## LICENSEE EVENT REPORT

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CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)
0 1 N C B E P 1 2 0 0 - 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5 5 CAT 58
O 1 REPORT L 6 0 5 0 - 0 3 2 5 7 0 2 1 1 8 2 8 0 3 1 1 8 2 9  EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10  During plant operation, a one-half scram signal on RPS channel B, a one-half Group 1
[0]3   PCIS signal, an automatic start of all 4 diesel generators, an auto start of both "A" ]
0 4 and "B" Core Spray systems and a trip of "B" reactor recirculation pump occurred
[0]5   simultaneously. This event occurred 3 more times on 2/12/82. In each case no water
0 6 was injected to the reactor by any ECCS. These events did not affect the health and
o 7 safety of the public.
0[8]         Technical Specifications 3.4.1.1, 3.8.2.3, 6.9.1.9b
SYSTEM CAUSE CODE SUBCODE COMPONENT CODE SUBCODE SUBCO
LER/RO   EVENT YEAR   REPORT NO.   CODE   TYPE   NO.
ACTION FUTURE ON PLANT SHUTDOWN HOURS 22 ATTACHMENT SUBMITTED FORM SUB. PRIME COMP. COMPONENT MANUFACTURER  B 18 X 19 Z 20 Z 21 0 0 0 0 0 Y 23 Y 24 A 25 B 3 1 9 2  CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)
1 0   These events occurred due to unsoldered wiring connections in the electrical circuitry
of DC electrical battery charger 1B-2 amplifier board, Part No. F55-2738-10, which
[1]   resulted in actuation of division 2 RPS and ECCS analog trip units. The amplifier
[1]3   board was replaced, with one of Part No. F55-2738-7, and the battery charger, along
with its affected instrumentation, was returned to normal service.
FACILITY SPOWER OTHER STATUS 30 METHOD OF DISCOVERY DISCOVERY DESCRIPTION 32
1 5 F (28) 0 1 0 (29) NA A (31) Operational Event  1 8 9 ACTIVITY CONTENT 12 13 44 45 46 80
RELEASED OF RELEASE AMOUNT OF ACTIVITY (35)  NA NA LOCATION OF RELEASE (36)  NA 44  NA 45
PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION (39)
7 8 9 11 12 13 80
1 R 0 0 0 40 NA
1 8 9 11 12 80  LOSS OF OR DAMAGE TO FACILITY 43  TYPE DESCRIPTION 43
1 9 Z 42 NA NA 80
PUBLICITY (A) NRC USE ONLY (SSUE) B204020453 B20311 NA
PDR 68 69 80 3 80 3 80 3 80 3 80 3 80 3 80 3 80

## LER ATTACHMENT - RO #1-82-23

Facility: BSEP Unit No. 1 Event Date: February 11, 1982

During plant operation, the amplifier board circuitry of DC electrical battery charger 1B-2 experienced a momentary failure which resulted in a high charger output voltage. This high voltage spike caused the Division II analog power supply Topaz inverters to trip. This trip caused an RPS one-half scram signal on channel B along with a B channel PCIS Group 1 isolation signal to occur. Also, all four diesel generators and A and B Core Spray System's pumps started and B reactor recirculation pump tripped. For the duration of this event no ECCS reactor vessel injection occurred. All systems were restored to their required lineups. Approximately four hours later, three similar events occurred within a 20-minute time span.

Following the fourth event, an investigation revealed the caused to be a bad circuit board in the battery charger. The battery charger amplifier board failure was due to manufacturing defects in construction of the board. The board, Power Conversion Products, Inc., part No. F55-2738-10 is part of an equipment upgrade program. The manufacturing defects on the new style board were due to unsoldered wiring connections in the board itself. Due to lack of the newer style replacement board, the original board was reinstalled and the charger was returned to normal service.

As a result of this event, an action plan has been recommended which will help ensure proper functional amplifiers are maintained in plant stock. In addition, a plant modification which will trip the DC battery chargers on high output voltage to prevent spurious actuation of the analog trip units is being engineered for future installation.