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# COX

Research and Technology, Inc.

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DUPLEX SELF PRIMING PUMP  
CONTROL PANEL  
LAKE PROVIDENCE, LA

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

CP-1602

|                                  |               |  |
|----------------------------------|---------------|--|
| VOLTAGE                          | 120/240V      | (480V, 277/480V, 240V, 120/240V, 208V, 120/208V) |
| PHASE/HZ                         | 3/60          |  |
| NO. MOTORS                       | 2             |  |
| HP                               | 5             |  |
| FLA                              | 15.2          |  |
| TYPE OF PUMP                     | Self-Priming  | (Self-Priming, Submersible)                      |
| MANUFACTURER                     | GR            |  |
| CATALOG NUMBER                   |               |  |
|                                  |               |  |
| CONTROL VOLTAGE                  | 120V          | (120V, Other)                                    |
| ENCLOSURE                        | NEMA 3R       | (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          |               |  |
| THERM. & SEAL FAIL WIRING FIGURE |               |  |

## OPTIONS:

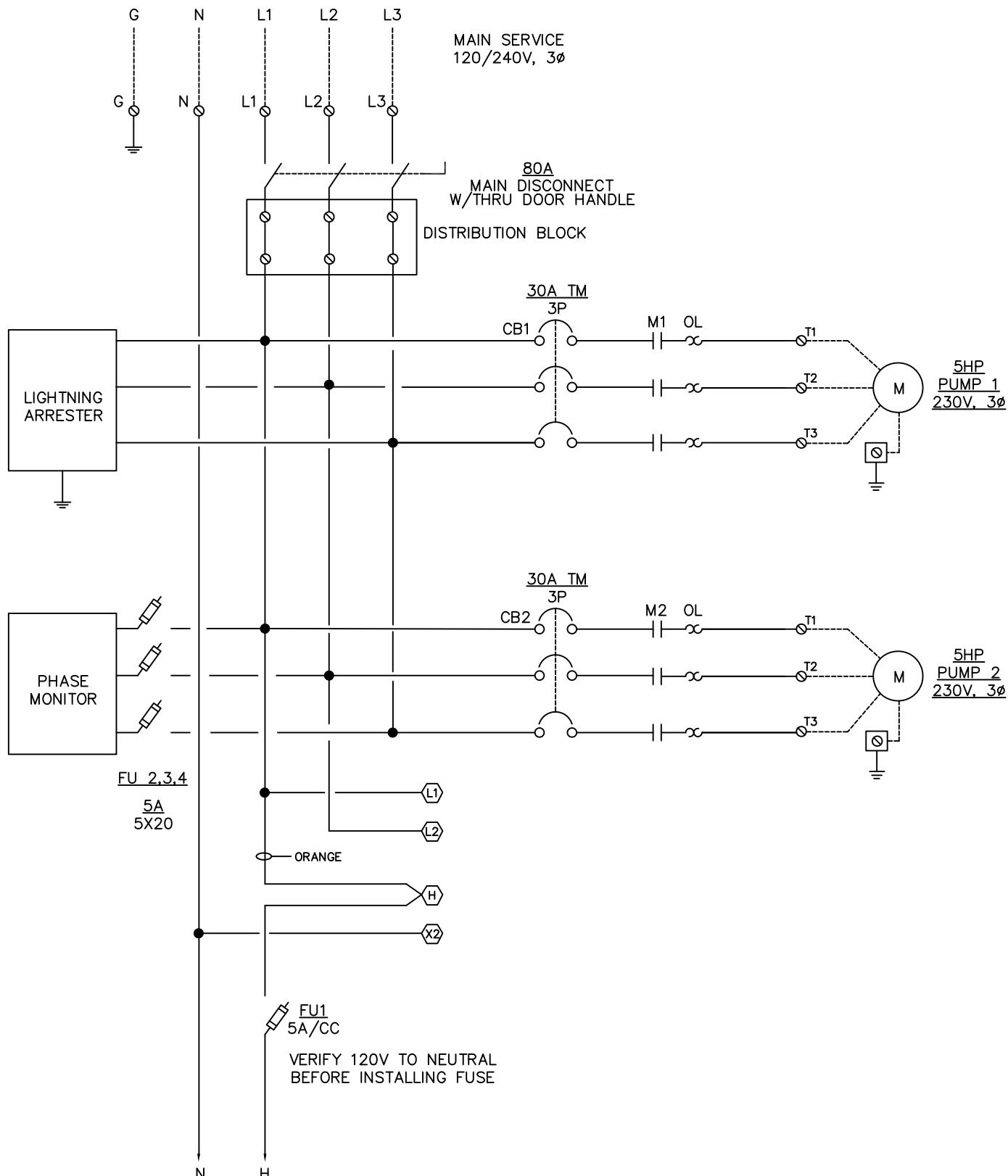
|                                  |   |                            |
|----------------------------------|---|----------------------------|
| SEAL FAIL LIGHTS                 |   | (Submersible Only)         |
| SEAL FAIL RELAYS                 |   | (Submersible Only)         |
| SEAL FAIL PUMP SHUTDOWN          |   | (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 | SQUARE D                   |
| GROUND FAULT RECPT.              |   |                            |
| GREEN RUN LIGHTS VS. RED         |   |                            |
| POLE, BOX, SEAL                  |   |                            |
| INTRINSICALLY SAFE RELAYS        |   |                            |
| HIGH TEMP. LOCKOUT, MANUAL RESET | X |                            |
| ECONOMY VERSION                  |   |                            |
| SWING INTERNAL DOOR              | X |                            |

SOLD TO: Delta Process - Ruston, LA  
TAG : Duplex S.P. Pump Control Panel  
Lake Providence, LA

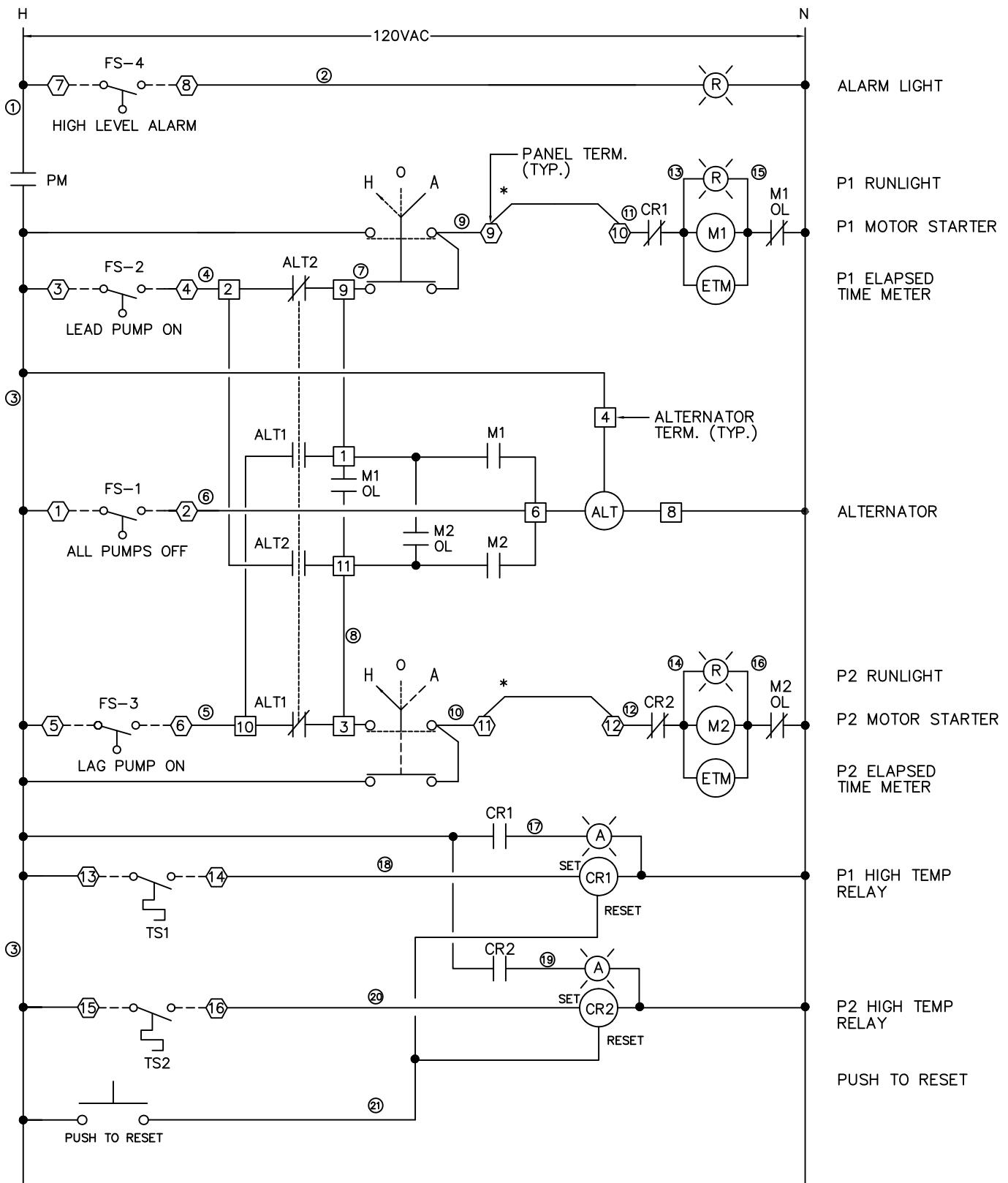
SHIP TO: Delta Process - Ruston, LA

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|  |  |  |                        |                              |  |                       |      |
|--|--|--|------------------------|------------------------------|--|-----------------------|------|
|  | Drawing Title<br><br><b>PANEL DESCRIPTION</b><br><br>DATE<br>7/21/03 |  |                        |                              |  |                       |      |
|  |  | REFERENCE DRAWING  | NO.                    | REVISION-LOCATION            | ECN  | DATE                  | BY   |
|  |  | S/N  | Sales Engineer<br>C.C. | Application Engineer<br>R.C. | DRAWN<br>BY C. RACHAL                      | APPROVED<br>BY        | DATE |
|  |  |  |                        |                              |  |                       |      |
|  | Project Title<br><br><b>DUPLEX S.P. PUMP<br/>CONTROL PANEL</b>       | <hr/> <hr/> <b>COX</b> <hr/> <hr/> Research and Technology, Inc. |                        |                              | P.O. Box 77808<br>Baton Rouge, LA<br>70809 | PURCHASE ORDER NUMBER |      |
|  |  |  |                        |                              |  | DRAWING NUMBER        |      |
|  |  |  |                        |                              | Ph. (225)756-3271<br>Fax (225)756-1030     | CP-1602               |      |
|  |  |  |                        |                              |  | SHEET NUMBER          |      |

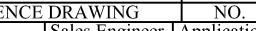


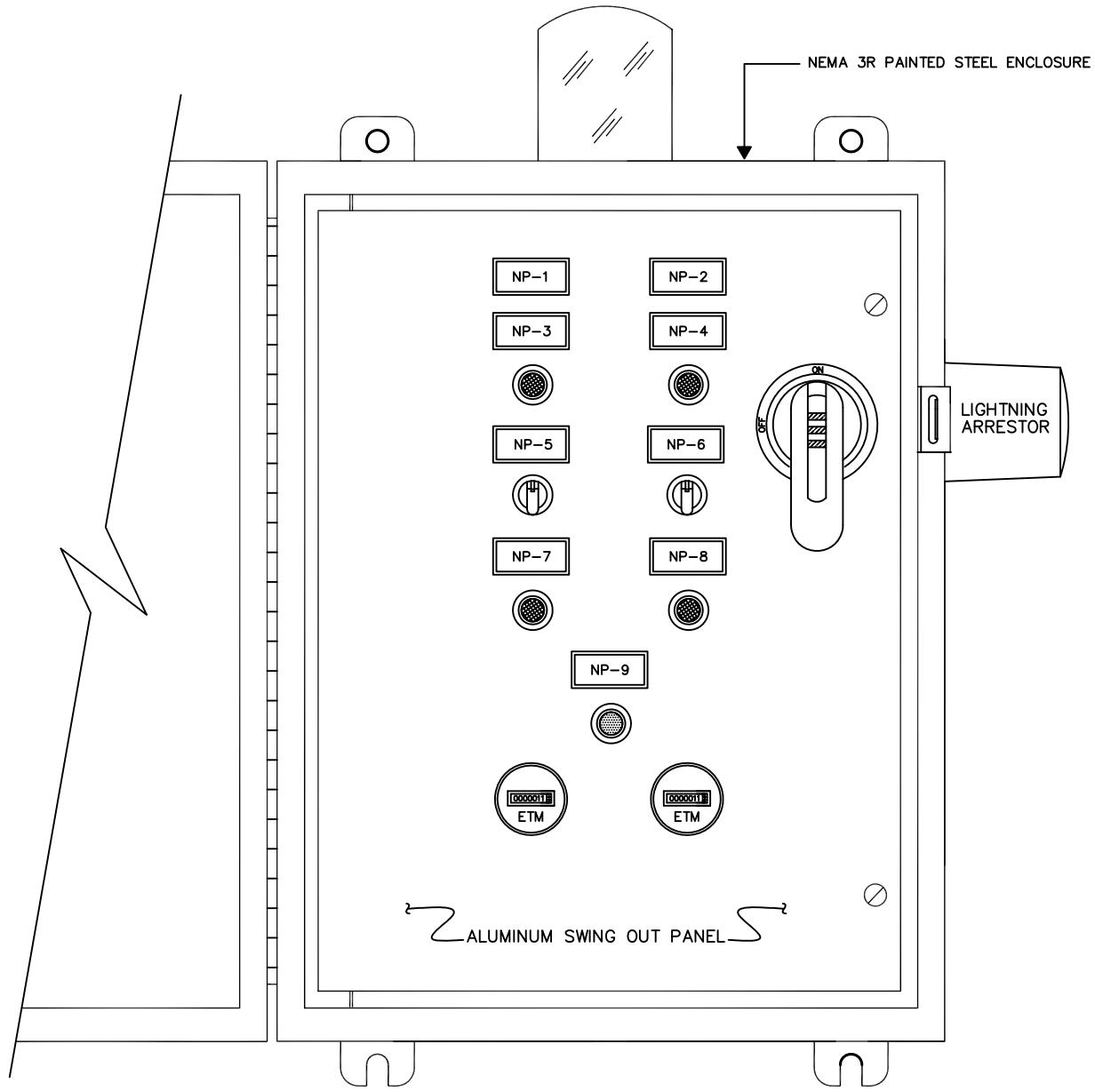
|                 |  |   |  |   |                            |
|-----------------|--|---|--|---|----------------------------|
|                 | Drawing Title<br><br>POWER DIAGRAM                     |   |  |   |                            |
|                 |  | REFERENCE DRAWING<br>S/N  | NO.<br>Sales Engineer<br>C.C.  | REVISION-LOCATION<br>DRAWN<br>BY C. RACHAL                                      | ECN<br>APPROVED<br>BY DATE |
| DATE<br>7/21/03 |  | Application Engineer<br>R.C.  |  |   |                            |
|                 | Project Title<br><br>DUPLEX S.P. PUMP<br>CONTROL PANEL | <hr/> <hr/> <b>COX</b><br>Research and Technology, Inc. <hr/> <hr/> | P.O. Box 77808<br>Baton Rouge, LA<br>70809<br><br>Ph. (225)756-3271<br>Fax (225)756-1030 | PURCHASE ORDER NUMBER<br><br>DRAWING NUMBER<br>CP-1602<br><br>SHEET NUMBER<br>2 |                            |



HIGH TEMP LOCKOUT, MANUAL RESET

\* REMOVE JUMPERS AND INSTALL LOCKOUT DEVICES IF REQUIRED

|  |   |   |                        |                              |  |                           |     |
|--|---|---|------------------------|------------------------------|--|---------------------------|-----|
|  | Drawing Title<br><br>CONTROL DIAGRAM<br><br>DATE<br>5/29/03 |   |                        |                              |  |                           |     |
|  |   |   |                        |                              |  |                           |     |
|  |   |   |                        |                              |  |                           |     |
|  |   |   |                        |                              |  |                           |     |
|  |   | REFERENCE DRAWING   |                        | NO.                          | REVISION-LOCATION                          |                           | ECN |
|  |   | S/N   | Sales Engineer<br>C.C. | Application Engineer<br>R.C. | DRAWN<br>BY C. RACHAL                      | APPROVED<br>BY DATE       |     |
|  | Project Title<br><br>DUPLEX S.P. PUMP<br>CONTROL PANEL      | <br>COX<br>Research and Technology, Inc. |                        |                              | P.O. Box 77808<br>Baton Rouge, LA<br>70809 | PURCHASE ORDER NUMBER     |     |
|  |   |   |                        |                              | Ph. (225)756-3271<br>Fax (225)756-1030     | DRAWING NUMBER<br>CP-1602 |     |
|  |   |   |                        |                              |  | SHEET NUMBER<br>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 | HIGH TEMP     |
| NP-8 | HIGH TEMP     |
| NP-9 | PUSH TO 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<br>7/21/03 | S/N                               | Sales Engineer   | Application Engineer | DRAWN             | APPROVED              |         |
|                 | C.C.                              |  | R.C.                 | BY C. RACHAL      | BY DATE               |         |
|                 | Project Title                     | <hr/> <hr/> <hr/> <b>COX</b> <hr/> <hr/> <hr/> Research and Technology, Inc. <hr/> <hr/> <hr/> |                      |                   | PURCHASE ORDER NUMBER |         |
|                 | DUPLEX S.P. PUMP<br>CONTROL PANEL |  |                      |                   | DRAWING NUMBER        | CP-1602 |
|                 |                                   |  |                      |                   | SHEET NUMBER          | 4       |

## BILL OF MATERIALS

| ITEM | QTY | MANUFACTURER | PART NO.     | DESCRIPTION             |
|------|-----|--------------|--------------|-------------------------|
| 1    | 1   | EBE          | 242010REPL   | ENCLOSURE               |
| 1a   | 1   | EBE          | A2420P       | BACKPLATE               |
| 1b   | 1   | EBE          | A2420SP      | DEAD FRONT              |
| 2    | 1   | ABB          | OT63E3       | MAIN DISC. SWITCH       |
| 3    | 2   | SQUARE D     | 8536SC03V02S | MOTOR STARTER NEMA SZ 1 |
| 4    | 2   | SQUARE D     | B28.0        | O.L. HEATERS            |
| 5    | 2   | SQUARE D     | QOU330       | CB1, CB2                |
| 6    | 1   | TIMEMARK     | 261DT120     | ALTERNATING RELAY       |
| 7    | 2   | ACI          | JR22FR       | RED PILOT LIGHT         |
| 8    | 1   | AC/DC        | BL5-R-120    | ALARM LIGHT             |
| 9    | 1   | C-H          | CHSA03       | LIGHTNING ARRESTER      |
| 10   | 2   | GRASSLIN     | UWZ52E       | ELAPSED TIME METER      |
| 11   | 1   | SSAC         | PLMU11       | PHASE MONITOR           |
| 12   | 2   | ACI          | JR22P3M20B   | HOA SWITCH              |
| 13   | 2   | ACI          | JR22FY       | AMBER PILOT LIGHT       |
| 14   | 1   | MARATHON     | 1323580      | DISTRIBUTION BLOCK      |
| 15   | 1   | ABB          | OHB45L5      | HANDLE                  |
| 16   | 1   | ABB          | OXP5X265     | SHAFT                   |
| 17   | 1   | ACI          | JR22AN11B    | PB                      |
| 18   | 2   | MAGNACRAFT   | W388AMLCPX-9 | LATCHING RELAY          |
| 19   |     |              |              |                         |
| 20   |     |              |              |                         |
|      |     |              |              |                         |
|      |     |              |              |                         |
|      |     |              |              |                         |

|  |  |   |  |  |     |          |    |
|--|--|---|--|--|-----|----------|----|
|  | Drawing Title<br><br><b>BILL OF MATERIALS</b><br><br>DATE<br>7/21/03 |   |  |  |     |          |    |
|  |  | REFERENCE DRAWING<br>S/N                    | NO.<br>Sales Engineer<br>C.C.              | REVISION-LOCATION<br>DRAWN<br>BY C. RACHAL | ECN | DATE     | BY |
|  |  |   | Application Engineer<br>R.C.               |  |     | APPROVED |    |
|  |  |   |  |  | BY  | DATE     |    |
|  | Project Title<br><br><b>DUPLEX S.P. PUMP<br/>CONTROL PANEL</b>       | <b>COX</b><br>Research and Technology, Inc. | P.O. Box 77808<br>Baton Rouge, LA<br>70809 | PURCHASE ORDER NUMBER                      |     |          |    |
|  |  |   | Ph. (225)756-3271<br>Fax (225)756-1030     | DRAWING NUMBER<br>CP-1602                  |     |          |    |
|  |  |   |  | SHEET NUMBER<br>5                          |     |          |    |