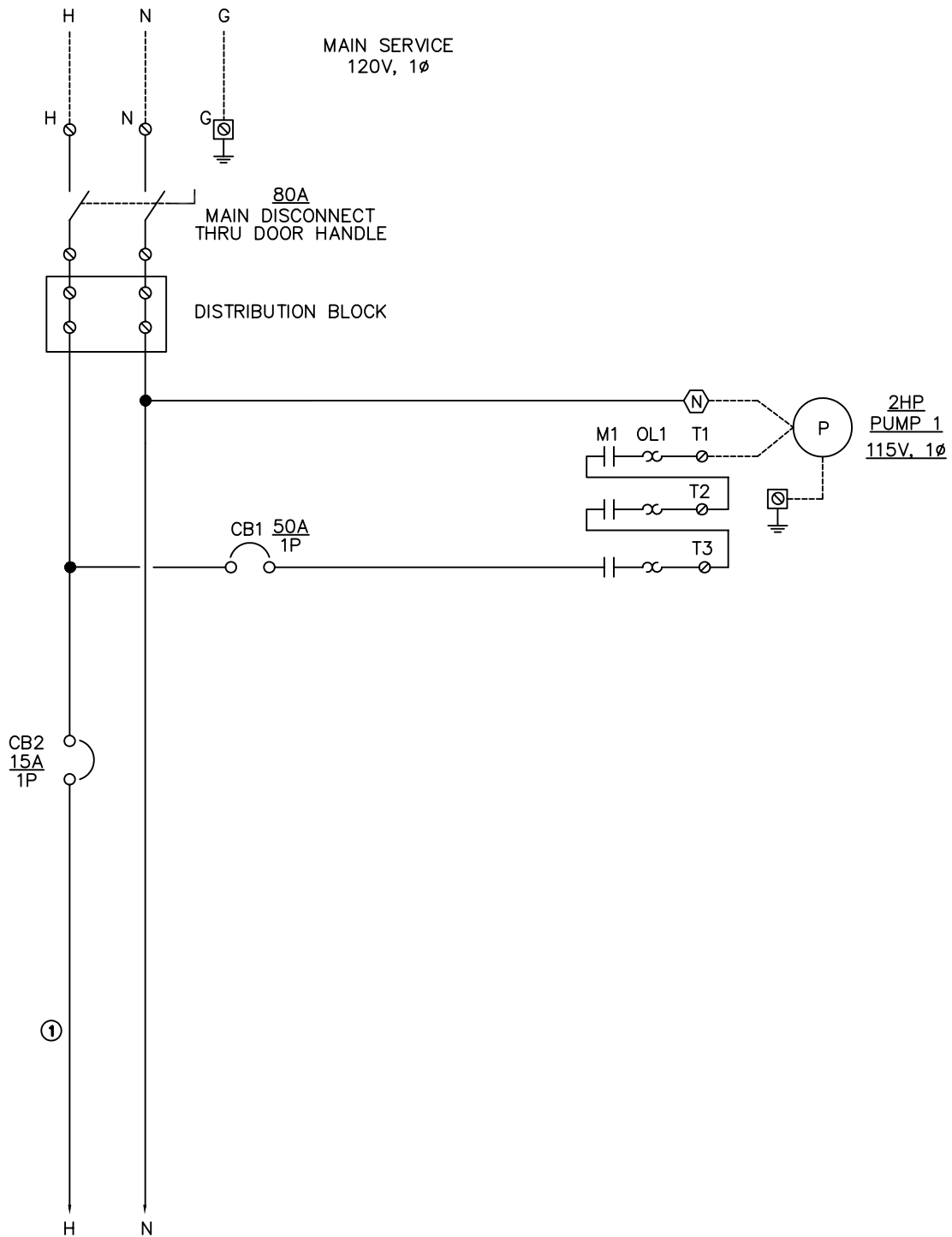

COX

Research and Technology, Inc.

LOCKPORT TANK BOOSTER PUMP CONTROL PANEL

Cox Research and Technology, Inc.
14697 S. Harrells Ferry Road
Baton Rouge, LA. 70816
(225) 756-3271 Fax (225) 755-1030

CP-1765



PROGRAM : PIPETECH 1/17/97

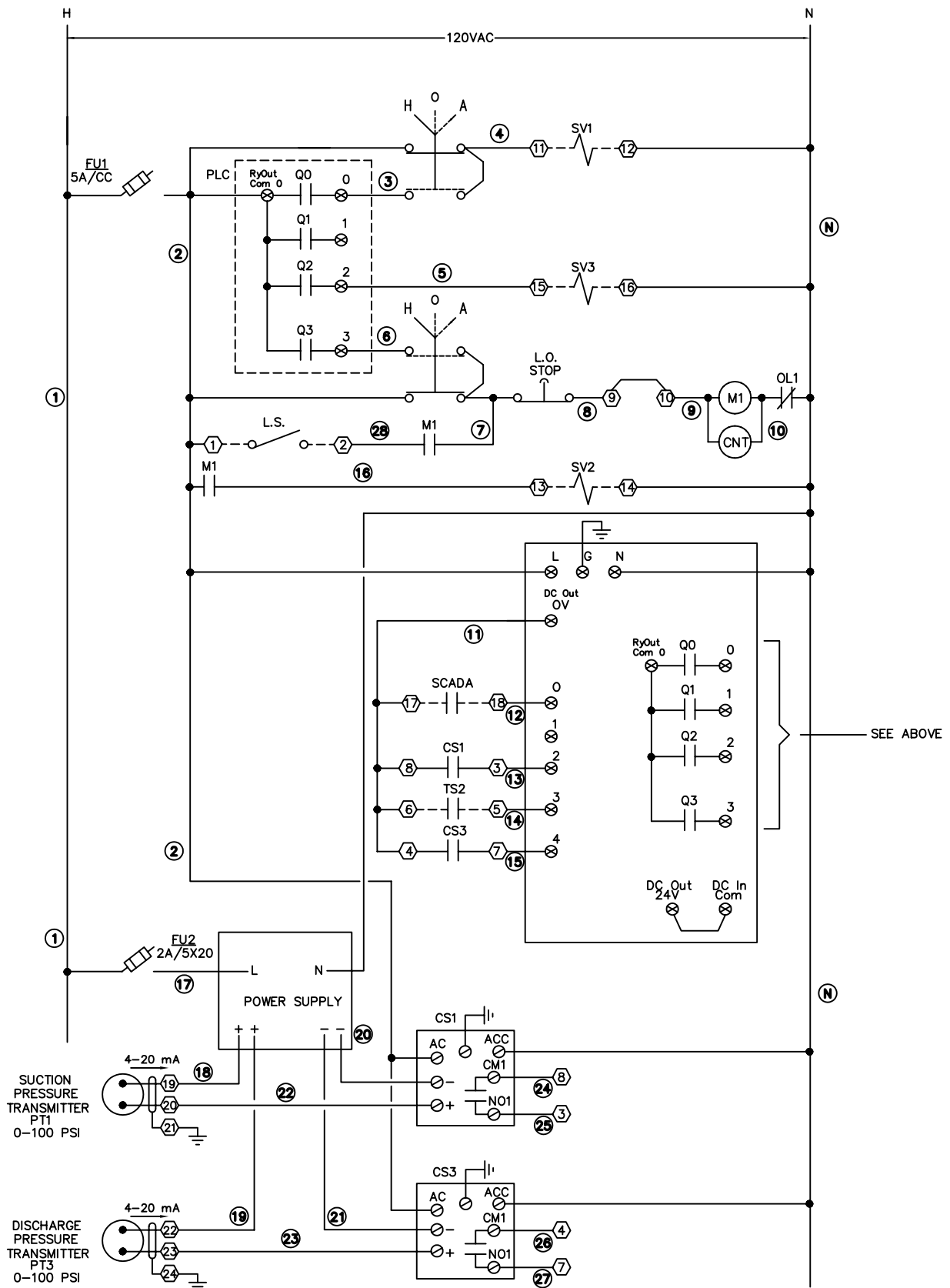
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	POWER DIAGRAM							
DATE 3/09/04		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN	DATE	BY	
	Project Title				BY C. RACHAL	APPROVED		
	BOOSTER PUMP CONTROL PANEL					DATE		
								PURCHASE ORDER NUMBER
								DRAWING NUMBER CP-1765
								SHEET NUMBER 1

COX

Research and Technology, Inc.

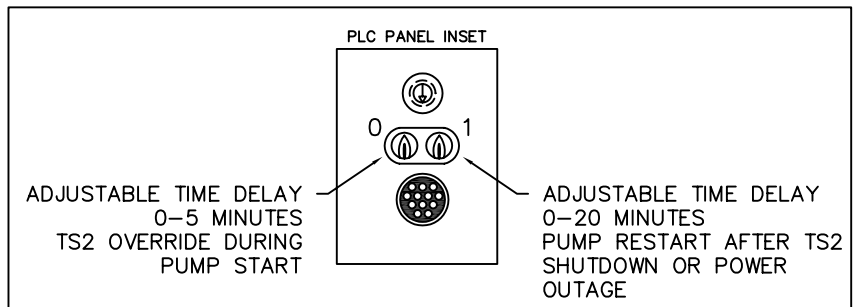
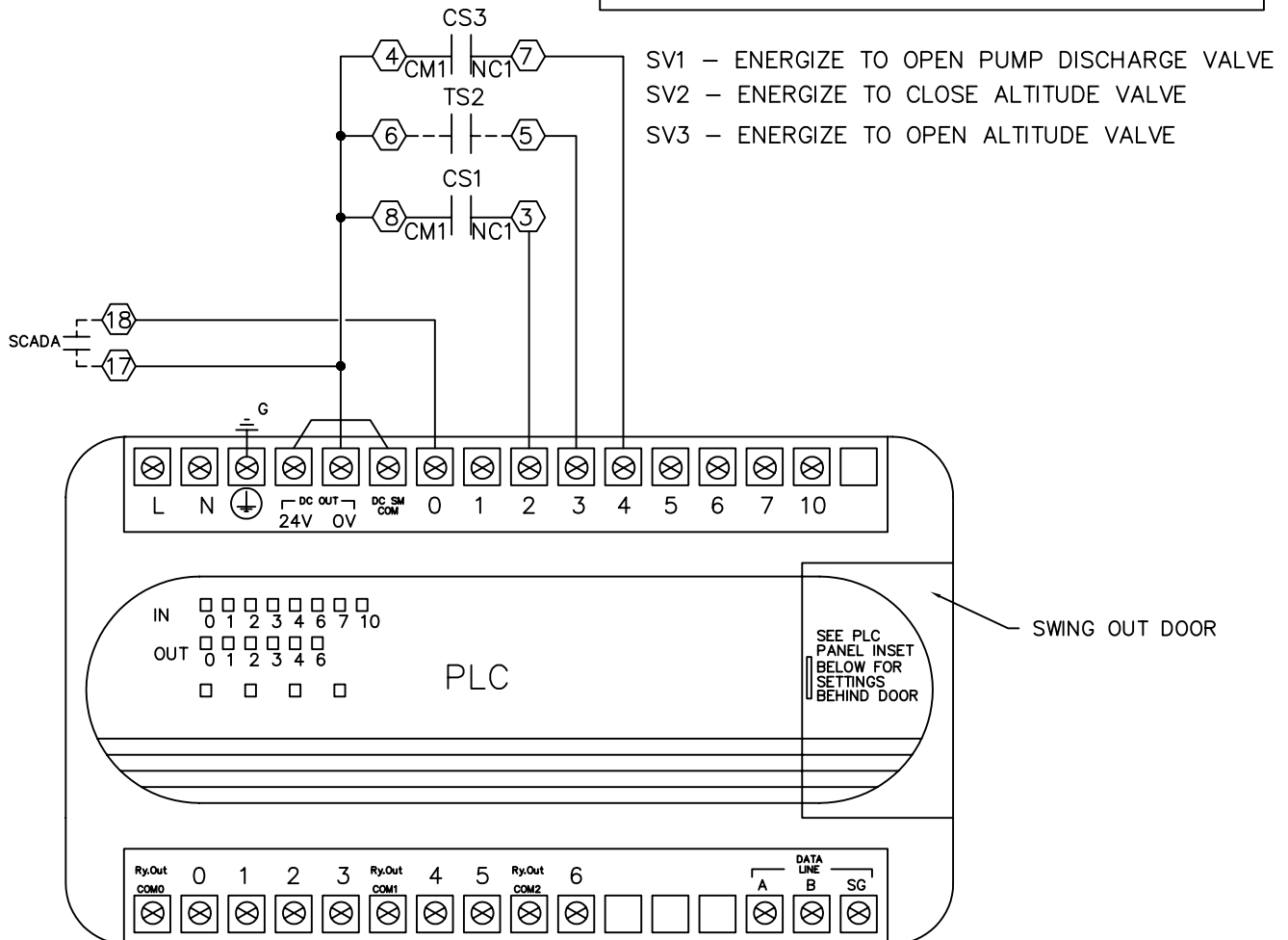
P.O. Box 77808
Baton Rouge, LA
70809

Ph. (225)756-3271
Fax (225)756-1030



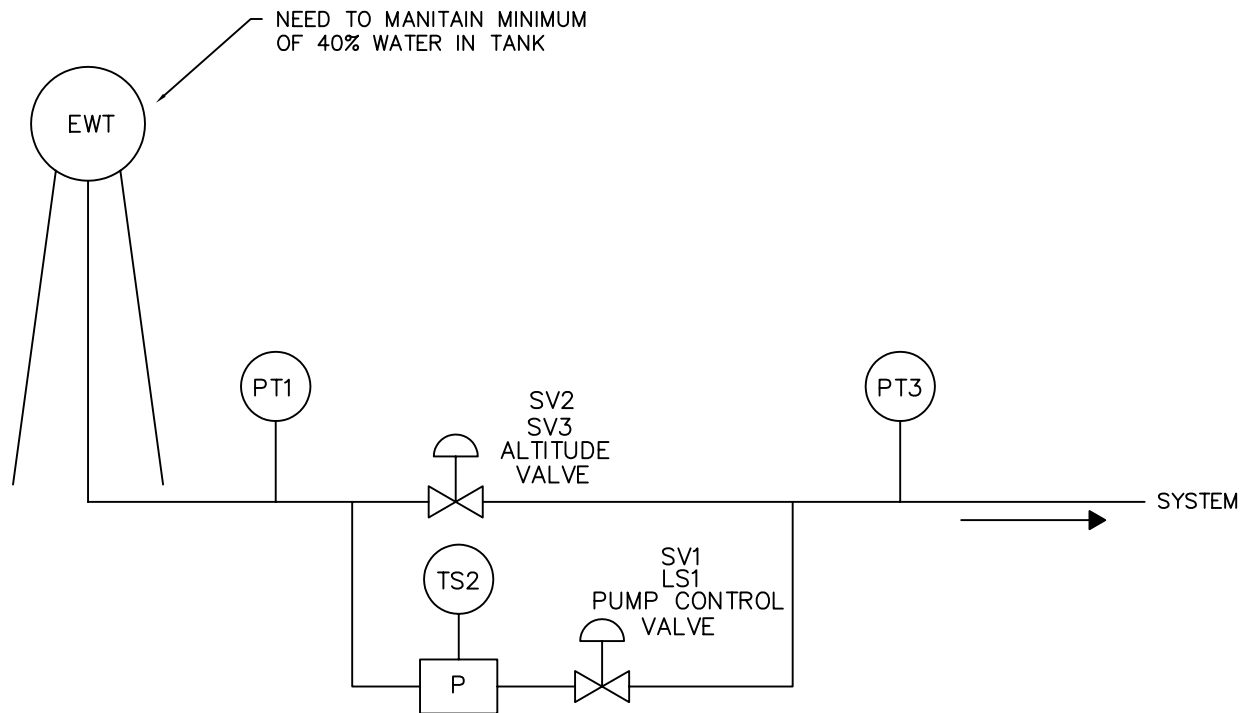
Drawing Title									
CONTROL DIAGRAM									
DATE 03/09/04	REFERENCE DRAWING		NO.		REVISION-LOCATION		ECN	DATE	BY
	S/N		Sales Engineer C.C.		Application Engineer R.C.		DRAWN BY C. RACHAL		APPROVED
Project Title								PURCHASE ORDER NUMBER	
BOOSTER PUMP CONTROL PANEL								DRAWING NUMBER CP-1765	
								SHEET NUMBER	
								2	

- CS1 – ELEVATED TANK PRESSURE CURRENT SWITCH
OPEN AT 45 PSIG DECREASING (11.2ma)
- CS3 – LOW SYSTEM PRESSURE CURRENT SWITCH
OPEN AT 55 PSIG DECREASING (12.8ma)
- TS2 – HIGH PUMP TEMPERATURE THERMAL SWITCH
(N.C.) OPEN AT HIGH TEMP INCREASING
- LS1 – LIMIT SWITCH ON PUMP DISCHARGE VALVE
OPEN @ 95–100% VALVE CLOSED



DASHED LINES DENOTE FIELD WIRING

Drawing Title	CONTROL DIAGRAM					
DATE 03/09/04	Project Title	BOOSTER PUMP CONTROL PANEL				
REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE
S/N		Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL	APPROVED BY DATE	
Project Title		COX		P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER	
Research and Technology, Inc.				Ph. (225)756-3271 Fax (225)756-1030	DRAWING NUMBER CP-1765	
					SHEET NUMBER 3	



SV1 – ENERGIZE TO OPEN PUMP DISCHARGE VALVE.

SV2 – ENERGIZE TO CLOSE ALTITUDE VALVE WHEN PUMP IS RUNNING.

SV3 – ENERGIZE TO OPEN ALTITUDE VALVE IF PT3 IS LOW. ALTITUDE VALVE OPENS AND PUMP TURN OFF.

TS2 – IF PUMP DEADHEADS, TURN PUMP OFF AND RECHECK EVERY 15 MINUTES ⁺₋

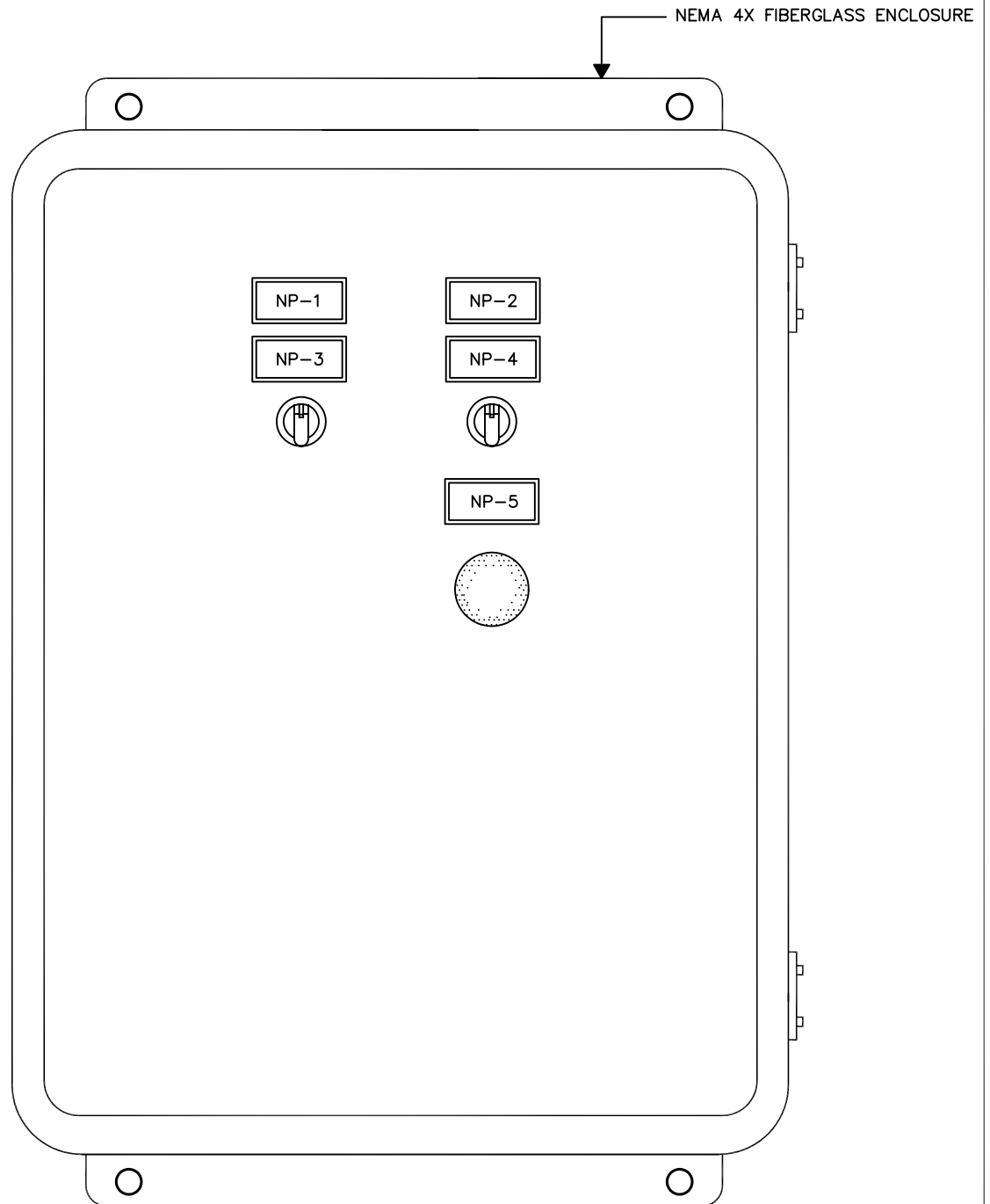
PT1 – STOPS PUMP. WILL NOT RESET UNTIL CALLED FOR BY SCADA.

PURPOSE IS TO PUMP OUT TANK ONE TIME PER DAY.

IF PT3 IS TOO LOW, PUMP STOPS, ALTITUDE VALVE OPENS.

WILL START SEQUENCE WHEN CALLED FOR BY SCADA.

IF PT1 IS TOO LOW OR GETS LOW TURN PUMP OFF.



FRONT OF ENCLOSURE

NOTE:
SEWER GASSES WILL DESTROY COMPONENTS IN PANEL.
PROPER SEALS MUST BE INSTALLED EXTERNAL TO THE
PANEL TO PREVENT ENTRY OF GASSES.

NAMEPLATE SCHEDULE

NP-1	SOLENOID VALVE 1
NP-2	SOLENOID VALVE 2
NP-3	HOA
NP-4	HOA
NP-5	LOCK OUT/STOP

	Drawing Title							
	ENCLOSURE							
DATE 03/09/04		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY C. RACHAL	ECN	DATE	BY
	Project Title	<div style="text-align: center;"> COX Research and Technology, Inc. </div>			P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER		
	BOOSTER PUMP CONTROL PANEL				Ph. (225)756-3271 Fax (225)756-1030	DRAWING NUMBER CP-1765		
						SHEET NUMBER		
						4		

BILL OF MATERIALS

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	VYNCKIER	VJ1412HWPL2	ENCLOSURE
1a	1	VYNCKIER	MP1412A	BACKPLATE
2	1	IDEC	OT63E3	PLC
3	1	SIEMENS		POWER SUPPLY
4	2	MOORE IND.	ECA/4-20ma/DH1L1/117AC/DIN	CURRENT SENSOR
5	2	ACI	JR22PCM20B	HOA
6	1	ABB	A2630-10-84	M1
7	1	ABB	TA25DU25	O.L. (18-25A)
8	2	MARATHON	1321580	DISTRIBUTION BLOCK
9	1	ABB	OT63E3	DISCONNECT SWITCH
10	1	SQUARE D	QOU150	CB1
11	1	SQUARE D	QOU115	CB2
12	1	REDINGTON	V24816	COUNTER
13	1	ACI	JR22GN11R	L.O. STOP
14				
15				
16				
17				
18				
19				
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22				
23				
24				
25				

	Drawing Title						
	<h2 style="margin: 0;">BILL OF MATERIALS</h2>						
DATE 03/09/04		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN	DATE	BY
				DRAWN BY C. RACHAL	APPROVED BY DATE		
	Project Title	<div style="border-top: 3px double black; border-bottom: 3px double black; padding: 5px 0;"> <h1 style="margin: 0;">COX</h1> <p style="margin: 0;">Research and Technology, Inc.</p> </div>			P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)756-1030		PURCHASE ORDER NUMBER DRAWING NUMBER <div style="text-align: right;">CP-1765</div> SHEET NUMBER <div style="text-align: right;">5</div>
	BOOSTER PUMP CONTROL PANEL						