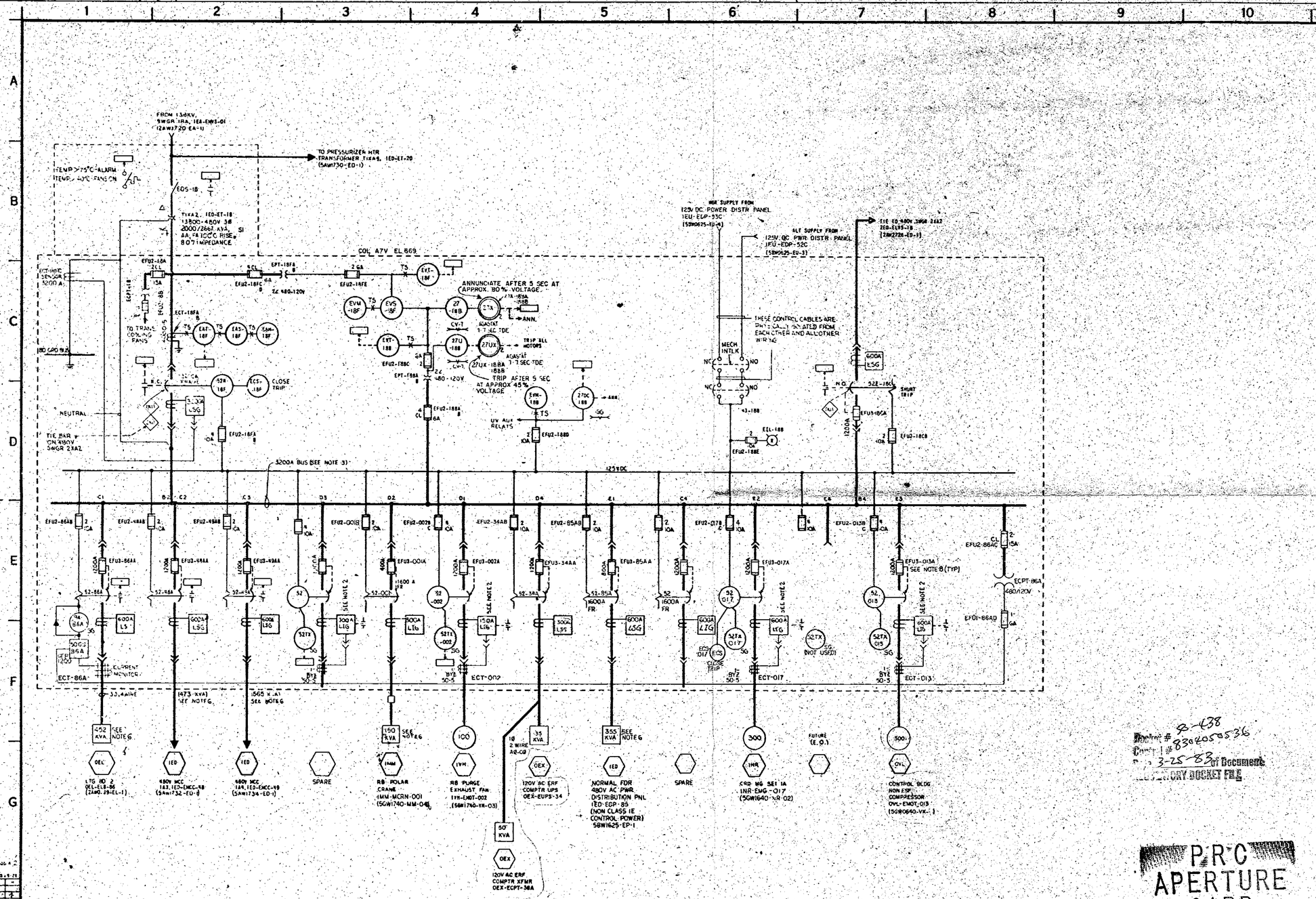

REFERENCE DRAWINGS	
DRAWING NUMBER	TITLE
2AW1720-EP-1	PLANT AUXILIARY POWER SYSTEM SINGLE LINE
5SW1740-EU-2	480V SWGR 1A4A1 SYSTEM DIAGRAM

NOTES:

1. 480V SWGR PROVIDED ON CONTRACT NO. 743-85526.
2. ALL CKT BKRS ARE 3-POLE, 800A FR WITH REAR MOUNTED CURRENT LIMITING FUSE ON LINE SIDE OF EACH POLE, EXCEPT AS NOTED. 800A FR BKRS HAVE 200,000A RMS SYM INTERRUPTING RATING AT 480V. 1600A FR BKRS HAVE 200,000A RMS SYM INTERRUPTING RATING AT 480V. 3000A FR BKRS HAVE 65,000A RMS SYM INTERRUPTING RATING AT 480V. AS NOTED. BKRS ARE EQUIPPED WITH ANSI ELECTRICAL LOCKOUT ATTACHMENT (LOCATED WHEN BKR IS STRIPPED AUTOMATICALLY BY THE ANDTECTOR
3. BUS IS 3Ø, WITH HALF NEUTRAL. ALL LOADS THAT ARE 3Ø, 4 WIRE OR SINGLE PHASE 2 WIRE, ARE 3Ø INDICATED.
4. RELAYS SHALL BE THE TYPES SHOWN ON THIS DRAWING OR TVA APPROVED EQUAL.
5. EACH DEVICE ASSOCIATED WITH THE 5WGR BUS, TRANSFORMER, AND THE NORMAL OR TIE CKT BKRS, IS PART OF THE 480V NORMAL AC AUX PWR DISTRIBUTION SYS WITH UNIT AND SYS DESIGNATION, 1ED. 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. (XX) AND THE BOARD NO. (Y) 1ED-ELVS-YYXX.
6. KVA LOADS SHOWN ARE ESTIMATED MAXIMUM DEMAND
7. THIS EQPT IS NON-CLASS 1E, LOCATED IN A CATEGORY I STR
8. BLOWN FUSE TRIPS BREAKER

SYMBOLS:

- SOLID STATE TRIP DEVICE WITH SENSOR RATING SHOWN
  L - LONG TIME (DELAY OVERLOAD)
  S - SHORT TIME DELAY (DEFECTIVE TRIP)
  I - INSTANTANEOUS (FAULT CURRENT)
  G - GROUND (FAULT CURRENT).
- INTERFACE FOR STATUS, ENVIRONMENTAL, & ALARM MONITORING SYS (SEAMS)
- UNIT AND SYS DESIGNATION (SEE NOTE 5)
- KEY INTERLOCK
- RED INDICATING LIGHT
- ANN. - THIS FUNCTION TO BE MONITORED BY ONE OR MORE ANNUNCIATOR OR ALARM SYSTEMS.
- PRIMARY CONTAINMENT PENETRATION.

REV	ECN NO	DATE	DRN	CHKD	SUPV	ENGR	REP	SUBJECT	REC	APPD
7	986	4-2-84						ADDED 3000A AMPTECTOR TO COMPT D4. EXCHANGED BKR IN COMPT E3 WITH BKR IN COMPT E1 IN 1X32.		
6	11133, 91	2-5-91						REPLACED 3 AMP FUSES WITH 6 AMP FUSES. MINOR CHANGES.		
5	585, 5	1-8-87						CHANGED AMPTECTOR IN COMPT D4 TO LIG, & MINOR CHANGES.		
4	19,356,422							GEN REVISION PER ECN 19-VARIOUS. ADDED CKT BKR CONTROL SWITCH PER ECN 356. MODIFIED SPARE 250V NORMAL DC BAT CHARGER FEEDER PER ECN 422.		
3	44,51,109,24	5-8-85	LOG	PORT				INCORPORATED SEAMS PER ECN 44-VARIOUS. INCORPORATED UNID SYS. GEN REV PER ECN 51-1-VARIOUS. REPLACED 600A FR BKR WITH 1600A FR BKR ON PER PER ECN 109. UPDATE MINOR CHGS PER ECN 134.		
2	20, 21	10-8-84						SHIFTED LOADS FROM 480V SWGR 1A32 TO 1A43 SWGR, PER ECN 21. ADDED COOLING FANS TO 480V SWGR TRANSFORMERS, PER ECN 20.		
1	12,20,21	9-9-84						CHG 480V DISTR SYS FROM DELTA TO GRD WYE AND ADDED GRD FAULT DRCT PER ECN 12. REV LOADS PER ECN 20. REMOVED PRESS. WTRD. PER ECN 21.		

DSGN R.M. LASHLEY
DRWN R.E. BUSHOU/C. TOMPLE
CHKD
SUPV
ENGR
REP
ENGINEER

AUXILIARY BUILDING

UNIT 1

SINGLE LINE DIAGRAM
480V SWITCHGEAR 1XA2
1ED-ELV3-18

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN

N

SUBMITTED	RECOMMENDED	APPROVED

KNOXVILLE 2-6-74 RB E 2AW1726-ED-1 R7

45W729-1

THIS DRAWING IS UNDER

Doc. # 8-438
Cont. # 8308050536
3-25-83
of Documents
CORV DOCKET FILE

P·R·C APERTURE CARD

INSPECTED AND APPROVED FOR ISSUE
R.M. Hodges
DESIGN PROJECT MANAGER