

Commony of th Edison Dresden Nuclear Power Station R.R. #1 Morris, Illinois 60450 Telephone 815/942-2920

December 23, 1991

CWS LTR #91-068

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

Licensee Event Report 91-42, Docket 050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(ii).

2. 3. Sterner for 12/24/11

Charles W. Schroeder Station Manager Dresden Nuclear Power Station

CWS/cfq

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical

(E22

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Dresden Nuclear Power Station Unit 2							0 15 10		2 13 17 1 of 0 3					
Title	Title (4) Cable Separation Criteria Not Met Due to Original Construction Design Deficiency													
Event Date (5)			LER Number (6)]				Report Date (7)			Other Facilities Involved (8)				
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ABSTRACT (Limit to 1400 spaces, i.e, approximately fifteen single-space typewritten lines) (16)

While performing a walkdown for a proposed modification to re-install feed cable to Unit 2 480V Motor Control Center (MCC) 29-2, it was discovered that the existing cabling crossed from Engineered Safety System (ESS) Division II to ESS Division I along its cable pan routing. This condition is contrary to system separation criteria. Upon further investigation, three other MCC feed cables were identified as being of concern. Corrective actions were to initiate modifications M12-2-91-027 and M12-3-91-027 to recable and divisionally reroute the feed cabling from Unit 2 480V Bus 29 to MCC 29-2, from Unit 2 480V Bus 28 to MCCs 28-3 and 28-2, and from Unit 3 480V Bus 38 to MCC 38-2. Both Units 2 and 3 were shutdown and depressurized at the time these discrepancies were discovered. These modifications will be completed prior to the startups of Unit 2 and Unit 3. No previous events of this type have been identified. The Commonwealth Edison Co. Nuclear Engineering Department is performing a comprehensive investigation into this event; a supplemental report will be submitted upon its completion.

	LICENSEE EVENT REPORT	T (LER) TEX	T CONTINUATION		Form Rev 2.0
FACILITY NAME (1)	DOCKET NUMBER (2)		LER NUMBER (6)	,	Page (3)
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PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2527 MWt rated core thermal power

Nuclear Tracking System (NTS) tracking code numbers are identified in the text as (XXX-XXX-XXXXXX)

EVENT IDENTIFICATION:

Cable Separation Criteria Not Met Due to Original Construction Design Deficiency

A. CONDITIONS PRIOR TO EVENT:

Unit: 2(3)

Event Date: November 26, 1991

Event Time: 1604 Hours

Reactor Mode: N(N)

Mode Name: Refuel(Shutdown)

Power Level: 0%(0%)

Reactor Coolant System (RCS) Pressure: 0 psig(0 psig)

B. DESCRIPTION OF EVENT:

At 1604 hours on November 26, 1991, with Unit 2 shutdown and depressurized in the refuel mode, during a walkdown for a proposed modification, it was discovered that the existing power feed cables to Unit 2 480V [ED] MCC 29-2 from Bus 29 were routed through both Engineered Safety System (ESS) [ED] Division I and Division II cable pans. MCC 29-2 is currently designated as ESS Division II. This condition is contrary to the basic design criterion of divisional separation. An investigation was promptly initiated.

The initial results of the review identified two additional Unit 2 MCCs, 28-2 and 28 3, which possessed feed cabling that was transdivisionally routed.

Further inspections on Dresden Unit 3 at 0930 hours on December 6, 1991, revealed that the feed cabling from Unit 3 480V Bus 38 to MCC 38-2 (ESS Division I) was also incorrectly routed in a Division II cable tray. Unit 3 was shutdown with all fuel removed from the reactor vessel at the time of this discovery.

C. APPARENT CAUSE OF EVENT;

This event is submitted pursuant to the requirements of Title 10 of the Code of Federal Regulations Part 50.73(a)(2)(ii)(B) which requires the reporting of any event or condition of the nuclear power plant that is outside the design basis.

The Commonwealth Edison Co. Nuclear Engineering Department (NED) is performing a comprehensive investigation and review of this event. It has been determined that this condition has existed since the initial construction of Unit 2 and 3. Preliminary investigation also indicates that the cabling in question was originally designated as Balance of Plant (BOP) cabling and was routed as such; however, a subsequent upgrade in the early 1970s was performed to reclassify certain auxiliary equipment considered important for safe shutdown to safety related. This upgrade apparently did not include a review of the MCC feed cables to ensure that they were properly divisionally separated.

	SEE EVENT REPORT (LER) TEX		Form Rev 2.0
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Π. SAFETY ANALYSIS OF EVENT:

An Operability and Safety Assessment for the physical routing of the subject MCC feeder cables was performed. The assessment determined that there existed a lack of physical separation between cables providing redundant safety functions; however, for an external event (including fire, missiles, flooding, etc.) a simultaneous Design Basis Loss of Coolant Accident (LOCA) is considered to be beyond design basis. Therefore, a failure of the subject cable raceways is not considered a credible single failure during a LOCA. In the event of a fire or other external event resulting in multiple cable damage in the area of concern the use of Appendix R Safe Shutdown procedures provides assurance that the plant could be safely shut down. This is documented in a report from NED to Dresden Station dated December 13, 1991.

CORRECTIVE ACTIONS: Е

The immediate corrective actions were to perform a review to identify the population of similarly routed cables on both units. Upon the initial results of this NED review, modifications M12-2-91-027 and M12-3-01 027 were initiated M12-2-91-027 will recable and divisionally reroute the feed cabling and breaker control cabling from Bus 28 to MCC 28-2, Bus 28 to MCC 28-3, and from Bus 29 to MCC 29-2. M12-3-91-027 will recable and divisionally reroute the feed cabling and breaker control cabling from Bus 38 to MCC 38-2. Both modifications will be completed prior the the startup of Unit 2 and Unit 3, respectively. A Supplemental Report will be submitted following the completion of the modifications and investigation (237-200-91-22501).

F. **PREVIOUS OCCURENCES:**

LER/Docket Numbers Title

None. This is the first reported instance of this type.

G. COMPONENT FAILURE DATA:

Manufacturer	Nomenclature	Model Number	<u>Mfg. Part Number</u>
N/A	N/A	N/A	N/A

Since no component failure was identified with this event, this section is not applicable.