REGULATORY DOCKET FILE-
Date 1/19/83 of Document
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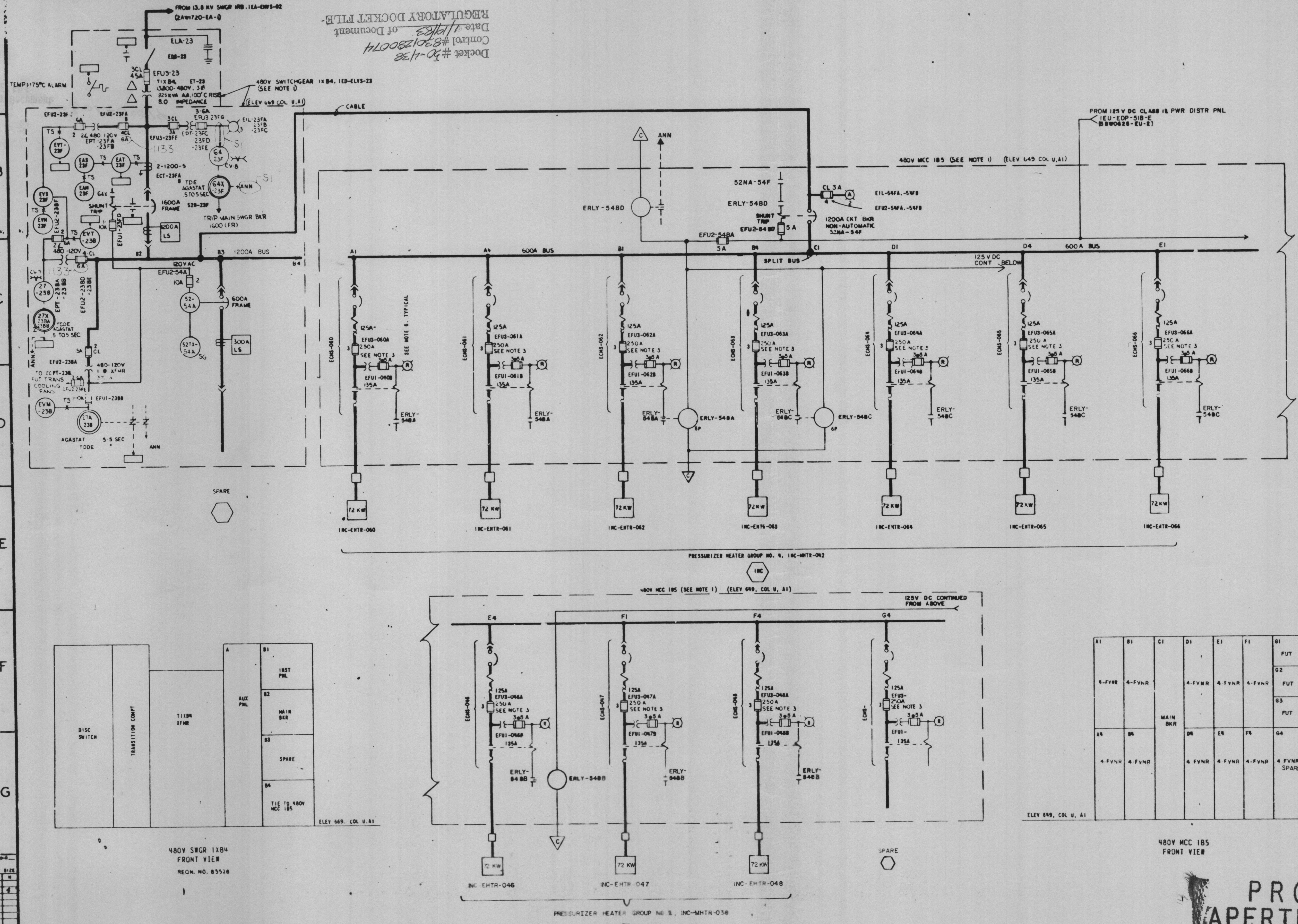
Docket #50-438



REFERENCE DRAWINGS	
DWG NO.	TITLE
2GW0720-RP-1	PLANT AC AUXILIARY POWER SYSTEM SINGLE LINE
5GW1740-ED	480V SWGR 1XB4 SYSTEM SCHEMATIC
2GW0900-**	CONTROL & LOGIC DRAWINGS

NOTES:

** SYSTEM DESIGNATION

1. 480 V MCC PROVIDED ON CONTRACT NO. 76K5-86242
480V SWGR PROVIDED ON CONTRACT NO. 76K3-85526
2. ALL MOLDED CASE CIRCUIT BREAKERS ARE 3-POLE, 600V, THERMAL-MAGNETIC, AND HAVE AN INTERRUPTING RATING OF NOT LESS THAN 25,000 RMS SYMMETRICAL AMPS AT 480V. ALL MCC BREAKERS ARE 400 A FRAME WITH SHUNT TRIP EXCEPT AS NOTED. THE SHUNT TRIP COIL IS CAPABLE OF OPERATING AT 55% OF RATED VOLTAGE. 800A FRAME BKRS HAVE 30,000A RMS SYM INTERRUPTING RATING AT 480V. 1600A FRAME BKRS HAVE 50,000A RMS SYM INTERRUPTING RATING AT 480V.
3. FUSES IN THE PWR CIRCUITS ARE CHASE SHAWMUT AMP TRAP CLASS J. (FUSES ARE REQD TO PROVIDE REDUNDANT PROTECTION FOR PRIMARY CONTAINMENT PENETRATIONS, NOT FOR CIRCUIT BREAKER PROTECTION.)
4. ALL CONTACTORS ARE PROVIDED WITH 3 ELEC SEPARATE AUXILIARY CONTACTS.
5. ALL CONTROL TRANSFORMERS ARE 1Ø 480-120V WITH GROUNDED SECONDARY. FUSES SHALL BE SIZED TO PROTECT TRANSFORMERS.
6. A 120V RED IND LIGHT IS CONNECTED IN PARALLEL WITH EACH STARTER COIL.
7. EACH DEVICE ASSOCIATED WITH THE SWGR BUS, TRANSFORMER, AND THE NOR, TIE CKT BKRS, IS PART OF THE 480V NORMAL AC AUX PWR DISTRIBUTION SYS WITH UNIT AND SYS DESIGNATION, ED. THE DEVICE UNID IS FORMED BY PREFIXING THE DESIGNATIONS SHOWN ON THE DWG WITH 1ED, EXCEPT AS NOTED. ALL OTHER BKRS WITH THEIR ASSOCIATED DEVICES ARE PART OF THE SYS WHICH THEY SUPPLY. THE UNID IS FORMED BY PREFIXING THE DESIGNATIONS SHOWN ON THE DWG WITH THE UNIT AND SYS DESIGNATION SHOWN IN THE HEXAGON SYMBOL, EXCEPT AS NOTED. THE SWGR COMPARTMENT NO. UNID DESIGNATIONS ARE FORMED AS FOLLOWS USING THE COMPARTMENT NO. (XX) AND THE BOARD NO. (YY): 1ED-ELVS-YYXX
8. MCC 1B5 IS CLASS 1E, SWGR 1XB4 IS NON-CLASS 1E LOCATED IN A CATEGORY I STRUCTURE
9. RELAYS SHALL BE THE TYPES SHOWN ON THIS DRAWING OR TVA APPROVED EQUIVALENT (SEE NOTE 8)

SYMBOLS:

- C - INTERFACE FOR REMOTE CONTROL
- XXX LSIG - SOLID STATE TRIP DEVICE WITH SENSOR RATING
  - L - LONG TIME DELAY (OVERLOAD)
  - S - SHORT TIME DELAY (SELECTIVE TRIP)
  - I - INSTANTANEOUS (FAULT CURRENT)
  - G - GROUND (FAULT CURRENT)
- PRIMARY CONTAINMENT PENETRATION
- INDICATING LIGHT, R = RED, A = AMBER
- INTERFACE FOR STATUS, ENVIRONMENTAL, AND ALARM MONITORING SYSTEM (SEAMS)
- XXX - UNIT AND SYSTEM DESIGNATION (SEE NOTE 7)
- ANN. - THIS FUNCTION TO BE MONITORED BY ONE OR MORE ANNUNCIATION OR ALARM SYSTEMS

MF RO R1 R2 R3 R4 R5 R6

8301280100

REV NO	ECN NO	DATE	DSGN	DRWN	CHKD	SUPV	ENGR	INSP	SUBM	RECM	APPD
6	1133, S1	2-3-81								JLS	
REPLACED 3 AMP FUSES WITH 6 AMP FUSES, MINOR CHANGES											
5	S1, 345, 239	4-20-78		ERF			WLA	-	WLA	JLS	
GEN REVISION PER ECN S1-VARIOUS. MOD BUS UNDERVOLTAGE RELAY PER ECN 345. ADD HIGH VOLTAGE LIMITING FUSES PER ECN 239.											
4	S1, 156	4-22-76				WRT	CTG	-	CTG	JLS	
GEN REV PER ECN S1-VARIOUS. REDESIGN THE POWER AND CONTROL CIRCUITS OF PRESSURIZER HTR PER ECN 156.											
3	44, S-1	7-1-75	RDM			WLA	CTG	-	CTG	JLS	
INCORPORATED SEAMS PER ECN 44-VARIOUS. INCORPORATED UNID SYS. GEN REV PER ECN S-1-VARIOUS.											
2	S1	1-8-75	RDM	REA	CTG	WLA	CTG	-	CTG	JLS	
REMOVED GROUND FAULT LIMITING NETWORK & REVISED GROUND FAULT PROTECTION SYSTEM.											
1	21	12-6-74	EN1	REM	DML	WLA	CTG	-	CTG	JLS	
REVISED DWG LAYOUT, REMOVED HOLD ON MCC.											

DSGN H.F. JOHNSEY
DRWN R.E. MILLSAPS
CHKD H.F. JOHNSEY / W.L. ALDREDGE
SUPV W.L. ALDREDGE
INSP
ENGINEER Myles J. Scruggs

AUXILIARY BUILDING
UNIT 1

SINGLE LINE
480V PRESSURIZER HTR BDS-1XB4 & 1B5
1ED-ELVS-23 & 1ED-EMCC-54

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN

N

SUBMITTED	RECOMMENDED	APPROVED
Myles J. Scruggs	J. L. Sprayer	R M Hodges

KNOXVILLE 9-6-74 | 88 | E | 5AW1731-ED-1 | R6

RECORD DRAWING AS CONSTRUCTED

PRC APERTURE CARD