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# COX

Research and Technology, Inc.

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## DUPLEX PUMP CONTROL PANEL HARPOOL

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

VOLTAGE	<u>277/480V</u>	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	<u>3/60</u>	
NO. MOTORS	<u>2</u>	
HP	<u>3</u>	
FLA		
TYPE OF PUMP	<u>Submersible</u>	(Self-Priming, Submersible)
MANUFACTURER	<u>ABS</u>	
CATALOG NUMBER		
CONTROL VOLTAGE	<u>120V</u>	(120V, Other)
ENCLOSURE	<u>NEMA 4X</u>	(NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)
ENCLOSURE MATERIAL	<u>Stainless Steel</u>	(Painted Steel, Stainless Steel, Fiberglass)
CONTROL SENSOR	<u>Floats</u>	(Floats, Bubbler, Other)
CAPACITORS	<u>No</u>	(Yes, No)
CAPACITOR WIRING FIGURE	<u>N/A</u>	
THERM. & SEAL FAIL WIRING FIGURE		

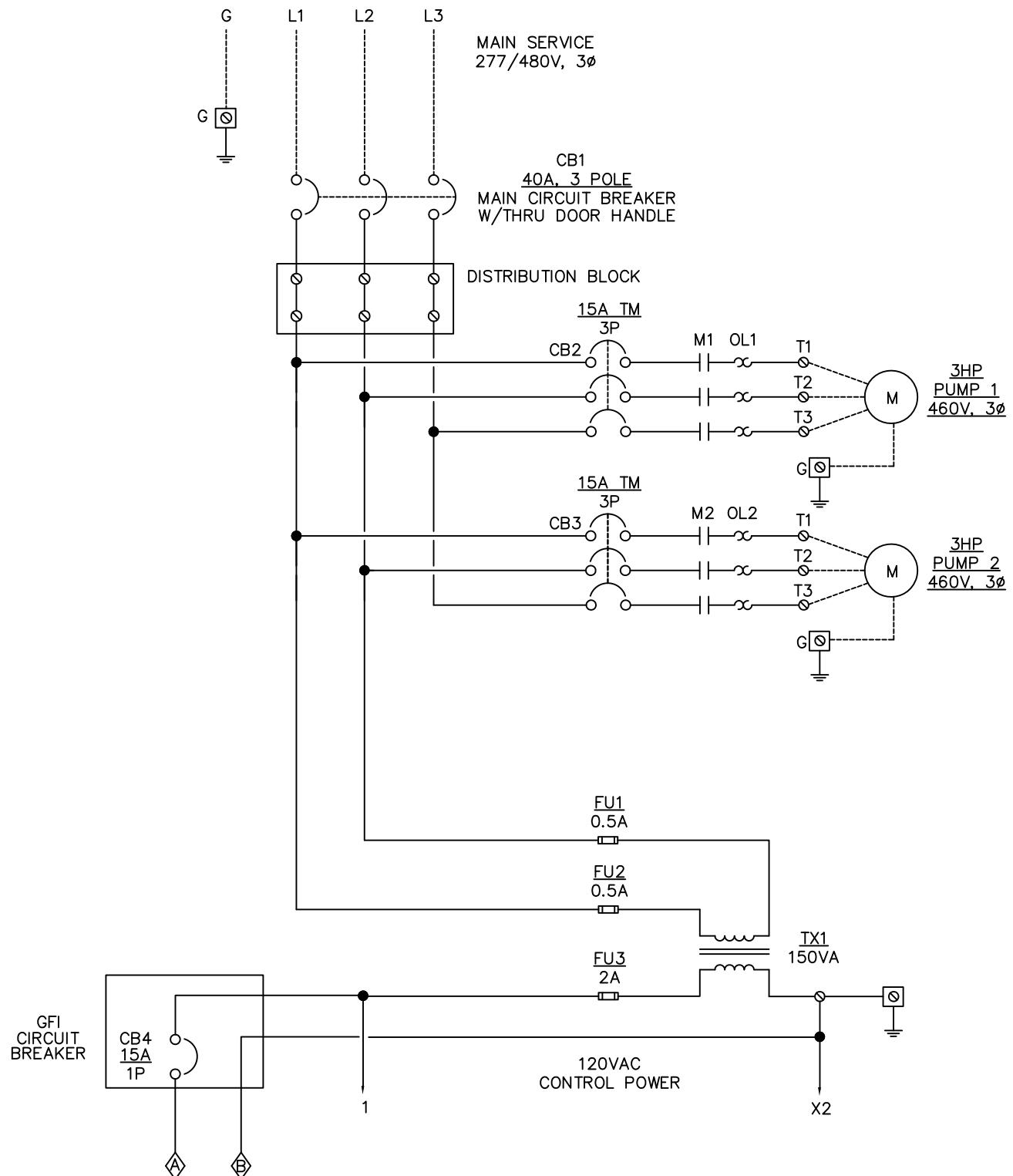
OPTIONS:

SEAL FAIL LIGHTS	<u>X</u>	(Submersible Only)
SEAL FAIL RELAYS	<u>X Seal Minder</u>	(Submersible Only)
SEAL FAIL PUMP SHUTDOWN		(Submersible Only)
HT PUMP SHUTDOWN	<u>X</u>	(Self-Primer, Submersible)
ALARM HORN		
ALARM LIGHT	<u>X</u>	
LIGHT PANEL MTD	<u>X</u>	
LIGHT REMOTE MTD		
LIGHT FLASHER		
LIGHTNING ARRESTER		
ELAPSED TIME METER		
PHASE MONITOR		
NEMA RATED STARTERS	<u>X (ABB)</u>	
GROUND FAULT RECPT.		
GREEN RUN LIGHTS VS. RED		
POLE, BOX, SEAL		
INTRINSICALLY SAFE RELAYS		
HIGH TEMP. LOCKOUT, MANUAL RESET		
ECONOMY VERSION		

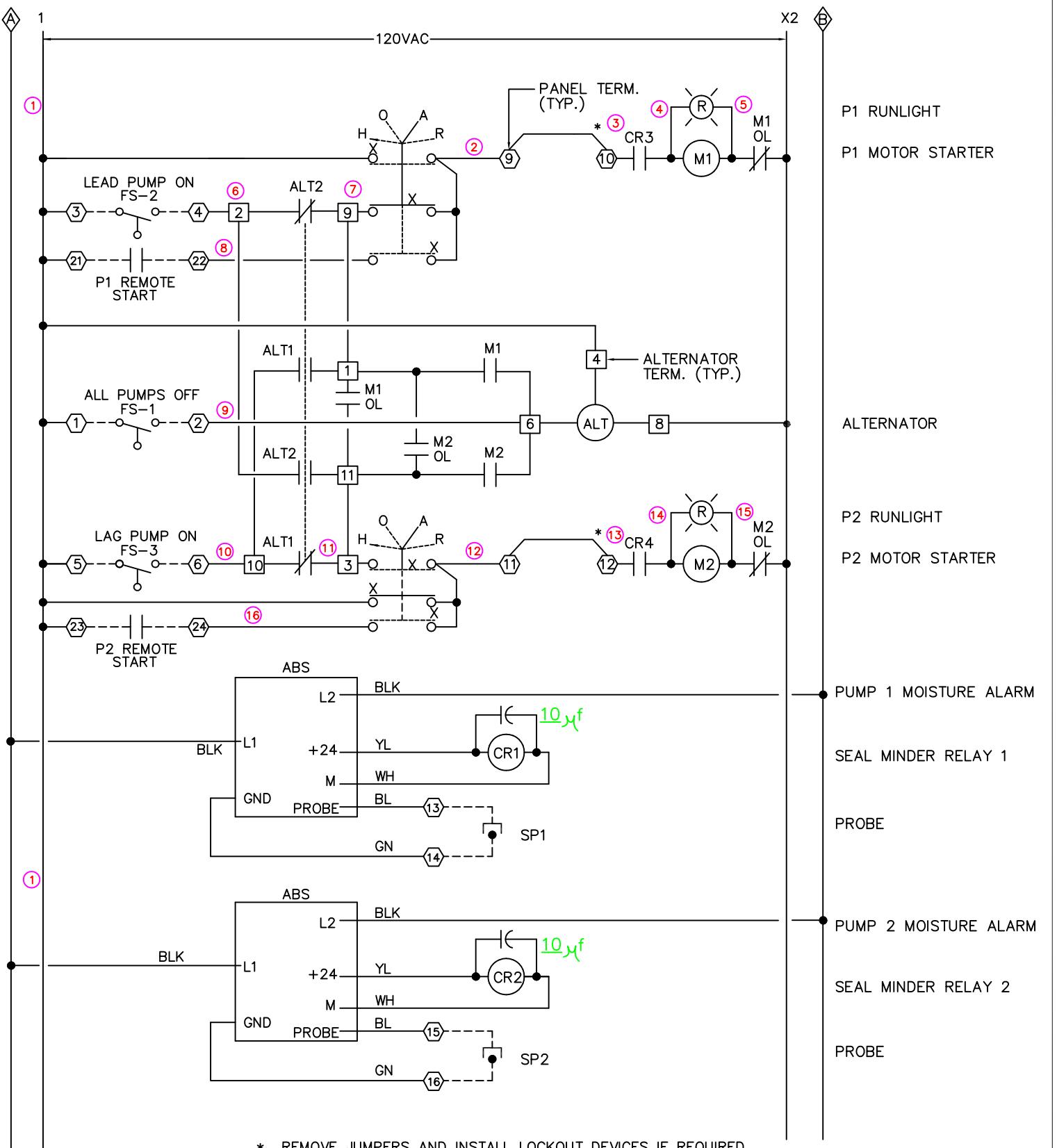
SOLD TO: CF ENGINEERED EQUIPMENT - DALLAS, TX  
TAG : HARPOOL

SHIP TO: CF ENGINEERED EQUIPMENT - DALLAS, TX

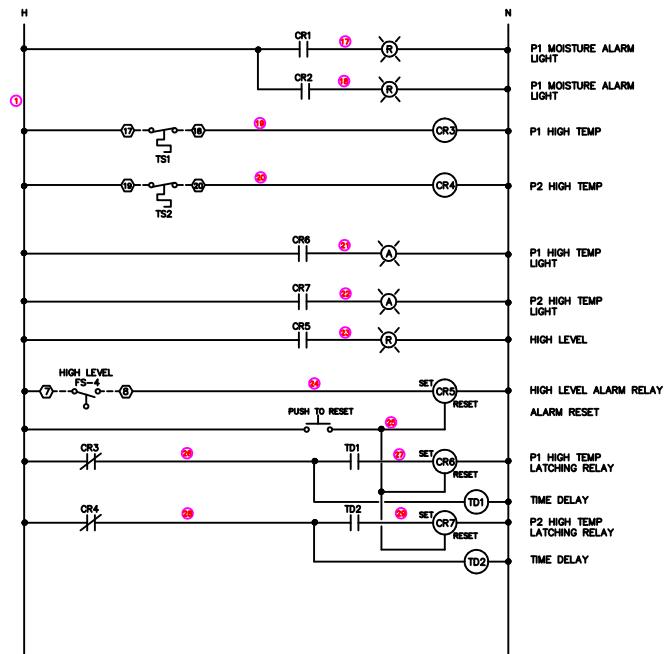
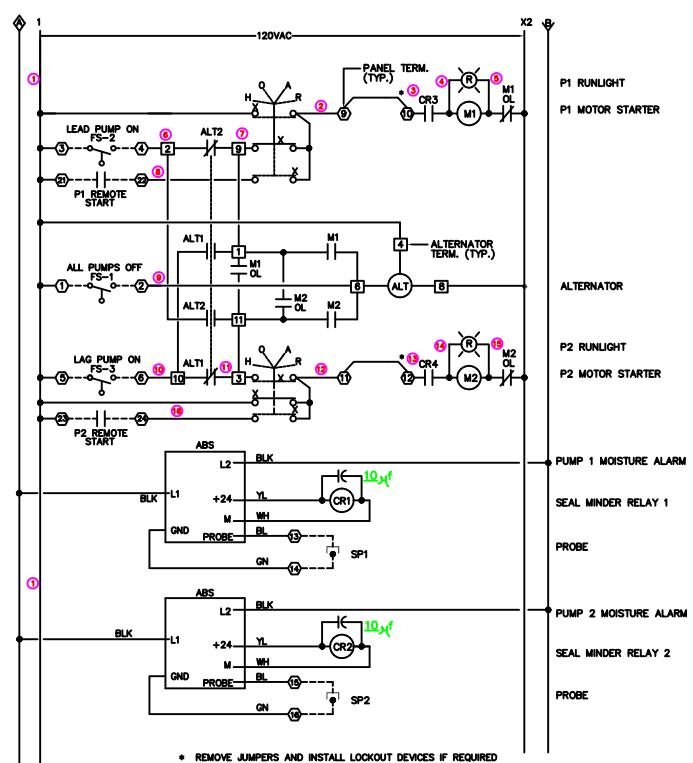
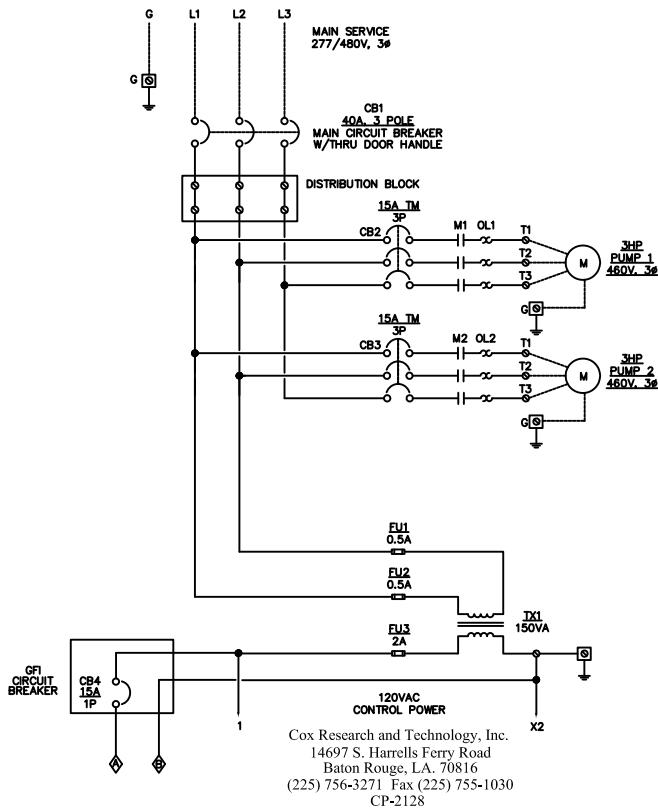
Drawing Title	PANEL DESCRIPTION		REFERENCE DRAWING S/N	NO. C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE	BY
						DATE APPROVED BY	DATE APPROVED BY	DATE BY
DATE 8/11/05	Project Title  DUPLEX PUMP CONTROL PANEL				P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER		
					Ph. (225)756-3271 Fax (225)755-1030	DRAWING NUMBER CP-2128	SHEET NUMBER 1	

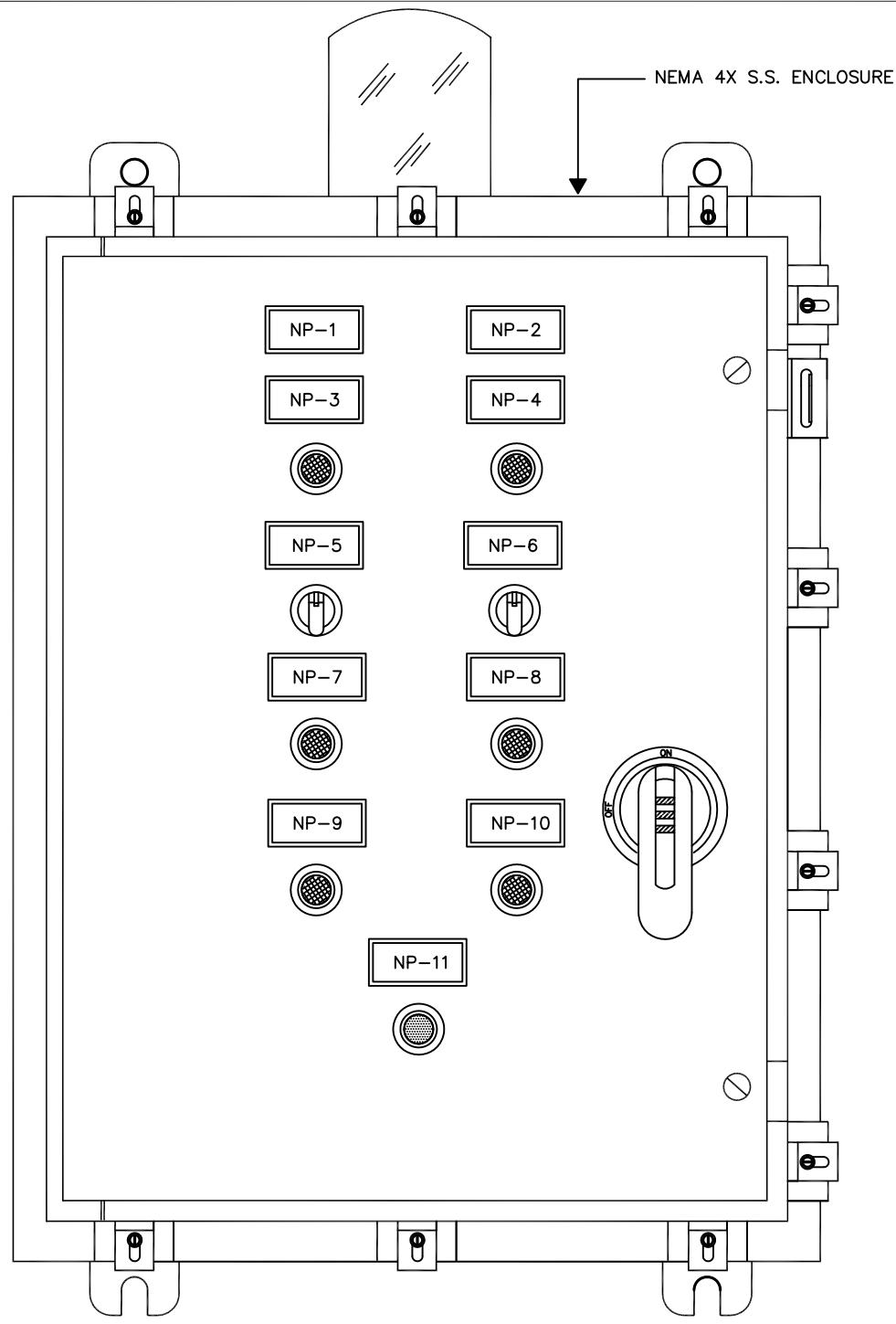


	Drawing Title  POWER DIAGRAM				
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN APPROVED BY DATE
DATE 8/11/05		Application Engineer R.C.			
	Project Title  DUPLEX PUMP CONTROL PANEL		COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030	PURCHASE ORDER NUMBER  DRAWING NUMBER CP-2128 SHEET NUMBER 2



	Drawing Title  CONTROL DIAGRAM				
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN Application Engineer R.C.	ECN DATE APPROVED
DATE 8/11/05				BY C. RACHAL	BY DATE
	Project Title  DUPLEX PUMP CONTROL PANEL		COX Research and Technology, Inc.	P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030	PURCHASE ORDER NUMBER  DRAWING NUMBER CP-2128 SHEET NUMBER 3





VIEW OF SWING OUT PANEL

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

NAMEPLATE SCHEDULE

NP-1	PUMP 1
NP-2	PUMP 2
NP-3	RUN
NP-4	RUN
NP-5	H-O-A-R
NP-6	H-O-A-R
NP-7	SEAL FAIL
NP-8	SEAL FAIL
NP-9	HIGH TEMP
NP-10	HIGH TEMP
NP-11	PUSH TO RESET

	Drawing Title					
	ENCLOSURE					
DATE 8/11/05	REFERENCE DRAWING S/N	NO. C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE APPROVED BY DATE	BY
	Project Title					
	DUPLEX PUMP CONTROL PANEL		COX Research and Technology, Inc.		PURCHASE ORDER NUMBER	
					DRAWING NUMBER	CP-2128
					SHEET NUMBER	5

## BILL OF MATERIALS

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	EBE	S242010N4X	ENCLOSURE STAINLESS 4X
1a	1	EBE	A2420P	BACKPLATE
1b	1	EBE	A2420SP	DEAD FRONT
2	1	ABB	S1NO40TL	CB1
3	2	ABB	A16NO-30-10-84	MTR STR NEMA SIZE 0
4	2	ABB	TA25DU5.0	O.L. RELAY (3.5-5.0A)
5	2	ABB	S1N015TL	CB2, CB3
6	1	TIMEMARK	261DT120	ALTERNATING RELAY
7	4	ACI	JR22FR	RED PILOT LIGHT
8	2	A-B	800H-NR2KF4AAXX	H-O-A-R SWITCH
9	1	ABB	T4150PSF-1	TRANSFORMER
10	1	AC/DC	BL5-R-120	ALARM LIGHT
11	2	ACI	JR22FY	AMBER PILOT LIGHT
12	2	ABS	61240170	SEAL MINDER RELAY
13	3	MAGNECRAFT	W388AMLCPX-9	CR5,6,7 (LATCHING RELAY)
14	2	IDECA	RU2SD24	CR1,2
15	2	IDECA	RU2SA110	CR3,4
16	1	ABB	OHB65L10	HANDLE
17	1	ABB	OXP10X225	SHAFT
18	1	ABB	K2VDM	MECHANISM
19	2	OMRON	H3YN2AC120	TIME DELAY 1,2
20	1	ACI	JR22AN11B	PUSH BUTTON
21	1	MARATHON	1323580	DISTRIBUTION BLOCK
22				
23				
24				

▲ SUPPLIED BY CFEE

	Drawing Title  BILL OF MATERIALS						
		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION DRAWN BY C. RACHAL	ECN	DATE	BY APPROVED DATE
DATE 8/11/05	Project Title  DUPLEX PUMP CONTROL PANEL	Application Engineer R.C.		DRAWN BY			
		COX Research and Technology, Inc.		P.O. Box 77808 Baton Rouge, LA 70809 Ph. (225)756-3271 Fax (225)755-1030	PURCHASE ORDER NUMBER  DRAWING NUMBER CP-2128 SHEET NUMBER		
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