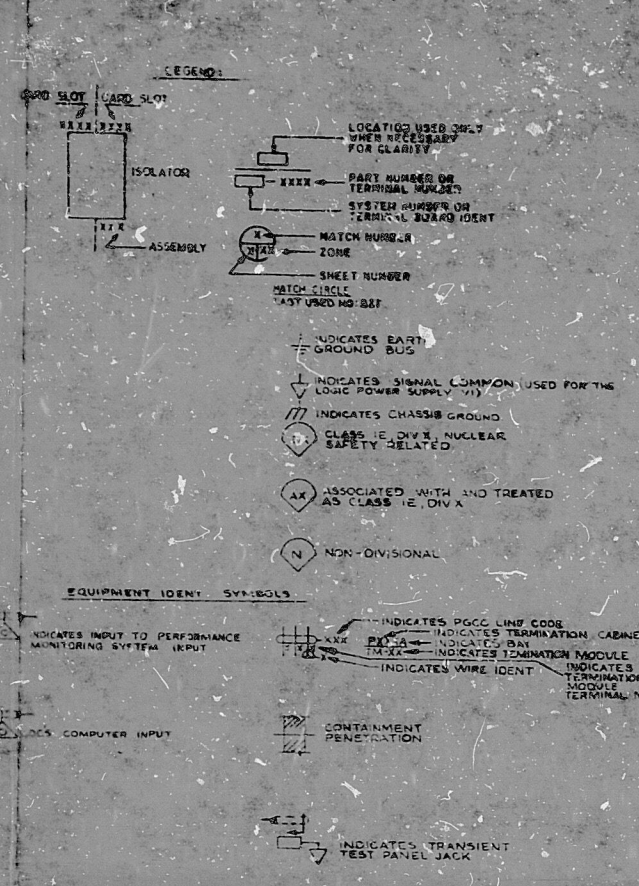


SYSTEMS BLOCK DIAGRAM (FOR REFERENCE ONLY)

TABLE E ISOLATOR POWER CABLE TABULATION

ISOLATOR TYPE	FROM	TO
	PANEL CONN PIN LINE	PANEL CONN PIN FILE CARD
ACI	HIS-PLUG-A 109 W 302	HIS-PLUG-A 1007 W A83 A308 17 C12 125VDC
ADI	HIS-PLUG-B 109 Y 302	HIS-PLUG-B 1007 X A82 A305 17 C18 125VDC
AOE	HIS-PLUG-C 109 Z 302	HIS-PLUG-C 1007 Y A82 A307 17 J1 125VDC
ACI	HIS-PLUG-D 109 W 312	HIS-PLUG-D 1007 X A82 A307 17 J1 125VDC
ACI	HIS-PLUG-E 109 W 312	HIS-PLUG-E 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-F 109 W 312	HIS-PLUG-F 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-G 109 W 312	HIS-PLUG-G 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-H 109 W 312	HIS-PLUG-H 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-I 109 W 312	HIS-PLUG-I 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-J 109 W 312	HIS-PLUG-J 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-K 109 W 312	HIS-PLUG-K 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-L 109 W 312	HIS-PLUG-L 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-M 109 W 312	HIS-PLUG-M 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-N 109 W 312	HIS-PLUG-N 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-O 109 W 312	HIS-PLUG-O 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-P 109 W 312	HIS-PLUG-P 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-Q 109 W 312	HIS-PLUG-Q 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-R 109 W 312	HIS-PLUG-R 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-S 109 W 312	HIS-PLUG-S 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-T 109 W 312	HIS-PLUG-T 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-U 109 W 312	HIS-PLUG-U 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-V 109 W 312	HIS-PLUG-V 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-W 109 W 312	HIS-PLUG-W 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-X 109 W 312	HIS-PLUG-X 1007 X A82 A307 17 J1 125VDC
AOI	HIS-PLUG-Y 109 W 312	HIS-PLUG-Y 1007 Y A82 A307 17 J1 125VDC
AOI	HIS-PLUG-Z 109 W 312	HIS-PLUG-Z 1007 Z A82 A307 17 J1 125VDC



- REFERENCE DOCUMENTS
- 121-104 NUCLEAR BOILER SYSTEM P&ID
  - 121-105 NUCLEAR BOILER SYSTEM ICD
  - 121-106 POWER DISTRIBUTION SCHEME (C75)
  - 121-107 SPECIAL WIRE & CABLE SPEC
  - 121-108
  - 121-109
  - 121-110 ELECT EQUIP SER PROT SYS
  - 121-111 RESIDUAL PRESSURE RELIEF SYS ELEM DIAG (E21A)
  - 121-112 LOW PRESSURE CORRECTION SYS ELEM DIAG (E21A)
  - 121-113 DRUM CORRECTION SYS ELEM DIAG (E21A)
  - 121-114 REMOTE SHUTDOWN SYSTEM ELEM DIAG (E21A)
  - 121-115 DELETED
  - 121-116 NUC ST SUPPLY SHUTDOWN SYS ELEM DIAG (E21M)
  - 121-117 NUCLEAR PROTECTION SYSTEM ELEM DIAG (E75)
  - 121-118 COMPUTER SYSTEM
  - 121-119 LOCAL PANELS
  - 121-120 CONTROL ROOM ICD
  - 121-121 DCS I/O LIST
  - 121-122 DELETED
  - 121-123 ELEC CODED & STANDARDS
  - 121-124 DISPLAY CONTROL SYSTEM ELEM DIAG (C38A)
  - 121-125 DELETED
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INTERFACES TO REF DOC

REF ID	LOCATED ON THIS DOC PAGE
REF T	6, 7, 22
REF B	6, 7
REF I1	9, 10, 2, 13

NUCLEAR SAFETY RELATED DIV 1 & 2

INDEX

SH NO.	CONTENTS
1	BLOCK DIAG, POWER, LOGIC & REF DOC
2	WIRING TYPICALS, POWER, LOGIC & REF DOC
3	SWITCH DEVELOPMENT, CIRCUIT TYPICAL
4	DIV 1 & 2 LOGIC
5	VALVE, POWER DISTRIBUTION
6	POWER DISTRIBUTION & TESTABILITY
7	DIVISION 1 LOGIC
8	DIVISION 2 LOGIC
9	ADS VALVES SOLENOID A CONTROL
10	ADS VALVES SOLENOID B CONTROL
11	ADS VALVES SOLENOID C CONTROL
12-15	SAFETY/RELIEF VALVES SOLENOID A CONTROL
16-18	SAFETY/RELIEF VALVES SOLENOID B CONTROL
19	COMPUTER INPUTS
20	DIVISION 1 LOGIC
21	DIVISION 2 LOGIC
22-25	TRANSIENT TEST PANEL

- NOTES:
- OUTPUT (COMMON) GOES HIGH ONE TIME DELAY PERIOD AFTER INPUT GOES HIGH AND GOES LOW WHEN INPUT GOES LOW.
  - SEE REF 6 FOR DECK & WIRING SEPARATION REQUIREMENTS.
  - ATM LOGIC OUTPUT WILL GO HIGH (TRIP) IF ATM LOG INPUT INCREASES ABOVE REF LEVEL.
  - ALL INDICATING LIGHTS (EXCEPT NOTES 9 & 11) SHOWN ARE SUPPLIED WITH PANEL SEE PFD NO. 16460009 AND HOLDER 20460006.
  - THE INPUT SIGNALS & ASSOCIATED WIRING OF ALL ISOLATING DEVICES (ETHER LOGIC AND ANNUNCIATOR) COMPUTER ARE AT 5VDC & THE OUTPUT SIGNALS ARE 5VDC.

- SYSTEMS LIGHTS ARE NOT TO BE SUPPLIED WITH INTEGRAL SWITCH FOR TESTING (USE VOLTS FROM LAMPS).
- SEE REF 6 FOR INTERNAL PANEL WIRING DETAILS.
- THESE LIGHTS ARE GE TYPE ETIG AND SUPPLIED WITH PANEL.
- COMPUTER INPUT DIGITAL CABLES REQUIRE TWISTED SHIELDED PAIRS. CABLES SHOULD BE GROUNDED AT COMPUTER.
- UNLESS OTHERWISE INDICATED, THE FOLLOWING REFERENCE DESIGNATIONS SHOWN ON THIS DIAGRAM ARE PREPARED WITH 52IC SYSTEMS IDENTIFICATION:
  - 121-104 NUCLEAR BOILER SYSTEM P&ID
  - 121-105 NUCLEAR BOILER SYSTEM ICD
  - 121-106 POWER DISTRIBUTION SCHEME (C75)
  - 121-107 SPECIAL WIRE & CABLE SPEC
  - 121-108
  - 121-109
  - 121-110 ELECT EQUIP SER PROT SYS
  - 121-111 RESIDUAL PRESSURE RELIEF SYS ELEM DIAG (E21A)
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  - 121-124 DISPLAY CONTROL SYSTEM ELEM DIAG (C38A)
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- DELETED
- JUNCTION BOX SUPPLIED FOR POCG PLANTS ONLY.
- REQUIRED FOR NUCLEAR PLANT ONLY.
- A CABLE IDENTIFIED AS (E) IN THE FIELD BUT (A) WITHIN CONTROL ROOM PANELS OR POCG THE TRANSITION FROM (E) TO (A) WILL OCCUR AT THE FIELD / POCG INTERFACE POINT OR TERMINATION CABINET TERMINAL POINTS OR CONTROL ROOM PANEL TERMINAL POINTS.
- FOR POWER DISTRIBUTION CIRCUITS WHERE A CABLE IDENTIFIED AS (E) BECOMES (A) FOR ASSOCIATED CIRCUITS THE TRANSITION FROM (E) TO (A) WILL OCCUR AT THE ASSOCIATED CIRCUIT POINT.
- SEE REF 6 FOR REMOTE SHUTDOWN REQUIREMENTS.
- OUTPUT NORMALLY ENERGIZED AND GOING HIGH ON FAULT.
- ALL UNDESIRABLE AND UNNECESSARY CONNECTIONS WILL BE PROHIBITED. ALL ELECTRICAL AND TELECOMMUNICATIONS CONNECTIONS TO FIELD SHALL BE CONNECTED TO TERMINAL POINTS. TERMINAL POINTS SHALL BE IDENTIFIED AS FOLLOWS: SEE TABLE E (FOR POWER LINE CODES).
- THE LABELS ON THE END OF THE CABLES SHALL BE IDENTIFIED AS FOLLOWS: SEE TABLE E (FOR POWER LINE CODES). THE LABELS SHALL BE IDENTIFIED AS FOLLOWS: SEE TABLE E (FOR POWER LINE CODES). THE LABELS SHALL BE IDENTIFIED AS FOLLOWS: SEE TABLE E (FOR POWER LINE CODES).
- COM LOGIC OUTPUT WILL GO HIGH (TRIP) IF LOGIC INPUT INCREASES ABOVE REF LEVEL.

TYPE APERTURE CARD

21

11

8.5"

8.5"

11"

17"

PDR RIDS

8402240251

