



LEGEND			
CUSTS DEVICE	WESTINGHOUSE DEVICE NO.	TYPE	DESCRIPTION
8	B	AB (E)	BKR. CONTROL POWER
27	TDNY	AM	OFF DELAY TIMING RELAY
17	OPRQ	N-40	OL PRESS GOV CONTACT NORM. CLOSED, OPENS ON HIGH OIL PRESSURE
98	HX	N-40	HIGH WATER FLOAT SW. AUX. RELAY
98	OLP	11-200N.1	OIL LIFT PUMP STARTER
88	OLP	11-200N.1	OIL CIRCULATING PUMP STARTER
2	TI	AM	ON DELAY, DELAYS STARTING OF OIL CIRCULATING UNTIL THE OIL LIFT PRESSURE SW. CLOSURES AFTER OPENING ON FIRST STARTING THE OIL LIFT PUMP. (2 MIN.)
48	T2	AM	ON DELAY INCOMPLETE SEQUENCE RELAY (3 MIN.)
83	B3	N-40	SEQUENCE TRANSFER & ALARM RELAY.
52	MA	N-130	MAIN CONTACTOR AUX. RELAY.
96	TM	H-230 A	ELAPSED TIME METER. RECORDS HOURS OF MOTOR OPERATION.
38	R	OT	MOTOR RUNNING VISUAL SIGNAL LAMP
95	BT	WFS	CUSTS. BEARING TEMP. RELAY (CONTACT OPENS ON HIGH TEMP)
63	OPS		CUSTS. WATER FLOW SW. STOPS MOTOR ON LOSS OF WATER FLOW.
97	OFS		CUSTS. LIFT OIL PRESSURE SW. IN CONJUNCTION WITH TIME "TI" PREVENTS STARTING OF MAIN MOTOR UNTIL LIFT OIL PRESSURE IS AVAILABLE.
43C	OLP-SEL.	W	CUSTS. CIRCULATING OIL FLOW SW. STOPS MOTOR ON LOSS OF OIL FLOW.
43B	OLP-SEL.	W	OIL LIFT PUMP HAND-AUTO STARTING SELECTOR SW.
43A	MP-SEL.	W	OIL CIRCULATING PUMP HAND-AUTO STARTING SELECTOR SW.
4	TS	N-22	MASTER RELAY
46	HTR	TBD	OFF PEAK LOAD TIME SW.
1	PF	IC2B20-1032N	SPACE HEATERS
5	LL-FS	HD	PHASE REVERSAL & PHASE FAILURE RELAY. CLOSED WHEN DOOR IS CLOSED. OVER DISCONNECT TIME BAL. POWER FUSES. PREVENTS PULLING POWER FUSES WHILE MOTOR IS RUNNING.
	HL-FS		CUSTS. HIGH LEVEL FLOAT SW.
	LL-FS		CUSTS. LOW LEVEL FLOAT SW.
	C/T	'C/T'S'	SPECIAL TIMING RELAY-OFF DELAY
	TR	AM	AUX. RELAY (FOR STOPPING)
	STP	N-22	TEMPERATURE COMPENSATED THERMAL 'OL' RELAY-2-POLE
	M-OL	MG	AIR COMPRESSOR MOTOR STARTER
	ACM	H-200N.1	PUMP MOTOR SEQUENCE SW.
	OLS	W	OIL LEVEL SWITCH - NORMALLY CLOSED-OPEN ON LOW OR HIGH OIL LEVEL
	WHM	CB-2-F	WATTHOUR METER - FLEXITEST TYPE

NOTES:
 *EQUIPMENT LOCATED IN CONTROL CUBICLE.
 A: CUSTOMERS REMOTE EQUIPMENT.
 1: WIRE NUMBERS FOR MOTORS 2 & 3 SAME AS MOTOR NO. 1 EXCEPT TO BE SUFFIXED -2 & -3 RESPECTIVELY.
 E.G.: WIRE 1-1 FOR MOTOR #1 TO BE 1-2 FOR MOTOR #2 AND 1-3 FOR MOTOR #3
 C: EQUIPT. LOCATED IN ASSOCIATED STARTER CUBICLE

DEVICE 10
 PUMP MOTOR SEQUENCE SW.
 1M 5" 1530101 EXCEPT M.P.

CON-TACT	POSITION
1-2	1
2-3	2
3-4	3
4-5	4
5-6	5
6-7	6
7-8	7

PNL END

POSITION PUMP MOTOR SEQUENCE

POSITION	SEQUENCE
1	1-2
2	2-1

'W' SELECTOR SW.
 DEVICES OLP-SEL, OCP-SEL, MP-SEL.
 5" NAW-11555

CON-TACT	POSITION
1-2	1
2-3	2
3-4	3
4-5	4
5-6	5
6-7	6
7-8	7

PNL END

W' AM. SEL. SW. DEV 143AS
 5" NAW-193524

CON-TACT	POSITION
1-2	1
2-3	2
3-4	3
4-5	4
5-6	5
6-7	6
7-8	7

PNL END

W WM. SEL SW. - DEV 143WS
 5" NAW 1549 SPRING RETURN

CON-TACT	POSITION
1-2	1
2-3	2
3-4	3
4-5	4
5-6	5
6-7	6
7-8	7

PNL END

REFERENCE DWGS.
 NA-11D450 - ASSEMBLY
 NA-7F042 - WIRING DIAG UNIT #1
 NA-7F043 - " " " #2
 NA-7F044 - " " " #3

NOTE: SCHEMATIC REDRAWN FROM THE ORIGINAL 3/79 S.G.H.

1	GO. S.O. INCC - 88751	CHANGE
2	INCC-88751	SPACE HEATER SUPPLY WIRING AS SHOWN
3	10-31-57	MOTOR SPACE HEATER WAS SHOWN ON 440 VOLTS A.C. MA CONTACTOR TIMING RELAY WAS CHANGED IN WKT. E.T.R. 12-19-57
4	CHANGES MADE PER CUSTS LETTER	12-23-57
5	CHANGES MADE BY CUSTS	1/1/58
6	CONTACT OP9 IN MOTOR STR. CKT. WAS NOT SHOWN. 3-25-58	E.T.R.
7	CONTACT BLACK ON MAIN TRIN. CONTACT P.B. WAS SHOWN OPPOSITE E.T.R. 4-15-58	
8	SPACE HTES & AT MOTORS WERE SHOWN PARALLEL WITH OLP CONTACT. 4/23/58	E.T.R.
9	START STOP PB CONN. IN VNT EKT. WAS 5-5-58	E.T.R.
10	START STOP RB IN VNT CKT WAS DIFF. T2 IC CONTACT WAS NOT SHOWN PARALLEL WITH OLP CONTACT. 5-9-58	E.T.R.
11	10-110A-1 WIRE WAS COMMON 5-16-58	E.T.R.
12	INCC-88751 MAIN CONTACTOR COILS WERE SHOWN IN PARALLEL F.L. 6-5-58	

LEGEND
 BREAKER AUXILIARY SWITCHES SHOWN FOR OPEN BREAKER. CONTACTS OF CONTACTORS AND RELAYS ARE SHOWN WITH COILS DE-ENERGIZED.
 TERMINAL OR STOP
 NORMALLY OPEN CONTACT
 NORMALLY CLOSED CONTACT
 SHUNT OPERATING COIL
 SERIES OPERATING COIL
 INDICATING LAMP
 B, BLUE R, RED W, WHITE G, GREEN Y, YELLOW

NOTE TO CUSTOMER
 MATERIAL SUPPLIED BY WESTINGHOUSE ELECTRIC CORP. IS ACCORDING TO CONTRACT AND NOT MODIFIED BY ANYTHING SHOWN ON THIS DRAWING.
 LOCATION OF APPARATUS WIRES OR CABLES MUST NOT BE DETERMINED BY DRAWING.
 PANEL CONNECTIONS SHOWN AS VIEWED FROM REAR EXCEPT AS NOTED. AUXILIARY SWITCHES AND CONTACTS SHOWN FOR OPEN, OFF OR DE-ENERGIZED POSITION UNLESS OTHERWISE PLARITY AS INDICATED AT THE RIGHT.
 * 250 VOLT INSTRUMENT FUSE
 * 600 VOLT INSTRUMENT FUSE
 ALL CONNECTIONS MADE WITH _____ WIRE EXCEPT AS INDICATED

WESTINGHOUSE ELECTRIC CORPORATION
 PEERLESS PUMP DIVISION
 TITLE COMMONWEALTH OF PENNSYLVANIA
 CL 11-202 MOTOR STARTERS - NEMA CL III
 DIMENSIONS IN INCHES - SCALE _____
 SCHEMATIC
 DFTM. H.W.G. 10-12-57
 CHKD. ENG. M. Harris 10-12-57
 DIV. & PLANT LOCATION NEWARK MFR., HILLSIDE, N.J., U.S.A.