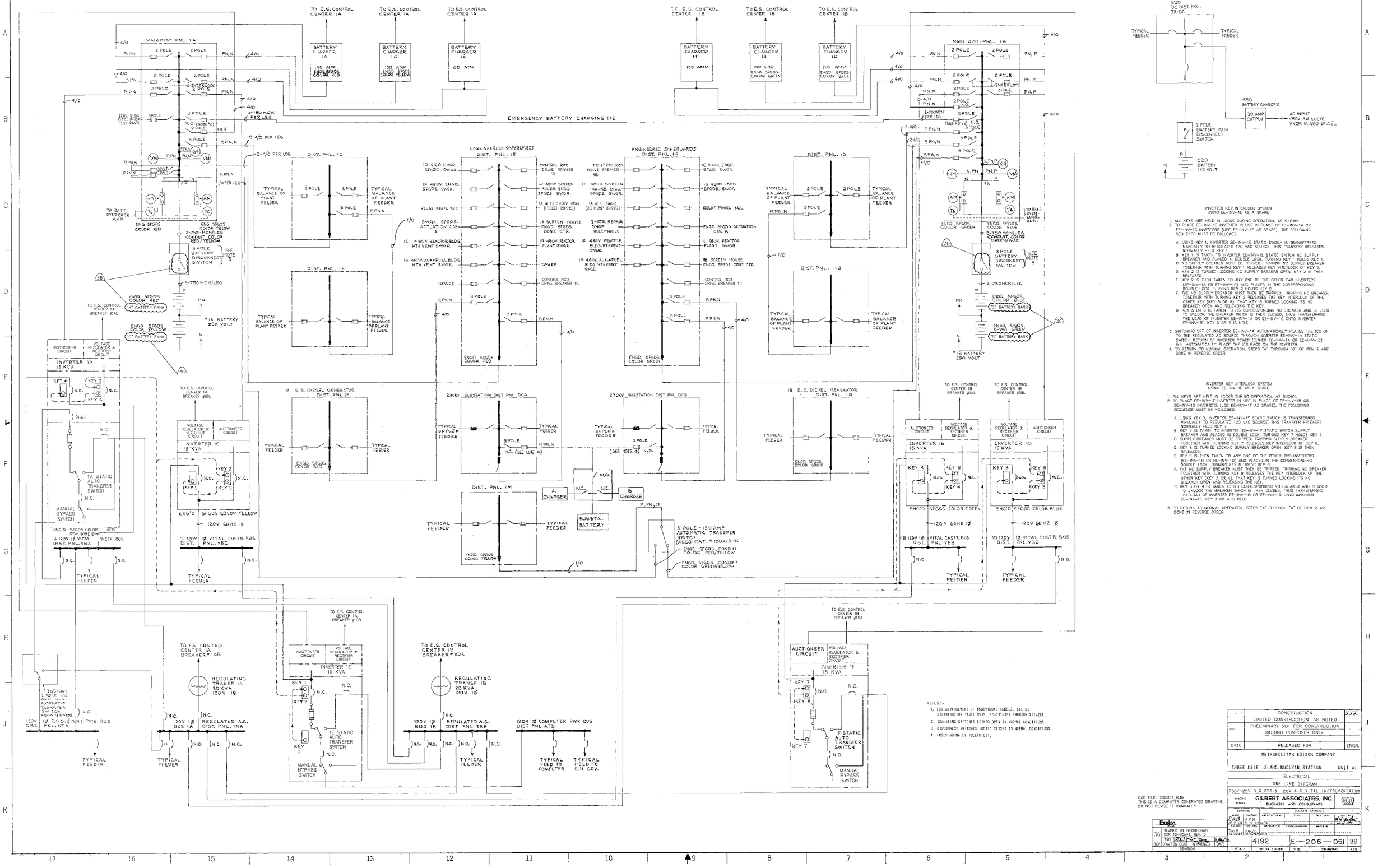
MAIN DIST. PNL. 1A
MAIN DIST. PNL. 1B
EMERGENCY BATTERY CHARGING TIE
TO E.G. CONTROL CENTER 1A
TO E.S. CONTROL CENTER 1A
TO E.S. CONTROL CENTER 1A
TO E.S. CONTROL CENTER 1B
TO E.S. CONTROL CENTER 1B
TO E.S. CONTROL CENTER 1B
BATTERY CHARGER 1A
150 AMP ENGD. SFGDS COLOR RED
BATTERY CHARGER 1C
150 AMP ENGD. SFGDS COLOR YELLOW
BATTERY CHARGER 1E
150 AMP
BATTERY CHARGER 1F
150 AMP
BATTERY CHARGER 1B
150 AMP ENGD. SFGDS COLOR GREEN
BATTERY CHARGER 1D
150 AMP ENGD. SFGDS COLOR BLUE
SERV. BLDG. ELEC. SWGR. TEST PANEL
TO BATT. OVERCURR. ANN.
ENG'D SFGDS COLOR RED
ENG'D SFGDS COLOR YELLOW
2-750 MCM/LEG CONDUIT COLOR RED/YELLOW
3 POLE BATTERY DISCONNECT SWITCH
SEE NOTE 5
2-750 MCM/LEG
ENGD SFGDS COLOR RED
"A" BATTERY BANK
#1A BATTERY 250 VOLT
ENGD SFGDS COLOR YELLOW
"C" BATTERY BANK
TO E.S. CONTROL CENTER 1A BREAKER #1BL
AUCTIONEER CIRCUIT
VOLTAGE REGULATOR & RECTIFIER CIRCUIT
INVERTER 1A 15 KVA
KEY 6
KEY 2
KEY 5
N.O.
N.C.
1A STATIC ALTC TRANSFER SWITCH
MANUAL BYPASS SWITCH
ENG'D SFGDS COLOR RED
120V 60HZ 1Ø
A 120V 1Ø VITAL INSTR BUS DIST. PNL. V8A
TYPICAL FEEDER
TO E.S. CONTROL CENTER 1A BREAKER #1BL
INVERTER 1C 15 KVA
ENG'D SFGDS COLOR YELLOW
1C 120V 1Ø VITAL INSTR BUS DIST. PNL. V8C
TYPICAL FEEDER
DIST. PNL. 1E
ENGINEERED SAFEGUARDS DIST. PNL. 1E
1D 460 ENGD. SFGDS. SWGR.
CONTROL ROD DRIVE BREAKER 1A
1F 480V. ENGD. SFGDS. SWGR.
1R 480V SCREEN HOUSE ENGD. SFGDS SWGR.
RELAY PANEL XCL
1A & 1B 250V SWGR. (YELLOW BRKRS.)
ENGD. SFGDS. ACTUATION CAB. A
INSTR. REPAIR SHOP RECEPTACLE
1E 480V. REACTOR BLDG. HTG VENT SWGR.
1G 480V REACTOR PLANT SWGR.
1H 480V. AUX & FUEL BLDG. HTG VENT SWGR.
SPARE
CONTROL ROD DRIVE BREAKER 1C
ENGD. SFGDS COLOR RED
ENGINEERED SAFEGUARDS DIST. PNL. 1F
CONTROL ROD DRIVE BREAKER 1B
1E 480V. ENGD. SFGDS. SWGR.
1S 480V. ENGD. SFGDS. SWGR.
RELAY PANEL XCL
ENGD. SFGDS ACTUATION CAB. B
1L 480V. REACTOR PLANT SWGR.
1B SCREEN HOUSE ENGD. SFGDS. CONT. CTR.
CONTROL ROD DRIVE BREAKER 1D
ENGD. SFGDS COLOR GREEN
DIST. PNL. 1D
DIST. PNL. 1J
TYPICAL BALANCE OF PLANT FEEDER
DIST. PNL. 1H
TYPICAL BALANCE OF PLANT FEEDER
ENGD SFGDS COLOR GREEN
ENGD SFGDS COLOR BLUE
2-750 MCM/LEG CONDUIT COLOR GREEN/BLUE
3 POLE BATTERY DISCONNECT SWITCH
SEE NOTE 5
2-750MCM/LEG
ENGD. SFGDS COLOR BLUE
"D" BATTERY BANK
ENGD. SFGDS COLOR GREEN
"C" BATTERY BANK
#1B BATTERY 250 VOLT
TO BATT. OVERCURR. ANN.
1A E.S. DIESEL GENERATOR DIST. PNL. 1P
TYPICAL DUPLEX FEEDER
TYPICAL FEEDER
ENGD. SFGDS COLOR RED
230KV SUBSTATION DIST PNL DCA
230KV SUBSTATION DIST PNL DCB
3 POLE
N.C. (SEE NOTE 4)
(SEE NOTE 4) N.C.
1B E.S. DIESEL GENERATOR DIST. PNL. 1Q
ENGD. SFGDS COLOR GREEN
DIST. PNL. 1M
A CHARGER
B CHARGER
SUBSTA. BATTERY
3 POLE - 150 AMP AUTOMATIC TRANSFER SWITCH (ASCO CAT. #120A1314C
ENGD. SFGDS. CONDUIT CO. OR RED/YELLOW
ENGD. SFGDS. CONDUIT COLOR GREEN/YELLOW
TO E.S. CONTROL CENTER 1A BREAKER #1CR
TO E.S. CONTROL CENTER 1B BREAKER #1CR
REGULATING TRANSF 1A 20 KVA 120V 1Ø
REGULATING TRANSF 1B 20 KVA 120V 1Ø
AUCTIONEER CIRCUIT
VOLTAGE REGULATOR & RECTIFIER CIRCUIT
INVERTER 1E 15 KVA
KEY 1
KEY 2
KEY 3
1E STATIC AUTO TRANSFER SWITCH
MANUAL BYPASS SWITCH
120V 1Ø BUS 1A
120V 1Ø BUS 1B
REGULATED A.C. DIST. PNL. TRA
REGULATED A.C. DIST. PNL. TRB
120V 1Ø COMPUTER PWR BUS DIST PNL ATB
TYPICAL FEED TO COMPUTER
TYPICAL FEED TO E.H. GOV.
120V 1Ø E.S. & NON-I. PWR. BUS DIST. PNL. ATA
TO E.S. CONTROL CENTER 1B BREAKER #1BL
TO E.S. CONTROL CENTER 1B BREAKER #1AL
INVERTER 1B 15 KVA
INVERTER 1D 15 KVA
ENG'D SFGDS COLOR GREEN
ENG'D SFGDS COLOR BLUE
1B 120V 1Ø DIST. PNL. V8B
1D 120V 1Ø VITAL INSTR. BUS DIST. PNL. V8D
TO E.S. CONTROL CENTER 1B BREAKER #1BA
INVERTER 1F 15 KVA
1F STATIC AUTO TRANSFER SWITCH
MANUAL BYPASS SWITCH
NOTES:-
1. FOR ARRANGEMENT OF INDIVIDUAL PANELS, SEE DC DISTRIBUTION PANEL DWGS. E6-031-281 THROUGH 284-282.
2. ISOLATING SW. ITEMS LOCKED OPEN IN NORMAL CONDITIONS.
3. DISCONNECT SWITCHES LOCKED CLOSED IN NORMAL CONDITIONS.
4. MODE NORMALLY ROLLED OUT.
250 DC DIST. PNL. 1X-DC
TYPICAL FEEDER
TYPICAL FEEDER
250 BATTERY CHARGER
30 AMP OUTPUT
AC INPUT 480V 3Ø 60CYC FROM 1A 250 DIESEL
2 POLE BATTERY MAIN DISCONNECT SWITCH
250 BATTERY 125 VOLT
INVERTER KEY INTERLOCK SYSTEM USING EE-INV-1E AS A SPARE
1. ALL KEYS ARE HELD IN LOCKS DURING OPERATION, AS SHOWN.
2. TO PLACE EE-INV-1E INVERTER IN USE IN PLACE OF FF-INV-1A OR FF-INV-1C INVERTERS (USE FF-INV-1F AS SPARE), THE FOLLOWING SEQUENCE MUST BE FOLLOWED:
A. USING KEY 1, INVERTER EE-INV-1E STATIC SWITCH IS TRANSFERRED MANUALLY TO REGULATED 120 VAC SOURCE. THIS TRANSFER RELEASES NORMALLY HELD KEY 1.
B. KEY 1 IS TAKEN TO INVERTER EE-INV-1E STATIC SWITCH NO SUPPLY BREAKER AND PLACED IN DOUBLE LOCK. TURNING KEY 1 HOLDS KEY 1.
C. NO SUPPLY BREAKER MUST BE TRIPPED, TRIPPING NO SUPPLY BREAKER TOGETHER WITH TURNING KEY 1 RELEASES KEY INTERLOCK OF KEY 2.
D. KEY 2 IS TURNED LOCKING NO SUPPLY BREAKER OPEN. KEY 2 IS THEN RELEASED.
E. KEY 2 IS THEN TAKEN TO ANY ONE OF THE OTHER TWO INVERTERS (FF-INV-1A OR FF-INV-1C) AND PLACED IN THE CORRESPONDING DOUBLE LOCK. TURNING KEY 2 HOLDS KEY 2.
F. THE NO SUPPLY BREAKER MUST THEN BE TRIPPED, TRIPPING NO BREAKER TOGETHER WITH TURNING KEY 2 RELEASES THE KEY INTERLOCK OF THE OTHER KEY (KEY 5 OR 6) THAT KEY IS TURNED LOCKING ITS NO BREAKER OPEN AND RELEASING THE KEY.
G. KEY 5 OR 6 IS TAKEN TO ITS CORRESPONDING NO BREAKER AND IS USED TO UNLOCK THE BREAKER WHICH IS THEN CLOSED, THUS TRANSFERRING THE LOAD OF INVERTER EE-INV-1A OR EE-INV-1C ONTO INVERTER EE-INV-1E. KEY 5 OR 6 IS HELD.
3. SWITCHING OFF OF INVERTER EE-INV-1A AUTOMATICALLY PLACES THIS ICS ON TO THE REGULATED AC SOURCE THROUGH INVERTER EE-INV-1A STATIC SWITCH. RETURN OF INVERTER POWER (EITHER EE-INV-1A OR EE-INV-1E) WILL AUTOMATICALLY PLACE THE ICS BACK ON THE INVERTER.
4. TO RETURN TO NORMAL OPERATION, STEPS "A" THROUGH "G" OF ITEM 2 ARE DONE IN REVERSE ORDER.
INVERTER KEY INTERLOCK SYSTEM USING EE-INV-1F AS A SPARE
1. ALL KEYS ARE HELD IN LOCKS DURING OPERATION, AS SHOWN.
2. TO PLACE FF-INV-1F INVERTER IN USE IN PLACE OF FF-INV-1B OR EE-INV-1D INVERTERS (USE EE-INV-1F AS SPARE), THE FOLLOWING SEQUENCE MUST BE FOLLOWED:
A. USING KEY 7, INVERTER EE-INV-1F STATIC SWITCH IS TRANSFERRED MANUALLY TO REGULATED 120 VAC SOURCE. THIS TRANSFER RELEASES NORMALLY HELD KEY 7.
B. KEY 7 IS TAKEN TO INVERTER EE-INV-1F STATIC SWITCH SUPPLY BREAKER AND PLACED IN DOUBLE LOCK. TURNING KEY 7 HOLDS KEY 7.
C. SUPPLY BREAKER MUST BE TRIPPED, TRIPPING SUPPLY BREAKER TOGETHER WITH TURNING KEY 7 RELEASES KEY INTERLOCK OF KEY 8.
D. KEY 8 IS TURNED LOCKING SUPPLY BREAKER OPEN. KEY 8 IS THEN RELEASED.
E. KEY 8 IS THEN TAKEN TO ANY ONE OF THE OTHER TWO INVERTERS (EE-INV-1B OR EE-INV-1D) AND PLACED IN THE CORRESPONDING DOUBLE LOCK. TURNING KEY 8 HOLDS KEY 8.
F. THE NO SUPPLY BREAKER MUST THEN BE TRIPPED, TRIPPING NO BREAKER TOGETHER WITH TURNING KEY 8 RELEASES THE KEY INTERLOCK OF THE OTHER KEY (KEY 3 OR 4) THAT KEY IS TURNED LOCKING ITS NO BREAKER OPEN AND RELEASING THE KEY.
G. KEY 3 OR 4 IS TAKEN TO ITS CORRESPONDING NO BREAKER AND IS USED TO UNLOCK THE BREAKER WHICH IS THEN CLOSED, THUS TRANSFERRING THE LOAD OF INVERTER EE-INV-1B OR EE-INV-1D ONTO INVERTER EE-INV-1F. KEY 3 OR 4 IS HELD.
3. TO RETURN TO NORMAL OPERATION, STEPS "A" THROUGH "G" OF ITEM 2 ARE DONE IN REVERSE ORDER.
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Exelon
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