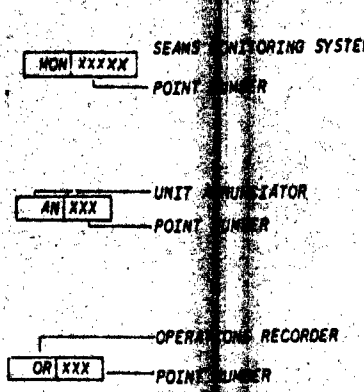


GENERAL NOTES

- PORTIONS OF THE SCHEMATIC ARE SHOWN OUT-OF-FUNCTION. THE IN-OF-FUNCTION PORTIONS ARE SHOWN FOR INFORMATION WITH REFERENCES PROVIDED TO THE DOCUMENT WHICH CONTROLS THE EQUIPMENT.
- ALL UNIQUE IDENTIFICATION NOS. AND CABLE NOS. SHOWN ARE PREFIXED WITH IEI UNLESS OTHERWISE NOTED.
- EACH DEVICE ASSOCIATED WITH THE INCOMING LINE BREAKER AND BUS IN THE LOW VOLTAGE SWITCHGEAR, MOTOR CONTROL CENTER AND 480V ELECTRICAL DISTRIBUTION PANELS IS PART OF THE 480V AC AUXILIARY POWER DISTRIBUTION SYSTEM. THE LOAD CIRCUIT BREAKERS AND OTHER ASSOCIATED DEVICES, THE UNIT IS FORMED BY PROVIDING THE GENERATING UNIT SYSTEM DESIGNATION AND THE LOADS SPECIFIC COMPONENT IDENTIFICATION. SEE ENGINEERING PROCEDURE EP-8-01 FOR COMPLETE DETAILED EXPLANATION.
- SEE SYSTEM EI CABLE PROGRAM FOR COMPLETE CABLE INFORMATION INCLUDING SPARE CONDUCTORS. ONLY THOSE CONDUCTORS USED ARE SHOWN.
- SSCS CABLE SHEATHS ARE TERMINATED ON THE SHIELD GROUND BUS LOCATED ADJACENT TO THE TERMINAL BLOCKS. TERMINATION POINTS ON THE SHIELD BUS ARE NOT DEDICATED TO A SPECIFIC CABLE.
- THE TOTAL TIME OF THE COMBINATION OF 27 AND 27X RELAYS IS APPROXIMATELY 50 TO 50 SEC AT 95% VOLTAGE.
- BOP ISOLATOR CELL SHIELDS THAT ARE SHOWN CONNECTED ARE TERMINATED ON THE SIGNAL GROUND BUS (SG) LOCATED ADJACENT TO THE TERMINAL BLOCKS. TERMINATION POINTS ON THE GROUND BUS ARE NOT DEDICATED TO A SPECIFIC CABLE. BOP ISOLATOR OUTPUTS ARE SOLID STATE SWITCHING (SS SW) DEVICES.

SYMBOLS:



525- CELL MOUNTED EMERGENCY BREAKER AUXILIARY SWITCH IN THE LOW VOLTAGE SWITCHGEAR. THE SWITCH IS ACTUATED BY THE OPERATION OF THE CIRCUIT BREAKER MAIN CONTACTS.

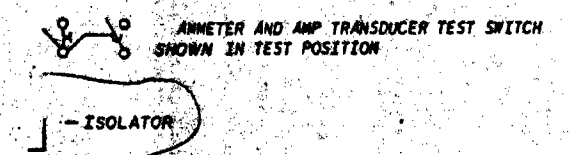
LOW VOLTAGE SWITCHGEAR NOTES:

- 480 V LOW VOLTAGE SWITCHGEAR BOARD FUNCTIONS ARE SHOWN ON SHEETS 8 THRU 9 OF THIS DRAWING.
- SEE WESTINGHOUSE ELECTRIC CORPORATION, TVA CONTRACT 76K5-85526 FOR 480 V CLASS IE SWITCHGEAR SCHEMATICS AND CONNECTION DIAGRAMS.
- KEY INTERLOCK SCHEME FOR TIES BETWEEN TRAIN A AND TRAIN B LOW VOLTAGE SWITCHGEAR IS SHOWN SUCH THAT ONLY 3 OF THE 4 MAIN AND TIE BREAKERS CAN BE CLOSED AT ANY GIVEN INSTANT.
- SEE GOULD/ITE CONTRACT, TVA 76K5-85543 FOR 8.9 KV AND 13.8 KV SCHEMATICS AND CONNECTION DIAGRAMS.
- SUPPLY BREAKER ON 480 V LOW VOLTAGE SWITCHGEAR IS ELECTRICALLY OPERATED WITH LOCAL CONTROL ONLY AT THE BOARD. THE EMERGENCY BREAKER IS MANUALLY OPERATED WITH A SHUNT TRIP ACTUATED BY ESFAS OR LOSS OF POWER FOR TRAIN ISOLATION.

REFERENCE DRAWINGS:

- TYPICAL SCHEMATICS - MVSG CIRCUIT ARRANGEMENTS - 5GW0749-RP-2
- WESTINGHOUSE INTERNALS & MISC DIAGRAMS - 1245F08
- WESTINGHOUSE FEEDER BREAKER SCHEMATIC - 1245F04
- WESTINGHOUSE 3-LINE B SCHEMATIC - 1245F07
- WESTINGHOUSE ANN. RELAY SCHEMATIC - 1245F08
- SEANS SYSTEM SCHEMATIC - 5GW0640-IS
- 125V DC CLASS IE DC POWER DISTR SYS SINGLE LINE - 5BWO628-EU
- ANNUNCIATOR SYSTEM SCHEMATIC - 5GW1640-IA
- ANNUNCIATOR AND OPERATIONS RECORDING SYS SCHEMATIC - 5GW7364-QA
- SEQUENCE SHED AND LOAD FCID - 5GW0900-IL-02
- 480 V SWITCHGEAR IEX1-A SINGLE LINE - 2AN1726-EI
- 480 V SWITCHGEAR IEX1-B SINGLE LINE - 2AN1727-EI
- 480 V SWITCHGEAR IEX2-A SINGLE LINE - 2AN1728-EI
- 480 V SWITCHGEAR IEX2-B SINGLE LINE - 2AN1729-EI
- WESTINGHOUSE ENGINEERING REFERENCE DRAWING - 9130001
- ELECTROMAX INSTRUMENTS INC. TVA CONTRACT 79K12-822908 FOR BOP ISOLATORS
- TRAIN A BOP CABINET WIRING DIAGRAM - 5AN1681-JT-08
- TRAIN B BOP CABINET WIRING DIAGRAM - 5AN1681-JT-09
- 125V DC CLASS IE POWER DISTRIBUTION SYSTEM SCHEMATIC - 5GW1640-EU

- SYMBOLS:
- TOC - CELL MOUNTED AUXILIARY SWITCHES ACTUATED BY BREAKER CELL POSITION. CONTACTS SHOWN WITH BREAKER IN THE FULLY CONNECTED POSITION.
 - OTS - OVERCURRENT TRIP SWITCH
 - K - KEY INTERLOCK NUMBER
 - - LOW VOLTAGE SWITCHGEAR COMPARTMENT TERMINAL



MOTOR CONTROL CENTER NOTES:

- 480 V MOTOR CONTROL CENTER BOARD FUNCTIONS ARE SHOWN ON SHEETS 9 THRU 18 OF THIS DRAWING.
- SEE GOULD/ITE, TVA CONTRACT 76K5-86248 FOR 480 V CLASS IE MOTOR CONTROL CENTER LAYOUT DRAWINGS AND CONNECTION DIAGRAMS.
- SYSTEM JUMPERS ARE FIELD INSTALLED AND ARE SHOWN IN-FUNCTION WITHIN THE MOTOR CONTROL CENTER BOXES. THESE JUMPERS ARE DESIGNATED "J" PRECEDED BY THE UNIT AND SYSTEM DESIGNATION. SEE JUMPER TERMINATION PROGRAM FOR EACH INDIVIDUAL MCC FOR ADDITIONAL DETAILS.

- ITE COMPARTMENT WIRING DIAGRAMS - WD-53893
- 480 V MCC COMPARTMENT TYPICAL SCHEMATICS - 5GW0747-RP
- SEQUENCE SHED AND LOAD FCID - 5GW0900-IL-02
- ANNUNCIATOR SYSTEM SCHEMATIC - 5GW1640-IA
- SEANS SYSTEM SCHEMATIC - 5GW0640-IS
- ANNUNCIATOR AND OPERATIONS RECORDING SYS SCH - 5GW7364-QA
- WESTINGHOUSE FEEDER BREAKER SCHEMATIC - 1245F04
- WESTINGHOUSE IEX1-A CONNECTION DIAGRAM UNIT C - 1245F40
- WESTINGHOUSE IEX1-B CONNECTION DIAGRAM UNIT C - 1245F45
- WESTINGHOUSE IEX2-A CONNECTION DIAGRAM UNIT C - 1245F50
- WESTINGHOUSE IEX2-B CONNECTION DIAGRAM UNIT C - 1245F51
- WESTINGHOUSE IEX2-C CONNECTION DIAGRAM UNIT C - 1245F55

- SYMBOLS:
- - MOTOR CONTROL CENTER COMPARTMENT TERMINAL

PRC APERTURE CARD

Docket # 58-438
Control # 83405057
Date 3-25-83 of Document
REGULATORY DOCKET FILE

COMPANION DWGS:
5GW1740-EI-02 THRU-17

REV	NO.	DATE	BY	CHKD	APP'D
3	107	5/16/79	AD	JK	JK
CHANGED NOTE 6, 8 ADDED NOTE 7 AND MINOR CHANGES					
2	51	11/27/77	JK	JK	JK
ADDED NOTE 8 AND REFERENCE DRAWING PER 51					
1	51	11/9/77	JK	JK	JK
MINOR REVISIONS PER ECH 51					
DESIGN	T. A. REYNOLDS		DATE	1983	
CHECKED	J. J. JACKSON		DATE	1983	
APP'D	M. R. TAYLOR		DATE	1983	
SCALE EXCEPT AS NOTED					
GENERAL UNIT 1					
SYSTEM SCHEMATIC 480V CLASS IE AC AUXILIARY POWER SYSTEM					
BELLEFONTE NUCLEAR PLANT TENNESSEE VALLEY AUTHORITY					
DIVISION OF ENGINEERING DESIGN					
SUBMITTED		APPROVED		APPROVED	
M. R. TAYLOR		J. J. JACKSON		T. A. REYNOLDS	
INSPECTED AND APPROVED FOR ISSUE					
KNORVILLE 11-1-77					
5GW1740-EI-01					