



REFERENCE DRAWINGS	
DWG NO.	TITLE
24W720-001	REACTOR COOLANT PUMP SYSTEM SCHEMATIC
24W720-002	SYSTEM EA CONTROL & LOGIC DIAGRAMS
24W720-003	SYSTEM SCHEMATIC
24W720-004	13800V BUS SYSTEM SCHEMATIC

SWITCHGEAR MANUFACTURER: ITE INDUSTRIAL CORPORATION  
 CONTRACT NUMBER: 75-5-8553

- NOTES:
- ALL CIRCUIT BREAKERS ARE 1200 AMP CONTINUOUS, 750 MVA INTERRUPTING, 13.8KV NOMINAL, 40,000 AMP MOMENTARY, 50,000 AMP CLOSE AND LATCH. THE SWITCHGEAR MAIN BUS IS RATED 1200 AMP CONTINUOUS, 40,000 AMP MOMENTARY, 13.8KV NOMINAL.
  - AUTOMATIC TRANSFER IS INITIATED AND SUPERVISED BY UNDERVOLTAGE RELAYS. AUTO TRANSFER IS FROM NORMAL TO PREFERRED ALTERNATE SUPPLY ONLY. RETURN TO NORMAL IS MANUAL.
  - MANUAL TRANSFER IS INITIATED AT THE UNIT CONTROL PANEL BY A CLOSE COMMAND TO THE SELECTED SUPPLY BREAKER. THE COMMAND WILL SIMULTANEOUSLY TRIP THE CLOSED BREAKER AND COMPLETE THE CLOSE CIRCUIT TO THE SELECTED BREAKER.
  - PARALLELING OF THE NORMAL AND ALTERNATE SUPPLIES IS PREVENTED BY ELECTRICAL INTERLOCKS ON THE SWITCHGEAR.
  - EACH DEVICE ASSOCIATED WITH THE BUS, AND THE NORMAL OR ALT. BUS IS PART OF THE 13.8KV BUS. ALL AUXILIARY DISTRIBUTION SYSTEMS WITH UNIT AND SYSTEM DESIGNATION, IEA, THE DEVICE UNIT IS FORMED BY PREFIXING THE DESIGNATIONS SHOWN ON THE DWG WITH IEA, EXCEPT AS NOTED. ALL OTHER BUSES WITH THEIR ASSOCIATED DEVICES ARE PART OF THE SYSTEM WHICH THEY SUPPLY. IEA IS PREFIXED TO THE DESIGNATIONS SHOWN ON THE DWG WITH THE UNIT AND SYSTEM DESIGNATION IN THE HEADLINE SYMBOL. IEA IS PREFIXED TO THE DESIGNATIONS SHOWN ON THE DWG WITH THE UNIT AND SYSTEM DESIGNATION IN THE HEADLINE SYMBOL.
  - REACTOR PROTECTION SYSTEM CONNECTIONS AND RELAYS SUPPLYING RPS SIGNALS REQUIRE PHYSICAL AND ELECTRICAL SEPARATION PER IEEE 302 AND SECTION 5.6 OF PROPOSED IEEE STD. 308A, 1975 EDITION.
  - THIS EQUIPMENT IS CLASSIFIED AS BEING IN A CATEGORY 1 STRUCTURE.
  - RELAYS SHALL BE THE TYPES SHOWN ON THIS DWG.

- SYMBOLS:
- XXX - UNIT AND SYSTEM DESIGNATION
  - △ - INTERFACE FOR REMOTE CONTROL
  - ▽ - INTERFACE FOR INTEGRATED CONTROL SYSTEMS (ICS)
  - ▽ - INTERFACE FOR REACTOR PROTECTION SYSTEM (RPS)
  - ▽ - REMOTE METER CONNECTION
  - - INTERFACE FOR STATUS, ENVIRONMENTAL, AND ALARM MONITORING SYSTEMS (SEAMS)
  - - PRIMARY CONTAINMENT PENETRATION
  - ANN - THIS FUNCTION TO BE MONITORED BY ONE OR MORE ANNUNCIATION OR ALARM SYSTEMS.

NO.	REV.	DATE	REASON FOR CHANGE	BY	CHKD.
1	1	12/15/72	ISSUED		
2	1	1/15/73	CHANGED MODEL NO. OF RELAY ITR-111 TO ITR-112		
3	1	1/15/73	CHANGED AGASTAT TO ITR-122 AND HMA TO JIS		
4	1	1/15/73	REMOVED BKR AND ADDED EARLY RELAY, CHANGED HMA TO JIS WITH CHANGES		
5	1	1/15/73	CHANGED ITR-111 TO ITR-112		
6	1	1/15/73	PROVIDED SEPARATE 125V DC CONT. PWR FOR RCP MOTORS OTHER SWGR BOARD FUNCTIONS IMPLEMENTED, ANTICIPATORY RELAY SCHEME, PROVIDED ADDITIONAL RCP MOTOR PROTECTION, 3 MINUTE DELAY		
7	1	1/15/73	CHANGED ITR-111 TO ITR-112		
8	1	1/15/73	CHANGED ITR-111 TO ITR-112		
9	1	1/15/73	CHANGED ITR-111 TO ITR-112		
10	1	1/15/73	CHANGED ITR-111 TO ITR-112		

AUXILIARY BUILDING UNIT 1  
 SINGLE LINE DIAGRAM  
 13800V SWITCHGEAR 1RA, IEA-EMVS-01 AND 1RB, IEA-EMVS-02

BELLEVILLE NUCLEAR PLANT  
 TENNESSEE VALLEY AUTHORITY  
 DIVISION OF ENGINEERING DESIGN

INSPECTED AND APPROVED FOR ISSUE  
 DESIGN PROJECT MANAGER

DATE: 1/15/73  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 APPROVED BY: [Signature]

NO. 45711-1

PRC APERTURE CARD

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 REGULATORY DOCKET FILE

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1	1	12/15/72	ISSUED