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# **COX**

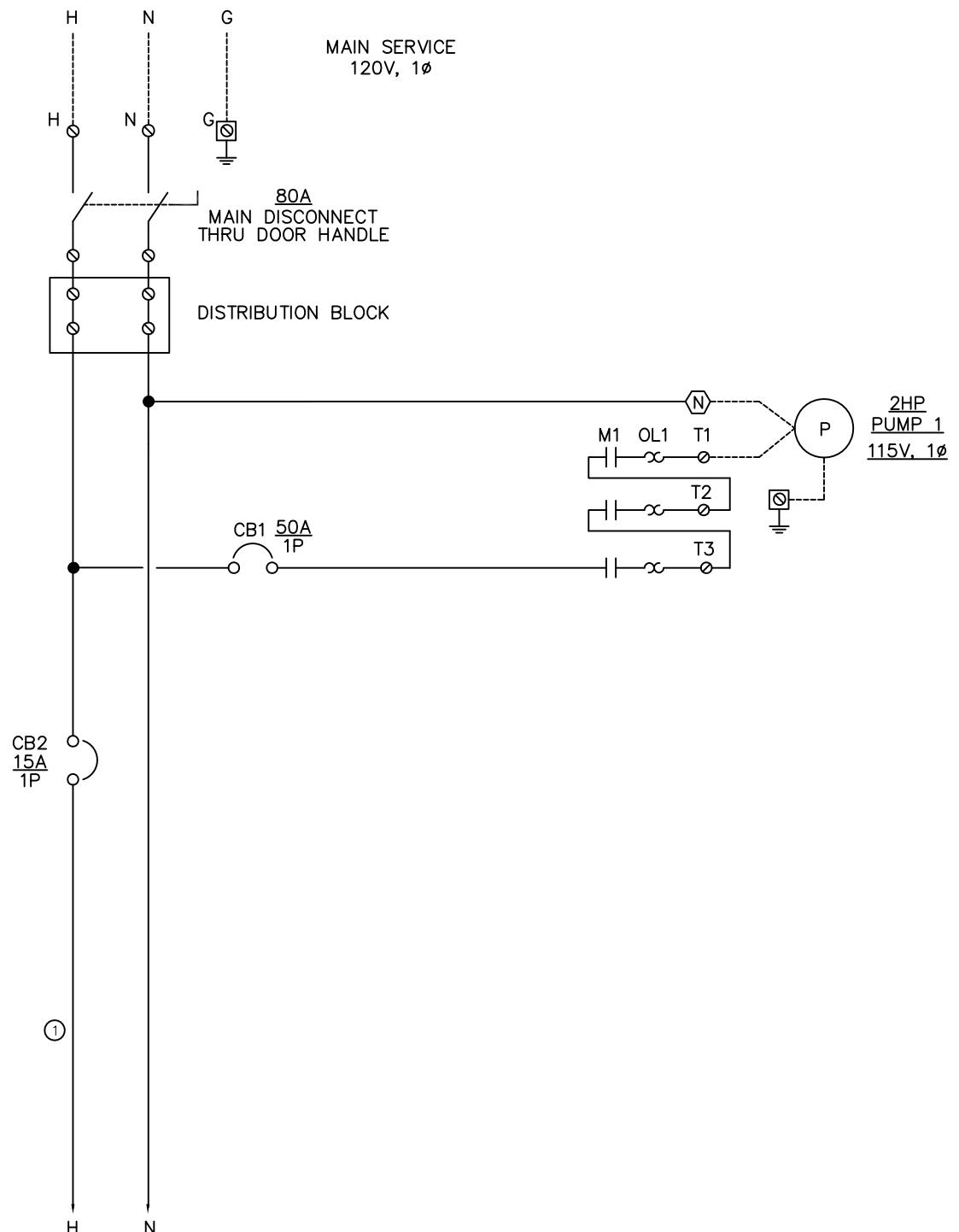
Research and Technology, Inc.

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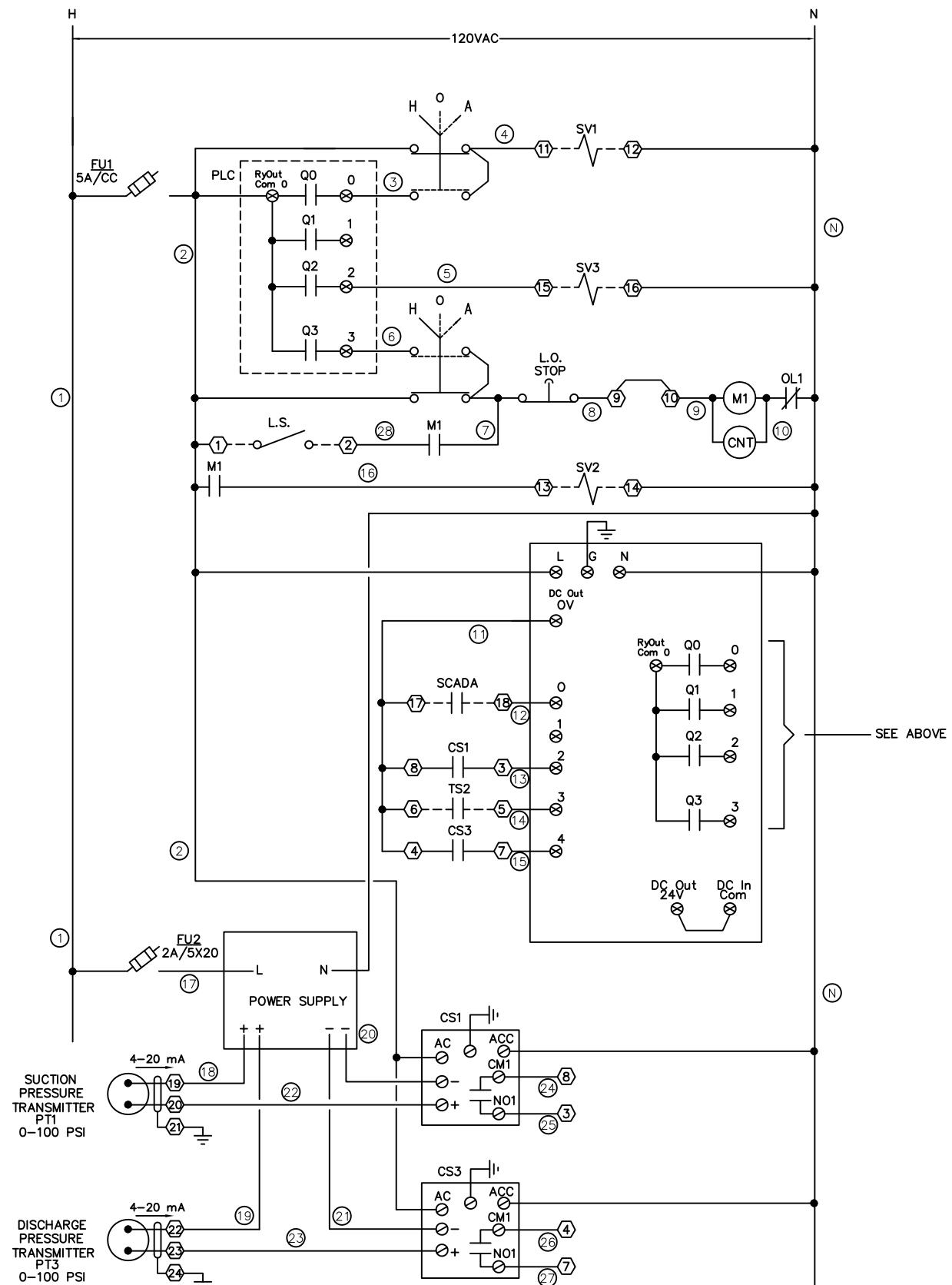
## LOCKPORT TANK BOOSTER PUMP CONTROL PANEL

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



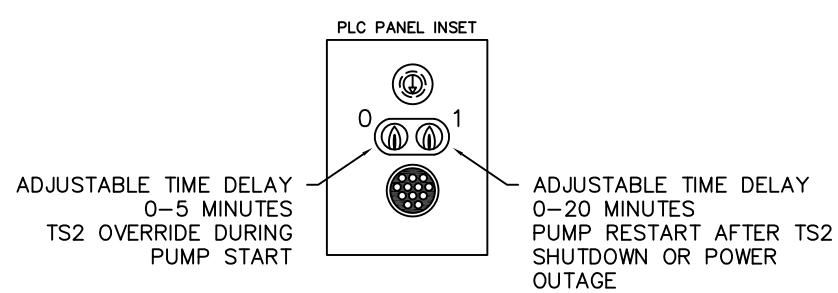
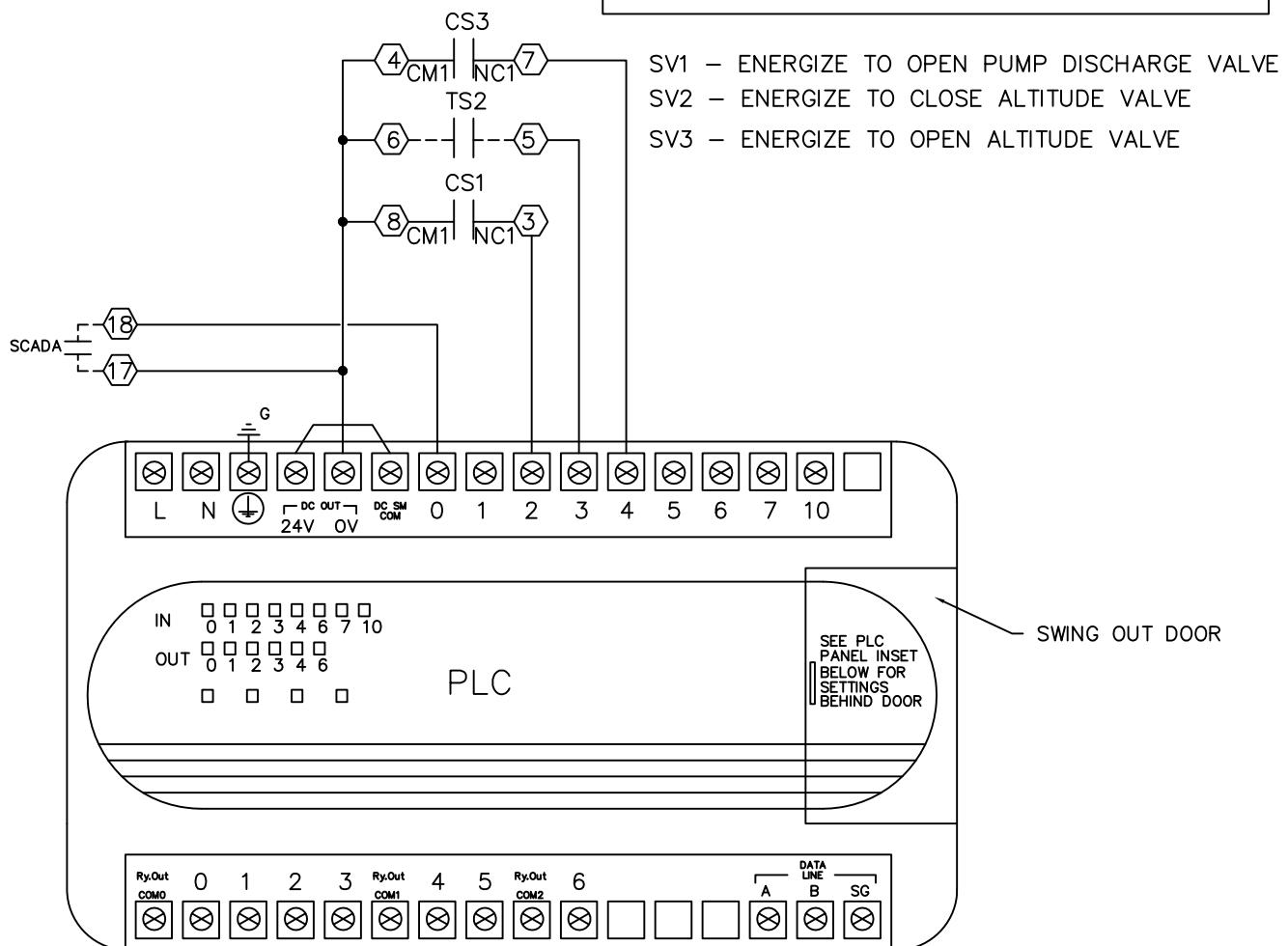
PROGRAM : PIPETECH 1/17/97

	Drawing Title					
	POWER DIAGRAM					
DATE 3/09/04	REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	ECN DRAWN BY C. RACHAL	DATE APPROVED BY DATE	BY
	Project Title BOOSTER PUMP CONTROL PANEL	COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)756-1030	PURCHASE ORDER NUMBER DRAWING NUMBER CP-1765 SHEET NUMBER 1		



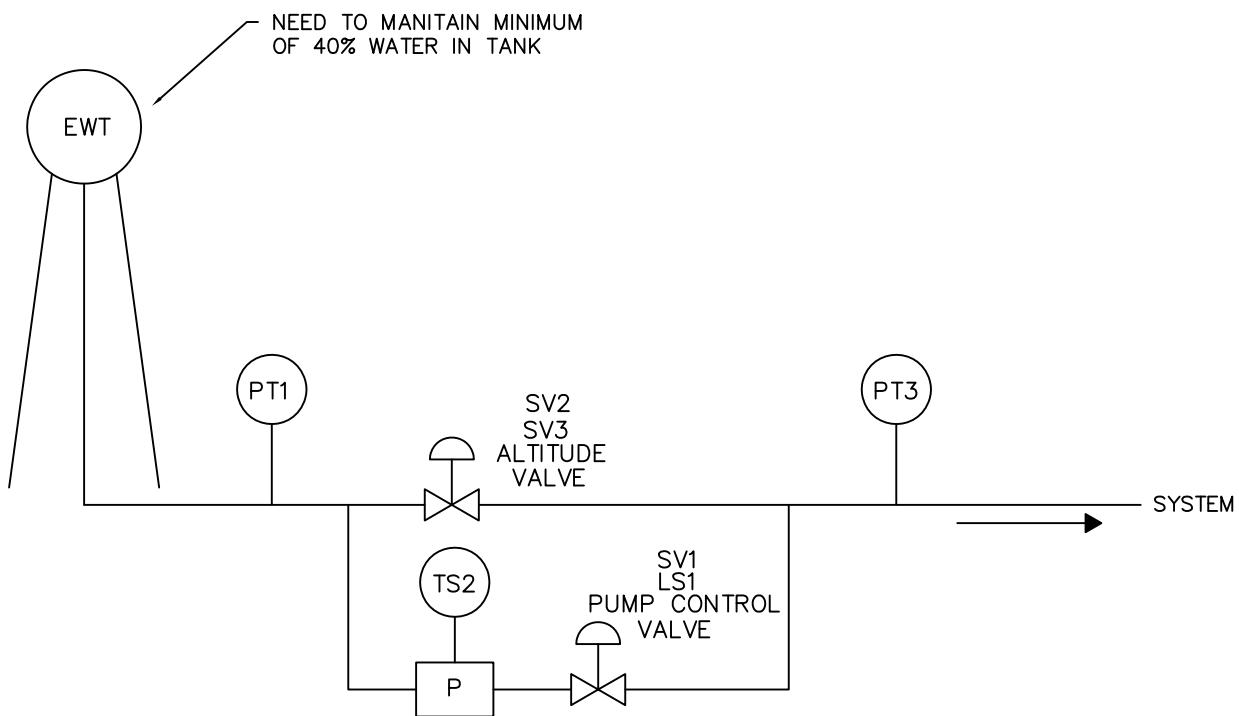
	Drawing Title  CONTROL DIAGRAM				
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN APPROVED BY DATE
DATE 03/09/04		Application Engineer R.C.			
	Project Title  BOOSTER PUMP CONTROL PANEL		COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph.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

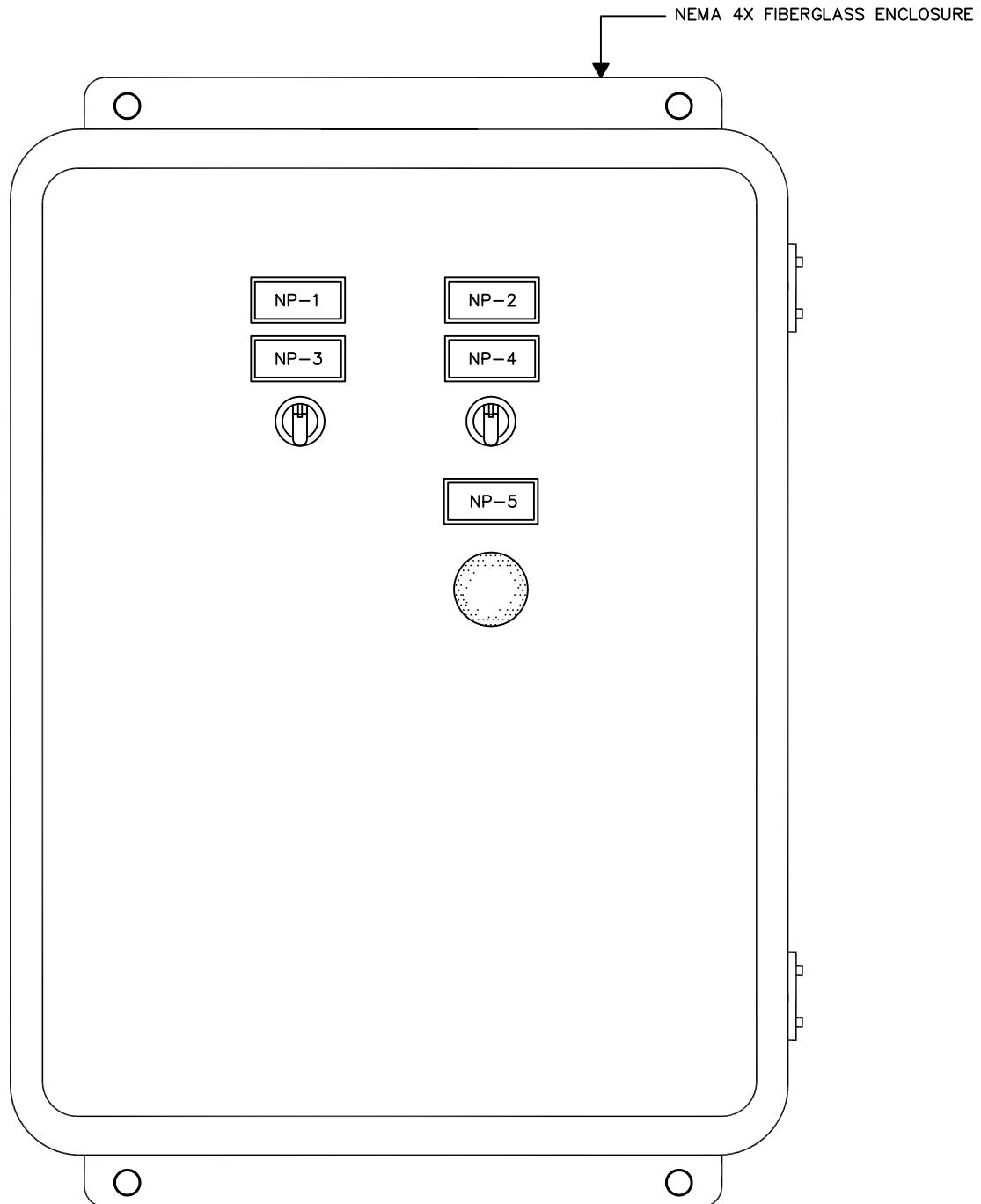
PT1 – STOPS PUMP. WILL NOT RESET UNTIL CALLED FOR BY SCADA.

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

NAMEPLATE SCHEDULE

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

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. C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE APPROVED BY DATE	BY
	Project Title				PURCHASE ORDER NUMBER	
	BOOSTER PUMP CONTROL PANEL	COX Research and Technology, Inc.			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	IDEA	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				
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22				
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25				

	Drawing Title						
	<b>BILL OF MATERIALS</b>						
DATE 03/09/04	REFERENCE DRAWING S/N	NO. C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE	BY	
	Sales Engineer	Application Engineer R.C.					APPROVED BY DATE
	Project Title <b>BOOSTER PUMP CONTROL PANEL</b>	<b>COX</b> Research and Technology, Inc.			PURCHASE ORDER NUMBER		
					DRAWING NUMBER	CP-1765	
					SHEET NUMBER		5