NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Dresden Nuclear Power Station, Unit 3	05000249	1 OF 5

TITLE (4)
Preconditioning Stationary Battery Prior To Service Test Inconsistent with Design Bases Caused by 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	FACILITY NAME	DOCKET NUMBER
05	16	96	97	006	00	6	13	97	None	
									FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	N
POWER LEVEL (10)	000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.2201(b)		20.2203(a)(3)(i)		50.73(a)(2)(iii)		73.71(b)
	20.2203(a)(1)		20.2203(a)(3)(ii)		50.73(a)(2)(iv)		73.71(c)
	20.2203(a)(2)(i)		20.2203(a)(4)		50.73(a)(2)(v)		OTHER
	20.2203(a)(2)(ii)		50.36(c)(1)		50.73(a)(2)(vii)		(Specify in Abstract below and in Text, NRC Form 366A)
	20.2203(a)(2)(iii)		50.36(c)(2)		50.73(a)(2)(viii)(A)		
	20.2203(a)(2)(iv)		50.73(a)(2)(i)		50.73(a)(2)(viii)(B)		
	20.2203(a)(2)(v)	x	50.73(a)(2)(ii)		50.73(a)(2)(x)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
D. Spencer, Plant Engineering Ext. 3292	(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)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X	YES (If yes, complete EXPECTED SUBMISSION DATE).	NO		09	19	97

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

On May 16, 1997, during review of a June 10, 1996, service discharge test performed on the Unit 3 125 volt dc Alternate Battery, it was determined that the test was performed following completion of maintenance and an equalization charge. The equalization charge and extent of maintenance were subsequently evaluated to be preconditioning. Although the battery service test results were acceptable, the indication of past maintenance practices was lost due to the preconditioning. Preconditioning is inconsistent with the design basis requirements as defined by UFSAR Section 8.3.2.2, which requires system battery test to be performed in accordance with IEEE-450 which further requires Service Tests to be performed with batteries in the "As Found" condition.

The root cause of this event is personnel error in failure to identify "As Found" requirements during the Alternate Battery Service Test procedure development technical review. Corrective actions include procedure revisions and counseling with the individuals involved. This event is being reported under 10CFR50.73(a)(2)(ii). There was no safety significance associated with this event.

PLANT AND SYSTEM IDENTIFICATION

General Electric - boiling water reactor - 2527 MWt rated core thermal power.

Energy Industry Identification System (EIIS) codes are identified in the text as [XX] and are obtained from IEEE Standard 805-1984, IEEE Recommendation Practice for System Identification in Nuclear Power Plants and Related Facilities.

EVENT IDENTIFICATION:

Preconditioning Stationary Battery Prior To Service Test Inconsistent with Licensing Bases Caused by Personnel Error

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 3 Event Date: June 10,1996 Event Time: 1715

Reactor Mode: N Mode Name: No-Mode Power Level: 0 percent

Reactor Coolant System Pressure: 0 psig

B. DESCRIPTION OF EVENT:

This report is being submitted in accordance with 10CFR50.73(a)(2)(ii), which requires the reporting of any event or condition that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant.

May 16, 1997, as a corrective action from LER 97-005, Docket Number 05000249, a review of the last 125 VDC & 250 VDC battery discharge tests was performed. During this review, it was identified that previous Unit 3 discharge test had been improperly preconditioned. On June 10, 1996, Dresden Maintenance and Engineering personnel (non-licensed) performed a Service Test on the Unit 3 125 VDC Alternate Battery [EJ] to satisfy Technical Specification requirements. The test was performed after completion of maintenance and submitting the battery to an equalization charge. Performing an equalization charge and the extent of maintenance performed (removal and cleaning of intercell connectors) was subsequently evaluated to be preconditioning. Although the battery service test results were acceptable, the indication of past maintenance practices was lost due to the preconditioning. Preconditioning is inconsistent with the design basis requirements as defined by UFSAR Section 8.3.2.2, which requires system battery test to be performed in accordance with IEEE-450 which further requires Service Tests to be performed with batteries in the "As Found" condition.

Background

Dresden Station procedure DES 8300-36, UNIT 3 125 VOLT ALTERNATE BATTERY SERVICE TEST, was written and authorized for use on December 7, 1995 to verify that the Unit 3 125 Volt Alternate Battery was capable of meeting its design load profile. The procedure was written in accordance with the requirements of IEEE-450-1987. IEEE-450-1987 defines a Service Test as "A special test of the battery's capability, as found, to satisfy the design requirements (battery duty cycle) of the dc system". IEEE-450-1987 Section 6.6 provides the "recommended procedure" for the Service Test which restricts equalization charge and battery terminal maintenance (cleaning, tightening, and corrosion removal). DES 8300-36 (Revision 0), implementing procedure for the 125 volt dc Alternate Battery Service Test, improperly identified the restrictions for the equalization charge as three days prior to the start of the Service Test. DES 8300-36 furthermore, did not place any limitations on the extent of maintenance which could or could not be performed prior to Service Test initiation.

Dresden Station Technical Specifications, Section 3.9, which were in effect at the time that the Unit 3 Alternate Battery Service Test procedure was both developed and performed, did not specify that the test be performed to "As Found" conditions. The Updated FSAR (UFSAR), however, did specify that the Station battery tests would be performed to the requirements of IEEE 450.

Event Chronology

On November 2, 1995, an Action Request identified that numerous post seals were leaking and needed to be replaced.

On June 1, 1996, battery maintenance was completed. This maintenance included the replacement of Cell 20 & 21, the replacement of interior jumpers and post seal assemblies; all intercell connectors were removed, refurbished, replaced and retorqued.

The battery was given a 74 hour equalize charge, starting on June 3, 1996, at 0045 and completed on June 6, 1996, at 0245.

On June 10, 1996, the Service Test was performed. The battery passed the test.

On May 16, 1997, a Problem Identification Form (PIF) was written identifying that the maintenance and equalization charge was performed on the 125 VDC Alternate Battery and that the Service Test requirements for testing in the as-found condition was not met.

C. CAUSE OF EVENT:

The root cause of this event is personnel error [NRC cause code A] as a result of inadequate procedure technical review. The engineering department technical reviewers did not identify or adequately question the IEEE 450 "As Found" requirements for Service Test performance. This resulted in performing the Service Test procedure without properly revising the procedure or gaining regulatory relief from the as-found prerequisite (procedural).

D. SAFETY ANALYSIS:

There was no safety significance associated with this event. Per the IEEE 450-1987 requirements, maintenance can and should be performed on a battery as necessary when a detrimental condition is found. This maintenance would not be considered as preconditioning the battery or affecting the results of the Service Test.

Per the IEEE standard, the battery is to be tested in the "As Found" condition which would preclude the use of an equalize charge prior to the test. However, the equalization charge was completed 4 days before the test. Review of battery cell voltages prior to and after equalization did not show any appreciable change. Therefore, the pretest equalization did not significantly affect the Service Test results. The change in connection resistance from the pre-maintenance to post-maintenance was examined and estimated to be less than 1000 micro ohms. This would have a voltage impact of less than 0.6 volts. The lowest voltage experienced during the Service Test was 109.8 volts. The minimum acceptance voltage is 105 volts dc. Therefore, the change in resistance had no significant effect on the Service Test results. The Service Test performed on the Unit 3 Alternate Battery demonstrated operability of the Alternate Battery prior to its being connected to the Unit 3 125 volt dc system.

Conclusions

The prerequisite of performing the test in the as-found condition was not met in that maintenance was performed prior to the test. However, from a technical basis, the activities prior to the test did not bias the test results and the test is considered valid.

Based on the above conclusions, the safety consequences of this event were minimal.

E. CORRECTIVE ACTIONS:

1. The Service Test performed on the Unit 3 Alternate Battery demonstrated operability of the Alternate Battery prior to its being connected to the Unit 3 125 volt dc system. (complete)

2. Engineering Department Group meetings were conducted on Engineering Standards for procedure development and review. (complete)

3. Dresden Station Engineering Department personnel involved with the Technical Review of DES 8300-36 will be counseled by Engineering Management regarding their part in improperly identifying the "As Found" requirement during Service Test performance. (NTS #2491809700601)

F. PREVIOUS OCCURRENCES:

LER/Docket Numbers	Title
97-004/05000237	Channel Checks for ATWS Level and Pressure Instrumentation Performed at Incorrect Frequency due to Personnel Error during the Procedure Review Cycle.

The corrective actions from this LER were specific to the events discussed in the LER and would not have prevented this event.

97-005/05000249	Preconditioning Stationary Battery Prior to Modified Performance Test Inconsistent with Technical Specification Bases Caused by Personnel Error.

The corrective actions identified in this LER were implemented after the event identified in the subject Licensee Event Report.

G. COMPONENT FAILURE DATA:

There is no component failure identified with this event; therefore, this section is not applicable.