NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Salem Generating Station - Unit 2	0 5 0 0 0 3 1 1	1 OF 0 4

TITLE (4)
2 A Diesel Generator - Valid Test Failure

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 1	2 8	8 5	8 5	— 0 0 1		— 0 0	0 2	2 7	8 5		0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9)	6
POWER LEVEL (10)	0 0 0

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

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	X OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	Surveillance Requirement
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
J. L. Rupp	AREA CODE 6 0 9 — 3 3 9 - 4 3 0 9

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	
A	L B	F C V	M 1 2 0	Y							

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)

This report, required by Technical Specification Surveillance Requirement 4.8.1.1.4, describes a valid test failure of 2A Diesel Generator which occurred on January 28, 1985. During an operational retest, following completion of repairs to 21SW39 (2A Diesel Generator Service Water Control Valve), the diesel generator tripped as the result of a high jacket water temperature signal. It was discovered that 21SW39 valve actuator had been installed incorrectly, resulting in the valve closing (rather than opening) when the diesel started. 21SW39 had been repaired by site contractor personnel utilizing Maintenance Procedure M14A. The event was caused by the failure to reassemble the valve in accordance with instructions contained in the vendor manual, as specified by M14A. 21SW39 was disassembled, inspected and reassembled by the Maintenance Department. 2A Diesel Generator was restored to operation on January 30, 1985, following a satisfactory retest. Steps have been taken to ensure better coordination of site contractor work activities related to the performance of Maintenance Department work. In addition, M14A is being revised to include a section specifically addressing work on ball valves. The revised procedure, when used in conjunction with the appropriate vendor manual will ensure proper installation of the valve actuators.

IE22
1/1

NRC Form 366 (9-83)

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse - Pressurized Water Reactor

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

IDENTIFICATION OF OCCURRENCE:

2A Diesel Generator - Valid Test Failure

Event Date: 01/28/85

Report Date: 02/27/85

This report was initiated by Incident Report No. **85-036**

CONDITIONS PRIOR TO OCCURRENCE:

Mode 6 - Rx Power 000 % - Unit Load 0000 MWe

This report describes a valid test failure involving 2A Diesel Generator occurring on January 28, 1985. This report is submitted for informational purposes in accordance with Technical Specification Surveillance Requirement 4.8.1.1.4, and contains the information required by Regulatory Guide 1.108, Revision 1, August 1977, Regulatory Position C.3.b.

Surveillance Requirement 4.8.1.1.4 states:

> All diesel generator failures, valid or non-valid, shall be reported to the Commission pursuant to Specification 6.9.1.

DESCRIPTION OF OCCURRENCE:

On January 28, 1985, an operational retest of 2A Diesel Generator was in progress in accordance with Surveillance Procedure SP(O)4.8.1.1.2. The test was being performed to verify operability of the diesel generator following maintenance activities on 21SW39 (2A Diesel Generator Service Water Control Valve). 21SW39 had been repaired because of excessive leakage with the valve closed. Approximately five (5) minutes into the test, 2A Diesel Generator tripped as the result of a high jacket water temperature signal. Investigation revealed that 21SW39, which is a diaphragm operated (air-to-close) solenoid actuated ball valve which opens upon diesel starting, was not responding as required. Upon disassembly of the valve, it was discovered that the valve actuator was installed incorrectly, resulting in the valve closing (rather than opening) when the diesel started. The closed valve resulted in no cooling water flow and the resultant diesel trip on high jacket water temperature.

APPARENT CAUSE OF OCCURRENCE:

21SW39 was repaired by site contractor personnel utilizing Maintenance Department Procedure M14A (General Instructions for Disassembly, Inspection and Reassembly of Valves). Procedure M14A is not intended to be utilized as the sole source of information necessary to repair valves. Instead, it provides general guidelines for valve repairs, and incorporates good engineering and machinist practices to be utilized by repair personnel. M14A specifies that the valves are to be repaired in accordance with specific instructions contained in the appropriate vendor manual. The root cause of this occurrence was the lack of sufficient direction to the repair personnel prior to the performance of this job, and the failure of repair personnel to follow the procedure as written, in that 1) the I&C Department was not contacted for the removal of the air lines as specified in the procedure, and 2) the valve actuator was not installed according to the instructions contained in the vendor manual.

ANALYSIS OF OCCURRENCE:

This event occurred during a refueling outage, with the Unit in Mode 6. In accordance with the Technical Specification requirements for Modes 5 and 6, two diesel generators were maintained in an operable status at all times; therefore, entry into an action statement was not required. Had this event occurred during operation in Modes 1 through 4, Technical Specification Action Statement 3.8.1.1.a would have been entered, and operation would have been permitted in accordance with the action requirements. Regardless of the operating mode, the inoperability of the diesel generator (due to the malfunctioning of the service water cooling control valve) would not have gone undetected, due to the required retest of the diesel to verify operability. The jacket water high temperature trip feature functioned as designed to trip the diesel prior to reaching excessive temperatures and to prevent damage to the diesel engine. No equipment was damaged, and this occurrence involved no undue risk to the health or safety of the public.

This was classified as a valid test failure in accordance with Regulatory Guide 1.108, Regulatory Position C.2.e.(7). This marked the second diesel generator test failure in the last one-hundred (100) valid tests. As a result, the testing frequency was increased from thirty-one (31) days to fourteen days (14), in accordance with Regulatory Position C.2.d.(2). This report is being submitted for informational purposes, in accordance with Technical Specification Surveillance Requirement 4.8.1.1.4.

CORRECTIVE ACTION:

21SW39 was disassembled, inspected and reassembled by the Maintenance Department on January 29, 1985, in accordance with instructions contained in the appropriate vendor manual. The valve actuator was correctly installed, and the valve was satisfactorily stroke tested. On January 30, 1985, 2A Diesel Generator was operationally retested in accordance with Surveillance Procedure SP(O)4.8.1.1.2. The test results were satisfactory, and 2A Diesel Generator was returned to an operable status. As previously stated, the surveillance interval for the diesel generators was decreased to fourteen (14) days in accordance with Regulatory Guide 1.108.

On February 5, 1985, a letter was issued from the Manager- Nuclear Construction Support (NCS) to the Resident Project Manager for the site contractor. When performing Maintenance Department work activities, the site contractor will no longer disconnect or connect air supplies to any air operated valve unless specifically instructed to do so by NCS. In addition, an I&C interface step will be included in any Controlled Work Packages issued for air operated valves. This step will require the contractor supervisor to notify NCS when the field work is complete and to request NCS to coordinate associated work with the I&C Department.

Additionally, Maintenance Procedure M14A is being revised to include a section specifically addressing work on ball valves. The procedure will include steps to document the actual valve position prior to installation, and the position of the valve actuator (if applicable) relative to the valve position. The procedure, when used in conjunction with the appropriate vendor manual, will ensure that the valve actuator is installed correctly.

General Manager-
Salem Operations

JLR:tns

SORC Mtg 85-036

PSE&G

Public Service Electric and Gas Company P.O. Box E Hancocks Bridge, New Jersey 08038

Salem Generating Station

February 26, 1985

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

Dear Sir:

SALEM GENERATING STATION
LICENSE NO. DPR-75
DOCKET NO. 50-311
UNIT NO. 2
LICENSEE EVENT REPORT 85-001-00

This Licensee Event Report is being submitted pursuant to the requirements of Technical Specification Surveillance Requirement 4.8.1.1.4. This report is required within thirty days of discovery.

Sincerely yours,

J. M. Zupko, Jr.
General Manager -
Salem Operations

JR:tcs

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