



- LEGEND:**
- EXTERNAL WIRE MARK (SEE NOTES 2 & 3)
 - MCC TERMINAL (WITH PULL OUT PROVISION)
 - INTERNAL WIRE MARK
 - 1H13-P870 LONG RESPONSE B.B.
 - 1H13-P601 LONG RESPONSE B.B.
 - 1H13-P743D TERMINATION CAB. T-MOD 9 A
 - 1H13-P872 AUX RELAY CAB.
 - 74B ALASTAT SPIGM
 - CLASS 1E DIVISION A
 - PENETRATION SYMBOL
 - (A) ASSOCIATED DIV. 1

- NOTES:**
1. ALL DEVICES WITHOUT LOCATION MARKS ARE LOCATED IN M.C.C.
 2. ALPHABETICAL WIRE MARKS ARE PREFIXED BY: SYSTEM NO., SHEET NO., & LINE NO. (EXAMPLE P521105A)
 3. POTENTIAL WIRE MARKS ARE PREFIXED BY: SYSTEM NO. & SHEET NO. (EXAMPLE P521105A)
 4. DEVICE DESIGNATIONS ARE PREFIXED BY: UNIT & SYSTEM NO. (EXAMPLE 1P52-56)
 5. VALVE SHOWN IN FULL CLOSED POSITION.
 6. FOR GRAPHIC STANDARDS REFER TO DRAWING B-200-301.
- REFERENCE:**
- D-202-243 GAT SYSTEM DIAGRAM
 - B-241-183 SH. 10 GAT BLOCK DIAGRAM

ROTOR	LIMIT SW. CONTACT DEVELOPMENT			CONTACT LOCATION
	FULL OPEN	A	B FULL CLOSED	
1				17
2				SPARE
3				23
4				05
5				05
6				SPARE
7				21
8				SPARE
9				SPARE
10				SPARE
11				SPARE
12				SPARE
13				SPARE
14				SPARE
15				SPARE
16				SPARE

- 17 CLOSING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE ON FULLY CLOSED VALVE.
 - 18 OPENING TORQUE SWITCH INTERRUPTS CONTROL CIRCUIT IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE ON FULLY OPENED VALVE.
 - CLOSED CONTACT
 - - - OPEN CONTACT
- ROTORS 3 AND 4 CAN BE SET AT VALVE POSITION FULL OPEN, FULL CLOSED OR ANY POSITION IN BETWEEN AS INDICATED BY POINTS A AND B.
REF: PHILA. GEAR CORP. DNG. 15-477-2759-3 REV. A

S6/1H13-P870 CONTROL SWITCH				
CONTACTS	NAMEPLATE (F.V.)			CONTACT LOCATION
	CLOSE	NO RM	APCA	
TR 1 2	X			17
TR 3 4			X	05
OP 5 6	X			SPARE
OP 7 8			X	SPARE
OPER & BLOCK CR1440-05L03A				X - CLOSED CONTACTS
SPRING RETURN TO NORMAL				

PRO APERTURE CARD

NUCLEAR SAFETY RELATED

THE CLEVELAND ELECTRIC ILLUMINATING CO.
FERRY NUCLEAR POWER PLANT UNIT 1
ELECTRICAL-ELEMENTARY DIAGRAM
INSTRUMENT AIR
B21 ACCUMULATOR ISOLATION VALVE
F646

REV	MADE	CHKD	APPROVALS	DATE	REV	MADE	CHKD	APPROVALS	DATE	REV	MADE	CHKD	APPROVALS	DATE	REV	MADE	CHKD	APPROVALS	DATE	REV	MADE	CHKD	APPROVALS	DATE	
C	RAM	DEG	SPR	10-8-9	B	RW	RAM	DEG	SPR	10-7-9	A	RAM	DEG	SPR	4-10-9										

ADDED SPACE HTRS

REV. RELAY REFERENCES, ADDED WIRE MARK X2, REV. RELAY TAB LOCATION, ADDED FUSES

ECN 245-933-01-64
REV. DIV. MCC, HP, TERM. CAB

READING PA. 044549-000

GILBERT ASSOCIATES, INC.
ENGINEERS AND CONSULTANTS

12-2-79 CONSTRUCTION
PRELIMINARY
DATE RELEASED FOR ENGR.

04 4549 B-200-183 P52 11 C

DRAWING NUMBER SYSTEM SH. NO. REV.

ELEM DIA 4 1 P 5 2 - F 6 4 6

Rids

8212170468

