



- NOTES:
1. LINE BREAKER SELECTOR SWITCHES OXE-435B-509 & OXE-435B-509 ARE USED TO TRANSFER SOLID STATE RELAYS AND BREAKER FAILURE AUXILIARY RELAYS TO SPARE PCB 509A. PREVENT RECLOSING FOR CLOSE IN 3 PHASE FAULTS.
 2. RELAY OXE-218B-509 & OXE-218B-509 WILL TRIP VALVE UNIT AND PREVENT RECLOSING FOR CLOSE IN 3 PHASE FAULTS.
 3. INSTRUMENTS MARKED WITH AN @ HAVE AN OUTPUT TO THE DATA ACQUISITION TERMINAL.
 4. THE GENERATOR LOAD BREAK SWITCH WILL BE USED FOR SYNCHRONIZING. TRIPPING WILL BE SUPERVISED BY LOAD BREAK INTERLOCK RELAY ITM-504-1.
 5. THE COMPONENT NUMBERS IN PARENTHESES ARE NUMBERS FORMERLY USED AND SHOWN FOR INFORMATION ONLY.
 6. IF A 6.9 OR 13.8KV SWITCHGEAR FEED BREAKER FAILS TO TRIP NORMALLY, THE LOAD BREAK SWITCH, 186C RELAY AND EXCITED FIELD BREAKER WILL BE TRIPPED AND THE TURBINE STEAM VALVE WILL BE CLOSED VIA IXU-508R1 RELAY 25 SECONDS LATER. EQUIPMENT MARKED WITH AN * ARE DESIGNED FOR REMOTE SUPERVISORY CONTROL.
 7. RECEIPT OF CARRIER BLOCKING ON EITHER SET OF SOLID STATE LINE RELAYS WILL PREVENT TRIPPING ON BOTH SETS.
 8. INSTRUMENTS MARKED WITH AN @ HAVE AN OUTPUT FOR ANALOG BACKUP TO PCC.
 9. EQUIPMENT DESIGNATIONS WHICH BEGIN WITH LOWER CASE LETTERS (A, B, C, ETC) ARE CONTROL OR SIGNALING CORPORATION APPARATUS LIST HAS 415 OIS TIA CONTACT 7162 * 5421.
 10. EACH BREAKER AND ITS ASSOCIATED MOD WILL BE TRIPPED WHEN MINIMUM INTERRUPTING PRESSURE OF THE BREAKER IS REACHED.
 11. THE BREAKER FAILURE LOCKOUT RELAY ASSOCIATED WITH EACH BREAKER WILL BE ENERGIZED WHEN THE BREAKER MINIMUM DIELECTRIC PRESSURE IS REACHED AND AT LEAST ONE ISOLATING MOD PHASE IS NOT FULLY OPEN.
 12. INSTRUMENTS MARKED WITH AN @ HAVE AN OUTPUT FOR SYSTEM ID PROCESS COMPUTER.
 13. INSTRUMENTS MARKED WITH AN @ HAVE AN OUTPUT FOR SYSTEM ID SEAMS COMPUTER.
 14. THE GENERATOR LOAD BREAK SWITCH WILL LOCK IN EXISTING POSITION WHEN MINIMUM INTERRUPTING AIR PRESSURE IS REACHED.
 15. WHEN THE LOAD BREAK SWITCH TRIPS THE LOCKOUT RELAY ITM-86-1 SHALL BE ELECTRICALLY TRIPPED ALLOWING PCB 507A OR 508A TO AUTOMATICALLY RECLOSE AND MAKE POWER AVAILABLE TO THE AUXILIARY EQUIPMENT ACBS.

REFERENCE DRAWINGS:

DRAWING NO.	TITLE
2MMW500-00-01	DEVELOPMENT SINGLE LINE
2MMW502-18-01	MAIN SINGLE LINE 16KV SWITCHYARD
2MMW504-XE-01	MAIN SINGLE LINE SW 1 700KV SWITCHYARD
2MMW504-XE-02	MAIN SINGLE LINE SW 2 GEN 2 & 500KV SWITCHYARD

PRC APERTURE CARD

6/10/79

NO.	REV.	DATE	DESCRIPTION
1			ADD WIRING DATA DUE TO NEW BACKUP EQUIPMENT DESIGN PER ECN 1009
2			ADD SWGR CT FAILURE RELAYING PER ECN 1172 AND 143941. ADD BUS CHANGE PER DCR 112 AND ECN 1156. MINOR CHANGES PER ECN 1156.
3			CHANGES TO MAIN BUS 13.8KV CT RATINGS PER ECN 1027.
4			ADDED LOAD TAP CHANGERS TO USSTRANS PER ECN 1027.
5			COMPUTER INPUTS, CHANGED FAST VALVING RELAYS TO SOLID STATE & UPDATED GENERATOR EXCITATION SYSTEM PER ECN 1027. MODIFIED BREAKER FAILURE RELAYING SYSTEM. UPDATED UNIQUE IDENTIFIERS & MODIFIED BREAKER PRESSURE RELAYING & MINOR CHANGES PER ECN 1159.
6			UPDATED SUPERVISORY CONTROL SYSTEMS WITH DUCS/PCS EQUIPMENT ECN 251. REVISE PER ITC 1159. REVISE BREAKER NUMBERS. UPDATED THE RATING OF THE USS & EXCITER TRIPS PER ECN 61. CHANGED MADISON ITC & GEN 1 IN BAYS 7&8 PER ECN 55. CHANGED RATING OF USS TRIPS PER ECN 117.

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REGULATORY DOCKET FILE

SWITCHYARD
WIRING DIAGRAMS
MAIN SINGLE LINE SHEET 3
GENERATOR I AND 500KV SWITCHYARD

BELLEFONTE NUCLEAR PLANT
 TENNESSEE VALLEY AUTHORITY
 DIVISION OF ENGINEERING DESIGN

SUBMITTED	RECOMMENDED	APPROVED
<i>J. Bradley</i>	<i>T. St. John</i>	<i>R. M. Hodges</i>

KNOXVILLE 6-29-79 88 2MMW504-XE-03

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

STATION NO. 6063

THIS DRAWING IS UNDER