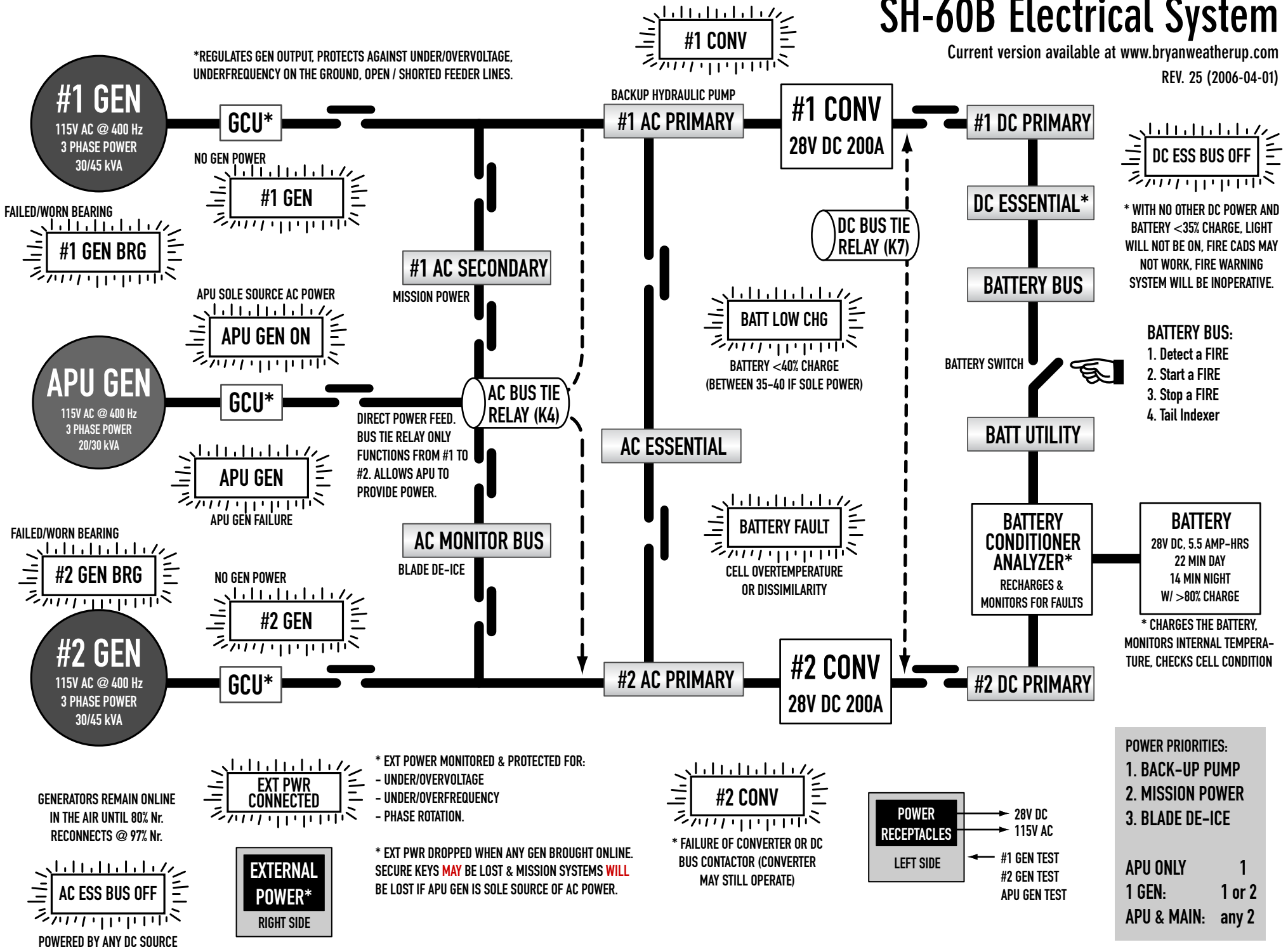


SH-60B Electrical System

Current version available at www.bryanweatherup.com

REV. 25 (2006-04-01)

*REGULATES GEN OUTPUT, PROTECTS AGAINST UNDER/OVERVOLTAGE, UNDERFREQUENCY ON THE GROUND, OPEN / SHORTED FEEDER LINES.



DC ESS BUS OFF

* WITH NO OTHER DC POWER AND BATTERY <35% CHARGE, LIGHT WILL NOT BE ON, FIRE CADS MAY NOT WORK, FIRE WARNING SYSTEM WILL BE INOPERATIVE.

- BATTERY BUS:**
1. Detect a FIRE
 2. Start a FIRE
 3. Stop a FIRE
 4. Tail Indexer

BATTERY
28V DC, 5.5 AMP-HRS
22 MIN DAY
14 MIN NIGHT
W/ >80% CHARGE

* CHARGES THE BATTERY, MONITORS INTERNAL TEMPERATURE, CHECKS CELL CONDITION

- POWER PRIORITIES:**
1. BACK-UP PUMP
 2. MISSION POWER
 3. BLADE DE-ICE

APU ONLY 1
1 GEN: 1 or 2
APU & MAIN: any 2

FAILED/WORN BEARING
#1 GEN BRG

NO GEN POWER
#1 GEN

APU SOLE SOURCE AC POWER
APU GEN ON

APU GEN FAILURE
APU GEN

FAILED/WORN BEARING
#2 GEN BRG

NO GEN POWER
#2 GEN

115V AC @ 400 Hz
3 PHASE POWER
30/45 kVA
#1 GEN

115V AC @ 400 Hz
3 PHASE POWER
20/30 kVA
APU GEN

115V AC @ 400 Hz
3 PHASE POWER
30/45 kVA
#2 GEN

GENERATORS REMAIN ONLINE IN THE AIR UNTIL 80% Nr. RECONNECTS @ 97% Nr.

AC ESS BUS OFF
POWERED BY ANY DC SOURCE

EXT PWR CONNECTED

EXTERNAL POWER*
RIGHT SIDE

* EXT POWER MONITORED & PROTECTED FOR:
- UNDER/OVERVOLTAGE
- UNDER/OVERFREQUENCY
- PHASE ROTATION.

* EXT PWR DROPPED WHEN ANY GEN BROUGHT ONLINE. SECURE KEYS **MAY** BE LOST & MISSION SYSTEMS **WILL** BE LOST IF APU GEN IS SOLE SOURCE OF AC POWER.

BACKUP HYDRAULIC PUMP
#1 AC PRIMARY

#1 CONV
28V DC 200A

#1 DC PRIMARY

DC ESSENTIAL*

BATTERY BUS

BATTERY SWITCH

BATT UTILITY

BATTERY CONDITIONER ANALYZER*
RECHARGES & MONITORS FOR FAULTS

#2 DC PRIMARY

AC ESSENTIAL

BATT LOW CHG
BATTERY <40% CHARGE (BETWEEN 35-40 IF SOLE POWER)

BATTERY FAULT
CELL OVERTEMPERATURE OR DISSIMILARITY

#2 CONV
28V DC 200A

#2 CONV

* FAILURE OF CONVERTER OR DC BUS CONTACTOR (CONVERTER MAY STILL OPERATE)

POWER RECEPTACLES
LEFT SIDE
→ 28V DC
→ 115V AC
← #1 GEN TEST
← #2 GEN TEST
← APU GEN TEST

#1 AC SECONDARY

MISSION POWER

AC BUS TIE RELAY (K4)

DIRECT POWER FEED. BUS TIE RELAY ONLY FUNCTIONS FROM #1 TO #2. ALLOWS APU TO PROVIDE POWER.

AC MONITOR BUS

BLADE DE-ICE