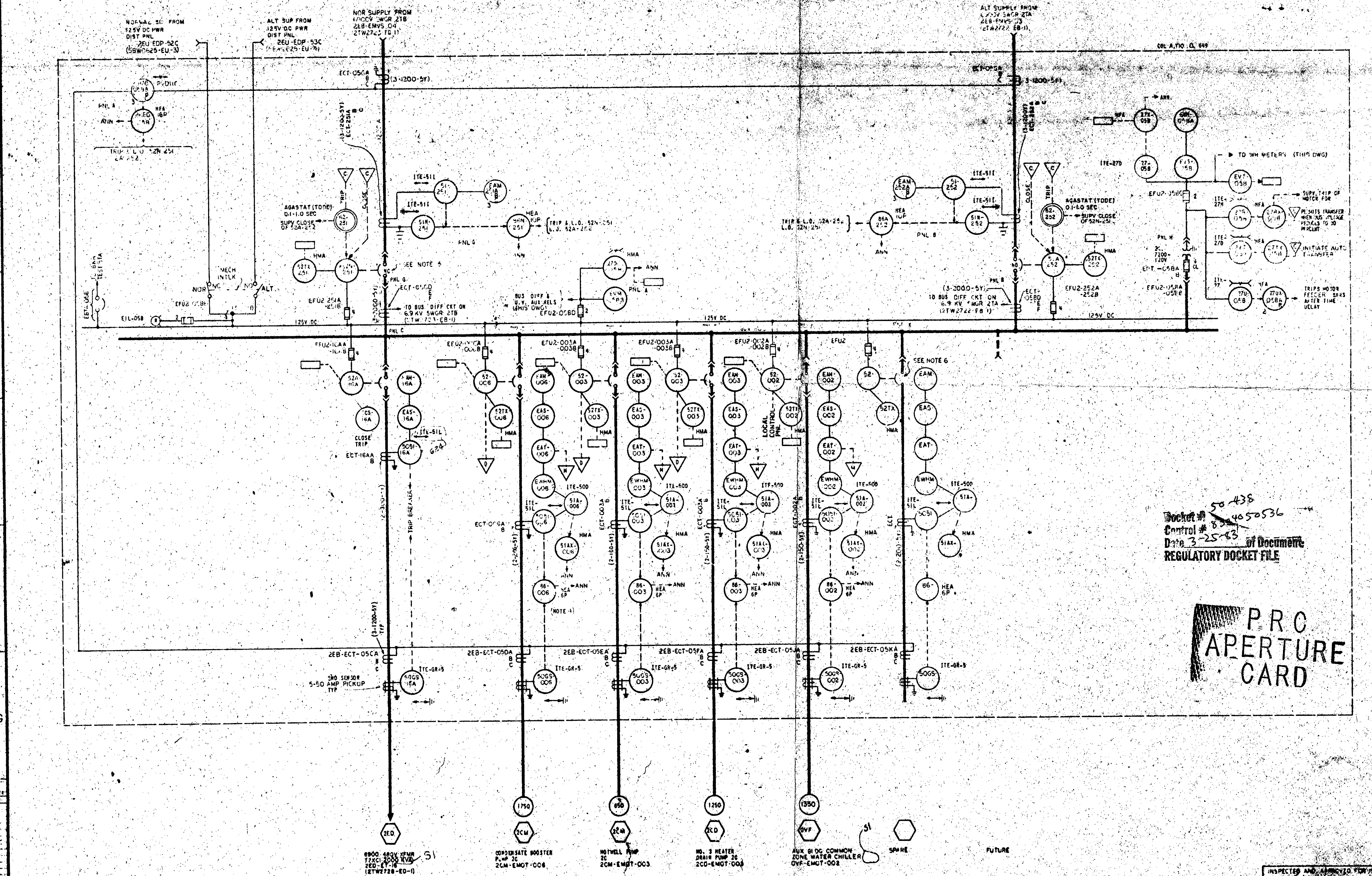
2TW2724-EB-1 | 1 | 88

UNID'S KEYED TO BUS

- 2TB-050A THRU C
- 2UX-058A THRU B
- EVM-058A THRU B
- EFU2-058A THRU C
- EPT-058A THRU 3

UNID'S KEYED TO PANEL

- ECT-058A THRU C
- ECT-05CA THRU C
- ECT-05DA THRU C
- ECT-05EA THRU C
- ECT-05FA THRU C
- ECT-05GA THRU C
- ECT-05JA THRU C
- ECT-05KA THRU C



REFERENCE DRAWINGS	
25W0720-RP-1	PLANT AC AUXILIARY POWER SYSTEM - SINGLE LINE
2TW(XX)-EB	SYSTEM EB CONTROL & LOGIC DIAGRAM
5QW2740-EB	ELECTRICAL SYSTEM EB SCHEMATICS
55W0749-RP-1	MVSG CKT ARRANGEMENT TYPICAL SCHEMATICS

SWITCHGEAR MANUFACTURER	I-T-E IMPERIAL CORPORATION
CONTRACT NUMBER	75K52R 83

NOTES:

1. A MANUAL TRANSFER IS INITIATED BY A SINGLE CLOSE COMMAND TO THE SELECTED BREAKER. THE COMMAND WILL SIMULTANEOUSLY TRIP THE CLOSED SUPPLY BREAKER AND COMPLETE THE CLOSE CIRCUIT OF THE SELECTED BREAKER. IF ANY ABNORMAL CONDITION EXISTS WHICH INHIBITS THE CLOSE COMMAND, THE TRIP SIGNAL IS SUPPRESSED, AND THE BUS WILL REMAIN ON THE CLOSED SUP BKR.
2. AN AUTOMATIC TRANSFER IS INITIATED AND SUPERVISED BY UNDERVOLTAGE RELAYS. AUTOMATIC TRANSFER IS RECLOSURE OF THE NORMAL SUPPLY OR FROM ALTERNATE TO NORMAL SUPPLY IF THE NORMAL SUPPLY IS UNAVAILABLE. TRANSFER IS RECLOSURE OF THE ALTERNATE SUPPLY OR FROM NORMAL TO ALTERNATE SUPPLY.
3. PARALLELING OF THE NORMAL AND ALTERNATE SUPPLIES UNDER MANUAL OR AUTOMATIC TRANSFER IS INHIBITED BY INTERLOCKS.
4. 86 RELAYS IN MOTOR FEEDER CIRCUITS TRIP AND LOCK OUT THEIR RESPECTIVE CIRCUIT BREAKERS.
5. ALL SUPPLY BREAKERS ARE [illegible] CONTINUOUS, 500MVA INTERRUPTING, 7.2KV NOMINAL, 80,000 AMPS MOMENTARY, AND 77,000 AMPS CLOSE AND LATCH.
6. ALL FEEDER BREAKERS ARE RATED THE SAME AS SUPPLY BREAKERS.
7. THE SWITCHGEAR MAIN BUS IS RATED AT 1200 AMPS CONTINUOUS, 80,000 AMPS MOMENTARY, AND 7.2KV NOMINAL.
8. FOR A COMPLETE DEFINITION OF THE UNIQUE IDENTIFICATION NUMBERS (UNID) SEE TVA EN-DES-8.01.

   EACH DEVICE ASSOCIATED WITH THE SWGR BUS, NORMAL SUPPLY, OR ALTERNATE SUPPLY, CIRCUIT BREAKERS IS PART OF THE 6900 VOLT AC AUXILIARY POWER DISTRIBUTION SYSTEM WITH SYSTEM DESIGNATION EB. THE DEVICE UNID IS FORMED BY PREFIXING THE DESIGNATIONS SHOWN ON THIS DRAWING WITH 2EB, EXCEPT AS NOTED ON THIS DRAWING.

   ALL FEEDER BREAKERS WITH THEIR ASSOCIATED DEVICES ARE PART OF THE SYSTEM WHICH THEY SUPPLY. THE COMPLETE UNID IS FORMED BY PREFIXING THE DESIGNATIONS SHOWN ON THIS DRAWING WITH THE UNIT AND SYSTEM DESIGNATOR SHOWN IN THE HEXAGON SYMBOL.
9. RELAYS SHALL BE THE TYPES SHOWN ON THIS DRAWING.

SYMBOLS:

- (XXX hexagon) UNIT AND SYSTEM DESIGNATION
- (D triangle) INTERFACE WITH DECONTIC SYSTEM
- (C triangle) INTERFACE FOR REMOTE CONTROL
- (R) RED INDICATING LIGHT
- (rectangle) INTERFACE WITH STATUS ENVIRONMENTAL ALARM MONITORING SYSTEM (SEAMS)
- (M triangle) CONNECTION TO REMOTE METER
- ANN THIS FUNCTION TO BE MONITORED BY ONE OR MORE ANNUNCIATION OR ALARM SYSTEMS

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

PRC APERTURE CARD

REV NO.	ECN NO.	DATE	DSGN	DRWN	CHKD	SUPV	ENGR	INSP	SUBM	RECM	APPD
4	624, SI	4-23-77									
CHANGED XFMR OC PROT. MINOR CHANGES.											
3	341, 466, SI										
IMPLEMENTED ANTICIPATORY RELAY SCHEME PER ECN 341; REVISED NOTE 2 PER ECN 466. MINOR REVISIONS PER SI.											
2	102, SI	11-19-76									
VARIOUS MINOR REV PER SI-VARIOUS. IMPLEMENTED 86 RELAYS PER ECN 102.											
1	SI, 44	1-7-75									
ADD AMPERE IND TO NOR & ALT SUP, ADD AB COM ZONE WATER CHILLER AND GEN REV PER ECN 44, INC SCHEME PER ECN 44.											

DSGN S.M. SLATER
DRWN R. SPENCER
CHKD H.G. BELLOWS
SUPV J.H.S. SLATER
INSP
ENGINEER

POWERHOUSE-TURBINE BUILDING

UNIT 2

SINGLE LINE DIAGRAM

6900V SWGR 2TC

2EB-EMVS-05

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN

N

SUBMITTED | RECOMMENDED | APPROVED

INSPECTED AND APPROVED FOR ISSUE
DESIGN PROJECT MANAGER

KNOXVILLE 2-19-74 | 88 | 1 | 2TW2724-EB-1 R4

45W726-3