

208107/14

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)  
DISTRIBUTION FOR INCOMING MATERIAL

50-261

REC: OREILLY J P  
NRC

ORG: BANKS H R  
CAROLINA PWR & LIGHT

DOCDATE: 07/31/78  
DATE RCVD: 08/04/78

DOCTYPE: LETTER NOTARIZED: NO

COPIES RECEIVED  
LTR 1 ENCL 1

SUBJECT:  
FORWARDING LICENSEE EVENT REPT (RO 50-261/78-018) ON 07/16/78 CONCERNING  
PLASTIC TOPS OF TWO CELLS OF "A" STATION BATTERY WERE ON FIRE AND WERE  
EXTINGUISHED BY A SHORT BURST FROM A CO2 EXTINGUISHER... W/ATT.

PLANT NAME: H B ROBINSON - UNIT 2

REVIEWER INITIAL: XJM  
DISTRIBUTOR INITIAL: DL

\*\*\*\*\* DISTRIBUTION OF THIS MATERIAL IS AS FOLLOWS \*\*\*\*\*

INCIDENT REPORTS  
(DISTRIBUTION CODE A002)

FOR ACTION: BR CHIEF ORB#1 BC\*\*W/4 ENCL

INTERNAL:

REG FILE\*\*W/ENCL  
I & E\*\*W/2 ENCL  
I & C SYSTEMS BR\*\*W/ENCL  
NOVAK/CHECK\*\*W/ENCL  
AD FOR ENG\*\*W/ENCL  
HANAUER\*\*W/ENCL  
AD FOR SYS & PROJ\*\*W/ENCL  
ENGINEERING BR\*\*W/ENCL  
KREGER/J. COLLINS\*\*W/ENCL  
K SEYFRIT/IE\*\*W/ENCL

NRC PDR\*\*W/ENCL  
MIFC\*\*W/3 ENCL  
EMERGENCY PLAN BR\*\*W/ENCL  
EEB\*\*W/ENCL  
PLANT SYSTEMS BR\*\*W/ENCL  
AD FOR PLANT SYSTEMS\*\*W/ENCL  
REACTOR SAFETY BR\*\*W/ENCL  
VOLLMER/BUNCH\*\*W/ENCL  
POWER SYS BR\*\*W/ENCL

EXTERNAL:

LPDR'S  
HARTSVILLE, SC\*\*W/ENCL  
TIC, LIZ CARTER\*\*W/ENCL  
NSIC\*\*W/ENCL  
ACRS CAT B\*\*W/16 ENCL

DISTRIBUTION: LTR 45 ENCL 45  
SIZE: 1P+1P+2P

CONTROL NBR: 782160026

\*\*\*\*\* THE END \*\*\*\*\*

Mc4

Ccp



Carolina Power & Light Company

REGULATORY DOCKET FILE COPY

July 31, 1978

File: NG-3516 (R)

Serial: GD-78-2047

Mr. James P. O'Reilly, Director  
U. S. Nuclear Regulatory Commission  
Region II, Suite 3100  
101 Marietta Street  
Atlanta, Georgia 30303

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET 50-261  
LICENSE NO. DPR-23  
LICENSEE EVENT REPORT 78-018

Dear Mr. O'Reilly:

In accordance with Section 6.9.2 of the Technical Specifications for the H. B. Robinson Steam Electric Plant, Unit 2, the attached Licensee Event Report is submitted. This report fulfills the requirement for a written report within fourteen (14) days of a reportable occurrence and is in accordance with the format set forth in NUREG-0161, July, 1977.

Yours very truly,

H. R. Banks  
Manager  
Nuclear Generation

DCS:cp

Attachment

cc: Messrs. R. A. Hartfield  
E. Volgenau

782160026

Acc 2  
9/11

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

S	C	H	B	R	2	(2)	0	0	-	0	0	0	0	0	-	0	0	(3)							(4)				(5)				
LICENSEE CODE					14	LICENSE NUMBER															25	LICENSE TYPE					30	CAT					58

CON'T

REPORT SOURCE    L 6 0 5 0 - 0 2 6 1 7 0 7 1 6 7 8 8 0 7 3 1 7 8 9

60 61 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80

### EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | Near the end of the weekly thirty-minute run time of the turbine emergency oil pump,  
0 3 | a fire alarm was received from the Battery Room. The plastic tops of two cells of  
0 4 | "A" Station Battery were on fire and were extinguished by a short burst from a CO<sub>2</sub>  
0 5 | extinguisher. At no time did the battery lose power or give any indication of problems.  
0 6 | The damage was contained to the top of the cell jars and does not appear to have hurt  
0 7 | the cell internals. No electrolyte was lost.  
0 8 |  
7 8 9 80

SYSTEM CODE E C (11)		CAUSE CODE E (12)		CAUSE SUBCODE A (13)		COMPONENT CODE B A T T R Y (14)				COMP. SUBCODE Z (15)		VALVE SUBCODE Z (16)					
LER/RO REPORT NUMBER 7 8 (17)		EVENT YEAR 7 8 (21) 22		SEQUENTIAL REPORT NO. 0 1 8 (24) 26		OCCURRENCE CODE 0 1 (28) 29		REPORT TYPE T (30)		REVISION NO. 0 (32)							
ACTION TAKEN F (18) 33		FUTURE ACTION A (19) 34		EFFECT ON PLANT A (20) 35		SHUTDOWN METHOD A (21) 36		HOURS 0 0 2 4 (22) 37 40		ATTACHMENT SUBMITTED Y (23) 41		NPRD-4 FORM SUB. Y (24) 42		PRIME COMP. SUPPLIER L (25) 43		COMPONENT MANUFACTURER G 1 9 1 (26) 44 47	

### CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | The cause of the fire appears to have been resistance heating of a strap-to-cell  
1 1 | terminal connection during the heavy D. C. load of the Emergency Oil Pump. All  
1 2 | other connections were inspected and tested. Adequate capacity of 58 cells was  
1 3 | verified and the battery was returned to service. New cells were ordered.  
1 4 |

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

FACILITY STATUS (28) 1 5 E

% POWER 1 0 0 (29)

OTHER STATUS (30) NA

METHOD OF DISCOVERY (31) A

DISCOVERY DESCRIPTION (32) Battery Room Fire Alarm

ACTIVITY CONTENT  
RELEASED OF RELEASE

1 6 Z 33 10 34

7 8 9 10 11

AMOUNT OF ACTIVITY (35)

NA

44

LOCATION OF RELEASE (36)

NA

45 80

PERSONNEL EXPOSURES

NUMBER		TYPE	DESCRIPTION
1	7	000(37)Z(38)	NA

PERSONNEL INJURIES		NUMBER		DESCRIPTION	
1	8	0	0	40	NA

TYPE		DESCRIPTION	LOSS OF OR DAMAGE TO FACILITY (43)
1	9	0 (42) two battery cells (\$434.00)	

PUBLICITY		ISSUED		DESCRIPTION		NRC USE ONLY														
2	0	N	(44)	NA																
7	8	9	10																	

NAME OF PREPARER R. B. Starkey, Jr.

PHONE: (803) 332-1351

SUPPLEMENTAL INFORMATION  
FOR  
REPORTABLE OCCURRENCE 78 - 18

1. REPORT NO: 50-261/78-18
- 2a. REPORT DATE:
- 2b. OCCURRENCE DATE: July 16, 1978
3. FACILITY: H. B. Robinson Unit No. 2  
Hartsville, South Carolina 29550
4. IDENTIFICATION OF OCCURRENCE:

On July 16, 1978 at 0355 while near the end of the weekly thirty minute run time of the turbine emergency D. C. oil pump, a fire alarm was received from the Battery Room. An Operator immediately investigated and found an active fire on top of two cells (13 & 14) which was extinguished by a short burst from a CO<sub>2</sub> extinguisher. At no time did the battery lose power or give any indication of problems, however, the incident did temporarily place the battery's reliability in jeopardy. Thus, the safety factor required by Technical Specifications was less conservative than the least conversative aspects of Section 3.7.1.e and is therefore reportable under section 6.9.2.a.2.

5. CONDITIONS PRIOR TO THE OCCURRENCE:

The plant was at 100% power. The emergency D. C. oil pump had been started as a part of P.T.-17 and was nearing the end of a thirty-minute run time. This is not a part of the P. T. but is standard operating practice to maintain this D. C. motor in good operating condition.

6. DESCRIPTION OF THE OCCURRENCE:

On July 16, 1978, at 0355, a fire alarm was received from the Battery Room. An Operator immediately investigated and found an active fire on the top of two cells (13 & 14) of "A" Battery Bank. The fire was extinguished with a short burst from a CO<sub>2</sub> extinguisher. At no time did the battery or charger lose power or give any indication of problems. The fire was confined to the plastic tops of the cells involved and there was no electrolyte loss from either cell. This incident was considered to have placed the battery's reliability in jeopardy and the unit was brought to a hot shutdown condition with the generator off the line at 0605.

7. DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

The fire appears to have started on top of cell 14 due to a resistive connection causing heating which ignited the plastic top of the cell and then spread to cell 13 which shares the connection to cell 14. The addition of the major load of the D. C. oil pump to this system probably contributed to the heating effect so that the ignition temperature of the plastic cell top was reached.

8. ANALYSIS OF OCCURRENCE:

The resistive connection of the cell connecting straps to the cell terminal was causing heating. Undoubtedly this was compounded when the major load of the D. C. oil pump was added to the system. This heating ignited the plastic top of cell 14 and spread to cell 13.

9. CORRECTIVE ACTIONS:

An analysis of the D. C. load requirements of this battery and its capacity verified that fifty-eight cell operation would be satisfactory. The two damaged cells were removed from service and properly bypassed. All connections were inspected, retorqued to the manufacturer's specifications and tested for continuity while under load. No voltage drop, which would indicate a resistive connection, was found.

Specific gravity and cell voltage of each cell was checked to confirm that there had been no other damage to this battery. New cells will be obtained on a rush order and placed in service at the first opportunity after they are received. In addition, the cell connecting straps will be inspected on a periodic basis for proper torque.

10. FAILURE DATA:

This is the first occurrence of this nature.