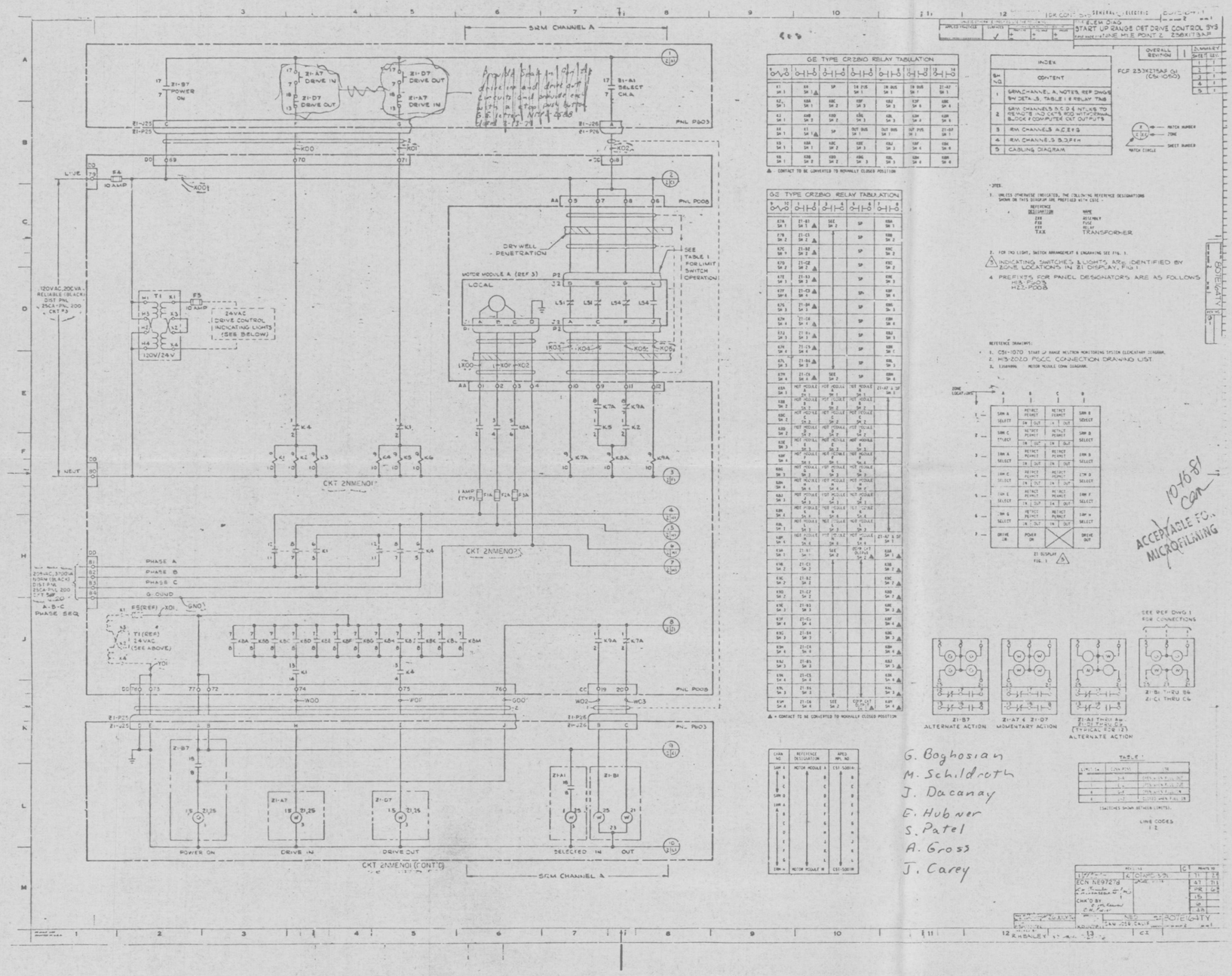

GE TYPE CR2810 RELAY TABULATION

K1 SH 3	K4 SH 1 ▲	SP	1A 21/5 SH 1	2A 8U5 SH 1	2B 8U5 SH 1	Z1-A7 SH 1
K2, SH 3	K8A SH 1	K8C SH 2	K8F SH 3	K8J SH 3	K3F SH 4	K8C SH 4
K3 SH 1	K4B SH 2	K4D SH 2	K8L SH 3	K8M SH 3	K8M SH 4	
K4 SH 1	K1 SH 1 ▲	SP	OUT BUS SH 1	OUT BUS SH 1	UP PWR SH 1	Z1-A7 SH 1
K5 SH 1	K8A SH 1	K8C SH 2	K8E SH 3	K8J SH 3	K3F SH 4	K8C SH 4
K6 SH 1	K8B SH 2	K8D SH 2	K8E SH 3	K8L SH 3	K8M SH 4	K8M SH 4

▲ CONTACT TO BE CONVERTED TO NORMALLY CLOSED POSITION

GE TYPE CR2810 RELAY TABULATION

K7A SH 1	Z1-B7 SH 1 ▲	SEE SH 2			SP	K8A SH 1
K7B SH 2	Z1-C5 SH 2 ▲				SP	K8B SH 2
K7C SH 1	Z1-B8 SH 2 ▲				SP	K8C SH 2
K7D SH 2	Z1-C8 SH 2 ▲				SP	K8C SH 2
K7E SH 3	Z1-B3 SH 2 ▲				SP	K8E SH 3
K7F SH 4	Z1-C3 SH 1 ▲				SP	K8F SH 4
K7G SH 3	Z1-B4 SH 2 ▲				SP	K8G SH 3
K7H SH 4	Z1-C4 SH 2 ▲				SP	K8H SH 4
K7J SH 3	Z1-B6 SH 2 ▲				SP	K8J SH 3
K7K SH 4	Z1-C6 SH 2 ▲				SP	K8K SH 4
K7L SH 3	Z1-B5 SH 2 ▲				SP	K8L SH 3
K7M SH 4	Z1-C5 SH 2 ▲				SP	K8M SH 4
K9A SH 1	Z1-A1 SH 1 ▲	SEE SH 2			SP	K8A SH 1
K9B SH 2	Z1-A2 SH 2 ▲				SP	K8B SH 2
K9C SH 1	Z1-A3 SH 2 ▲				SP	K8C SH 2
K9D SH 2	Z1-A4 SH 2 ▲				SP	K8D SH 2
K9E SH 3	Z1-B1 SH 3 ▲				SP	K8E SH 3
K9F SH 4	Z1-B2 SH 4 ▲				SP	K8F SH 4
K9G SH 3	Z1-A5 SH 3 ▲				SP	K8G SH 3
K9H SH 4	Z1-A6 SH 4 ▲				SP	K8H SH 4
K9J SH 3	Z1-B5 SH 3 ▲				SP	K8J SH 3
K9K SH 4	Z1-C5 SH 4 ▲				SP	K8K SH 4
K9L SH 3	Z1-B5 SH 3 ▲				SP	K8L SH 3
K9M SH 4	Z1-C6 SH 4 ▲	SEE SH 2	OUT-OUT SH 2		SP	K8M SH 4

▲ = CONTACT TO BE CONVERTED TO NORMALLY CLOSED POSITION

CHAN NO	REFERENCE DESIGNATION	APPLD REF NO
5RM A	MOTOR MODULE A	CS1-5001A
5RM B	MOTOR MODULE B	CS1-5001B

INDEX

SHT NO	CONTENT
1	5RM CHANNEL A, NOTES, REF DWGS, RM DETAILS, TABLE 1 & RELAY TAB
2	5RM CHANNELS A,C,D & H, NOTES TO REMOTE AND DETS, ROD WITHDRAWAL BLOCK & COMPUTER OUT OUTPUTS
3	RM CHANNELS A,C,E & G
4	RM CHANNELS B,D,F & H
5	CABLING DIAGRAM

FCR 23X2735AB (CSI-1050)

NOTES:
1. UNLESS OTHERWISE INDICATED, THE FOLLOWING REFERENCE DESIGNATIONS SHOWN ON THIS SCHEMATIC ARE PREFIXED WITH 1C51 -

REFERENCE DESIGNATION	NAME
ERR	ASSEMBLY
FB	FUSE
KRR	RELAY
TXR	TRANSFORMER

2. FOR IND LIGHT, SWITCH ARRANGEMENT & ENGRAVING SEE FIG. 3.
3. INDICATING SWITCHES & LIGHTS ARE IDENTIFIED BY ZONE LOCATIONS IN Z1 DISPLAY, FIG 1.
4. PREFIXES FOR PANEL DESIGNATORS ARE AS FOLLOWS
   H1A-P603
   H21-P008

REFERENCE DRAWINGS:
1. CSI-1070 START UP RANGE NEUTRON MONITORING SYSTEM ELEMENTARY DIAGRAM.
2. H13-2020 PGCC CONNECTION DRAWING LIST
3. 1.5RM RM MODULE CONN DIAGRAM.

Z1 DISPLAY FIG. 1

Z1-B7 ALTERNATE ACTION
Z1-A7 & Z1-D7 MOMENTARY ACTION
Z1-A1 THRU A4 Z1-D1 THRU D4 (TYPICAL FOR 8) ALTERNATE ACTION
SEE REF DWG 1 FOR CONNECTIONS
Z1-B1 THRU B4 Z1-C1 THRU C4

TABLE 1

LIMIT SW	CAM POS	OB
1	1-4	OPEN WHEN FULL IN
2	2-3	CLOSED WHEN FULL IN
3	1-2	CLOSED WHEN FULL OUT
4	3-4	CLOSED WHEN FULL OUT

(SWITCHES SHOWN BETWEEN LIMITS).

LINE CODES
1 2

G. Boghosian
M. Schildroth
J. Dacanay
E. Hubner
S. Patel
A. Gross
J. Carey

10-16-81 Con
ACCEPTABLE FOR MICROFILMING

ECN NE9727d

D

PRC APERTURE CARD

STONE & WEBSTER ENGINEERING CORPORATION
NINE MILE POINT NUCLEAR STATION - UNIT 2
NIAGARA MOHAWK POWER CORPORATION

MANUFACTURER'S DRAWING DATA FORM
J.O. 12177

NAME
RESP ENG J. Carey (E1)
RESP DES ENG N/A (E1)

✓ INSTRUCTIONS TO SUPPLIER (E2)
✓ Comments As Noted
APPROVED AS DEFINED IN SPECIFICATION
APPROVED AS REVISED
RELEASED FOR FABRICATION
RELEASED FOR MATERIAL PURCHASE
✓ INSTRUCTIONS TO DESIGN (E1)

SUPPLIER TO RESUBMIT
QNTY: REVISED PRINTS; REVISED MICROFILM APERTURE CARDS; FOR REVIEW; FOR RECORD; NONE REQUIRED

I-O INFORMATIONAL ONLY
P-L PRELIMINARY LAYOUT
P-S PRODUCTION STUDIES
R&C REVIEW AND COMMENT
F-D FINAL DETAILS
NEW NEW
REV REVISED

NOTES:

DATE TO DESIGN (C) N/A
REQUIRED RETURN DATE (E1) N/A

(E) ✓ FOR INFORMATION ONLY RETURN TO SUPPLIER NOT REQUIRED
INSTRUCTIONS TO DESIGN (CIRCLE (E1)) I-O P-L P-S R&C F-D NEW REV

DESIGN ENGINEER'S DATE STAMP (D)
OUT
INITIALS OF SELECTED REVIEWERS
N/A
RESPONSIBLE ENGINEER'S DATE STAMP (E2)
NOTED OCT 13 1981 J.D. CAREY

DESIGN GROUP ROUTING (D)

ROUTE ✓		REQUIRED PRINT	REQUIRED MAC	RVW *
	ARCHITECTURE			
	CIVIL			
	CONCRETE			
	STEEL			
	BUILDING SERVICE			
	INSTRUMENT			
	MECHANICAL			
	PIPE SUPPORT			
	STRESS			
	MACHINE DESIGN/VESSEL			
	ELECTRICAL			
	LIGHTING			
	MODEL SHOP			
	EXTENSION OFFICE			
	CONTROL			

SUPERSEDES S&W FILE NO (E1) (25-34): 0007884001610B (35-38)
REMARKS (C) (LIMIT TO 72 CHARACTERS & BLANKS) (53-74)
S&W EQUIP I.D. CODE (E1) (25-36): 5RMS
AREA DESIGNATION CODES (E1) (75-80)
MFR'S DWG NO (C) (LIMIT TO 24 CHARACTERS & BLANKS) (37-60): 301E164AY Sh 1 Rev 1
MFR'S NAME (C) (LIMIT TO 20 CHARACTERS & BLANKS) (61-80): General Electric
DATE RECD (C): MONTH DAY YR (23 SO)
DWG TYPE (E1): C
MAX DAYS IN DESIGN (E1) (32-33)
FUNCTIONAL TITLE (E1) (LIMIT TO 44 CHARACTERS & BLANKS) (37-80): 5/u Det Drive Sys
S&W FILE NO (E1): 0007884001610C (21-34)
JOB ORDER NO: 12177 00 (14-19)

(C) PROJECT CLERK
(D) RESP. DESIGN ENGINEER
(E1) RESP. ENGINEER - ON DWG RECEIPT
(E2) RESP. ENGINEER - AFTER DWG REVIEW
MAC - MICROFILM APERTURE CARD
* RVW - REVIEWER INITIALS

(1) ATTACH TO MFR'S DRAWING