CATEGORY II

125VDC SYSTEM MALFUNCTION

1.0 SYMPTOMS

1.1 Alarms

125VDC SYSTEM TROUBLE

1.2 Operating DC equipment trips.

1.3 Inability to operate breakers.

1.4 Various component status indication is lost.

2.0 AUTOMATIC ACTIONS

NONE

3.0 IMMEDIATE OPERATOR ACTIONS

NONE

4.0 SUBSEQUENT OPERATOR ACTIONS

4.1 **REFERENCE** CRIDS to determine origin or malfunction(s). ____

4.2 **OBSERVE** control room Volt, Amp
AND Ground indicators for off Normal conditions. ____

4.3 **DISPATCH** an operator to the specific malfunctioned equipment to check the following for off Normal conditions: ____

4.3.1. Charger(s) Light Indication and Volt/Amp Meters. ____

4.3.2. Switchgear Ground Light indications, Volt/Amp Meters
AND that Circuit Breakers are in the closed position. ____

4.3.3. All Distribution Panel Circuit Breakers are in the ON position. (except spares) ____

4.4 IF a specific component has malfunctioned,
THEN PRIOR to operation OR re-energization
DETERMINE the cause. ____

4.5 IF a system ground is indicated,
IMPLEMENT procedure HC.OP-AB.ZZ-0147(Q), DC System Ground. ____

4.6 IF a battery charger has failed or malfunctioned,
ENSURE the Parallel Charger (if applicable) is operating IAW procedure HC.OP- SO.PK-0001(Q). ____

NOTE

If the batteries alone have been supplying the bus for an extended period of time, the batteries may not be in an operable condition upon restoration of the associated charger. In this event, consideration should be given to performing the weekly battery surveillance HC.MD-ST.PK-0001(Q), 125 Volt Weekly Battery Surveillance, to verify battery operability following the battery discharge event. **[PR 980804206]**

4.7 IF malfunction has resulted in a 125VDC bus being supplied by batteries alone without its associated chargers
THEN **SECURE** any non-essential loads to preserve the batteries
UNTIL a charger is returned to service.

CAUTION

DO NOT reclose a tripped breaker until the cause of the fault is determined and corrected. [CD-366D]

DO NOT reclose a breaker to an ECCS TRIP SYSTEM or an inadvertent actuation may result. This should be done by I&C personnel.

4.8 In the event the feeder breaker for an entire distribution panel has tripped,
DETERMINE the cause of trip
AND **REENERGIZE** bus once the cause of the trip has been determined
AND corrected.

NTE

Battery room ventilation is operating properly if ventilation is in service to the room and temperature is being maintained between 74 and 80° Fahrenheit.

4.9 IF appropriate battery room ventilation is not operating properly,
THEN **PERFORM** actions in accordance with HC.OP-AB.HVAC-0001. ____

4.10 **REFER TO** T/S 3/4.8.2 and specific equipment operability requirement. ____

4.11 IF Non-1E 125VDC power failure has occurred
THEN **TRANSFER** control power to the alternate on the Non-1E switchgear and substations. (Transfer switches/breakers are located in the Aux. cubicles) ____

4.12 UPON restoration of normal Non-1E 125VDC power
THEN **ENSURE** control power configuration is restored IAW applicable operational mode. ____

5.0 DISCUSSION

5.1 125VDC Battery Charger Malfunctions will shutdown the battery charger as follows: ____

5.1.1. High Voltage Shutdown Relay ____

5.1.2. AC Input Breaker Open/Tripped ____

5.1.3. DC Output Breaker Open/Tripped ____

5.1.4. Loss of 480VAC Supply Power ____

5.2 The following conditions result in a Battery Monitor generated alarm: ____

5.2.1. Low Battery Terminal Voltage ____

5.2.2. Voltage imbalance between either half of the battery referenced to the center tap ____

5.2.3. Blown fuse in Transfer Switch or switch open ____

5.3 With a loss of 125VDC to the Main Generator and Main Transformer protective relay panel (1AC654D), generator lockout will not occur on turbine generator trip.Normal power supply is 1A-D-318 (10-D-470) with the capability to manually transfer power to 1B-D-318 (10-D-480). ____

5.4 The existence of this procedure fulfills the requirements of the following Closing Documents: ____

5.4.1. CD-689A INPO SOER 81-15R02C

5.4.2. CD-366D NHO LET ROSEMONT TRIP SYSTEM

5.4.3. CD-185B INPO SOER 83-05R07

5.4.4. CD-795F INPO SOER 90-01R05

5.4.5. PR 980804206 - Battery inoperable due to continuous discharge not detected.

Revision Summary

70110352-0010

Adds description of what “operating properly” means when referring to battery room ventilation in step 4.9, and what to do if it is not operating properly. All changes come from HC.OP-AB.HVAC-0001 and are editorial.