, Virginia 23883

August 30, 1989

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

Serial No.: 89-035  
Docket Nos.: 50-280  
50-281  
License Nos: DPR-32  
DPR-37

Gentlemen:

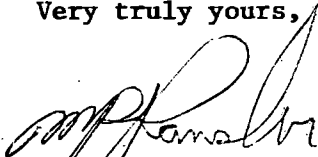
Pursuant to Surry Power Station Technical Specifications, Virginia Electric and Power Company hereby submits the following Licensee Event Report for Units 1 and 2.

REPORT NUMBER

89-034-00

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,



M. R. Kansler  
Station Manager

Enclosure

cc: Regional Administrator  
Suite 2900  
101 Marietta Street, NW  
Atlanta, Georgia 30323

8909060238 890824  
FDR ADDCK 05000010  
R FDC

IE22  
11

**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)<br>Surry Power Station, Units 1 and 2 | DOCKET NUMBER (2)<br>0 5 0 0 0 2 8 0 | PAGE (3)<br>1 OF 0 4 |
|---|--------------------------------------|----------------------|

TITLE (4) Failure to Sample Service Water From Component Cooling Heat Exchangers Within Twelve Hours Due to Personnel Error

| 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                |   |   |   |   |   |   |   |   |   |  |  |  |
| 0              | 8   | 0    | 2              | 8                 | 9               | 8               | 9   | 0    | 3                             | 4 | 0 | 0 | 0 | 8 | 3 | 0 | 8 | 9 |  |  |  |

|                           |  |                          |                                     |                          |                          |                      |                          |  |  |  |  |
|---------------------------|--|--------------------------|-------------------------------------|--------------------------|--------------------------|----------------------|--------------------------|--|--|--|--|
| OPERATING MODE (9)<br>N   | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) |                          |                                     |                          |                          |                      |                          |  |  |  |  |
| POWER LEVEL (10)<br>1 0 0 | <input type="checkbox"/>   | 20.402(b)                | <input type="checkbox"/>            | 20.405(c)                | <input type="checkbox"/> | 50.73(a)(2)(iv)      | <input type="checkbox"/> | 73.71(b)   |  |  |  |
|                           | <input type="checkbox"/>   | 20.405(a)(1)(i)          | <input type="checkbox"/>            | 50.36(c)(1)              | <input type="checkbox"/> | 50.73(a)(2)(v)       | <input type="checkbox"/> | 73.71(c)   |  |  |  |
|                           | <input type="checkbox"/>   | 20.405(a)(1)(ii)         | <input type="checkbox"/>            | 50.36(c)(2)              | <input type="checkbox"/> | 50.73(a)(2)(vii)     | <input type="checkbox"/> | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |  |  |  |
|                           | <input checked="" type="checkbox"/>  | 20.405(a)(1)(iii)        | <input checked="" type="checkbox"/> | 50.73(a)(2)(i)           | <input type="checkbox"/> | 50.73(a)(2)(viii)(A) |                          |  |  |  |  |
|                           | <input type="checkbox"/>   | 20.405(a)(1)(iv)         | <input type="checkbox"/>            | 50.73(a)(2)(ii)          | <input type="checkbox"/> | 50.73(a)(2)(viii)(B) |                          |  |  |  |  |
| <input type="checkbox"/>  | 20.405(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<br>M. R. Kansler, Station Manager | TELEPHONE NUMBER<br>AREA CODE: 8 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 NPRDS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPRDS |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
|       |        |           |              |                     |       |        |           |              |                     |
|       |        |           |              |                     |       |        |           |              |                     |
|       |        |           |              |                     |       |        |           |              |                     |

SUPPLEMENTAL REPORT EXPECTED (14)

|  |  |
|--|--|
| <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)<br><input checked="" type="checkbox"/> NO | EXPECTED SUBMISSION DATE (15)<br>MONTH:    DAY:    YEAR: |
|--|--|

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

On August 2, 1989 with Unit 1 at 100% power and Unit 2 at cold shutdown, it was discovered that the Technical Specification for sampling the Service Water (SW) from the "B" and "C" Component Cooling (CC) heat exchangers had not been performed within the specified time interval. The samples were taken 12 hours and 44 minutes apart. Technical Specification Table 3.7-5(a) requires that SW effluent from the CC heat exchangers be sampled and analyzed for radioactive contamination every 12 hours whenever the SW radiation monitors are out of service. The cause of the event was ineffective communication between the operators responsible for ensuring the samples are taken. The event was discussed with the operators and disciplinary action was taken. In addition, control room logs will be modified.

**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-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)<br><br>Surry Power Station, Units 1 and 2 | DOCKET NUMBER (2)<br><br>0   5   0   0   0   2   8   0 | LER NUMBER (6) |                   |                 | PAGE (3) |          |
|   |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |          |
|   |  | 8   9          | -   0   3   4     | -   0   0       | 0   2    | OF 0   4 |

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

1.0 Description of the Event

On August 2, 1989 at 0621 hours, with Unit 1 at 100% power and Unit 2 in cold shutdown, it was discovered that the Technical Specification (T.S.) requirement for sampling the Service Water (SW) (EIIS-BI) from the "B" and "C" Component Cooling (CC) (EIIS-CC) heat exchangers had not been performed within the specified time interval. Technical Specification Table 3.7-5 (a) requires that the SW effluent from the CC heat exchangers (EIIS-HX) be sampled and analyzed for radioactive contamination every 12 hours whenever the SW radiation monitor (EIIS-RM) is out of service.

The previous samples for the "B" and "C" CC heat exchangers, which were in service at the time, were taken on August 1 at 1737 hours. Samples required for the next interval were being taken at the time the event was discovered. The samples were analyzed and determined to be within acceptable limits at 0703 hours.

2.0 Safety Consequences and Implications

The component cooling system is an intermediate cooling system which serves both reactor units. It transfers heat from heat exchangers containing reactor coolant, as well as other radioactive liquids, to the service water system. The samples taken at 1737 hours on August 1, and at 0621 hours on August 2, showed no detectable activity. In addition, there was no increase noted in the circulating water (EIIS-KE) discharge tunnel radiation monitor. Therefore, the health and safety of the public were not affected.

3.0 Cause

The cause of the event was operator error. Turbine building operator logs require operators to sample the SW effluent from the operating CC heat exchanges once per eight hour shift. The previous SW sample was taken during the first half of the shift. However, the licensed reactor operator in the control room in charge of liquid waste and effluent monitoring and

**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-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)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Surry Power Station, Units 1 and 2

| YEAR | SEQUENTIAL NUMBER | REVISION NUMBER |
|------|-------------------|-----------------|
| 89   | 034               | 00              |

0 5 0 0 0 2 8 0 8 9 — 0 3 4 — 0 0 0 3 OF 0 4

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

responsible for ensuring that the required sampling is performed did not effectively communicate to the turbine building operator that the next SW sample would be required earlier in the shift.

4.0 Immediate Corrective Action(s)

Operators were in the process of obtaining the required samples when the discovery was made. Samples of the "B" and "C" CC heat exchangers were obtained at 0621 hours and analyzed at 0703 hours. The analysis determined that the samples had no detectable activity.

5.0 Additional Corrective Action(s)

None.

6.0 Action(s) Taken to Prevent Recurrence

The event was discussed with the turbine building and liquid waste operators. The liquid waste operator was disciplined.

The liquid waste control room operator's logs have been revised to include a section that specifically identifies the time and date the heat exchangers were last sampled, and the time when the next sample is to be taken.

Design work is in progress to replace the existing radiation monitor system with a new system. The new design consists of a sodium iodide crystal detector that will be mounted in a dry well in each heat exchanger. This design contains no piping subject to fouling by service water and no pumps to maintain, and provides an individual detector for each heat exchanger.

7.0 Similar Events

Licensee Event Reports (LER) 1-88-027 and 1/2-89-017 identified events in which the required SW samples were not properly analyzed. In both these events, technicians performing the sample analyses failed to perform a step in the analysis procedure.

**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-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)<br><br>Surry Power Station, Units 1 and 2 | DOCKET NUMBER (2)<br><br>0 5 0 0 0 2 8 0 | LER NUMBER (6) |                   |                 | PAGE (3) |    |     |
|   |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |     |
|   |  | 8 9            | — 0 3 4           | — 0 0           | 0 4      | OF | 0 4 |

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

LERs 1-88-45, 1-89-007 and 1-89-018 also address instances in other systems where T.S. required sampling was not accomplished within the required time frame. However, these events were due to the following reasons, respectively: 1) equipment failure and misinterpretation of the T.S. 2) an incorrect assumption that equipment would be returned to service within a certain time frame to preclude the need to obtain a sample, and 3) an incorrect sample time log entry.

The specific corrective actions taken for these events would not have prevented this incident.

8.0 Manufacturer/Model Number(s)

N/A