



CALVERT CLIFFS NUCLEAR POWER PLANT  
1650 CALVERT CLIFFS PARKWAY • LUSBY, MARYLAND 20657-4702

CHARLES H. CRUSE  
PLANT GENERAL MANAGER  
CALVERT CLIFFS

March 24, 1994

U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant  
Unit Nos. 1 and 2; Docket Nos. 50-317 and 50-318;  
License Nos. DPR 53 and DPR 69  
Licensee Event Report 94-002  
Missed Surveillance on Diesel Generators Due to  
Misunderstood Applicability

The attached report is being sent to you as required under 10 CFR 50.73 guidelines. Should you have any questions regarding this report, we will be pleased to discuss them with you.

Very truly yours,

CHC/WDM/bjd  
Attachment

cc: D. A. Brune, Esquire  
J. E. Silberg, Esquire  
R. A. Capra, NRC  
D. G. McDonald, Jr., NRC  
T. T. Martin, NRC  
P. R. Wilson, NRC  
R. I. McLean, DNR  
J. H. Walter, PSC  
Director, Office of Management Information  
and Program Control

9403290319 940324  
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S PDR

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNEB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

# LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

|  |                                       |                            |
|--|---------------------------------------|----------------------------|
| FACILITY NAME (1)<br><b>Calvert Cliffs, Unit 1</b> | DOCKET NUMBER (2)<br><b>05000 317</b> | PAGE (3)<br><b>1 OF 04</b> |
|--|---------------------------------------|----------------------------|

TITLE (4)  
**Missed Surveillance on Diesel Generators Due to Misunderstood Applicability**

| 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 NUMBERS(5) |
| 02             | 24  | 94   | 94             | -- 002 --         | 00              | 03              | 24  | 94   | CC, Unit 2                    | 05000 318         |
|                |     |      |                |                   |                 |                 |     |      |                               | 05000             |

|                    |     |  |             |                  |                      |   |  |  |  |  |
|--------------------|-----|--|-------------|------------------|----------------------|---|--|--|--|--|
| OPERATING MODE (9) | 6   | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (Check one or more) (11) |             |                  |                      |   |  |  |  |  |
|                    |     | 20.402(b)  | 20.405(c)   | 50.73(a)(2)(iv)  | 73.71(b)             |   |  |  |  |  |
| POWER LEVEL (10)   | 000 | 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<br>(Specify in Abstract below and in Text, NRC Form 366A) |  |  |  |  |
|                    |     | 20.405(a)(1)(iii)  | X           | 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<br><b>W. D. Maki, Compliance Engineer</b> | TELEPHONE NUMBER (include Area Code)<br><b>410-260-3651</b> |
|--|---|

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<br>(If yes, complete EXPECTED SUBMISSION DATE) | X | NO |  |                               |       |     |      |

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-space typewritten lines) (16)

On February 24, 1994, it was discovered that the emergency diesel generator (EDG) load sequencer timer had not consistently been tested in Modes 5 and 6 as required by the Technical Specifications. This led to periods during the 1992 and 1993 refueling outages when the EDG dedicated to the shutdown unit was technically inoperable. The missed surveillance was caused by a misunderstanding about whether the test was required in these modes. There were no safety consequences associated with this event. The automatic EDG start function supported by the load sequencer is not required in Modes 5 and 6. Corrective action included measures by supervision to stress good communications and submittal of a Technical Specification amendment to delete the unnecessary test. This amendment had been submitted prior to discovery of this event.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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| FACILITY NAME (1)      | DOCKET NUMBER (2) | LER NUMBER (3) | PAGE (4) |
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| Calvert Cliffs, Unit 1 | 05000 3 1 7       | 94 - 002 - 00  | 02 OF 04 |

TEXT (If more space is required, use additional copies of NRC Form 308A) (17)

## I. DESCRIPTION OF EVENT

On February 24, 1994, a Functional Surveillance Test Coordinator (FSTC) at Calvert Cliffs discovered that a required surveillance had not been performed on 21 Emergency Diesel Generator (EDG) during the 1993 Unit 2 Refueling Outage. Specifically, the load sequencer timer had not been tested as required to satisfy EDG operability requirements in Modes 5 and 6 as described in Technical Specification (TS) Surveillance Requirement 4.8.1.2. The ACTION statement requirements of TS 3.8.1.2 were not met. This condition constituted a condition prohibited by the Technical Specifications. Per TS 3.3.2.1 requirements for Engineered Safety Features Actuation System (ESFAS) instrumentation, the automatic diesel starting function served by this timer is not required to be operable during these modes; however, since the test is still required by the TSs, omission of the test technically rendered the EDG inoperable. The period of inoperability lasted from March 8, 1993 until May 31, 1993. Core alterations were conducted from March 11 until March 19, 1993 and again from May 13 until May 17, 1993. Unit 2 was shutdown throughout this period. Similar but briefer periods of inoperability occurred with 11 EDG during the previous year's Unit 1 refueling outage. However, in that case no core alterations were conducted during the periods of inoperability. No other instances are known. While other occasions may have existed their low significance would not warrant detailed review. This event only affected the units when they were shutdown.

## II. CAUSE OF EVENT

This event was caused by a misunderstanding about whether a Technical Specification surveillance was required. Technical Specification 4.8.1.2 states that, as a condition of EDG operability, the load sequencer be verified operable with the interval between each load block within +/- 10 percent of its design interval. No mode distinctions are made, even though the sequencer performs no safety function in Modes 5 and 6. A correction to eliminate testing in Modes 5 and 6 had already been submitted prior to the discovery of this event. In attempting to determine the applicability of the sequencer testing, the technical support organizations twice asked Licensing for guidance on whether the automatic start function was required in Modes 5 and 6 for EDG operability. They recognized that the test was not needed to demonstrate the EDG's ability to perform its safety function. Licensing in both cases responded with written memos stating correctly that the automatic start function was not required for EDG operability, but did not understand that the question was meant to include whether surveillance requirements were applicable. Licensing provided no guidance regarding sequencer testing. Technical support personnel misunderstood

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the memos to mean that testing was not required. Better follow-up by all organizations would have avoided the event.

III. ANALYSIS OF EVENT

This event is reportable under 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the Technical Specifications. There were no safety consequences associated with this event. An EDG is required during shutdown and refueling to ensure adequate AC electrical power is available to mitigate postulated events such as a fuel handling incident or loss of shutdown cooling. Due to the reduced pressure and temperature conditions of the Reactor Coolant System during shutdown conditions, these events develop more slowly and the results are less severe than when events occur at full power. Thus, additional time is available for the operator to evaluate plant conditions and respond by manually starting the engineered safety feature components as required to mitigate the consequences of the event. For this reason the ESFAS instrumentation providing automatic diesel start is not required to be operable in Modes 5 and 6. Because the ESFAS components are manually started, the automatic load sequencing circuitry is not necessary. Therefore, the requirement that it be verified operable in Modes 5 and 6 is unnecessary.

IV. CORRECTIVE ACTIONS

Licensing clarified their guidance with respect to required testing of the EDG in Modes 5 and 6. The Director, Nuclear Regulatory Matters issued a memorandum to all Licensing and Compliance personnel emphasizing the importance of a thorough understanding of the question being asked prior to issuing guidance. The supervisor of the Surveillance Test Group issued a memorandum to all FSTCs requiring that whenever exceptions are made to surveillance requirements, a specific question be addressed to Licensing regarding the specific requirement. A Technical Specification amendment resolving this inconsistency in the TSs was submitted to the Nuclear Regulatory Commission on November 2, 1993.

V. ADDITIONAL INFORMATION

A. Identification of components referred to in this LER:

| Component                  | IEEE 803<br>EIS Funct | IEEE 805<br>System ID |
|----------------------------|-----------------------|-----------------------|
| Emergency Diesel Generator | DG                    | EK                    |
| Load Sequencer Timer       | TMR                   | EK                    |

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B. There have been no previous similar events.