

- NOTES:
- SYSTEM EZ SHOWN ON THE 5GMO640-EP SCHEMATIC SERIES IS CONSIDERED AS SUBSYSTEM OF SYSTEM EP.

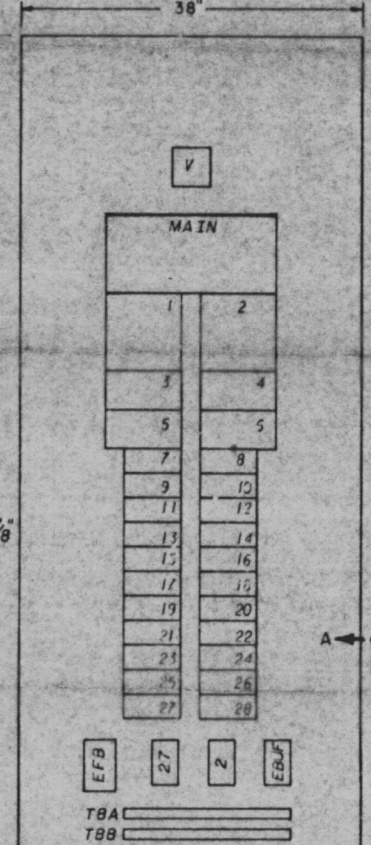
DRAWING NO	SYSTEM
5GMO640-EP	EP-250V NORMAL DC PWR DISTR SYS
	EY-120V AC PREFERRED PWR DISTR SYS
	EX-120V AC COMPUTER PWR DISTR SYS
	ES-25V DC TURBINE PWR DISTR SYS
	EZ-120V AC INSTRUMENT PWR DISTR SYS

- 120V AC INSTRUMENT POWER DISTRIBUTION SYSTEM EZ IS A SINGLE PHASE, 60HZ, TWO WIRE, SINGLE-POINT-GROUNDED SYSTEM.
- 120V AC INSTRUMENT POWER DISTRIBUTION PANELS ARE PROVIDED ON TVA CONTRACT 7746-82171.
- ALL CIRCUIT BREAKERS ARE PROVIDED TRIP ALARM CONTACTS WHICH CLOSE WHEN BREAKER OPENS DUE TO SHORT CIRCUIT OR OVERLOAD. ALL ALARM CONTACTS ARE INDIVIDUALLY WIRED TO ANNUNCIATION TERMINAL BLOCKS AND ARE CONNECTED IN PARALLEL FOR COMMON ALARM.
- PANEL BOARD IS DESIGNED FOR 800A SERVICE, SHORT CIRCUIT CAPACITY OF 18,000 RMS SYM AMPS AT 240V AC, WESTINGHOUSE TYPE COP, OR EQUAL.
- 800 AMP FRAME MOLDED-CASE CIRCUIT BREAKER IS NON-AUTOMATIC, WESTINGHOUSE TYPE MA, TWO POLE, OR EQUAL.
- 400 AMP FRAME MOLDED CASE CIRCUIT BREAKERS HAVE INTERRUPTING CAPACITY OF 42,000 RMS SYM AMPS AT 240VAC, WESTINGHOUSE TYPE LB, TWO POLE, OR EQUAL.
- 225 AMP FRAME MOLDED CASE CIRCUIT BREAKERS HAVE INTERRUPTING CAPACITY OF 25,000 RMS SYM AMPS AT 240VAC, WESTINGHOUSE TYPE KA, TWO POLE, OR EQUAL.
- 100 AMP FRAME MOLDED CASE CIRCUIT BREAKERS HAVE INTERRUPTING CAPACITY OF 18,000 RMS SYM AMPS AT 240V AC, WESTINGHOUSE TYPE EMB, TWO POLE, OR EQUAL.
- AC VOLTAGE RELAY SELF CONTAINED, 0-140V SCALE WITH SUPPRESSED ZERO (EXPANDED PORTION OF SCALE APPROXIMATELY 100-140V) GENERAL ELECTRIC TYPE AB-40, OR EQUAL MOUNTED ON FRONT PANEL TRIM SECTION.
- UNDERVOLTAGE RELAY 120V AC WITH SPOT (1 NO AND 1 NC) CONTACTS, COMPLETE WITH COVER, LA MARCHÉ MODEL ER-A120, OR EQUAL.
- TIME-DELAY RELAY 120V AC COIL, TIMING RANGE OF 1.5-15 SECONDS, DELAY ON DROPOUT. DPDT CONTACTS, COMPLETE WITH 10" L ENCL. ENCLOSURE ASASTAT 7022 AC 52, OR EQUAL.
- TERMINAL BLOCKS SECTIONAL 600V, NYLON, STRAP SCREW TERMINAL, ODVETAIL BASE MOUNTED CHANNEL BUCHHAUS CAT NO. 0721, OR EQUAL.
- ANNUNCIATION AND INSTRUMENT WIRING IS AWG. SINGLE CONDUCTOR 600V, TEFLON COATED, WIRING TO FUSES TO BE AS SHORT AS POSSIBLE. NON-TWISTED, AND SEPARATED FROM OTHER WIRING.
- INSTRUMENT FUSES ARE BUSS TYPE KW, OR EQUAL.
- BUFFER RELAY 4 POLE, 2 NO AND 2 NC CONTACTS 120V AC COIL, CONTACT RATING 11 AMPS AT 125V DC, WESTINGHOUSE TYPE ARB, CATALOGUE NO. ARB440A, OR EQUAL.
- 800A FRAME NON-AUTOMATIC BREAKERS HAVE MINIMUM SHORT-TIME CURRENT RATINGS AT 600VAC AS FOLLOWS:

CURRENT	DURATION
8,000A	1 SECOND
10,000A	0.166 SECONDS
28,900A	0.0166 SECONDS
40,000A	0.0033 SECONDS

REFERENCE DRAWINGS:

- 5B1525-EP-1-2 SINGLE LINES
- 5B12675-EP-1-2 SCHEMATIC DIAG
- 5GMO640-EP-1,2 KEY DIAGRAM
- 5BMO620-EP-1 SYSTEM EZ



120V AC INSTRUMENT POWER DISTR PANELS IEZ-EDP-40, IEX-EDP-40, IEX-EDP-41
REFER TO NOTES 3-17 NOT TO SCALE MK VTH-8

Draw # ⁴³⁸
850458536
Date 3-25-83 of Document
REGULATORY DOCKET FILE

PRINTS ROOM

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P.R.C.
APERTURE
CARD

3	SI	1001	1001	1001	1001	1001	1001	1001	1001
INCORPORATED FOR E-2183.									
2	1140								
REVISED LOADS, MISC CHANGES									
1 SI, 689,690									
ADDED NOTE 17 AND 400AF BRK, REVISED LOADS AND TRIP SETTINGS									
REV	ECN	NO	DATE	ISSUED BY	CHKD	INSP	INSTR	APPV	
2									

GENERAL

UNITS 1&2

SCHEMATIC DIAGRAM

250V NORMAL DC POWER

DISTRIBUTION SYSTEM

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN

INSPECTED AND APPROVED FOR ISSUE

DATE	BY	REVISION	APPROVED
3/3/83	[Signature]		[Signature]

KNOXVILLE 88 E 5GMO640-EP-03 R3
RECORD DRAWING AS CONSTRUCTED

THIS DRAWING IS UNDER