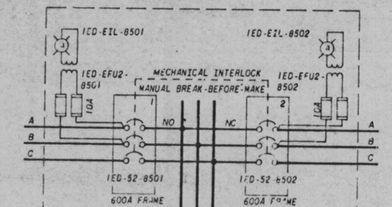

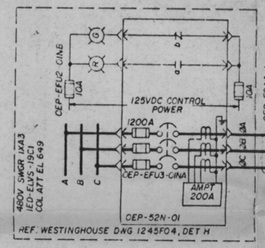

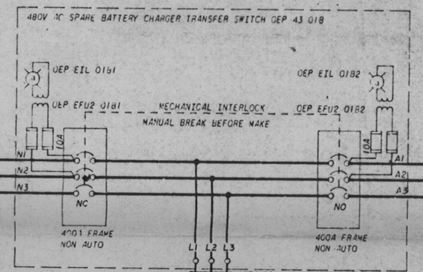

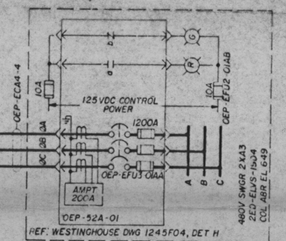

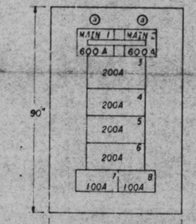

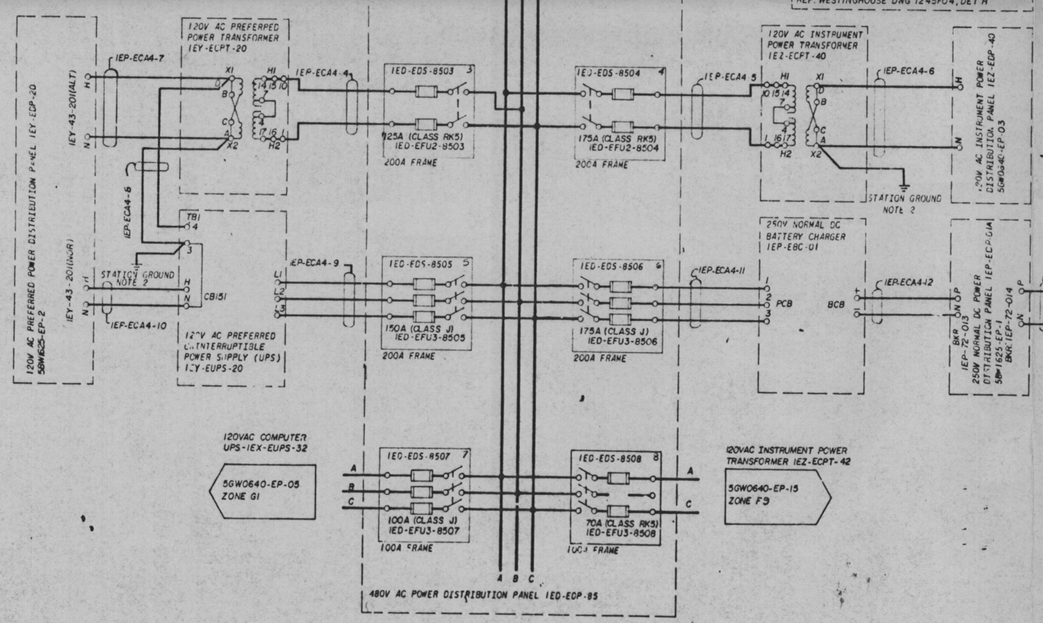

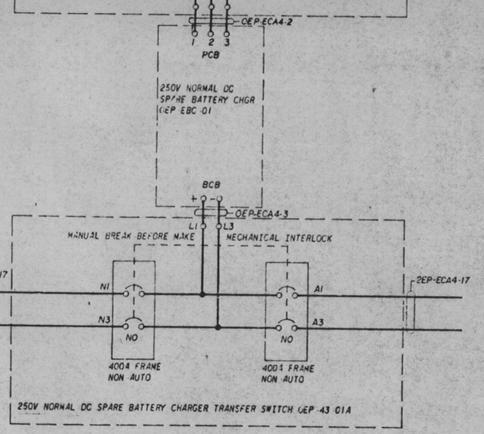

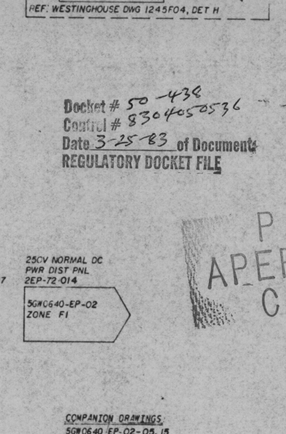

NOTES CONTINUED:

11. 120VAC PREFERRED UPS SUPPLIED ON CONTRACT 75K3-86430.
12. 250VDC BATTERY CHARGERS SUPPLIED ON CONTRACT 70K6-86342-1.
13. 480V SWITCHGEAR IS SUPPLIED ON CONTRACT 76K3-85526.
14. CLASS RK5 FUSES FOR FUSIBLE DISCONNECT SWITCHES ARE PROVIDED ON CONTRACT 80W3-826663.

NOTES:

1. SYSTEMS ES, EY, EX, AND EZ SHOWN ON THE 5GW0640-EP SCHEMATIC SERIES ARE CONSIDERED SUBSYSTEMS OF SYSTEM EP

DRAWING NO	SYSTEM
5GW0640-EP	EP 250V NORMAL DC POWER DISTRIBUTION SYSTEM ES 250V DC TURBINE POWER DISTRIBUTION SYSTEM EY 120V AC PREFERRED POWER DISTRIBUTION SYSTEM EX 120V AC COMPUTER POWER DISTRIBUTION SYSTEM EZ 120V AC INSTRUMENT POWER DISTRIBUTION SYSTEM

2. UNIT 1 AND UNIT 2 120V AC INSTRUMENT POWER TRANSFORMERS, 120V AC PREFERRED POWER TRANSFORMERS, 120V AC PREFERRED UNINTERRUPTIBLE POWER SUPPLIES AND 120V AC COMPUTER UNINTERRUPTIBLE POWER SUPPLIES HAVE THE SAME SINGLE POINT GROUND IN THE RESPECTIVE UNIT 250V BATTERY ROOMS SEE SH. 05 FOR DETAILS
3. INDICATING LIGHTS
   A. INDICATING LIGHT WIRING IS NO. 16 AWG, SINGLE CONDUCTOR, 600V, TEFLON COATED, WIRING TO FUSES TO BE AS SHORT AS POSSIBLE, NONTWISTED, AND SEPARATED FROM OTHER WIRING.
   B. INDICATING LIGHTS ARE OIL TIGHT UNITS COMPLETE WITH LAMPBASE, AMBER LENS, 6V LAMP AND TRANSFORMER FOR 480V AC OPERATION, CUTLER-HAMMER TYPE 10250T184J3, OR EQUAL.
4. INSTRUMENT FUSES ARE CURRENT-LIMITING, CLASS J.
5. 480V AC POWER DISTRIBUTION PANELS
   A. PANELS ARE PROVIDED ON CONTRACT NO 77K3-820237.
   B. PANELS ARE DESIGNED FOR 600A SERVICE WESTINGHOUSE TYPE FDP OR EQUAL, SEE PLAN VIEW A.
   C. 600 AMP FRAME BREAKERS ARE NON-AUTOMATIC AND USED AS MAIN BREAKERS. BREAKERS ARE MECHANICALLY INTERLOCKED FOR BREAK-BEFORE-MAKE TRANSFER WESTINGHOUSE TYPE LA (WITH SLIDING BAR INTERLOCK), OR EQUAL. (SEE NOTE 10)
   D. 200 AMP FUSIBLE SWITCHES, INTERRUPTING CAPACITY OF 100,000 RMS SYMMETRICAL AMPS TWO AND THREE POLE WESTINGHOUSE 200 AMP SINGLE UNIT FUSIBLE SWITCHES, OR EQUAL. FUSE SIZE AND CLASS AS SHOWN (SEE NOTE 14).
   E. 100 AMP FUSIBLE SWITCHES, INTERRUPTING CAPACITY OF 100,000 RMS SYMMETRICAL AMPS, THREE POLE WESTINGHOUSE 100 AMP TWIN-UNIT FUSIBLE SWITCHES, OR EQUAL. FUSE SIZE AND CLASS AS SHOWN.
6. 480V AC SPARE BATTERY CHARGER TRANSFER SWITCH
   A. SWITCH IS PROVIDED ON CONTRACT NUMBER 77K3-820964.
   B. 400 AMP FRAME BREAKERS ARE NON-AUTOMATIC PROVIDED WITH MECHANICAL INTERLOCK FOR BREAK-BEFORE-MAKE TRANSFER WESTINGHOUSE TYPE LA (WITH WALKING BEAM INTERLOCK), THREE POLE
7. 250V NORMAL DC SPARE BATTERY CHARGER TRANSFER SWITCH
   A. SWITCH IS PROVIDED ON CONTRACT NUMBER 77K3-820964.
   B. 400 AMP FRAME BREAKERS ARE NON-AUTOMATIC PROVIDED WITH MECHANICAL INTERLOCK FOR BREAK-BEFORE-MAKE TRANSFER WESTINGHOUSE TYPE LA (WITH WALKING BEAM INTERLOCK), TWO POLE
8. 120V AC PREFERRED POWER TRANSFORMER
   A. TRANSFORMER IS PROVIDED ON CONTRACT NUMBER 77K3-820551.
   B. TRANSFORMER HAVE FIVE PERCENT IMPEDENCE (5%Z) MINIMUM DRY TYPE TRANSFORMER, 240 x 480 - 120/240, 1Φ, 60HZ, 50KVA, 150° C TEMPERATURE RISE, WITH TWO, 2 1/2% FCBN AND TWO, 2 1/2% FCAN TAPS, HEVI-DUTY TYPE S5H50
9. 120V AC INSTRUMENT POWER TRANSFORMER
   A. TRANSFORMER IS PROVIDED ON CONTRACT NUMBER 77K3-820551.
   B. DRY TYPE TRANSFORMER, 240 x 480 - 120/240, 1Φ, 60HZ, 75KVA, 150° C TEMPERATURE RISE, WITH TWO, 2 1/2% FCAN AND TWO, 2 1/2% FCBN TAPS, HEVI-DUTY TYPE S5H75
10. 400A AND 600A NON-AUTOMATIC BREAKERS HAVE MINIMUM SHORT-TIME CURRENT RATINGS AT 600V AC AS FOLLOWS:

CURRENT	DURATION
6,000A	1 SECOND
10,000A	0.166 SECONDS,
28,900A	0.0166 SECONDS,
35,000A	0.0083 SECONDS.

Docket # 50-438
Control # 8304050536
Date 3-25-83 of Document
REGULATORY DOCKET FILE

PRC APERTURE CARD

COMPANION DRAWINGS:
5GW0640-EP-02-05, 15

REFERENCE DRAWINGS:
5BW1625-EP-1, 2 ... SINGLE LINES
5BW2625-EP-1, 2
5BW0620-EP-1 ... KEY DIAGRAM
5CW0238-EP-1 ... EQUIP LAYOUT
5GC0600-EP, 5GC0800-EP, 5GC2600-EP ... CABLE SCHEDULES

ELECTRICAL TABS - SYSTEM EP, ES, EY, EZ, ED

REV NO	CCN NO.	DATE	DSGN	DRWN	CHKD	SUPV	ENGR	INSP	SUBM	RECM	APPR
3	1140										
2	ADDED CONTRACT NO. REMOVED LOCATIONS. S1,748										
1	CHANGED CLASS J FUSES TO CLASS RK5. S1,422										
	ADDED NOTES 10-12, CABLE NO'S, CONTRACT NO'S, TERMINATIONS CHANGED FUSE SIZES										

DSGN ... INSP ...
DRWN ... ENGINEER ...
CHKD ...
SUPV ...

GENERAL
UNITS 1 & 2

SCHEMATIC DIAGRAM 250V NORMAL DC POWER DISTRIBUTION SYSTEM

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN

SUBMITTED	RECOMMENDED	APPROVED

KNOXVILLE 3-9-76 | 88 E | 5GW0640-EP-01R3
RECORD DRAWING AS CONSTRUCTED

THIS DRAWING IS UNDER CONFIGURATION CONTROL

INSPECTED AND APPROVED FOR ISSUE

PRINTS REQ'D-R
BR
PRINT SIZE: F H
ME EE CE AD CO EO MO EP SW BL PA