

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 2/3 Doc Number (2) 0 5 10 10 10 12 13 17 Page (3) 1 of 0 6

Title (4) Possible Single Failure Loss of Both Standby Gas Treatment Systems Due to a Design Deficiency

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 Number(s)
0	2	2 1 8 9	8 9	0 1 3	0 0	0	3	2 1 8 9	Dresden Unit 3	0 5 10 10 10 12 14 19
									N/A	0 5 10 10 10 11 11

OPERATING MODE (9) N

POWER LEVEL (10) 0 1 6

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)

<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)
<input type="checkbox"/> 20.405(a)(1)(iii)	<input 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 checked="" 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)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name: Scott Briley, Technical Staff Engineer Ext. 2526

TELEPHONE NUMBER: AREA CODE 8 1 5 9 4 2 -2 19 12 10

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) Month Day Year

Yes (If yes, complete EXPECTED SUBMISSION DATE) X NO

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

On February 17, 1989 with Unit 2 in cold shutdown for refueling and Unit 3 operating at 93% rated core thermal power, a review of the Standby Gas Treatment (SBGT) System power supplies and control circuits was being performed. At this time it was believed that a postulated Loss of Coolant Accident (LOCA), concurrent with a Loss of Offsite Power (LOOP) to Units 2 and 3, and a failure of the Unit 2 125V DC battery system, may render both the A and B SBGT trains inoperable. At this time, however, it was not known if a LOOP to both units was assumed by the Final Safety Analysis Report (FSAR). The NRC Resident Inspector and the an NRR Project Manager were informed at this time. On February 21, 1989 at 1150 hours with Unit 2 operating at 16% rated core thermal power and Unit 3 operating at 94% rated core thermal power it was determined that during a postulated LOCA on Unit 3, concurrent with a LOOP on Unit 3, a failure of the Unit 2 125V DC battery system would render both the A and B SBGT trains inoperable. The root cause has been attributed to a design deficiency in the AC power supply to the SBGT System. The immediate corrective action was to notify Station Management personnel and Operations Department shift personnel of the potential problem. A Justification for Continued Operation (JCO) was formalized and submitted for NRC review and a new procedure, Dresden General Abnormal (DGA) 4, Loss of the Unit 2 125V DC System During a Unit 3 LOCA Concurrent with a Loss of Offsite Power to Unit 3 was implemented. As a long term corrective action, a modification will be initiated to modify the AC feeds to the A SBGT train. This modification will ensure that at least one SBGT train remains operable during the proposed scenario.

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TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

C. APPARENT CAUSE OF EVENT:

This report is being submitted in accordance with the requirements of 10CFR50.73(a)(ii)(C) which requires the reporting of any event or condition during operation that results in the nuclear power plant being in a condition not covered by the plant's operating and emergency procedures.

The loss of the B SBT System under the postulated scenario conditions would result because: the Unit 3 Diesel Generator [EK] would not automatically start since its control power is supplied by the Unit 2 125V DC battery system which is inoperable. The Bus 38 to Bus 39 [ED] and Bus 24-1 to Bus 34-1 [EB] cross-tie breakers could not close because they are also operated by the Unit 2 125V DC battery. Therefore, Bus 39 would be deenergized and the B SBT train would be inoperable. See Figure 1.

The loss of the A SBT System would result because: it is assumed that Unit 2 scrams when Unit 3 is experiencing a LOCA. The Unit 2/3 Diesel Generator would supply emergency power to Bus 33-1 since the LOCA occurred on Unit 3. The Bus 29 to Bus 28 and the Transformer 22 to Bus 23-1 cross-tie breakers would not close because the Unit 2 125V DC battery system is unavailable. See Figure 2. The root cause of this event has been attributed to a design deficiency.

D. SAFETY ANALYSIS OF EVENT:

The purpose of the SBT System is to maintain a small negative pressure in the Reactor Building in order to prevent the ground level release of airborne radioactivity under isolation conditions. This is accomplished by treating the effluent from the Reactor Building and discharging it through the Unit 2/3 Chimney. The likelihood of the loss of the Unit 2 125V DC battery system during a Unit 3 LOCA concurrent with a LOOP to Unit 3 is extremely small. In addition, all Operations Department shift personnel were immediately notified of the potential problem and an approved procedure was established for corrective action should an event of this type occur. Therefore the safety significance of this event is considered minimal.

E. CORRECTIVE ACTIONS:

The immediate corrective action included notifying Station Management personnel and Operations Department shift personnel of the design deficiency with the SBT System. A new procedure, DGA 4, was formalized by February 23, 1989. This procedure provides direction in restoring the 125V DC battery system to the appropriate Unit 3 circuits which permits restoration of AC power to the B SBT System. As a long term corrective action, a modification request will be issued to modify the AC feeds to the A SBT train (237-200-88-01301). This modification will ensure that at least one SBT train is operable under the postulated scenario.

F. PREVIOUS EVENTS:

LER Number/Docket Number      Title

87-005/050249      Primary Containment Structural Steel Connections Outside Final Safety Analysis Report (FSAR) Design Criteria Due to Apparent Original Construction Oversight.

Corporate Engineering discovered that the drywell structural steel did not meet the FSAR design requirements due to inadequate beam connections. The corrective action was to repair the deficiencies.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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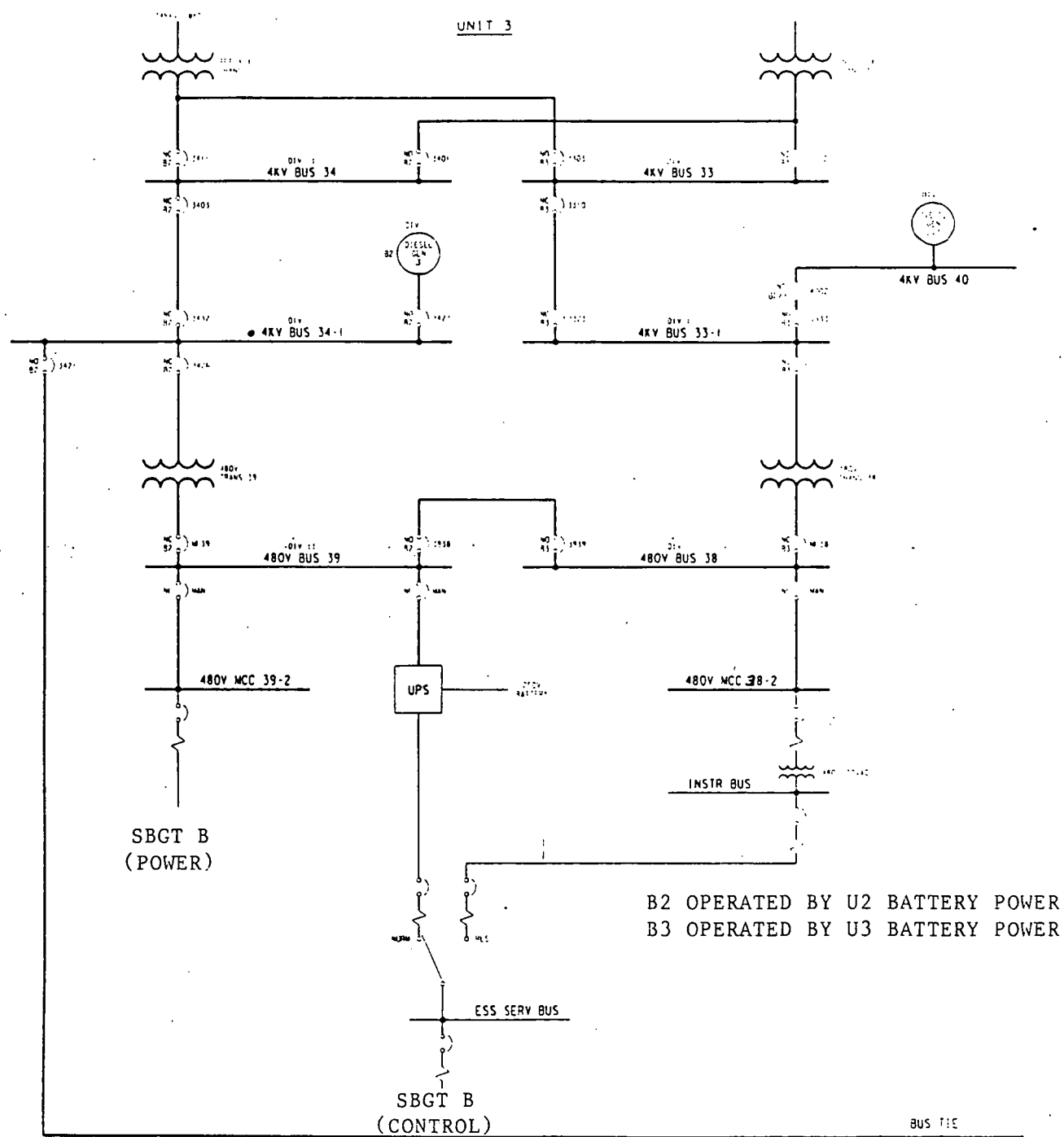
FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year	///	Sequential Number	///	Revision Number				
Dresden Nuclear Power Station	0   5   0   0   0   2   3   7	8   9	-	0   1   3	-	0   0	4	OF	0   6	

TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

G. COMPONENT FAILURE DATA:

Since there were no component failures during this event, an industry wide NPRDS search was not performed.

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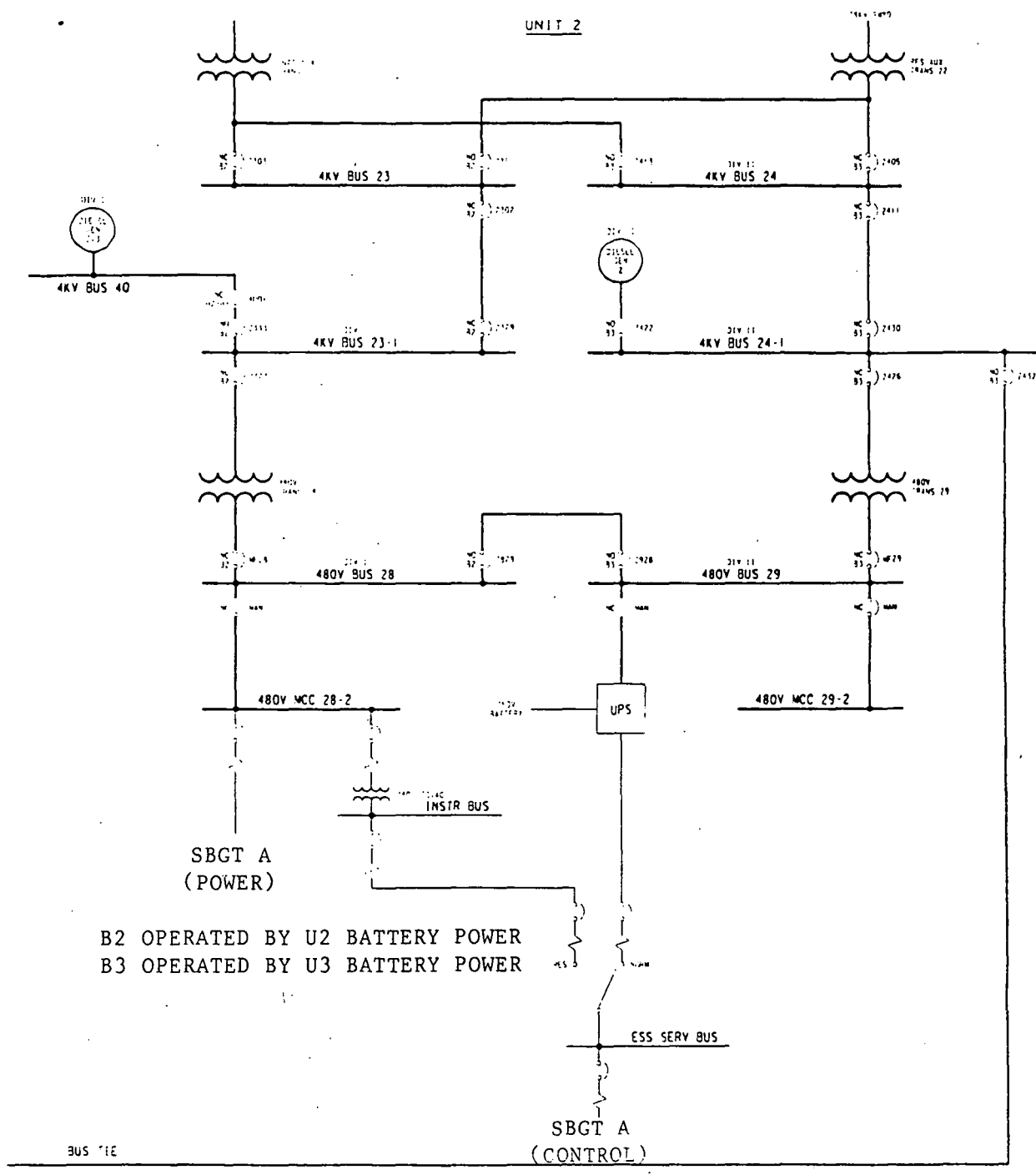


SBGT B POWER SUPPLY

Figure 1

FACILITY NAME (1) Dresden Nuclear Power Station	DOCKET NUMBER (2) 0   5   0   0   0   2   3   7	LER NUMBER (6)			Page (3)		
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SBGT A POWER SUPPLY

Figure 2



**Commonwealth Edison**  
Dresden Nuclear Power Station  
R.R. #1  
Morris, Illinois 60450  
Telephone 815/942-2920

March 21, 1989

EDE LTR #89-244

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

Licensee Event Report #89-013-0, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(ii)(C).

E.D. Eenigenburg  
Station Manager  
Dresden Nuclear Power Station

EDE/ade

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III  
File/NRC  
File/Numerical

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