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# COX

Research and Technology, Inc.

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## DUPLEX 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-1405

VOLTAGE	120/240V	(480V, 277/480V, 240V, 120/240V, 208V, 120/208V)
PHASE/HZ	3/60	
NO. MOTORS	2	
HP	15	
FLA	42	
TYPE OF PUMP	SP	(Self-Priming, Submersible)
MANUFACTURER	Meyers	
CATALOG NUMBER		

CONTROL VOLTAGE	120V	(120V, Other)
ENCLOSURE	NEMA 4X	(NEMA 1, NEMA 3R, NEMA 4, NEMA 4X)
ENCLOSURE MATERIAL	Fiberglass	(Painted Steel, Stainless Steel, Fiberglass)
CONTROL SENSOR	Remote	(Floats, Bubbler, Other)
CAPACITORS	No	(Yes, No)
CAPACITOR WIRING FIGURE	N/A	
THERM. & SEAL FAIL WIRING FIGURE	N/A	

OPTIONS:

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

SOLD TO: Delta Process - Bossier City, LA

TAG : Sandy Point 480

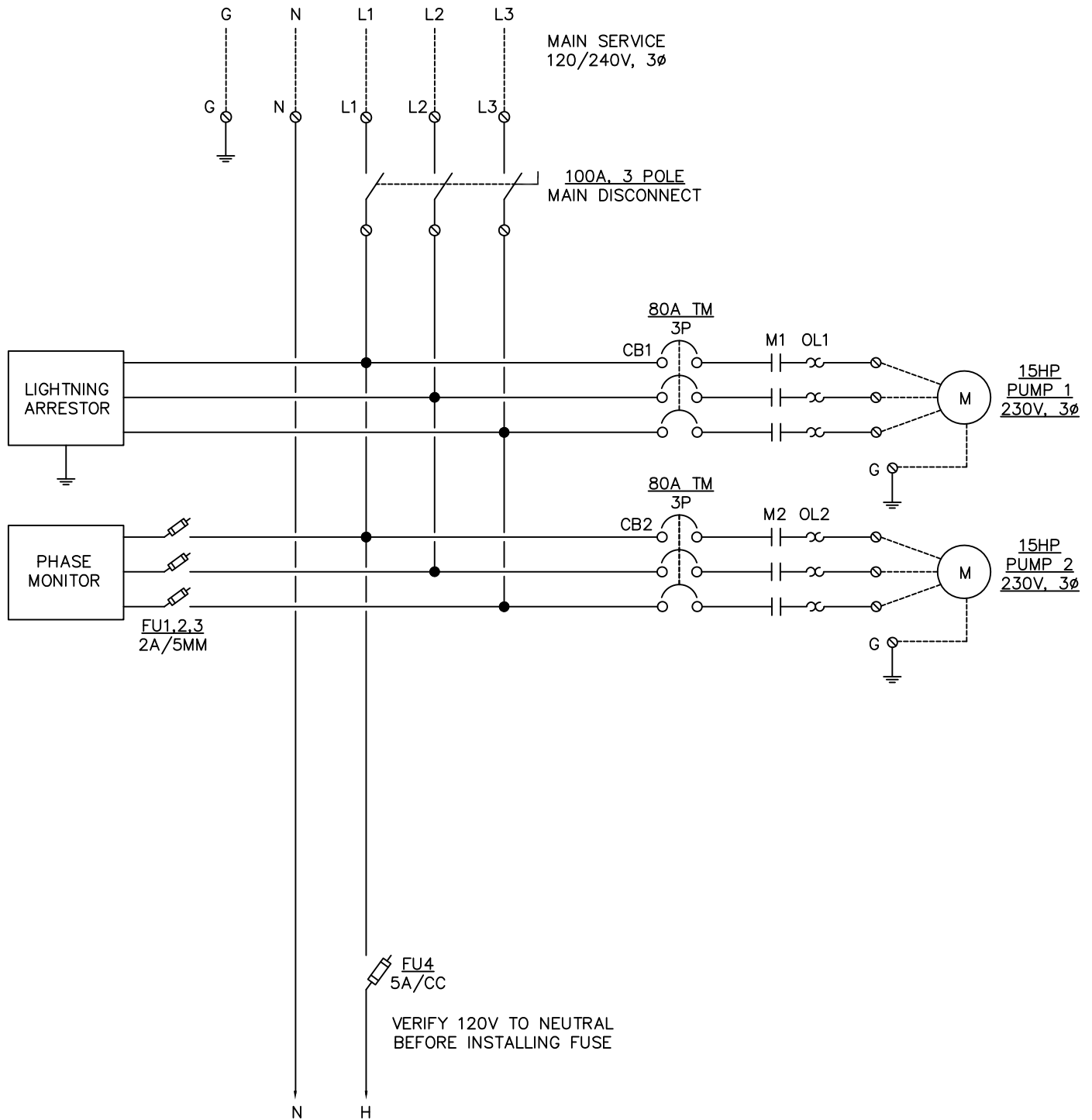
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SHIP TO: Delta Process - Bossier City, LA

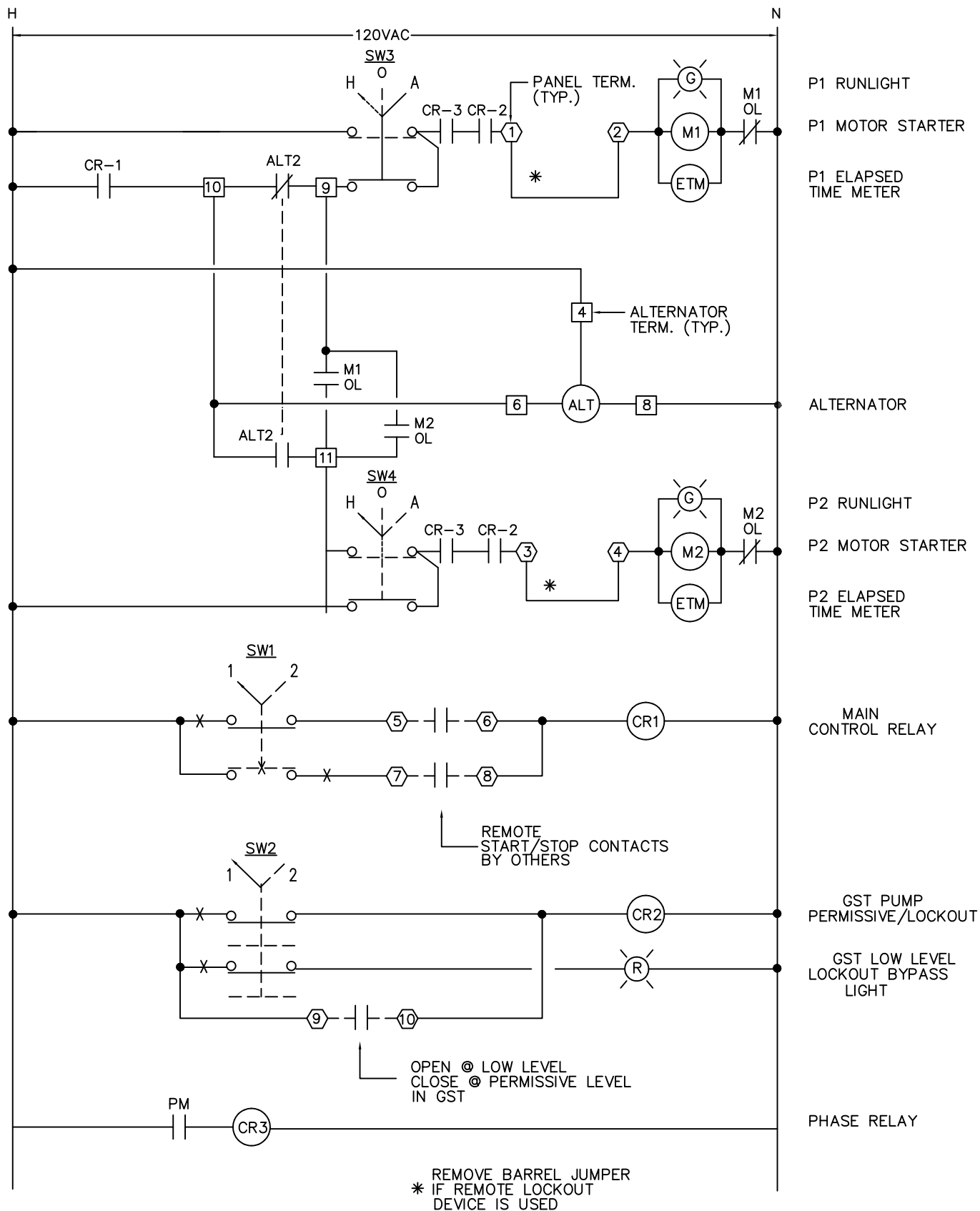
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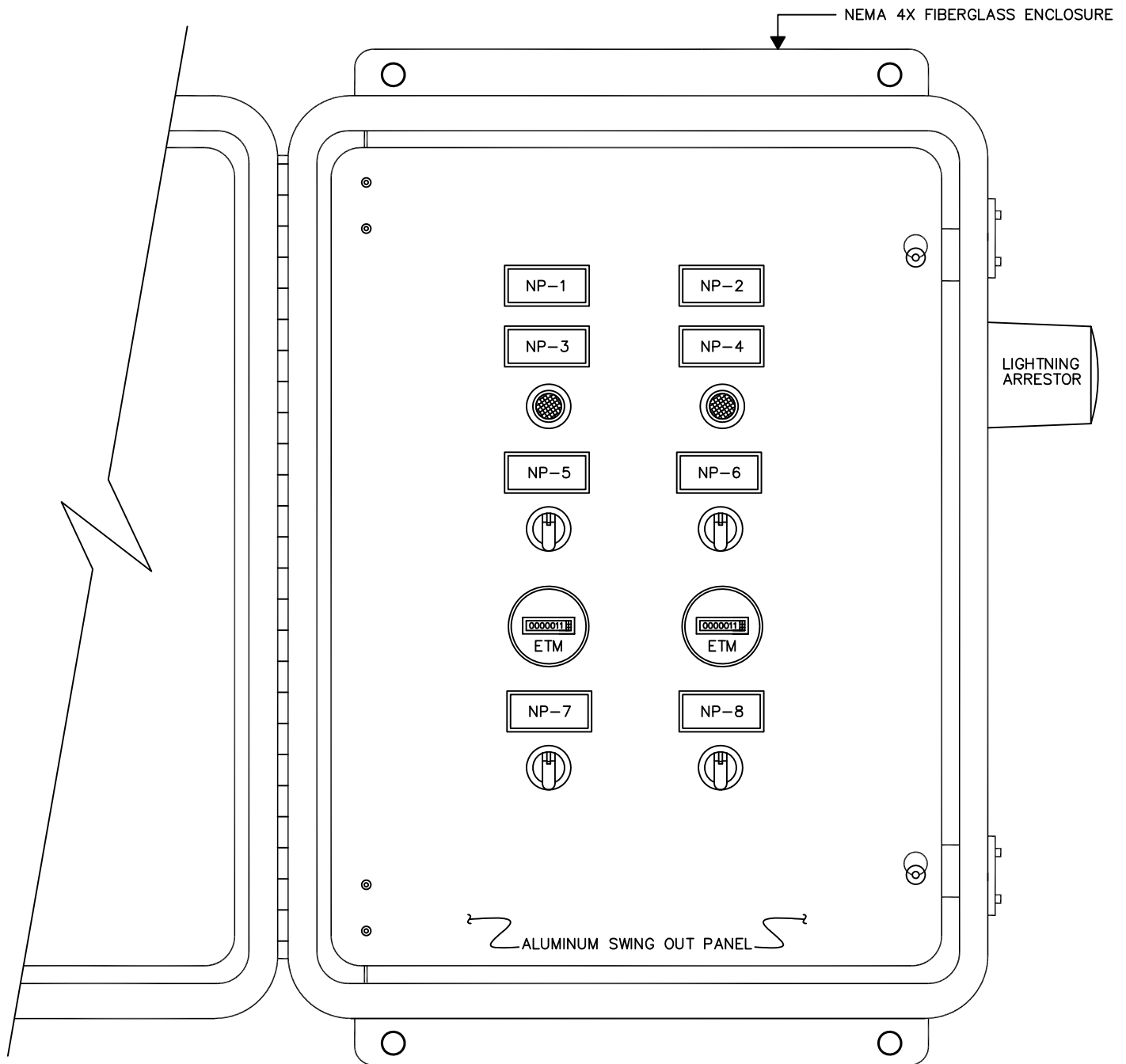
	Drawing Title								
	PANEL DESCRIPTION								
DATE 5/21/02			REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY M.S. CTR	ECN	DATE	BY
	Project Title		<div style="text-align: center;"> <b>COX</b>  Research and Technology, Inc. </div>			P.O. Box 77808 Baton Rouge, LA 70809		PURCHASE ORDER NUMBER	
	DUPLEX PUMP CONTROL PANEL					Ph. (225)756-3271 Fax (225)756-1030		DRAWING NUMBER CP-1405	
								SHEET NUMBER 1	



	Drawing Title								
	POWER DIAGRAM								
DATE		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY		
5/21/02		S/N	Sales Engineer C.C.	Application Engineer R.C.	BY	M.S.	CTR	BY	DATE
	Project Title	COX			P.O. Box 77808 Baton Rouge, LA 70809			PURCHASE ORDER NUMBER	
	DUPLEX PUMP CONTROL PANEL	Research and Technology, Inc.			Ph. (225)756-3271 Fax (225)756-1030			DRAWING NUMBER CP-1405	
								SHEET NUMBER 2	



Drawing Title									
CONTROL DIAGRAM									
DATE		REFERENCE DRAWING		NO.		REVISION-LOCATION		ECN	
5/21/02		S/N		Sales Engineer		Application Engineer		DATE	
Project Title		C.C.		R.C.		BY M.S.		CTR	
DUPLIX PUMP CONTROL PANEL								APPROVED	
								BY	
								DATE	
								PURCHASE ORDER NUMBER	
								DRAWING NUMBER	
								CP-1405	
								SHEET NUMBER	
								3	



VIEW OF SWING OUT PANEL

NAMEPLATE SCHEDULE

NP-1	PUMP 1
NP-2	PUMP 2
NP-3	RUN
NP-4	RUN
NP-5	HOA
NP-6	HOA
NP-7	PUMPING TO
	1 = ELEVATED TANK
	2 = GROUND STORAGE TANK
NP-8	1 = GST PUMP LOCKOUT BYPASS
	2 = GST PUMP LOCKOUT
NP-9	GST LOW LEVEL LOCKOUT
	IS IN BYPASS MODE

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

	Drawing Title   	
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## BILL OF MATERIALS

ITEM	QTY	MANUFACTURER	PART NO.	DESCRIPTION
1	1	ALLIED	AM2420RL	ENCLOSURE
1a	1	ALLIED	PA2420	BACKPLATE
2	1	ALLIED	HFP-2420	DEAD FRONT
3	1	ABB	OT100E3	MAIN DISC. SWITCH
4	2	FURNAS	14FSH32AF	MOTOR STARTER
5	2	SQUARE D	QOU380	CB1, CB2
6	1	TIMEMARK	261DT120	ALTERNATING RELAY
7	2	ACI	JR22FG	GREEN PILOT LIGHT
8	2	ACI	JR22P3M20B	HOA SWITCH
9	1	C-H	CHSA03	LIGHTNING ARRESTER
10	1	SSAC	PLMU-11	PHASE MONITOR
11	2	GRASSLIN	UWZ52E	ELAPSED TIME METER
12	2	ACI	JR22P2M11B	SW1 & SW2
13	1	ACI	JR22FR	RED PILOT LIGHT (LED)
14				
15				
16				
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20				
21				
22				
23				
24				
25				

	Drawing Title						
	BILL OF MATERIALS						
DATE 5/21/02		REFERENCE DRAWING S/N	NO. Sales Engineer C.C.	REVISION-LOCATION Application Engineer R.C.	DRAWN BY M.S. CTR	ECN	DATE
	Project Title	<div style="border-top: 3px double black; border-bottom: 3px double black; padding: 5px;"> <b>COX</b>            Research and Technology, Inc.         </div>			P.O. Box 77808 Baton Rouge, LA 70809  Ph. (225)756-3271 Fax (225)756-1030		PURCHASE ORDER NUMBER  DRAWING NUMBER CP-1405 SHEET NUMBER 5
	DUPLEX PUMP CONTROL PANEL						

## OPERATION

The control panel will receive dry contacts from level controls supplied by others in order to start and stop the pumps. Pumps will alternate upon successive off-on pump cycles. Only one pump will operate at a time. If the called for pump has tripped due to an overload, then the other pump will start.

There are two (2) scenario selector switches on the control panel – selector switch 1 and selector switch 2. Selector switch 1 allows the operator to select which device will control the pumps as follows:

Position 1 – Elevated water tank level via probe controls by others.

Position 2 – Ground storage tank level via probes by others.

Selector switch 2 allows the operator to select whether or not the pumps should lock out when a given pumping scenario is selected.

Operation is as follows:

Position 1 – Bypasses pump low level lockout in GST.

Position 2 – Allows pumps to lockout at low level in GST.

Remote contacts must have a pumping differential inherent in the control circuit.

	Drawing Title						
	OPERATION						
DATE 5/21/02		REFERENCE DRAWING	NO.	REVISION-LOCATION	ECN	DATE	BY
		S/N	Sales Engineer C.C.	Application Engineer R.C.	DRAWN BY M.S. CTR	APPROVED BY	DATE
	Project Title	<div style="border-top: 3px double black; border-bottom: 3px double black; padding: 5px;"> <span style="font-size: 1.5em; font-weight: bold;">COX</span>            Research and Technology, Inc.         </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-1405</div> SHEET NUMBER <div style="text-align: right;">5</div>
	DUPLEX PUMP CONTROL PANEL						