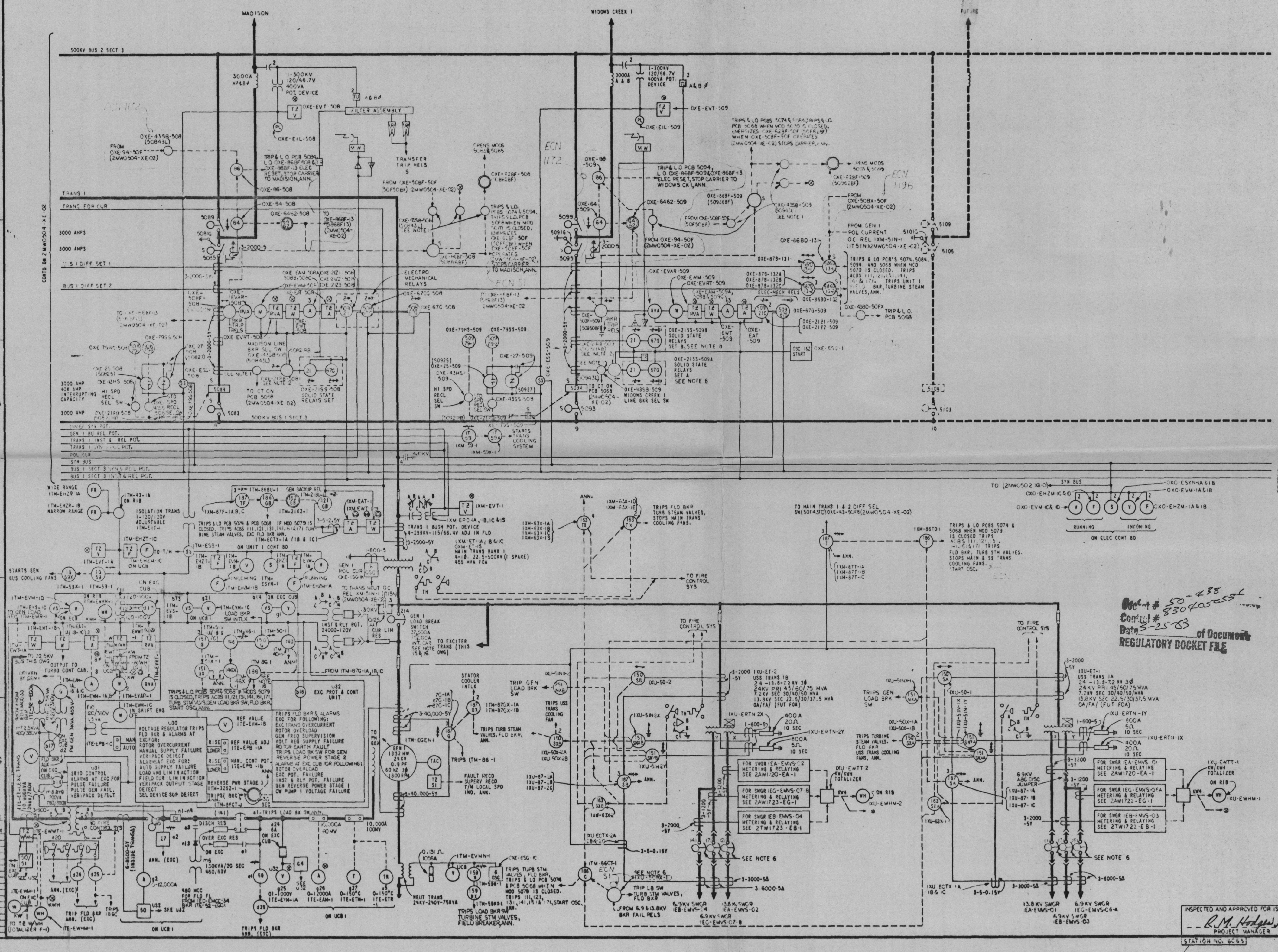

NOTES:

1. LINE BREAKER SELECTOR SWITCHS 0XE-43SB-508 & 0XE-43SB-509 ARE USED TO TRANSFER SOLID STATE RELAYS AND BREAKER FAILURE AUXILIARY RELAYS TO SPARE PCB 5068.
2. RELAY 0XE-21RB-509 & 0XE-21RB-508 WILL FAST VALVE UNIT 1 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 SYNCRONIZING. TRIPPING WILL BE SUPERVISED BY LOAD BREAK INTERLOCK RELAY 1TM-50-1.
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 EXCITER FIELD BREAKER WILL BE TRIPPED AND THE TURBINE STEAM VALVE WILL BE CLOSED VIA 1XU-50BX-1 RELAY .25 SECONDS LATER.
7. EQUIPMENT MARKED WITH AN "S" ARE DESIGNED FOR REMOTE SUPERVISORY CONTROL.
8. RECEIPT OF CARRIER BLOCKING ON EITHER SET OF SOLID STATE LINE RELAYS WILL PREVENT TRIPPING ON BOTH SETS.
9. INSTRUMENTS MARKED WITH AN ⊕ HAVE AN OUTPUT FOR ANALOG BACKUP TO PCC.
10. EQUIPMENT DESIGNATIONS WHICH BEGIN WITH LOWER CASE LETTERS (d14, e2, ETC) ARE SHOWN ON BROWN BOVERI CORPORATION APPARATUS LIST HASB 415 015 TVA CONTRACT 71C62-54621.
11. EACH BREAKER AND ITS ASSOCIATED MOD WILL BE TRIPPED WHEN MINIMUM INTERRUPTING PRESSURE OF THE BREAKER IS REACHED.
12. 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.
13. INSTRUMENTS MARKED WITH AN ◇ HAVE AN OUTPUT FOR SYSTEM IC PROCESS COMPUTER.
14. INSTRUMENTS MARKED WITH AN ⊕ HAVE AN OUTPUT FOR SYSTEM IS SEAMS COMPUTER.
15. THE GENERATOR LOAD BREAK SWITCH WILL LOCK IN EXISITING POSITION WHEN MINIMUM INTERRUPTING AIR PRESSURE IS REACHED.
16. WHEN THE LOAD BREAK SWITCH TRIPS, THE LOCKOUT RELAY 1TM-86-1 SHALL BE ELECTRICALLY RESET ALLOWING PCB 5074 OR 5068 TO AUTOMATICALLY RECLOSE AND MAKE POWER AVAILABLE TO THE AUXILIARY EQUIPMENT ACBS.

REFERENCE DRAWINGS:

DRAWING NO.	TITLE
2MW0500-00-01	DEVELOPMENT SINGLE LINE
2MW0502-XB-01	MAIN SINGLE LINE 161KV SWITCHYARD
2MW0504-XE-01	MAIN SINGLE LINE SH 1 500KV SWITCHYARD
2MW0504-XE-02	MAIN SINGLE LINE SH 2 GEN 2 & 500KV SWITCHYARD

PRC APERTURE CARD

Doc't # 50-438 8304050556
Control #
Date 3-25-83 of Document
REGULATORY DOCKET FILE

R6
R5

6 1029 — Add W & VAR xdcrs due to new Dacoada equipment design per ECN 1029
5 1172, 1196, 51 — Add swyd CT failure relaying per ECN 1172 and PA5947. Add Bus tie change per DCR 112 and ECN 1136. Minor changes per ECN 51
4 530 — Changes to declare 500KV as an offsite source ECN 530
3 — Changed fire control system ECN 361. Changed metering to agree with purchased equipment ECN 251. Revise per latest info. Remove direct trip to BGCT ECN 417
2 — UPDATED EQUIPMENT INFORMATION, INPUTS, DESIGNATIONS, TRIP PATHS & RATINGS, CHANGED MAIN & USS XFMR PRESSURE TRIPS PER ECN 20, MODIFIED GEN LOAD BKR SW SYN SYS PER ECN 143. CHANGED USS TRANS 13.8KV CT RATINGS PER ECN 102. ADDED LOAD TAP CHANGERS TO USS TRANS PER ECN 107. COMPUTER INPUTS, CHANGED FAST VALVING RELAYS TO SOLID STATE & UPDATED GENERATOR EXCITATION SYSTEM PER ECN 147. MODIFIED BREAKER FAILURE RELAYING SYSTEM, UPDATED UNIQUE IDENTIFIERS & MODIFIED BREAKER PRESSURE RELAYING & MINOR CHANGES PER ECN 159.
1 53, 67, 55 & 17 4-22-75 — Updated supervisory cont. exc sys unique numbers. Chg USS trans diff CT's. Minor chgs per ECN 53. Changed USS trans breaker numbers. Updated the rating of the USS & exciter trans per ECN 67. Changed Madison line & Gen 1 in bays 7 & 8 per ECN 55. Changed rating of USS trans per ECN 17

REV NO.	ECN NO.	DATE	DSGN	DRWN	CHKD	SUPV	ENGR	INSP	SUBM	RECM	APPR

DSGN J.R. Worley
DRWN R. SPENCER
CHKD J.R. Minster, O.F. Loveless
SUPV
INSP
ENGINEER

SWITCHYARD

WIRING DIAGRAMS
MAIN SINGLE LINE SHEET 3
GENERATOR 1 AND 500KV SWITCHYARD

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN
N

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

SUBMITTED	RECOMMENDED	APPROVED
J.A. Bradley	T.S. Hoodson	F.H. Chandler

KNOXVILLE 6-24-74 | 88 | 1 | 2MW0504-XE-03 R6

STATION NO. 6C65

RECORD DRAWING AS CONSTRUCTED

THIS DRAWING IS UNDER