

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION

P. O. BOX A

SANATOGA, PENNSYLVANIA 19464

(215) 327-1200 EXT. 2000

J. DOERING, JR.
PLANT MANAGER
LIMERICK GENERATING STATION

May 6, 1991

Docket No. 50-353
License No. NPF-85

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

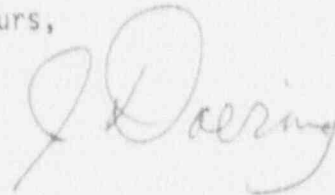
SUBJECT: Licensee Event Report
Limerick Generating Station - Unit 2

This LER reports an inadvertent start of a Unit 2 Emergency Diesel Generator, an Engineered Safety Feature, as a result of a personnel error.

Reference:	Docket No. 50-353
Report Number:	2-91-006
Revision Number:	00
Event Date:	April 4, 1991
Report Date:	May 6, 1991
Facility:	Limerick Generating Station P.O. Box A, Sanatoga, PA 19464

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(iv)

Very truly yours,



DCS:cah

cc: T. T. Martin, Administrator, Region I, USNRC
T. J. Kenny, USNRC Senior Resident Inspector, LGS

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LICENSEE EVENT REPORT (LER)

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

On April 4, 1991, during performance of a Unit 2 Surveillance Test (ST) procedure, the D22 Emergency Diesel Generator (EDG), an Engineered Safety Feature (ESF), was inadvertently started. This occurred as a result of a plant operator depressing the wrong pushbutton while performing the ST procedure. The inadvertent start of the EDG constituted an unplanned actuation of an ESF. The EDG ran for less than ten (10) seconds before being secured by operations personnel. The inadvertent start did not impact the operability of the EDG. All remaining EDGs were operable and available for service. The cause of this event was personnel error in that the plant operator depressed the wrong pushbutton while performing the ST procedure due to a lack of both self-checking and attention to detail. The ST procedure did not contain certain barriers that could have assisted the operator in properly identifying equipment. The involved operator was counseled on the importance of attention to detail while performing work in the plant. Enhancements are being implemented in various EDG procedures which will create barriers to help prevent this type of personnel error in the future. There is a continuing effort through training and management involvement to heighten operator awareness of the need for attention to detail and self-checking.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (If more space is required, use NRC Form 366A-1 (17))

Unit Conditions Prior to the Event:

Unit 2 was in Operational Condition 5 (Refuel) at 0% power.

There were no systems or structures inoperable which contributed to this event.

Description of the Event:

On April 4, 1991, at 1158 hours, the D22 Emergency Diesel Generator (EDG, EIIS:EK), an Engineered Safety Feature (ESF), was inadvertently started. This occurred during performance of Unit 2 Surveillance Test (ST) procedure ST-6-092-312-2, "D22 Diesel Generator Operability Test Run," as a result of a plant operator depressing the wrong pushbutton while performing the ST procedure.

The ST procedure was being performed by two non-licensed plant operators at the local EDG control panel in the D22 EDG enclosure. The ST procedure (step 6.12.1) directed the operator to "... at panel 28C514 press Emergency Stop Pushbutton." However, the first operator mistakenly depressed the "Engine Shutdown/Reset" pushbutton rather than the "Emergency Stop" pushbutton. This allowed the EDG to inadvertently start when the second operator manually applied starting air (EIIS:LC) to the EDG as part of the ST procedure (step 6.12.3). The D22 EDG accelerated to its rated speed but the D22 EDG electrical output breaker (EIIS:BKR) did not close and supply power to the D22 4KV Safeguard Bus since this bus was being powered by the offsite power source at the time of the event.

Realizing that the EDG inadvertently started, the first operator tripped the EDG using the "Emergency Stop" pushbutton on panel 28C515. The first operator contacted the Main Control Room (MCR) to report the inadvertent EDG start. The procedure was then completed satisfactorily.

The inadvertent start of the EDG constituted an unplanned actuation of an ESF. A four (4) hour notification was made to the NRC on April 4, 1991, at 1430 hours, in accordance with the requirements of 10CFR50.72(b)(2)(ii). This report is being submitted in accordance with the requirements of 10CFR50.73(a)(2)(iv).

Analysis of the Event:

The D22 EDG ran for less than ten (10) seconds before being shut down by operations personnel. The D22 EDG had been removed from service for performance of the ST procedure, and was not required to be operable. The remaining Unit 2 EDGs were operable and available at the time of this event. The inadvertent start did not affect the operability of the D22 EDG. The D22 EDG was available for automatic start in response to a valid signal, and was capable of performing its designed function. Immediate operator action to shut down the D22 EDG prevented any detrimental effects from the inadvertent start. Therefore, the actual and potential consequences of this event were minimal.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3157-0104

EXPIRES 8/31/85

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

Cause of the Event:

The cause of this event was personnel error in that the plant operator depressed the wrong pushbutton while performing the ST procedure. The operator's familiarity with the task led to less than adequate self-checking and a lack of attention to detail resulting in the error.

The ST procedure was reviewed and is correct as written and has been successfully performed by this and other operators in the past. Adequate training has been provided for the task and is not considered to be a contributor to the event. However, the procedure did not contain barriers that could have assisted the operator in checking that the correct button was pushed. Specifically, there was no direction for the operator to verify that alarms associated with depressing the "Emergency Stop" pushbutton annunciate, and there was no direction to lift the cover on the "Emergency Stop" pushbutton. These are actions which would assist in identifying that the correct button was pushed.

Corrective Actions:

The operator who depressed the wrong button was counseled on the importance of attention to detail and the need for self checking. The following procedural barriers are being implemented in the appropriate EDG ST procedures to assist the operator to perform self checks during performance:

- o A procedural step is being added directing the operator to verify that the alarms associated with depressing the "Emergency Stop" pushbutton annunciate to confirm that the correct pushbutton was depressed.
- o An addition to the procedural step directing the operator to depress the "Emergency Stop" pushbutton will require the operator to "lift the cover..." and depress the pushbutton. The "Engine Shutdown/Reset" pushbutton does not have a cover.

These procedural enhancements are expected to be completed by May 31, 1991.

There is a continuing effort at Limerick Generating Station (LGS) to heighten operator awareness of the need for attention to detail and the need for self-checking when performing tasks. This process of heightening operator awareness will continue through training and management involvement to minimize the frequency of events caused by inattentiveness.

The procedural enhancements and operator counseling are considered sufficient corrective actions for this event and no further actions are planned.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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

Previous Similar Occurrences:

LGS Unit 1 LERs 1-85-052, 1-88-022 and Unit 2 LER 2-91-004 reported inadvertent EDG starts, but none were the result of failure to properly identify equipment. Therefore, the corrective actions for these events could not have prevented this event.

Tracking Codes: A6 - Failure to properly identify equipment.