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# COX

Research and Technology, Inc.

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DUPLEX PUMP  
CONTROL PANEL  
WASKOM, TX

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

CP-1970

VOLTAGE	277/480V	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	3/60	
NO. MOTORS	2	
HP	29	
FLA	33	
TYPE OF PUMP	Submersible	(Self-Priming, Submersible)
MANUFACTURER	Houma	
CATALOG NUMBER		
CONTROL VOLTAGE	120V	(120V, Other)
ENCLOSURE	NEMA 4	(NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)
ENCLOSURE MATERIAL	Painted Steel	(Painted Steel, Stainless Steel, Fiberglass)
CONTROL SENSOR	FLOATS	(FLOATS, Bubbler, Other)
CAPACITORS	No	(Yes, No)
CAPACITOR WIRING FIGURE	N/A	
THERM. & SEAL FAIL WIRING FIGURE		

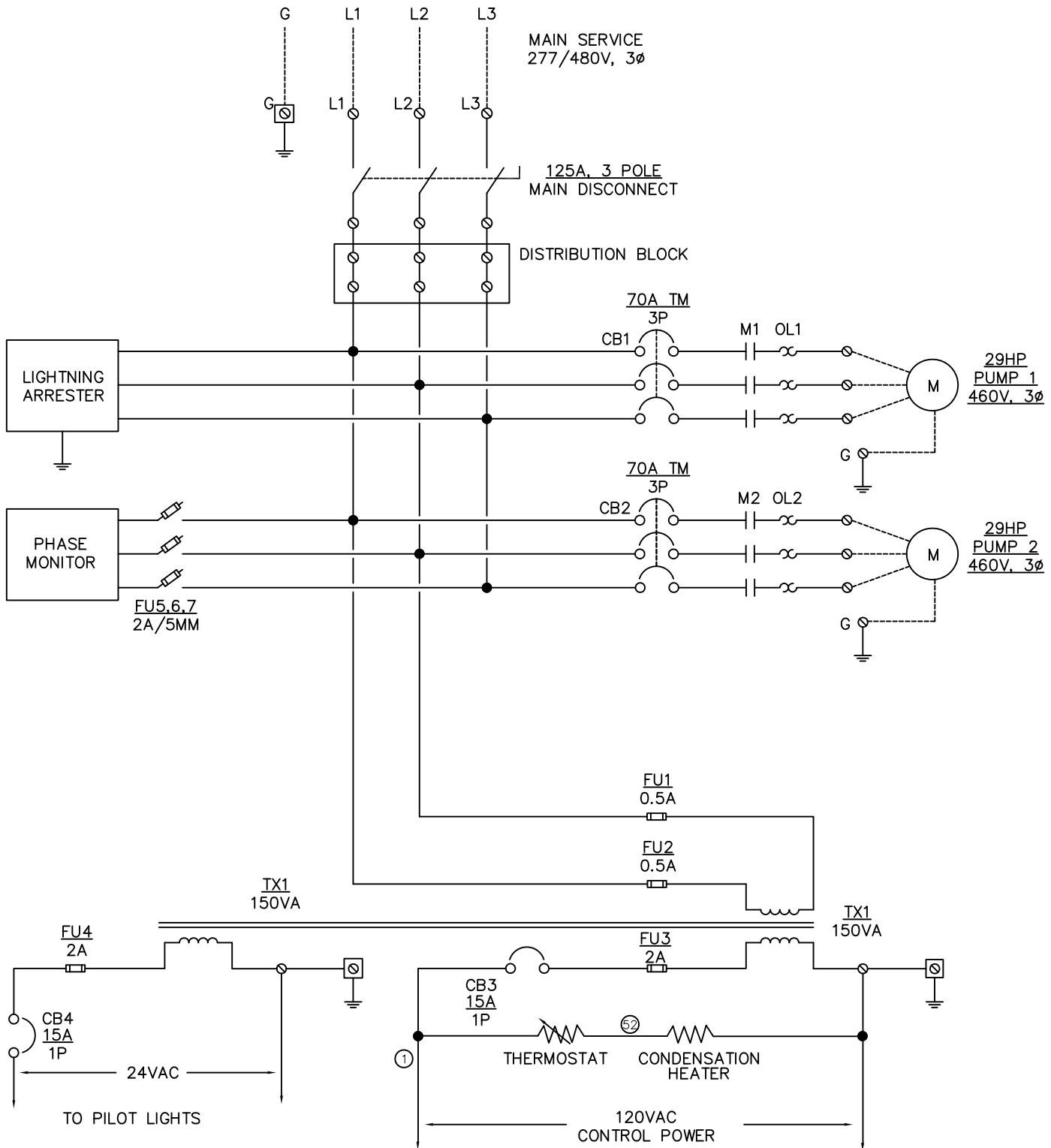
OPTIONS:

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

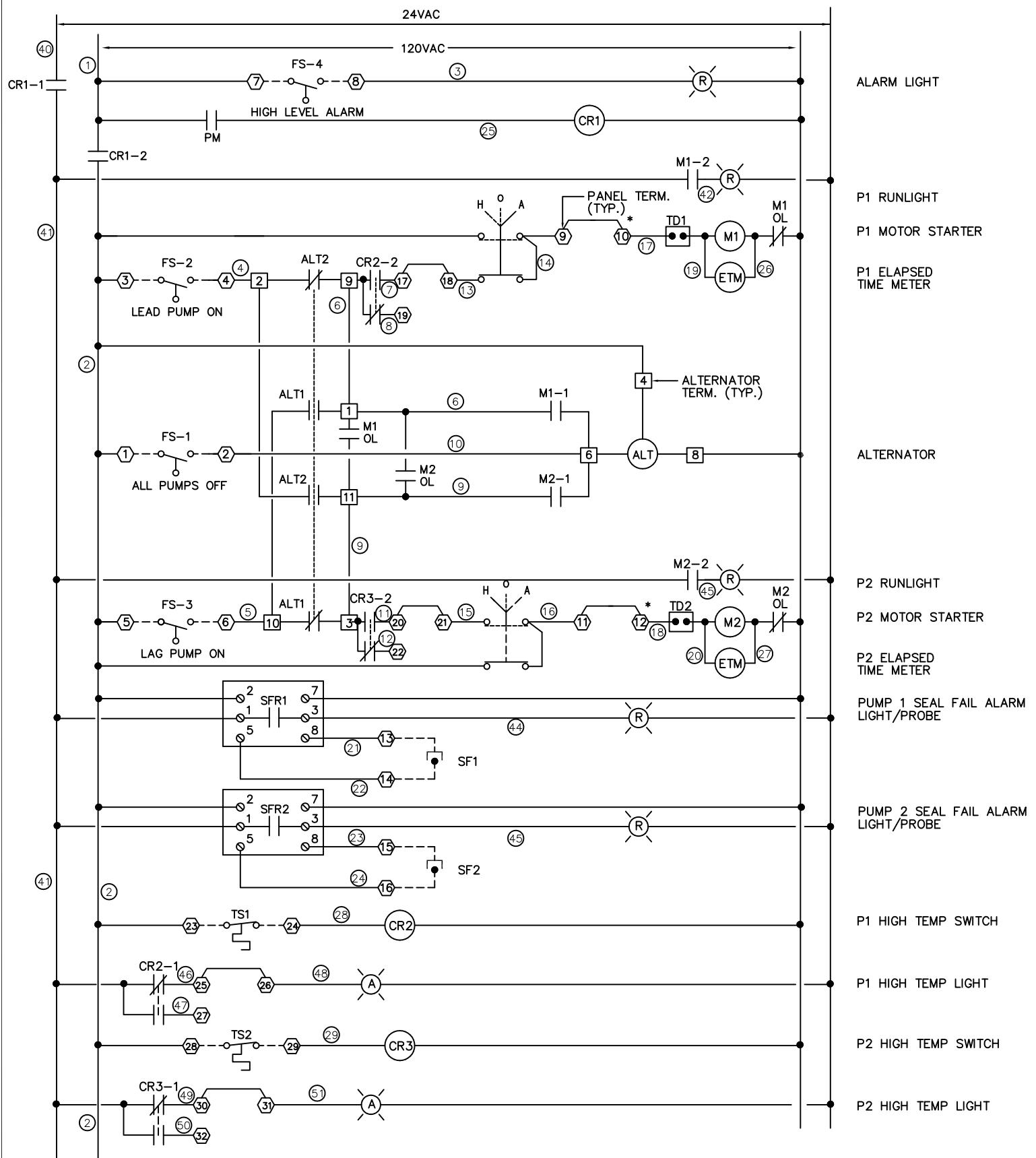
SOLD TO: Delta Process - Shreveport, LA  
TAG : WASKOM, TX

SHIP TO: Delta Process - C.C. Electric  
2430 Line Avenue  
Shreveport, La 71106

	Drawing Title						
	PANEL DESCRIPTION						
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
DATE 01/03/05		S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED	
			C.C.	R.C.	BY C. RACHAL	BY	DATE
	Project Title	<u>COX</u> Research and Technology, Inc.			P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER	
	DUPLEX PUMP CONTROL PANEL				Ph. (225)756-3271 Fax (225)755-1030	DRAWING NUMBER CP-1970	
						SHEET NUMBER 1	

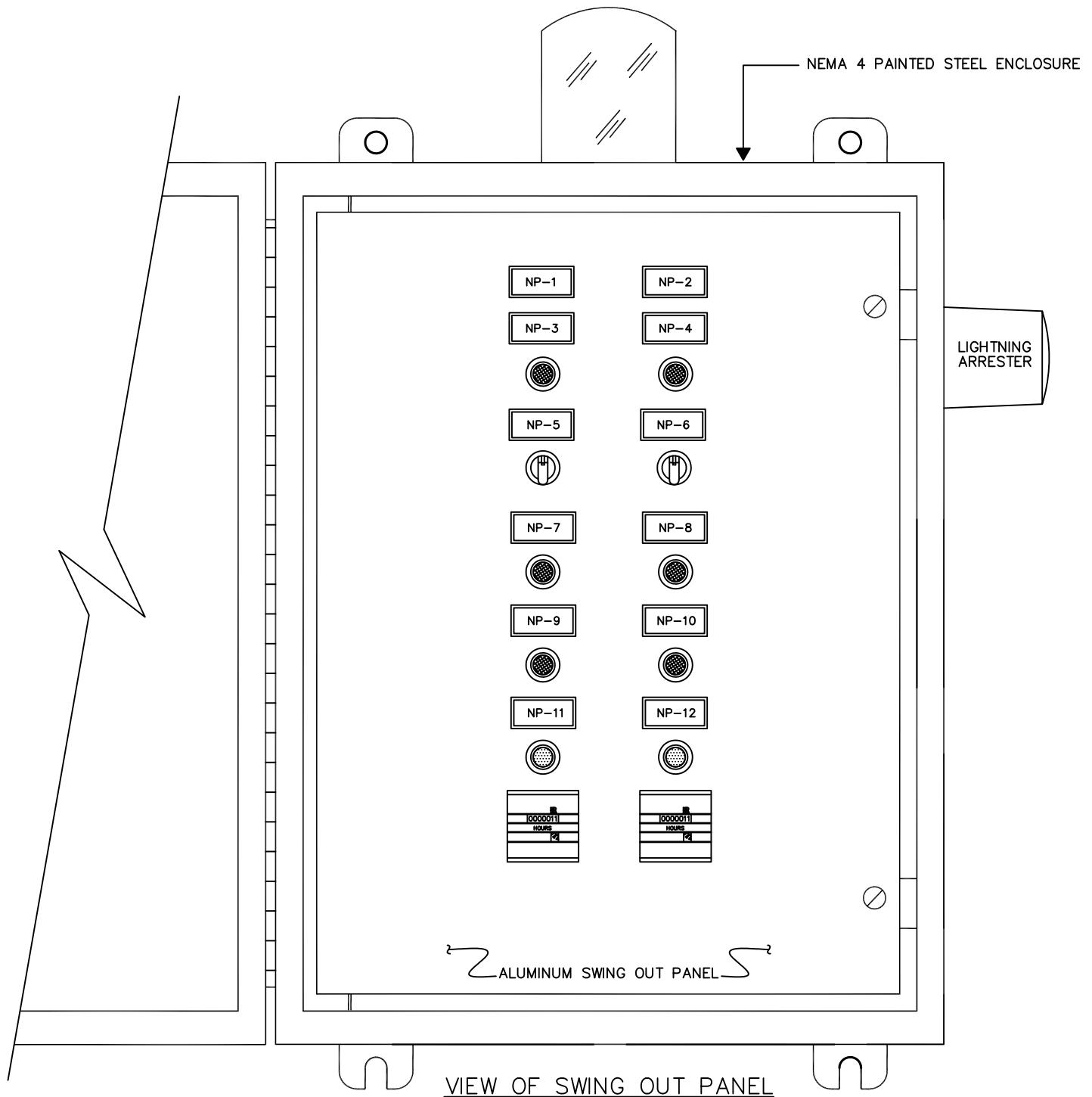


	Drawing Title  POWER DIAGRAM						
REFERENCE DRAWING		NO.	REVISION-LOCATION		ECN	DATE	BY
S/N	Sales Engineer	Application Engineer	DRAWN		APPROVED		
DATE 01/03/05	C.C.	R.C.	BY C. RACHAL		BY	DATE	
Project Title	<hr/> <hr/> <b>COX</b> <hr/> <hr/> Research and Technology, Inc. <hr/> <hr/>			P.O. Box 77808 Baton Rouge, LA 70809		PURCHASE ORDER NUMBER	
DUPLEX PUMP CONTROL PANEL				Ph. (225)756-3271 Fax (225)755-1030		DRAWING NUMBER CP-1970	
				SHEET NUMBER 2			



\* REMOVE JUMPER AND INSTALL LOCKOUT DEVICES IF REQUIRED

	Drawing Title						
	CONTROL DIAGRAM						
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
DATE 01/03/05		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL	APPROVED BY	DATE
	Project Title	<hr/> <hr/> <hr/>			P.O. Box 77808 Baton Rouge, LA 70809	PURCHASE ORDER NUMBER	
	DUPLEX PUMP CONTROL PANEL	<b>COX</b> Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)755-1030	DRAWING NUMBER CP-1970	
						SHEET NUMBER 3	



#### NAMEPLATE SCHEDULE

NP-1	PUMP 1
NP-2	PUMP 2
NP-3	RUN
NP-4	RUN
NP-5	HOA
NP-6	HOA
NP-7	SEAL FAIL
NP-8	SEAL FAIL
NP-9	HIGH TEMP
NP-10	HIGH TEMP
NP-11	O.L. RESET
NP-12	O.L. RESET

#### NOTE:

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

	Drawing Title					
	ENCLOSURE					
		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE BY
DATE 01/03/05	S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY C. RACHAL	APPROVED BY DATE	
	Project Title	<hr/> <hr/> <hr/> <b>COX</b> <hr/> <hr/>			PURCHASE ORDER NUMBER	
	DUPLEX PUMP CONTROL PANEL	Research and Technology, Inc.			DRAWING NUMBER	CP-1970
					SHEET NUMBER	4

# BILL OF MATERIALS

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	EBE	302410REPL	ENCLOSURE
1a	1	EBE	A3024P	BACKPLATE
1b	1	EBE	A3024SP	DEAD FRONT
2	1	ABB	OT160E3	MAIN DISC. SWITCH
3	2	SQUARE D	8536SD01V02	MOTOR STARTER
4	6	SQUARE D	B62	HEATER PACK
5	2	ABB	S1N070TL	CB1, CB2
6	1	TIMEMARK	261DT120	ALTERNATING RELAY
7	4	ACI	JR22FR	RED PILOT LIGHT
8	2	ACI	JR22P3M20B	HOA SWITCH
9	1	ABB	T4150PSF-1	TRANSFORMER
10	1	AC/DC	BL5-R-120	ALARM LIGHT
11	1	DELTA	LA603	LIGHTNING ARRESTER
12	1	SSAC	PLMU-11	PHASE MONITOR
13	2	REDINGTON	711-0190	ELAPSED TIME METER
14	2	SSAC	LLC54	SEAL FAIL RELAY
15	2	ACI	JR22FY	AMBER PILOT LIGHT
16	2	SQUARE D	QOU115	CB3,4
17	1	DAYTON	4BA54	CONDENSATION HEATER
18	1	SAGINAW	SCE-TEMNO	THERMOSTAT
19	3	IDECA	RU2SA110	CR1,2,3
20	2	SQUARE D	9999SX8	AUXILIARY CONTACTS
21	2	SQUARE D	9999S04	AUXILIARY O.L. CONTACTS
22	2	SQUARE D	XB4BA962	O.L. RESET PUSH BUTTON
23	2	DAYTON	0433	TIME DELAY
24				
25				

	Drawing Title							
	BILL OF MATERIALS							
			REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
DATE 01/03/05			S/N	Sales Engineer	Application Engineer	DRAWN	APPROVED	
			C.C.		R.C.	BY C. RACHAL	BY	DATE
	Project Title		COX		PURCHASE ORDER NUMBER			
	DUPLEX PUMP CONTROL PANEL		Research and Technology, Inc.		DRAWING NUMBER CP-1970			
					SHEET NUMBER 5			