



















**NOTES:**

- ALL FLOATING SHIELDS: BEND BACK AND HEAT SHRINK
- DASHED LINES :DENOTE WIRE INSTALLED AND SUPPLIED BY SITE CONTRACTOR
- CONTRACTOR SHALL USE ALL COPPER CONDUCTORS RATED 90°C WITH APPROPRIATE WIRE GAUGE AND TIGHTENING TORQUE FOR ALL FIELD WIRING

**TERMINAL BLOCK INDICATION / LOCATION:**

-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-1) (SHIPPED LOOSE)
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-2) (SHIPPED LOOSE)
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-3) SODIUM HYDROXIDE PUMPS SKID
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-4) PHOSPHORIC ACID PUMPS SKID
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-5) (SHIPPED LOOSE)
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-6) MEMBRANE TANK
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-7) PROCESS/VACUUM PUMPS SKID
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-8) ANTIFOAM PUMP SKID
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-9) RECIRCULATION PUMPS SKID
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-10) SODIUM HYPOCHLORITE PUMP SKID
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-11) CITRIC ACID PUMP SKID
-  -REGULAR TERMINAL BLOCKS (LOC: JUNCTION BOX JB-12) RECOVERY CLEAN PERMEATE PUMP
-  -REGULAR TERMINAL BLOCKS (LOC: MCC) BY OTHERS
-  -TERMINAL BLOCKS (LOC: VARIABLE FREQUENCY DRIVE) IN MCC
-  -REGULAR TERMINAL BLOCKS (LOCATION: ZENON MAIN CONTROL PANEL MP-1)
-  -KNIFE DISCONNECT TERMINAL BLOCKS (LOC: MP-1)
-  -POWER DISTRIBUTION TERMINAL BLOCKS (LOC: MP-1)
-  -FUSE TERMINAL BLOCKS (LOC: MP-1)

**DEDICATED INSTRUMENT GROUND:**

- CONTRACTOR SHALL SUPPLY AND INSTALL DEDICATED INSTRUMENT GROUND USING #8 AWG GREEN INSULATED GROUND CONDUCTOR FROM THE ISOLATED GROUND TERMINALS IN MP-1 DIRECTLY TO THE BUILDING MAIN GROUNDING SYSTEM!

**ZIGZAG LINE:**

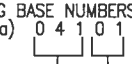


THIS LINE INDICATES EQUIPMENT ON MEMBRANE TANK TK-34 PRE-WIRED OR TUBED TO JB-6 BUT SHIPPED LOOSE. FIELD EQUIPMENT NEEDS TO BE RE-CONNECTED BY CONTRACTOR

**DRAWING NO. CONVENTION:**

- 010 - 019 NOTES & LEGEND INDEX
- 020 - 039 SINGLE LINE DIAGRAMS
- 040 - 099 CONTROL ARCHITECTURE & SCHEMATIC DIAGRAMS
- 100 - 799 PLC I/O
- 800 - 849 LOCAL CONTROL PANEL/JUNCTION BOXES
- 900 - 999 PNEUMATIC DIAGRAMS

**RUNG #'S IDENTIFICATION:**

- RUNG BASE NUMBERS: EG. 04101=(SHT#041)
- EG. a)  LINE REFERENCE NUMBER  
PAGE REFERENCE NUMBER (#041)  
(DWG'S CONVENTION)

**SPECIAL NOTES:**

- ZENON STANDARD JOB -MATERIALS & WIRING
- CSA APPROVED CONTRACT

**INTERNAL WIRING:**

- CONTROL: #18 (MINIMUM) STRANDED COPPER CONDUCTOR W/600V INSULATION MEETING TEW OR T90
- ANALOG: #18 (MINIMUM) TWISTED PAIR + SHIELD, BELDEN OR EQUAL

**SKID WIRING:**

- CONTROL: #14AWG STRANDED COPPER CONDUCTOR W/600V INSULATION MEETING T90
- ANALOG: #16AWG TWISTED PAIR + SHIELD, BELDEN OR EQUAL

- WIRE NUMBERS ARE THE SAME AS TERMINAL NUMBERS UNLESS OTHERWISE NOTED

**COLOUR CODE:**

- BLACK=POWER (120VAC/1PH/60HZ)
- BLACK CONTROL/RED=SWITCHED CONTROL (120VAC)
- WHITE=NEUTRAL
- GREEN=GROUND
- YELLOW=FOREIGN VOLTAGE
- BLUE=DC POWER (24VDC)
- TWISTED PAIR=WHITE (POSITIVE) & BLACK (NEGATIVE)
- AVERAGE AMBIENT TEMP. =<90°F FOR OUTDOOR EQUIPMENT
- ALL FUSES ARE TIME DELAY UNLESS OTHERWISE NOTED
- ALL ANALOG SIGNAL WIRING MUST BE SEPERATED FROM ALL OTHER WIRING CONDUIT OR CABLE
- CONTROL PANEL BUILT TO CEC STANDARDS (CSA APPROVED)

**TERMINAL STRIP NUMBERING IN MP-1:**

- TS1=120VAC POWER DISTRIBUTION
- TS2=ISOLATED FOREIGN VOLTAGE (CUSTOMER SIGNALS)
- TS3=DIGITAL I/O 120VAC
- TS4=ANALOG I/O 24VDC

**TERMINAL STRIP NUMBERING IN JB's:**

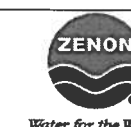
- TS1=DIGITAL I/O 120VAC
- TS2=ANALOG I/O 24VDC

**NOTES:**

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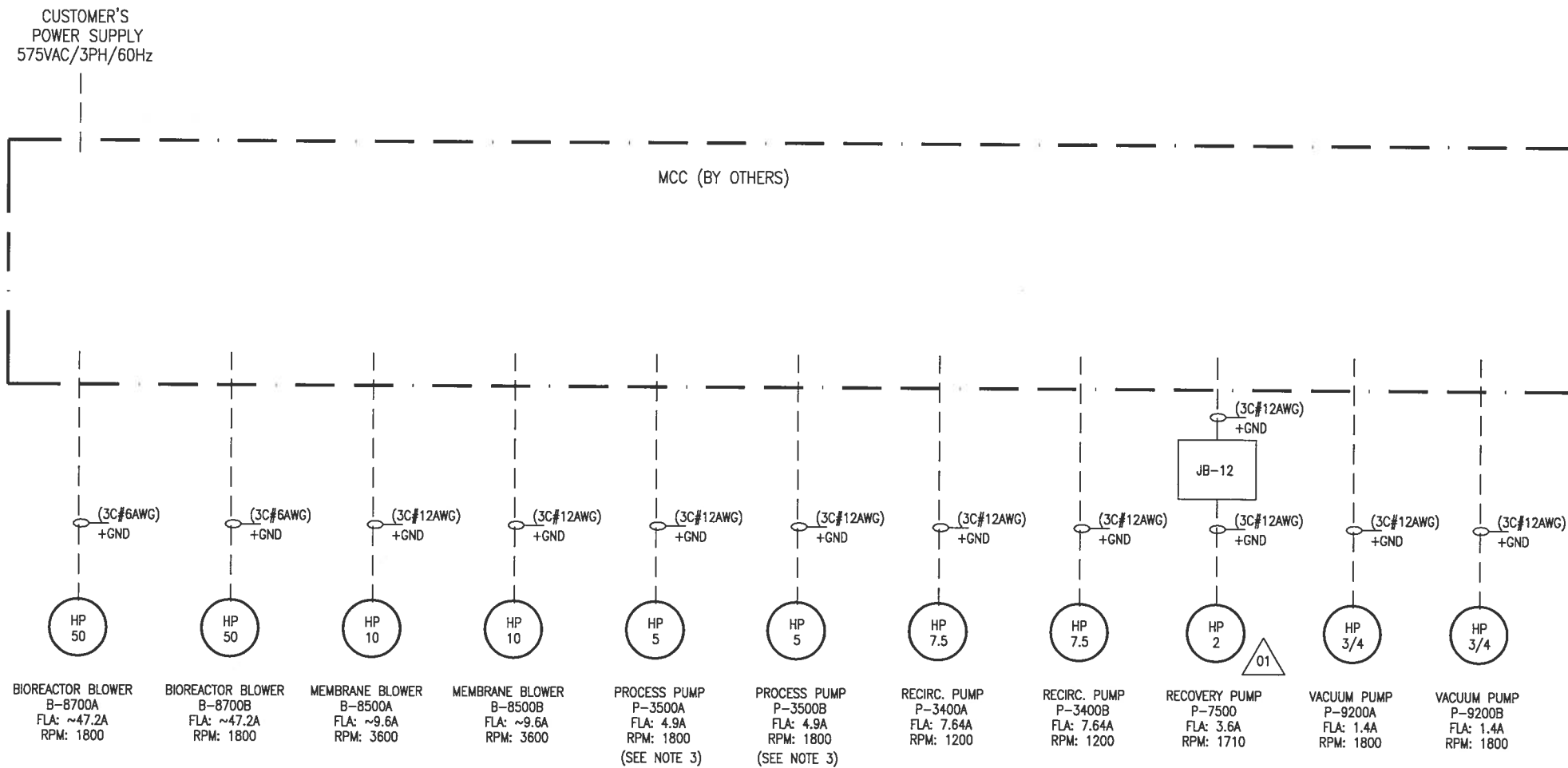
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REV.	DATE	DESCRIPTION	DSGN.	CHKD.	APPD.	DRWN:	JM	22/12/04
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						CADD FILE:	200115-E-010	
						SCALE:	1=1	
						REV: 00	DRAWING NO:	200115-E-010
								010 NEXT 020



**ZENON Environmental Inc.**  
ZEI - OAKVILLE ONTARIO

CUSTOMER: TERGEL  
TITLE: ELECTRICAL NOTES & LEGEND INDEX



- NOTES:**
1. ALL CABLES ARE RATED AT 90° UNLESS OTHERWISE NOTED. CABLE SIZE BASED ON AMBIENT TEMP. OF 30° C MAX.
  2. DOTTED LINES DENOTE CABLE INSTALLATION & TERMINATIONS BY OTHERS
  3. VARIABLE FREQUENCY DRIVE (BY OTHERS)
  4. MCC (BY OTHERS)
  5. ALL NECESSARY CORRECTION FACTORS MUST BE APPLIED TO WIRE SIZING BY OTHERS
  6. FIELD CONTRACTOR SHALL SUPPLY & INSTALL PERMETER/BUILDING GROUND FOR THIS ELECTRICAL SYSTEM

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REV.	DATE	DESCRIPTION	DSGN.	CHKD.	APPD.	DRWN:	JM	04/01/05
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								020 NEXT



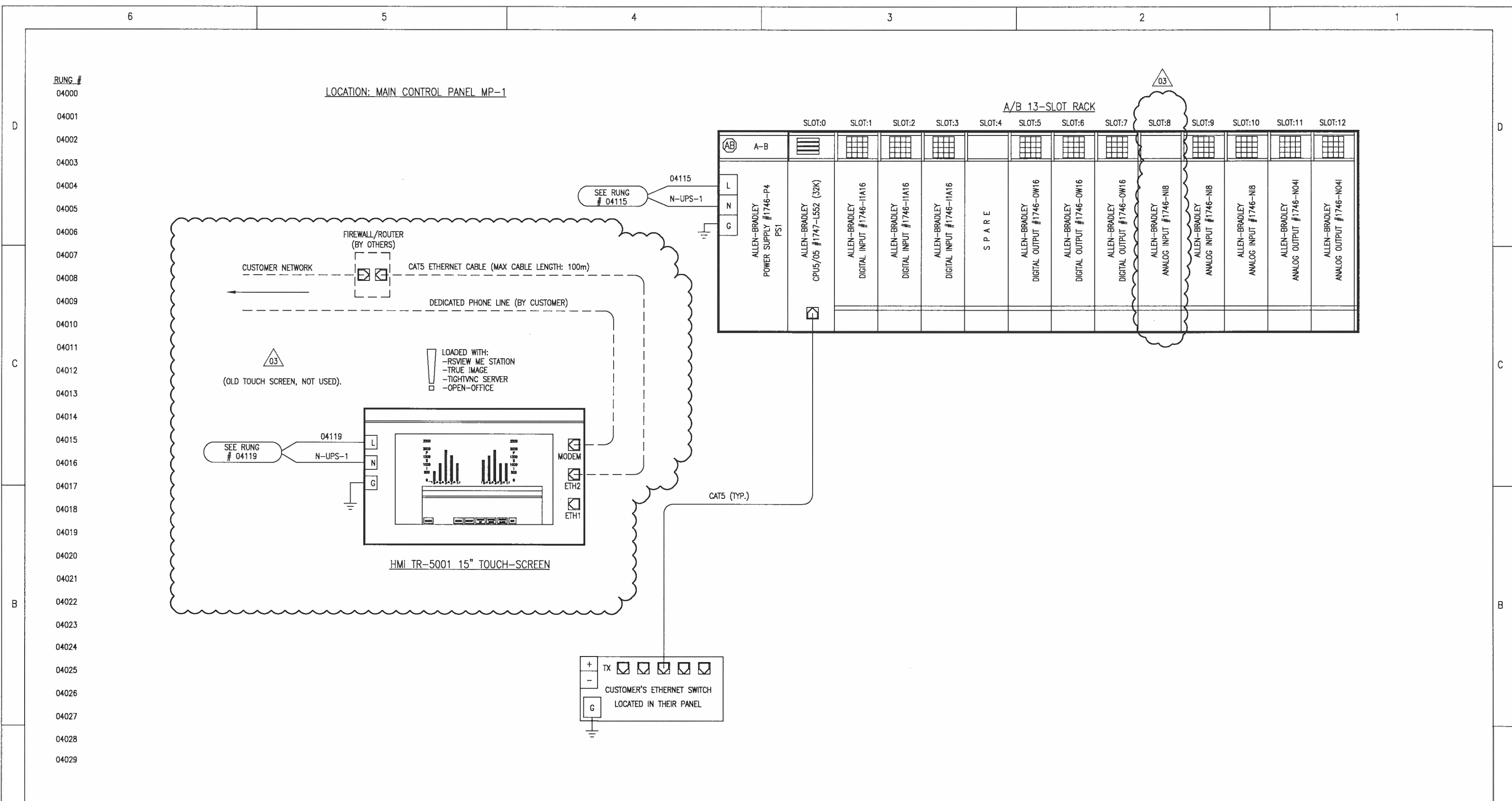
**ZENON Environmental Inc.**

ZEI - OAKVILLE

ONTARIO

CUSTOMER: TERGEL

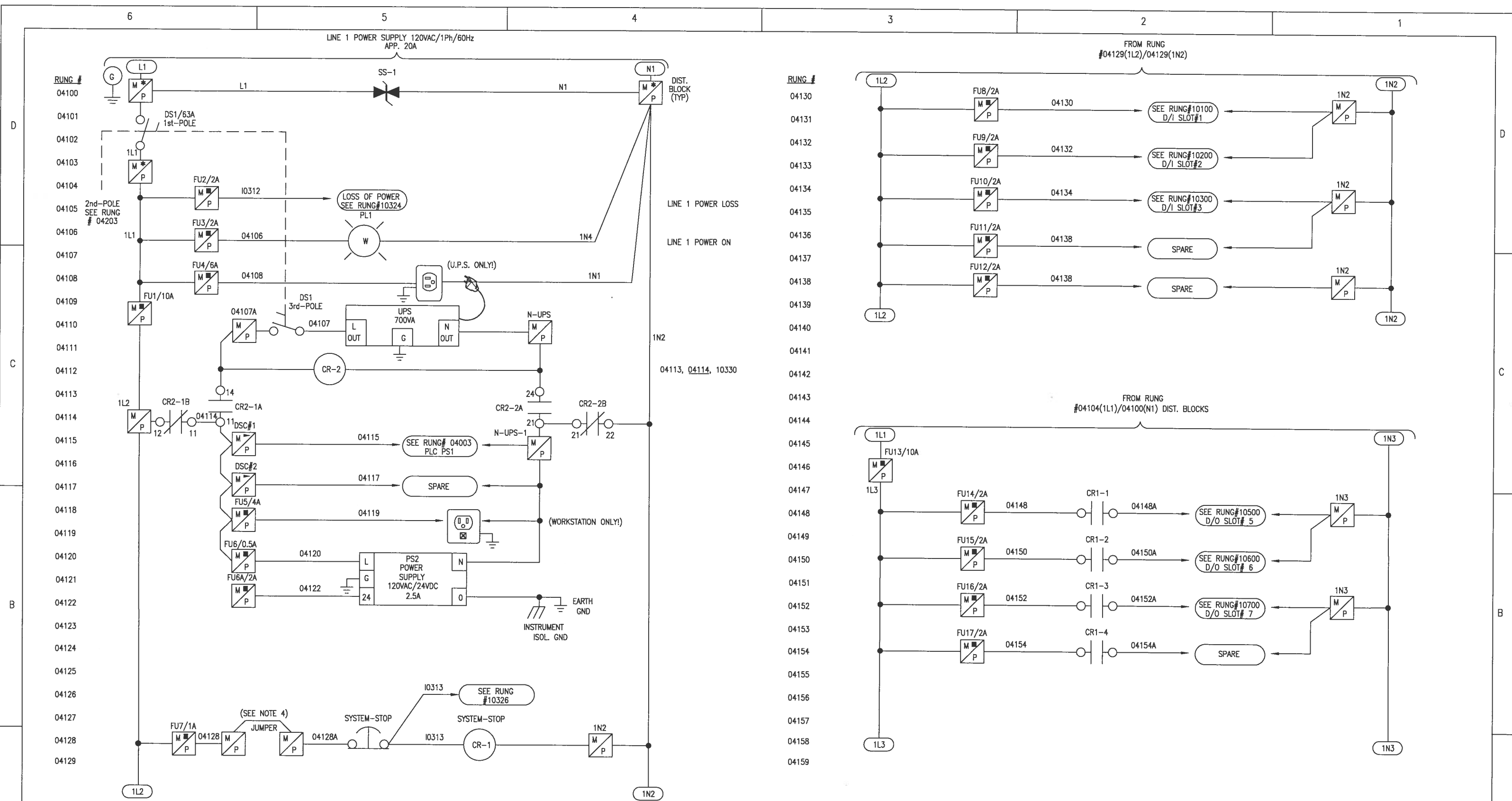
TITLE: SINGLE LINE DIAGRAM  
575VAC/3PH/60Hz



REV.	DATE	DESCRIPTION	DSGN.	CHKD.	APPD.	DRWN:	JM	22/12/04
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02	03/07/07	AS INSTALLED	GW	KR	JL	CADD FILE:	200115-E-040	
03	25/02/09	REVISED AS NOTED	<i>AW</i>	<i>JL</i>	<i>R</i>	SCALE:	1=1	


  

		<b>ZENON Environmental Inc.</b> ZEI - OAKVILLE ONTARIO	
CUSTOMER:		TERGEL	
TITLE:		CONTROL ARCHITECTURE (PLC) LAYOUT	
REV: 03	DRAWING NO:	200115-E-040	040 NEXT 041



- NOTES:**
- ALL FUSES ON THIS PAGE ARE LOCATED AT TERMINAL STRIP TS1.
  - ALL FUSES ARE TIME DELAY TYPE UNLESS OTHERWISE NOTED.
  - WIRE NUMBERS ARE THE SAME AS TERMINAL NUMBERS UNLESS OTHERWISE NOTED
  - CUSTOMER TO ADD ADDITIONAL SYSTEM STOP PUSH BUTTONS ON 1ST AND 2ND FLOOR.
  - 
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REV.	DATE	DESCRIPTION	DSGN.	CHKD.	APPD.	DRWN:	JM	22/12/04
00	22/12/04	CONTROLLED DOCUMENT	JM	JL	WM	DSGN:	JM	22/12/04
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Water for the World

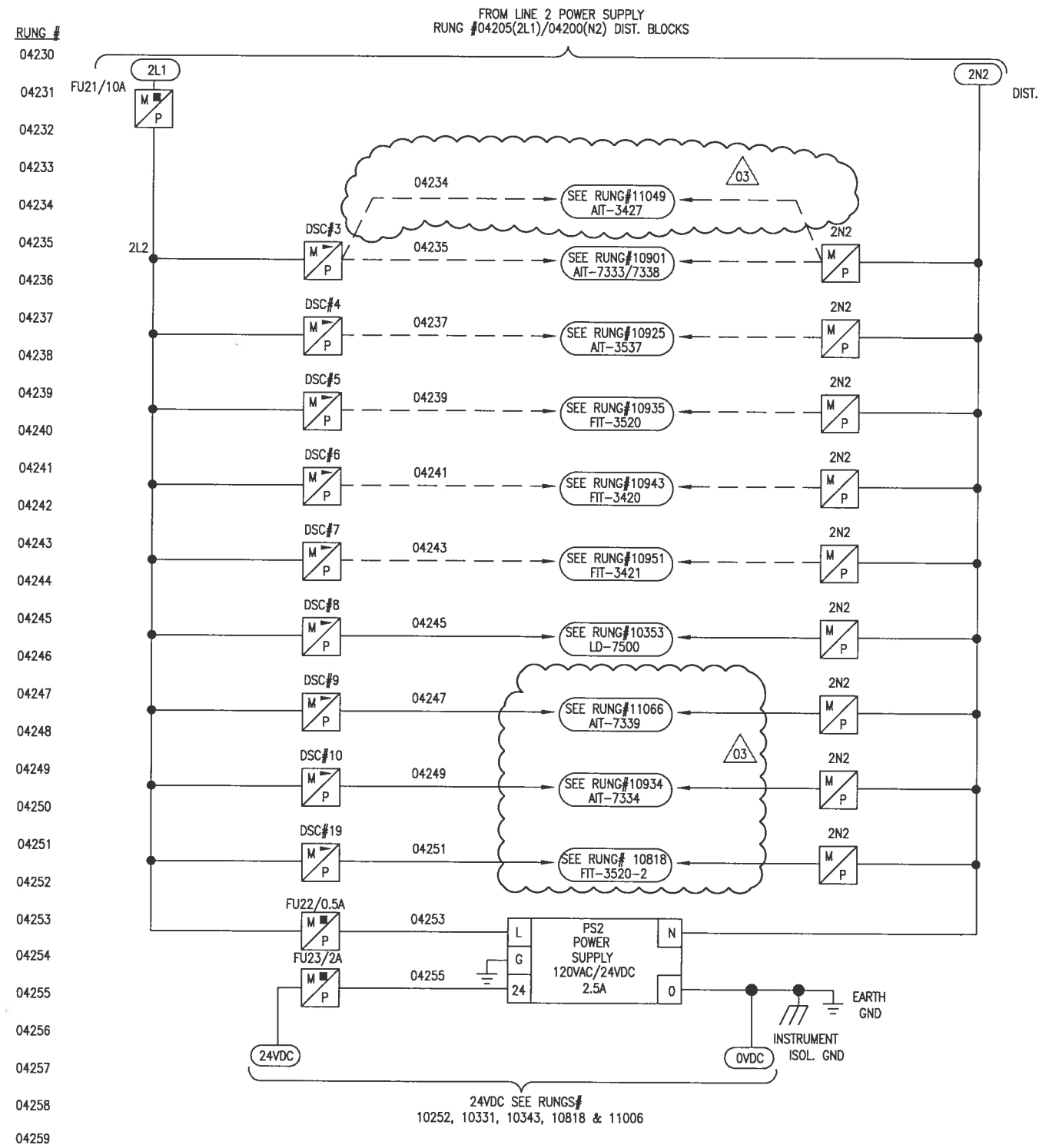
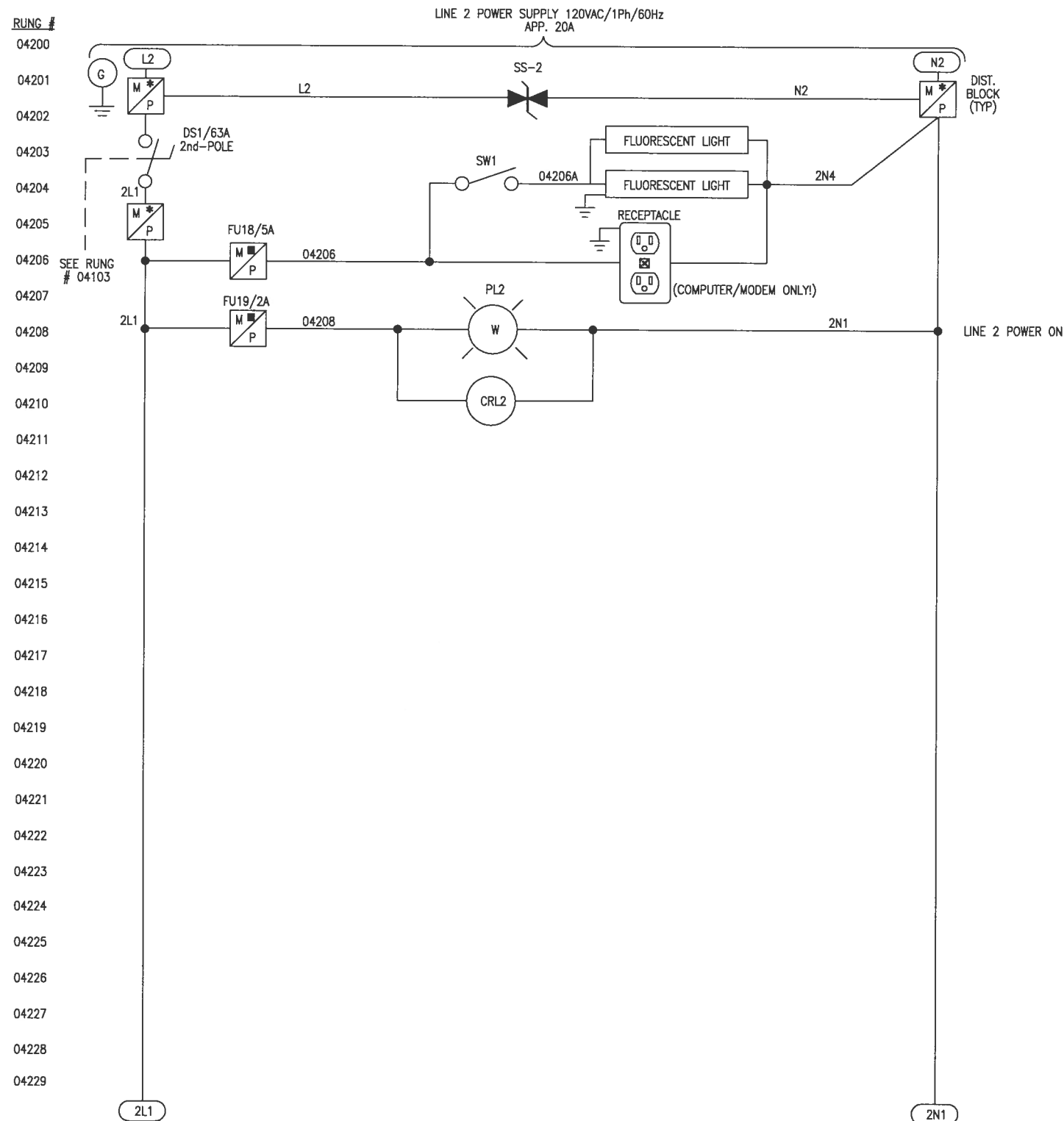
ZEI - OAKVILLE ONTARIO

CUSTOMER: TERGEL

TITLE: MAIN CONTROL PANEL MP-1 SCHEMATIC DIAGRAM 120VAC

REV: 03 DRAWING NO: 200115-E-041

041 NEXT 042



NOTES:

- 1.
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01	03/03/05	CUSTOMER CHANGES	JM	JL	WM	CONTRACT No:	200115	
02	26/05/05	AS BUILTS	JM	JL	WM	CADD FILE:	200115-E-042	
03	25/02/09	REVISED AS NOTED	<i>JM</i>	<i>JL</i>	<i>WM</i>	SCALE:	1=1	
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**ZENON Environmental Inc.**

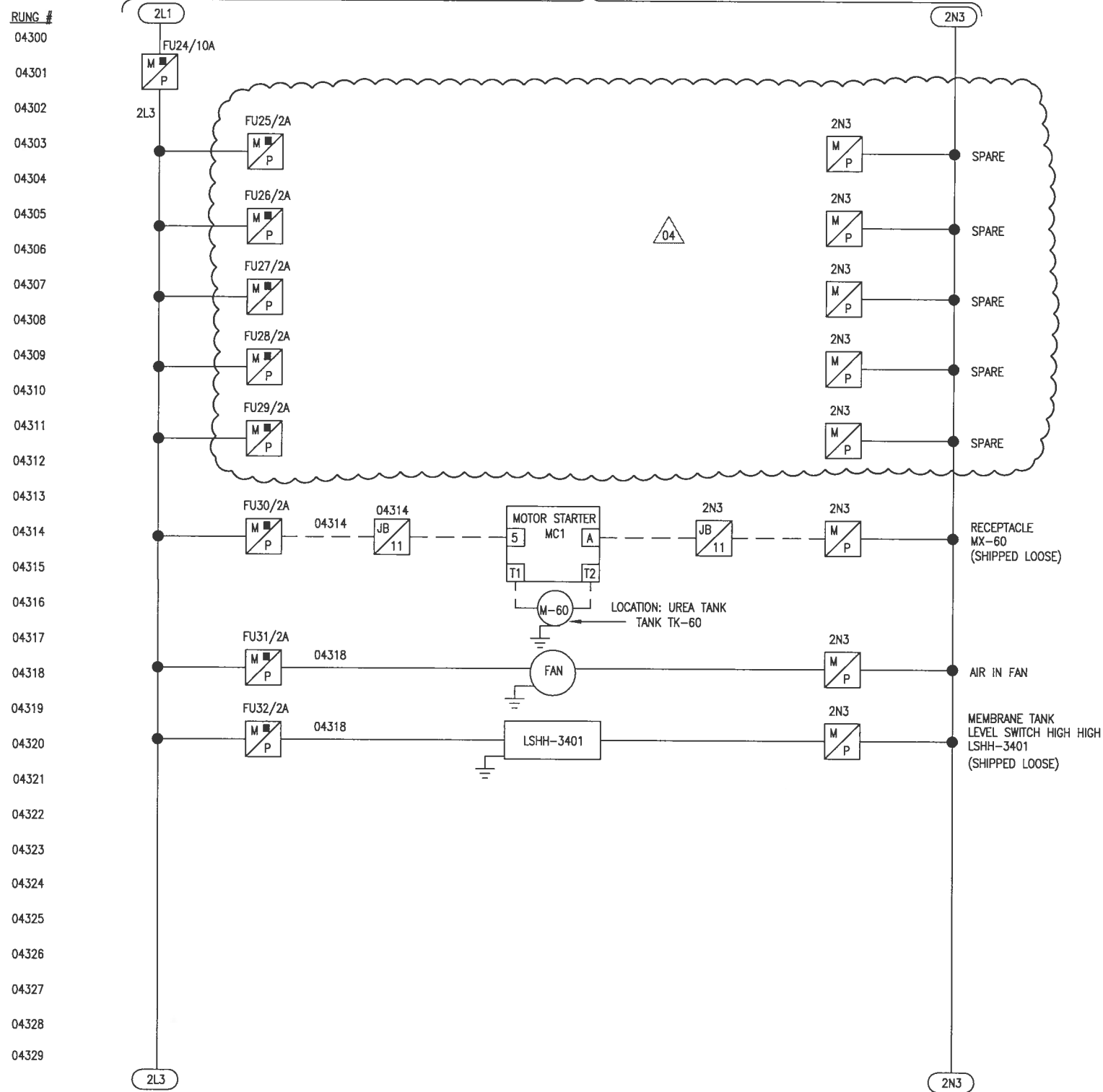
ZEI - OAKVILLE ONTARIO

CUSTOMER: TERGEL

TITLE: MAIN CONTROL PANEL MP-1 SCHEMATIC DIAGRAM 120VAC

REV: 03 DRAWING NO: 200115-E-042 042 NEXT 043

FROM LINE 2 POWER SUPPLY  
RUNG #04205(2L1)/04200(N2) DIST. BLOCKS



NOTES:

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02	06/06/05	AS BUILT	JM	JL	WM	CADD FILE: 200115-E-043		
03	23/01/05	LSHH ADDED	JM	JL	WM	SCALE: 1=1		
04	25/02/09	CHEMICAL PUMPS REMOVED	JM	JL	WM	REV: 04	DRAWING NO: 200115-E-043	



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ONTARIO

CUSTOMER: TERGEL

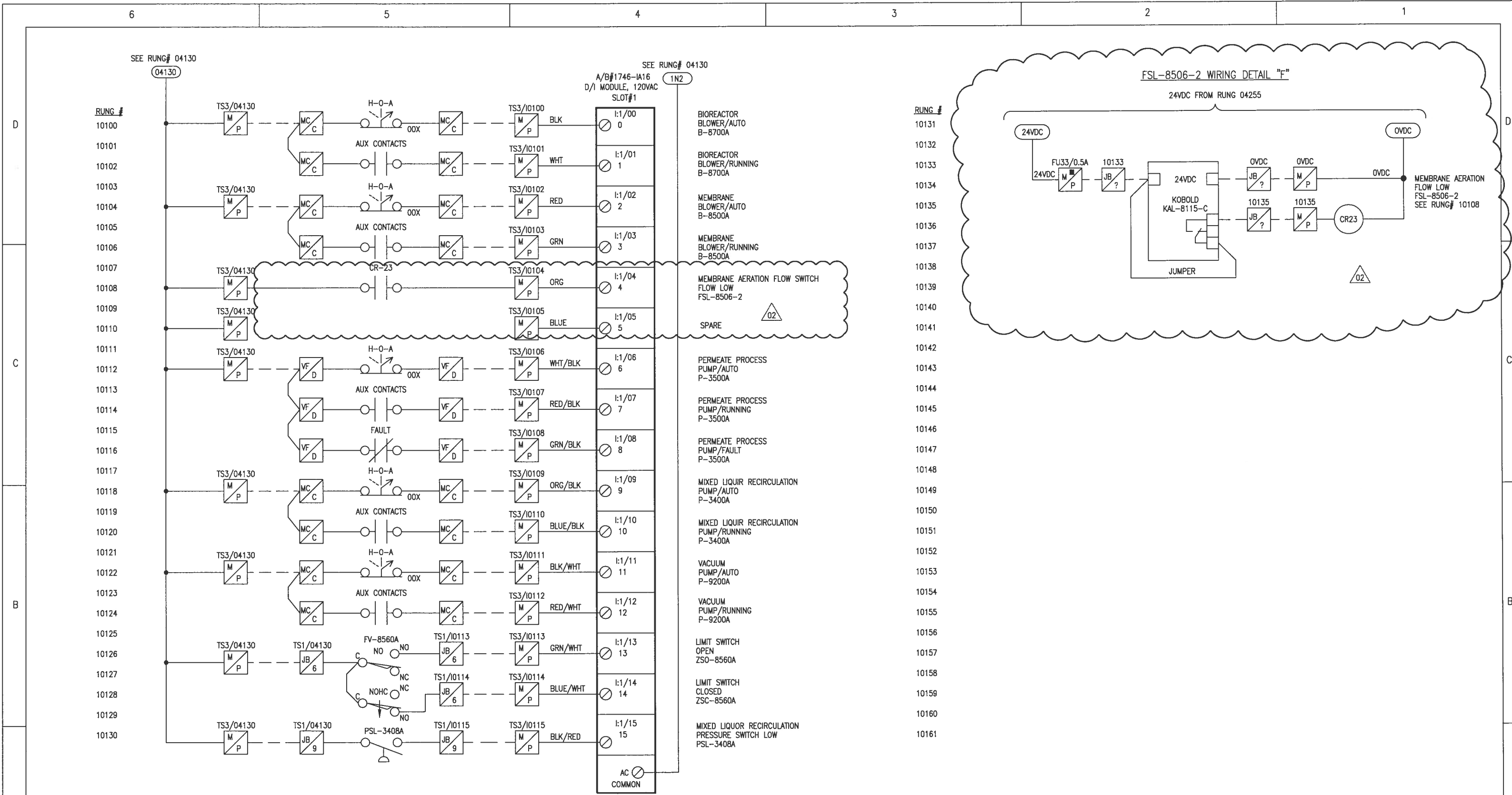
TITLE: MAIN CONTROL PANEL MP-1  
SCHEMATIC DIAGRAM 120VAC

REV: 04

DRAWING NO:

200115-E-043

043 NEXT 101




**NOTES:**

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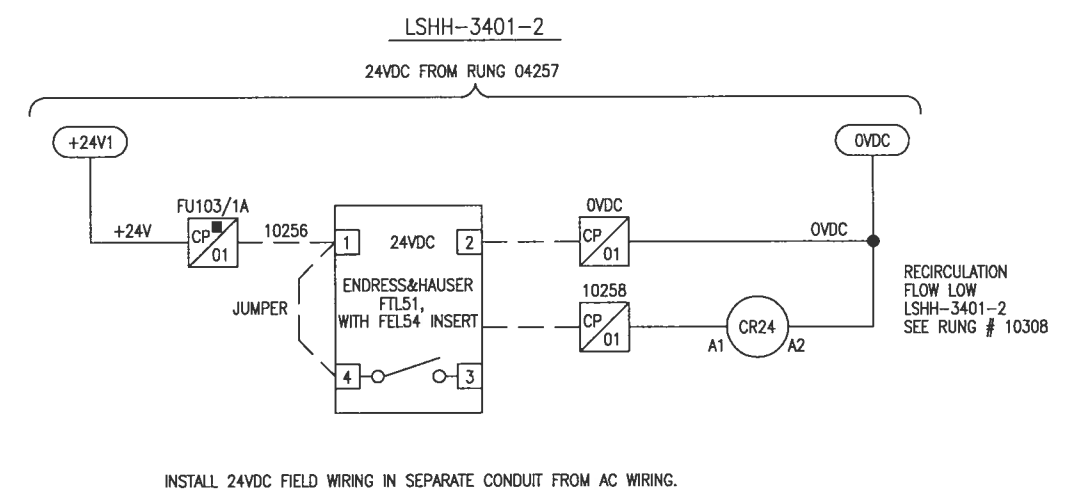
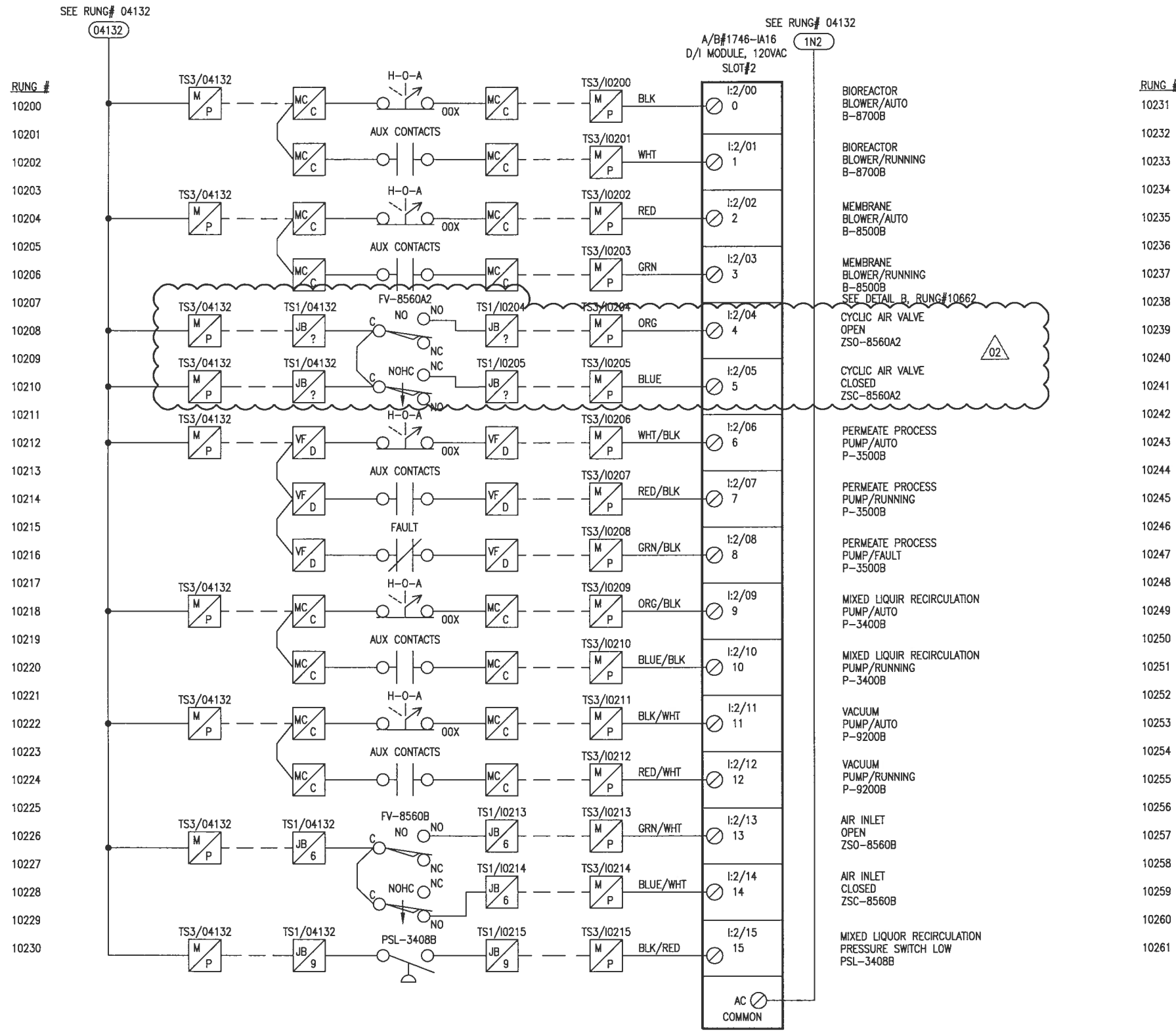


**ZENON Environmental Inc.**  
ZEI - OAKVILLE ONTARIO

CUSTOMER: TERGEL

TITLE: MAIN CONTROL PANEL MP-1  
D/I MODULE SLOT#1

REV: 02      DRAWING NO: 200115-E-101      101 NEXT 102



- NOTES:
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REV.	DATE	DESCRIPTION	DSGN.	CHKD.	APPD.	DRWN:	JM	22/12/04
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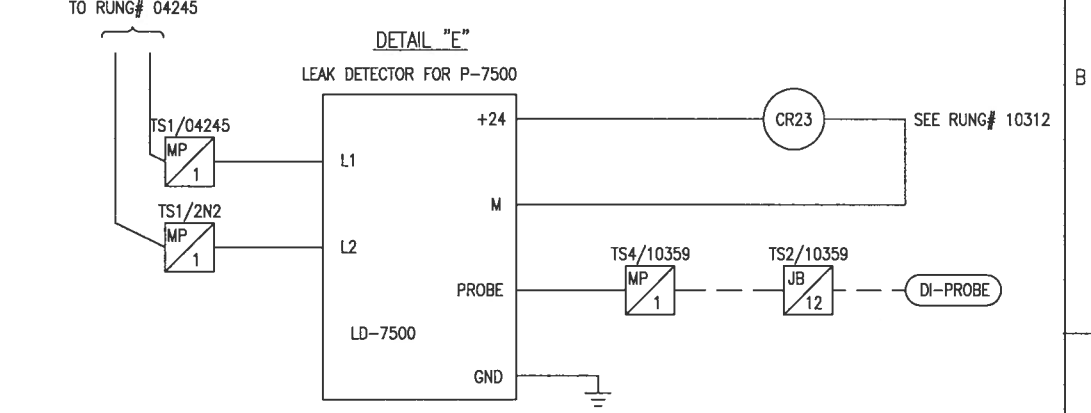
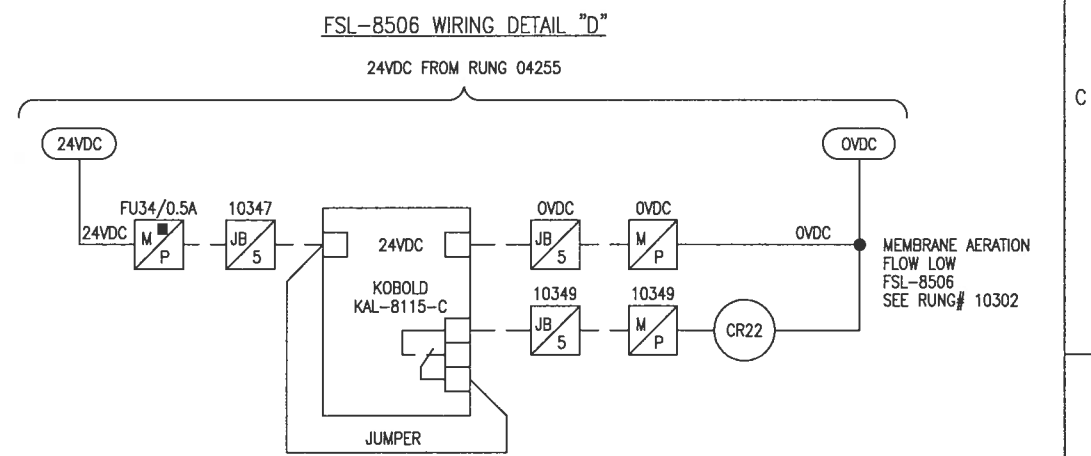
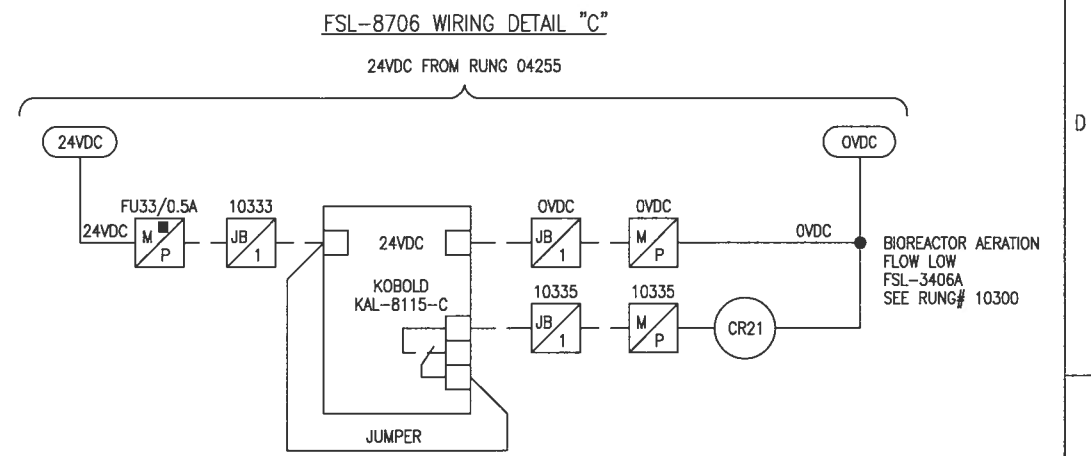
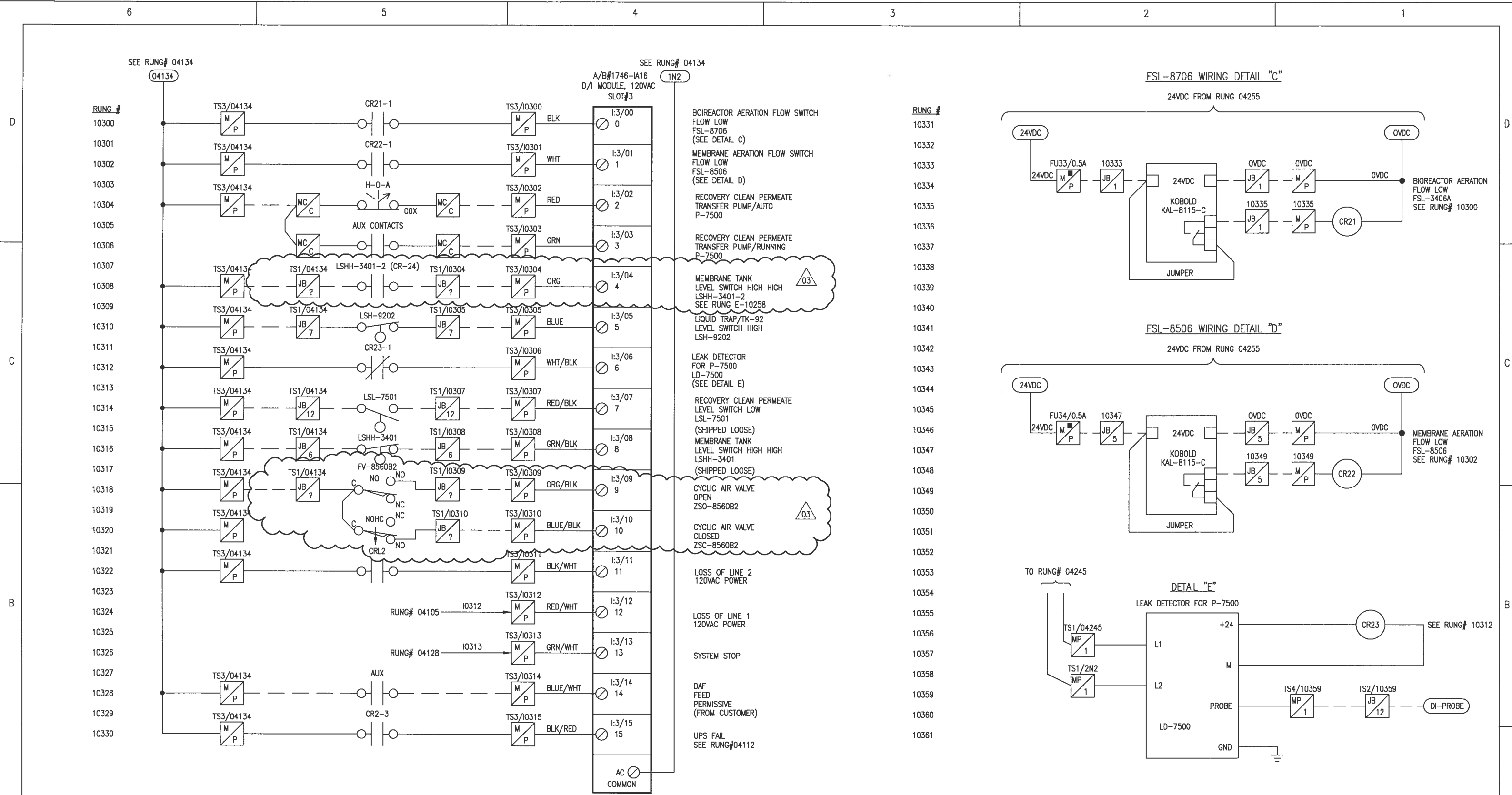
CUSTOMER: TERGEL

TITLE: MAIN CONTROL PANEL MP-1  
D/I MODULE SLOT#2

REV: 02 DRAWING NO: 200115-E-102 102 NEXT 103

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- NOTES:
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REV.	DATE	DESCRIPTION	DSGN.	CHKD.	APPD.	DRWN:	JM	22/12/04
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03	25/02/09	REVISED AS NOTED	<i>AW</i>	<i>JM</i>	<i>JL</i>	SCALE:	1=1	

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**ZENON Environmental Inc.**  
ZEI - OAKVILLE ONTARIO

CUSTOMER: TERGEL

TITLE: MAIN CONTROL PANEL MP-1  
D/I MODULE SLOT#3

REV: 03 DRAWING NO: 200115-E-103 103 NEXT 104

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REV.	DATE	DESCRIPTION	DSGN.	CHKD.	APPD.	DRWN:	JM	22/12/04
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**ZENON Environmental Inc.**  
ZEI - OAKVILLE ONTARIO

CUSTOMER: TERGEL

TITLE: MAIN CONTROL PANEL MP-1  
SPARE SLOT#4