

LICENSEE EVENT REPORT

CONTROL BLOCK: [][][][][][](1)

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1	N	J	S	G	S	2	2	0	0	-	0	0	0	0	0	-	0	0	3	4	1	1	1	1	4			5
7	8	14						15	25										26	30					57	CAT	58		
LICENSEE CODE		LICENSE NUMBER										LICENSE TYPE																	

CON'T

0 1 7 8 REPORT SOURCE 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 6 0 5 0 0 0 3 1 1 7 1 1 0 8 8 3 8 1 2 0 2 8 3 9

DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 On November 8, 1983, during a maintenance shutdown, while performing Manual Safety In-

03 jection routine surveillance testing, a spurious actuation involving 2B SEC was en-

04 countered. Action Statements 3.8.1.2b and 3.8.2.2 were already in effect because of the

05 testing; therefore, no undue risk to the health or safety of the public was involved.

06 The event constituted operation in a degraded mode permitted by a limiting condition

07 of operation and is reportable in accordance with Technical Specification 6.9.1.9b.

0	8	9											80										
SYSTEM CODE			CAUSE CODE		CAUSE SUBCODE		COMPONENT CODE				COMP. SUBCODE		VALVE SUBCODE										
E	B	11	B	12	A	13	R	E	L	A	Y	X	14	A	15	Z	16						
EVENT YEAR			SEQUENTIAL REPORT NO.		OCCURRENCE CODE		REPORT TYPE		REVISION NO.														
8	3	21	22	—	23	0	5	9	24	25	26	/	27	0	3	28	29	L	30	—	31	0	32
ACTION TAKEN		FUTURE ACTION		EFFECT ON PLANT		SHUTDOWN METHOD		HOURS		ATTACHMENT SUBMITTED		NPRD-4 FORM SUB.		PRIME COMP. SUPPLIER		COMPONENT MANUFACTURER							
A	18	X	19	Z	20	Z	21	0	0	0	0	Y	23	Y	24	A	25	A	6	4	0	26	
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47									

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Extensive testing has been performed on the SECs because of previous problems. The

1 1 relays are suspected to be the cause; DCR 2EC-1785 replaced the relays in 2B SEC.

1 2 The SEC was tested; no spurious actuations were received.

1 3

1 4

FACILITY STATUS (1) 5 (G) (28) % POWER (0) (0) (0) (29) OTHER STATUS (30) NA METHOD OF DISCOVERY (B) (31) Manual SI Testing DISCOVERY DESCRIPTION (32)
 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (36)
 (1) (6) (Z) (33) (Z) (34) NA
 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION (39)
 (1) (7) (0) (0) (0) (37) (Z) (38) NA
 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 PERSONNEL INJURIES NUMBER DESCRIPTION (41)
 (1) (8) (0) (0) (0) (40) NA
 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION (43)
 (1) (9) (Z) (42) NA
 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 PUBLICITY ISSUED DESCRIPTION (45)
 (2) (0) (N) (44) NA
 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 8312130400 831202
 PDR ADOCK 05000311
 S PDR
 NRC USE ONLY
 68 69 70

NAME OF PREPARER J. L. Rupp

PHONE: (609) 339-4309

NRC USE ONLY

3-2 917-926



PSEG

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

Salem Generating Station

December 2, 1983

Dr. Thomas E. Murley
Regional Administrator
USNRC
Region 1
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Dr. Murley:

LICENSE NO. DPR-75
DOCKET NO. 80-311
REPORTABLE OCCURRENCE 83-059/03L

Pursuant to the requirements of Salem Generating Station
Unit No. 2, Technical Specifications, Section 6.9.1.9.b,
we are submitting Licensee Event Report for Reportable
Occurrence 83-059/03L. This report is required within
thirty (30) days of the occurrence.

Sincerely yours,

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

JR:k11 *JCF*

CC: Distribution

Report Number: 83-059/03L

Report Date: 12-02-83

Occurrence Date: 11-08-83

Facility: Salem Generating Station Unit 2
Public Service Electric & Gas Company
Hancock's Bridge, New Jersey 08038

IDENTIFICATION OF OCCURRENCE:

Electrical Power Systems - 2B Safeguards Equipment Control (SEC) -
Incomplete Sequence Alarm

This report was initiated by Incident Report 83-200

CONDITIONS PRIOR TO OCCURRENCE:

Mode 5 - Rx Power 000 % - Unit Load 0000 MWe

DESCRIPTION OF OCCURRENCE:

At 1300 hours, November 7, 1983, during a maintenance shutdown, 2B Safeguards Equipment Control (SEC) was removed from service in preparation for the performance of Emergency Safeguards Feature Manual Safety Injection Test, SP(0)4.3.2.1(A). Technical Specification Action Statements 3.8.1.2b and 3.8.2.2 were entered at this time because 2A Diesel Generator was out of service for maintenance.

The test was initiated at 1330 hours. At 1347 hours 2B Diesel Generator was declared inoperable due to a problem with the shaft driven fuel oil pump. This problem was remedied and documented in LER 83-058/03L.

The test proceeded and at approximately 1800 hours, November 8, 1983, when the accident-blackout mode was initiated, the bus was stripped and the diesel was loaded; it then unloaded and reloaded for no apparent reason; during blackout loading an incomplete sequence alarm was received. The test was terminated and an investigation proceeded. Although several problems involving spurious actuations of SEC Channel 2A have been encountered (see LERs 83-014/03L, 83-025/03L, 83-031/03L and 83-041/03L) and an ongoing investigation is in progress, this was the first event involving SEC Channel 2B.

APPARENT CAUSE OF OCCURRENCE:

As previously stated, extensive testing has been performed on the SECs to pinpoint the problem source; indications point to the SEC relays as the most probable cause. This idea is enforced by the fact that the relays from 2A SEC had recently been installed in 2B SEC.

ANALYSIS OF OCCURRENCE:

The operability of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown ensures that the

ANALYSIS OF OCCURRENCE: (cont'd)

facility can be maintained in the shutdown condition for extended time periods and that sufficient instrumentation and control capability is available for monitoring and maintaining the unit status. Technical Specification Action Statements 3.8.1.2b and 3.8.2.2 require:

The suspension of all operations involving core alterations or positive reactivity changes until two diesel generators are restored to operable status; and, containment integrity must be established within eight hours.

As previously stated, Action Statements 3.8.1.2b and 3.8.2.2 were in effect at the time of discovery, and we were in full compliance with with the action requirements. Investigation of the problem continued and the action statements were terminated at 2320 hours, November 10, 1983, after 2A Diesel Generator was returned to service. No undue risk to the health or safety of the public was involved due to this occurrence. The event constituted operation in a degraded mode permitted by a limiting condition for operation and is therefore reportable in accordance with Technical Specification 6.9.1.9b.

CORRECTIVE ACTION:

2A Diesel Generator was restored to an operable status, providing two operable diesel generators, and Technical Specification Action Statements 3.8.1.2b and 3.8.2.2 were terminated at 2320 hours, November 10, 1983.

Design Change Request (DCR) 2EC-1785, which replaces the relays in the SECs with relays from a different vendor, was completed on 2B SEC on November 13, 1983 (relays from the original vendor are not obtainable). The accomplishment of this DCR was in conjunction with Engineering Test 2ET-1786, which tested the SEC for spurious actuations; no spurious actuations were received.

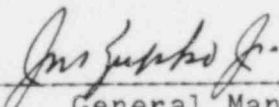
SP(O)4.3.2.1(A), including 2B Diesel 24 hour test run, was satisfactorily completed on November 16, 1983.

A commitment to submit a supplemental report upon resolution of the SEC problems was made in LER 83-014/03L.

FAILURE DATA:

Automation Industries, Inc.
Safeguards Equipment Control System

Prepared By J. Rupp



General Manager -
Salem Operations

SORC Meeting No. 83-147