



June 13, 1996

JSPLTR #96-0091

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

Licensee Event Report 96-005, Docket 50-249 is attached and is being submitted pursuant to 10CFR50.73(a)(2)(iv), which requires reporting of any event that results in unplanned manual or automatic actuation of any engineered safety feature.

This correspondence contains the following commitments:

1. Electrical Maintenance Department (EMD) FLSs will randomly survey crews per the Management By Walking Around (MBWA) process on the use of the Station's self-checking technique of STAR. (NTS #2491809600501)
2. EMD will revise DOP 6500-07 to ensure a job briefing is held between Operations and EMD prior to 4KV breaker contact testing. In addition, the procedure will be revised to ensure FLSs and working crews review electrical drawings prior to starting work. (NTS# 2491809600502)
3. EMD will perform an effectiveness review on the use of self-checking techniques in the Department upon completion of the above MBWA activity of NTS#2491809600501. (NTS#2491809600503).
4. EMD Phase II training will include training of EMD breaker maintenance crews. (NTS#2491809600504)
5. EMD crews specializing in breaker maintenance will be formed. The work process will be changed to primarily use these crews for breaker maintenance. (NTS#2941809600505)

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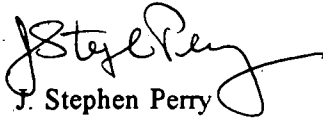
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If you have any questions, please contact Pete Holland, Dresden Regulatory Assurance Supervisor at (815) 942-2920 extension, 2714.

Sincerely,



J. Stephen Perry
Site Vice President
Dresden Station

Enclosure

cc: H. Miller, Regional Administrator, Region III
NRC Resident Inspector's Office
Illinois Department of Nuclear Safety

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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 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.

FACILITY NAME (1)
Dresden Nuclear Power Station, Unit 3

DOCKET NUMBER (2)
05000249

PAGE (3)
1 OF 5

TITLE (4)
Unit 3 Diesel Generator Auto-Start Due To Electrical Maintenance Department 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	None	DOCKET NUMBER
05	18	96	96	-- 005 --	00	06	13	96	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10) 000		<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 73.71(b)
		<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(c)
		<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(v)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(vii)	
		<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	
		<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	
		<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: Ron Jackson, Electrical Maintenance Dept. Ext.2782

TELEPHONE NUMBER (Include Area Code): (815) 942-2920

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)

YES (If yes, complete EXPECTED SUBMISSION DATE). NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On May 18, 1996 during a short Unit 3 outage with the reactor in the shutdown mode, the Unit 3 Emergency Diesel Generator (DG) automatically started. The start was as a result of Electrical Maintenance Department contract personnel improperly taking continuity readings at the wrong terminal points for Bus 34 main feed breaker while supporting Operations Department removal of an equipment Out-Of-Service. These contacts are connected to the Unit 3 DG auto-start logic circuitry. The Unit 3 DG ran successfully and there was no equipment damage during the event. Normal indications were received for the start of the DG. The cause of the improper continuity readings was a personnel error by Electrical Maintenance personnel as they failed to follow established procedures for breaker cubicle testing. The safety significance of this event is minimal as the DG operated as expected as a result of the demand signal.

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
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 INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 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.	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

EVENT IDENTIFICATION:

Unit 3 Diesel Generator auto-start due to Electrical Maintenance Department personnel error.

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 3 Event Date: May 18, 1996 Event Time: 2318
 Reactor Mode: Mode Name: Shutdown Power Level: 0
 Reactor Coolant System Pressure: 0 psig

B. DESCRIPTION OF EVENT:

This report is submitted in accordance with 10CFR50.73(A)(2)(iv) which requires the reporting of any event or condition which results in manual or automatic actuation of any Engineered Safety Feature (ESF) including the Reactor Protection System (RPS).

On May 18, 1996 at approximately 2230 hours, an Electrical Maintenance Department (EMD) contractor First Line Supervisor (FLS) was contacted by Operations to support clearing equipment Out-Of-Service (OOS) #950015589 by testing the auxiliary contacts of Bus 34 Main Feed Breaker 152-3401 [EA] prior to racking in the breaker. However, the FLS requested an earlier start of the work at 2300 hours since he was ending his shift at 2400 hours. The FLS obtained a copy of the attachment to Dresden Operating Procedure (DOP) 6500-07, "Racking In 4160 Volt Manually Operated Air Circuit Breaker (ACB), Magne-Blast Hybrid (AMHG) or SF6 Gas Circuit Breaker (GCB)". The attachment provided instructions and the location of the terminal points for taking voltage and continuity readings of the 4KV breaker auxiliary contacts. The FLS and electrician arrived at the Work Execution Center at 2300 hours and the FLS noticed that the procedure attachment, page 23, did not list cubicle #1 for bus 34 main feed breaker. He paged through the rest of the attachment but could not find cubicle #1 listed on the attachment. Cubicle #1 was actually listed on page 24 of the attachment but was overlooked by the FLS.

The FLS contacted the General Supervisor of the problem and was informed to conduct the tests as normally done with the other 4KV breakers but to use the electrical drawings that are referenced on the attachment to verify contact positions and terminal point locations. The FLS asked the Operations Department Field Supervisor if he had any drawings available for review. The Field Supervisor stated that he did not have any drawings. The FLS then stated that he would do the job without drawings since he was familiar with this type of work. He instructed the electrician to use page 23 of the attachment to do the work. The electrician did not question the FLS concerning the discrepancy of the attachment not listing the cubicle he was instructed to work on.

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The FLS, electrical technician and the Operations Equipment Operator [non-licensed] arrived at Bus 34 cubicle #1 at approximately 2320 hours and the electrical technician began taking voltage and continuity readings in accordance with DOP 6500-07 attachment page 23. This page listed a table with 6 auxiliary contacts, their terminal point locations, and their open and closed position arrangement in the breaker test and full-in positions. DOP 6500-07 attachment, page 23, only listed the contact arrangement for breakers at bus 34 in cubicles #2-#15 except cubicles #1 and #11 which were the main and reserve feed breakers, respectively. The FLS assumed this contact arrangement applied to cubicle #1 and consequently used it for performing work. The instructions on DOP 6500-07, attachment page 24 should have been used for the work.

When the continuity readings were completed, the electrician was instructed by the equipment operator to stop all work since control room personnel had just notified him that the Unit 3 Diesel Generator (DG) [EK] auto-started. All work was stopped and the electrician and FLS were requested to report to the control room for discussion of their actions with Operations Management personnel.

C. CAUSE OF EVENT:

The root cause of this event was due to personnel error, NRC Cause Code A, resulting from inadequate use by the FLS and electrical technician of the established procedure. The FLS failed to self-check and assumed he could follow the general guidelines on the specific page of the procedural attachment which did not list the cubicle number he was requested to take readings on. Specialty crews for breaker maintenance are being developed as part of EMD Phase II training initiative. This increased training and implementation of the crews will provide better skilled workers with a higher level of ownership.

A contributing factor may have been that the FLS self-imposed the urgency to complete the job by the end of the shift. The FLS had approximately 30 minutes to complete the work. This is the normal time required to complete the job if no problems are encountered. Since the FLS did have a problem in finding the cubicle listed on the attachment, that gave him little time to resolve the issue.

The technician also failed to use expected self-check techniques because he failed to question that this cubicle was not listed on the specific page of the attachment.

D. SAFETY ANALYSIS:

Dresden Station's emergency on-site AC power consists of a Unit DG sized to carry the Units ECCS power requirements or supply the power necessary to safely shutdown the Unit. Another DG is shared by Units 2 and 3. During the time of this event, only one DG was required to be operable with Unit 3 in the shutdown mode and irradiated fuel in the reactor vessel. Since the Unit 3 DG was operable prior to the event and successfully auto-started on a demand signal, it was available to perform its design function. In addition, the Unit 2/3 swing DG was also operable and available to fulfill any emergency AC requirement on Unit 3.

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The primary reason for maintaining the Diesel Generator in an operable state is to assure that the Unit maintains a highly reliable source of emergency AC power should a loss of offsite power occur. The Unit 3 Emergency Diesel generator started properly and with the Diesel generator droop setting unaffected by this event remained operable and available to assume the proper loads if challenged. Additionally, the Control Room control switch remained in the "Auto" position, such that during an accident condition, the auto-start logic remained capable of bypassing the appropriate Diesel generator trips, as designed. For these reasons, the safety significance of this event was considered minimal.

E. CORRECTIVE ACTIONS:

The immediate corrective actions included the following:

The Unit 3 DG was monitored and successfully operated in accordance with operating procedures.

The work was immediately stopped and all incoming EMD shift personnel were briefed concerning the event with emphasis on self-checking.

Retraining on procedural compliance was performed. EMD completed a physical demonstration of the practice of contact testing on 4KV breakers with all FLSs and crews. This demonstration included a review of DOP 6500-07, the event and root causes, independent and double verification, the relationship of schedule adherence to quality, and the need to perform self-checking techniques.

Long term corrective actions included the following:

EMD FLSs will randomly survey crews per the Management By Walking Around (MBWA) process on the use of the Station's self-checking technique of STAR. (NTS #2491809600501)

EMD will revise DOP 6500-07 to ensure a job briefing is held between Operations and EMD prior to 4KV breaker contact testing. In addition, the procedure will be revised to ensure FLSs and working crews review electrical drawings prior to starting work. (NTS# 2491809600502)

Both the contractor electrician and contractor FLS were counselled concerning this event by Bechtel management personnel and a letter of reprimand was placed in their files. Both individuals now fully understand their responsibility to procedure adherence. They acknowledge their error and agree with the root cause.

EMD will perform an effectiveness review on the use of self-checking techniques in the Department upon completion of the MBWA activity of NTS#2491809600501. (NTS#2491809600503)

EMD Phase II training will include training of EMD breaker maintenance crews. (NTS#2491809600504)

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EMD crews specializing in breaker maintenance will be formed. The work process will be changed to primarily use these crews for breaker maintenance. (NTS#2941809600505)

F. PREVIOUS OCCURRENCES:

<u>LER/Docket No.</u>	<u>Title</u>
93-006/50-237	Inadvertent autostart of 2/3 Diesel Generator. Cause was inadequate materiel condition. Corrective actions for this event are not applicable to the subject LER.
92-033/50-237	Automatic start of 2/3 Diesel Generator. Inadequate managerial methods allowed poor materiel condition of the Diesel Generator Control system and lead to acceptance of operation of the system with a degraded control system. Corrective actions for this event are not applicable to the subject LER.
96-001/50-249	Failure of Diesel Generator Output Breaker to Close During Testing Due to Inadequate Technical Documentation The root cause of this event was a Management Deficiency because the 4Kv breaker preventive maintenance program was inadequate due to a lack of technical documentation for established procedures. Corrective actions for this event are not applicable to the subject LER.
94-013/50-237	Auto Initiation of Diesel Generator 2/3 During Modification Due to Design Error. The cause of the event was a wiring error during the installation of the Bus 33-1 and Bus 23-1 Tie modification due to a design error in the installation drawings. Corrective actions included reenforcement of the importance of self-check techniques by design engineers. Corrective actions for this event are not applicable to the subject LER.

G. COMPONENT FAILURE DATA:

There were no component failures during this event.