GENERAL NOTES:

1. THE SYSTEM SCHEMATIC REFLECTS THE IMPLEMENTATION OF THE SYSTEM CONTROL LOGIC AND SSCS INTERFACE DIAGRAM AND APPLICABLE CRITERIA REQUIREMENTS. THE CONTROL LOGIC AND SSCS INTERFACE DIAGRAM AND ITS REFERENCED DOCUMENTATION FOR THE SOLID STATE CONTROL SYSTEM MUST BE USED IN CONJUNCTION WITH THE SYSTEM SCHEMATIC IN EVALUATING CIRCUIT OPERATION.
   PORTIONS OF THE SYSTEM SCHEMATIC ARE SHOWN OUT-OF-FUNCTION. THESE OUT-OF-FUNCTION PORTIONS ARE SHOWN FOR INFORMATION, WITH REFERENCES PROVIDED TO THE DOCUMENT WHICH CONTROLS THE EQUIPMENT CONFIGURATION.
2. INTERFACE NUMBERS WERE ASSIGNED TO EACH POINT OF INTERFACE WITH THE SSCS. THESE NUMBERS APPEAR ON THE CONTROL LOGIC AND SSCS INTERFACE DIAGRAM AND THIS SCHEMATIC. IT'S PURPOSE IS TO FACILITATE MOVEMENT BETWEEN THESE DOCUMENTS.
3. SSCS CABLE SHIELDS ARE TERMINATED ON THE SHIELD GROUND BUS LOCATED ADJACENT TO THE TERMINAL BLOCKS. TERMINATION POINTS ON THE GROUND BUS ARE NOT DEDICATED TO A SPECIFIC CABLE.
4. ALL UNID AND CABLE DESIGNATIONS ARE PRECEDED BY 2EG, UNLESS OTHERWISE SHOWN.
5. FOR DESCRIPTION OF BREAKER OPERATION AND AUXILIARY SWITCH TRUTH TABLE SEE 5GW0749-RP-01.
6. 52H CONTACTS ARE SHOWN IN THEIR OPEN POSITION AND THEIR DESIGNATION IS SUFFIXED WITH -IN OR -OUT TO INDICATE THEY ARE CLOSED WHEN THE BREAKER IS RACKED IN OR RACKED OUT RESPECTIVELY.
7. 6.9KV CLASS 1E SWITCHGEAR 2ETI-A AND 2ETI-B INTERFACE TERMINATION POINTS ARE IDENTIFIED BY THE MANUFACTURER'S TERMINAL POINT NUMBER PRECEDED BY TVA'S PANEL DESIGNATION IN PARENTHESIS.
8. SEE SYSTEM EG CABLE PROGRAM FOR COMPLETE CABLE INFORMATION INCLUDING SPARE CONDUCTORS. ONLY THOSE CONDUCTORS USED OR TERMINATED ARE SHOWN.
9. JUMPER DESIGNATIONS ARE FORMED BY PREFIXING THE J NUMBER SHOWN ON THE SCHEMATIC WITH THE UNID OF THE ENCLOSURE AND THE SYSTEM DESIGNATION EG. EXAMPLE 2EG-ENVS-06-A-EGJ1.
10. SPECIFIC ENTRANCES ARE INDICATED FOR CABLES ENTERING EQUIPMENT THAT HAS MORE THAN ONE ENTRANCE PER DIVISION OF SEPARATION. EXAMPLE: ENT A
11. ALL B&W DRAWING NUMBERS SHOWN WILL BE SUPERSEDED BY AS-BUILT DRAWINGS OF DIFFERENT NUMBERS. FOR A CROSS-REFERENCE BETWEEN THESE DRAWINGS SEE THE BELLEFONTE NUCLEAR PLANT MONTHLY STATUS REPORT OF MANUFACTURERS DRAWINGS.
12. NOR AND ALTERNATE SUPPLY BREAKERS ARE INTERLOCKED TO PROHIBIT SIMULTANEOUS CLOSING.
13. BOP ISOLATOR CABLE SHIELDS THAT ARE SHOWN CONNECTED ARE TERMINATED ON THE SIGNAL GROUND BUS (SG) LOCATED ADJACENT TO THE TERMINAL BLOCK. TERMINATION POINTS ON THE GROUND BUS ARE NOT DEDICATED TO A SPECIFIC CABLE.
    UNLESS OTHERWISE SHOWN, BOP ISOLATOR DIGITAL OUTPUTS ARE SOLID STATE SWITCHING (SS SW) DEVICES.

REFERENCE DRAWINGS:

PLANT AC AUX PWR SYS SINGLE LINE 2GW0720-RP
SINGLE LINE DIAGRAM 6.9KV CLASS 1E SWGR 2ETI-A 2AW2722-EG
SINGLE LINE DIAGRAM 6.9KV CLASS 1E SWGR 2ETI-B 2AW2723-EG
MAIN SINGLE LINE GENERATOR 2 AND 500KV SWYD 2WW0504-XE
MAIN SINGLE LINE 161KV SWYD 2WW0502-XB
TYPICAL SCHEMATIC MED VOLTAGE SWGR CKT ARRGT 5GW0749-RP
CONTROL LOGIC AND SSCS INTERFACE 6.9KV CLASS 1E
  AC AUX POWER DISTRIBUTION SYSTEM 2AW0900-EG
WIRING DIAGRAMS OXO-ER1B-3 250V DC SUP LTS & RSS
  XFMR 1A & 2A NET 9GW0723-XO
WIRING DIAGRAMS OXO-ER1B-4 250V DC SUP LTS & GEN
  1 & 2 NET 9GW0724-XO
WIRING DIAGRAMS OXO-ER1B-5 250V DC SUP LTS & RSS
  XFMR 1B & 2B NET 9GW0725-XO
STATUS, ENVIRONMENTAL, & ALARM MONITORING SYSTEM ... 5GW0640-IS

SYSTEM SCHEMATIC 13.8KV NORMAL AC AUX POWER
  DISTRIBUTION SYS 5GW2740-EA
SYSTEM SCHEMATIC STANDBY DSL GEN AND CONTROLS SYS .. 5GW2740-RT
SOLID STATE CONTROL SYSTEM (SSCS) 5GW0640-IL
POWER DISTRIBUTION RELAY CAB 5AW2651-JT
POWER DISTRIBUTION RELAY CAB 5AW2661-JT
SINGLE LINE 125V CLASS 1E DC POWER
  DISTRIBUTION SYS 5BW0625-EU
24KV MN GEN BUS, 13.8KV & 6.9KV USS & RSS
BUSES - PLAN 2BW2292-RP
MN TURB INSTM AND CONTROL SYSTEM 5GW2740-TC
SCHEMATIC DIAGRAM ANNUNCIATOR AND SEQUENTIAL
EVENTS RECORDING SYSTEM 5GW2640-IA

ITE (GOULD) IMPERIAL CORP. TVA CONTRACT 75K5-85583
ITE (GOULD) REFERENCE DRAWINGS:

ELEMENTARY AND SCHEMATIC DIAGRAMS, 6.9 KV
  CLASS 1E SWGR 2ETI-A 808578, 808579, 808580
ELEMENTARY AND SCHEMATIC DIAGRAMS, 6.9 KV
  CLASS 1E SWGR 2ETI-B 808574, 808575, 808576
CONNECTION DIAGRAM 6.9KV CLASS 1E
  SWGR 2ETI-A 33-51014-D461
CONNECTION DIAGRAMS 6.9KV CLASS 1E
  SWGR 2ETI-A 33-51014-D467, 33-51014-D563
CONNECTION DIAGRAMS 6.9KV CLASS 1E
  SWGR 2ETI-A 33-51014-D469
  THRU 33-51014-D473
CONNECTION DIAGRAM 6.9KV CLASS 1E
  SWGR 2ETI-A 33-51014-E474
CONNECTION DIAGRAM 6.9KV CLASS 1E
  SWGR 2ETI-B ..... 33-51014-D661 & 33-51014-D666
CONNECTION DIAGRAM 6.9KV CLASS 1E
  SWGR 2ETI-B 33-51014-D667
CONNECTION DIAGRAM 6.9KV CLASS 1E
  SWGR 2ETI-B 33-51014-D669
  THRU 33-51014-D673
CONNECTION DIAGRAM 6.9KV CLASS 1E
  SWGR 2ETI-B 33-51014-E674

INTERCONNECTION DIAGRAMS, 6.9KV
  CLASS 1E SWGR 2ETI-A ..... 33-51014-D566 & 33-51014-D567
INTERCONNECTION DIAGRAMS, 6.9KV
  CLASS 1E SWGR 2ETI-B ..... 33-51014-D766 & 33-51014-D767
B&W NSSS TVA CONTRACT NO 71C62-54114-2
  MAIN CONTROL ROOM PANEL WIRING DIAGRAMS-02-23785NF & 02-23786NF

ELECTROMAX INSTRUMENTS INC, TVA CONTRACT 79KJ2-822988 FOR BOP ISOLATORS.

SYMBOLS:

XXXX / MON — SEAMS (MONITORING SYSTEM POINT NO XXXX)
XXXX / AN — UNIT ANNUNCIATOR (MONITORING SYSTEM POINT NO XXXX)
XXXX / OR — OPERATIONS RECORDER (MONITORING SYSTEM POINT NO XXXX)
OP — DISCONNECTING CONTACT CLOSED IN FULLY CONNECTED POSITION
TP — DISCONNECTING CONTACT CLOSED IN THE TEST POSITION
TEST BLOCK
52H - CELL-MOUNTED CIRCUIT BREAKER AUXILIARY SWITCH ACTUATED BY THE POSITION OF THE REMOVABLE CIRCUIT BREAKER (SEE NOTES 6 AND 5)
52S - CELL-MOUNTED CIRCUIT BREAKER AUXILIARY SWITCH ACTUATED BY THE OPERATION OF THE CIRCUIT BREAKER MAIN CONTACTS (SEE NOTE 5)
I — ISOLATOR

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

PRC APERTURE CARD

COMPANION DRAWINGS:
5GW2740-EG-02 THRU 13
5GW2740-EG-01 & 02

REVIEWED	
RC(CIVIL)	NA
RE(ELEC)	
RM(MECH)	NA

REV NO.	ECN NO.	DATE	DSGN	PTMN	CHKD	SUPV	ENGR	INSP	SUBM	RECM	APPR
1	S1	7-10-79									

MADE MINOR CHANGES.

DSGN G. Hill
DRWN
CHKD
SUPV
INSP
ENGINEER W. L. Allen Jr.

GENERAL
UNIT 2

SYSTEM SCHEMATIC 6.9KV CLASS 1E AC AUX POWER DISTRIBUTION SYSTEM

BELLEFONTE NUCLEAR PLANT
TENNESSEE VALLEY AUTHORITY
DIVISION OF ENGINEERING DESIGN

Q

SUBMITTED	RECOMMENDED	APPROVED
W. L. Allen Jr.		R. M. Gill

KNOXVILLE | 1-14-77 | 88 | E | 5GW2740-EG-01 | R1

RECORD DRAWING AS CONSTRUCTED

PRINTS REQD-R
BY PROJ
DWG SIZE F H
WE
EE
GE
AD
CD
ED
MD
BF
SW
BL
JA