

Date: November 18, 2014**Project No:** E10644**Report No:** E10644-1403**Client:** Dane Odde**Ph:** 307-234-9311**Company:** Automation and Electronics
Inc.**Fx:** 307-233-0393**Address:** 610 Platte Rd. Casper,
WY ,82601**Email:** Dane_odde@autoelect.com**Subject:** Field Certification of Class I, Division 2, Polymer Pilot Injection Skids

Dear Mr. Dane Odde,

We have completed our evaluation of the equipment referenced in quote # JS-2014-110502 and this letter will serve as our report. The products were subjected to the requirements contained in the following Safety Standards.

- Industrial Control Equipment (CAN/CSA-C22.2 No. 14-13)
- Non-incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations – General Instruction No.1 (CSA C22.2 No. 213-M1987)

The investigation was begun on 2014-11-18 and concluded on 2014-11-18. Samples were made available and evaluated at the location identified in this report.

As part of the QAI Field Certification program only a QAI representative may evaluate the product and apply the QAI logo to eligible products. This report does not provide authorization to the manufacturer to apply the QAI logo to any product.

QAI is accredited by the Standards Council of Canada as a third party product certification body.

If you have any questions, please feel free to contact us at your convenience. We are looking forward for future opportunities to work together.

Yours truly,
QAI Laboratories Ltd.

Simon Hodson, Lead Electrical Engineer

January 5, 2015

Applicant: Automation and Electronics Inc. 610 Platte Rd. Casper, WY ,USA,82601
Evaluation Location: 4500 Thirty-three Mile Rd, Casper, WY, 82604, USA

Equipment Description: Polymer Pilot Injection Skid with General Purpose Electrical Equipment Room

For use in: Hazardous Location Class I Division 2, Groups C & D, T2C

Temperature Code: T2C
Ambient Rating: 40 to +40°C

QAI Evaluator: Cory Bickerstaff

Evaluation Date(s): November 18, 2014

Labeling Date: November 18, 2014

Standards: Industrial Control Equipment (CAN/CSA-C22.2 No. 14)
Non-incendive Electrical Equipment for Use in Class I, Division 2
Hazardous Locations – General Instruction No.1 (CSA C22.2 No. 213-M1987)

Manufacturer: Nalco Fab Tech

Product Ratings: Hazardous Location Polymer Pilot Injection Skid Class I Division 2, Group C & D, T2C, With General Purpose Electrical Equipment Room

Model	Serial No.	Label No.
Polymer Pilot Injection Skid	NF14-103	HL000364

Model	Serial No.	Label No.

Note: If 'N/A' is placed in the 'Label No.' column this is an indication that the product was not labelled with the QAI mark.

Evaluation

Checklists: On file at QAI. Refer to project file # E10644-1403

Tests Performed: Refer to Evaluation Checklists.

Findings: None.

Acceptability: No Special Conditions

Additional

Comments: Includes General Purpose Electrical Equipment Room

Conclusion: The products identified in this *Report* have been investigated to the referenced safety standards and have been found to be in compliance with those requirements, and labeled by QAI's representative.

Please note, this *report* does not represent authorization for the applicant or manufacturer to apply Certification Marks.

Example Label:



Issued :
By

SIGNATURE

Cory Bickerstaff

NAME

Field Inspector

TITLE

Reviewed :
By

SIGNATURE

Simon Hodson

NAME

Lead Electrical
Engineer

TITLE

Photos

Polymer Pilot Injection Skid Serial Number NF14-103 Overall

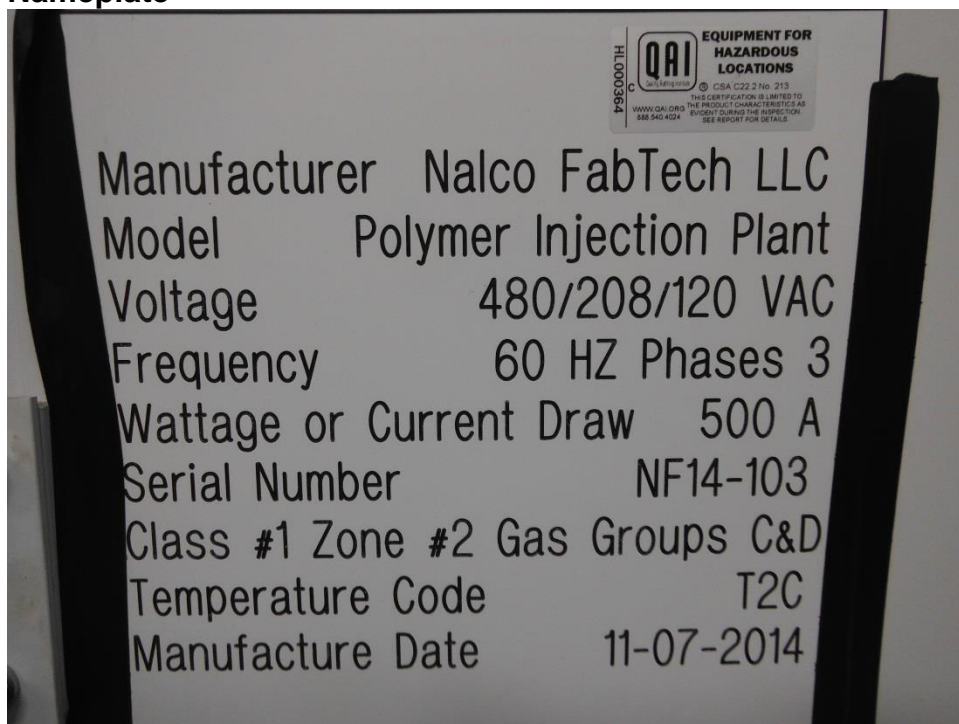


Inside Hazardous Location Overall





Nameplate



Air Compressor



Electrical Room Overall



Bill of Materials

Item Number	Qty	Location	Description	Manufacturer	Model	Certification Agency Approval	Haz. Location Approvals	Gas Group	Temp Code
1	2	Inside - Process	Polymer Feed Pump Motor (7.5 hp) P-210/212	Baldor-Reliance	NP1426XPSL	CSA	Class 1 Class 1, Zone 1	Gr D 11A	T3C
2	6	Inside - Process	Injection Pump Motor (30hp) P-220,222,225,227,230, 232	Teco-Westinghouse	AEHH8N	CSA	Class 1, Zone 2	Gr 11B & H2, 11B & 11A	T3C
3	6	Inside - Process	Slow-speed Lube Pump Motor (0.5 hp)	Baldor-Reliance	NP0015XPSL	CSA	Class 1, Zone 1	11A	T2C
4	1	Inside - Process	Polymer Transport Blower Motor (5hp) B-202	Baldor-Reliance	NP1426XPSL	CSA	Class 1, Zone 1	11A	T3C
5	1	Inside - Process	Volumetric Feeder Vibrator Motor (0.3 hp)	Baldor-Reliance	NP0681XPSL	CSA	Class 1, Zone 1	11B & 11A	T3C
6	1	Inside - Process	Volumetric Feeder Motor (0.5 hp) SF-201	Baldor-Reliance	NP0681XPSL	CSA	Class 1, Zone 1	11B & 11A	T3C
7	1	Inside - Process	Polymer Dust Blower Motor (0.33hp) B-203	WEG	00156ES3EB5 6C	CSA	Class 1, Zone 1	11C	T3C
8	1	Inside - Process	Chemical Metering Pump Motor P-217	Baldor-Reliance	NP0087XPSL	CSA	Class 1, Zone 1	11A	T3C
9	1	Inside - Process	Mix Tank Vent Blower Motor	WEG	00156ES3ES6 C-S		TEFC		
10	1	Inside - Process	Polymer Tank Mixer Motor M-402	Baldor-Reliance	NP2155	CSA	Class 1, Zone 1	11A, 11B & 11C	T3
11	1	Inside - Process	15 kW Heater	Ruffneck	FX5-480-360-150-WTD	CUL	Class 1, Zone 1 & 2	11A & 11B	T3B
12	2	Inside - Process	20 kW Heater	Ruffneck	FX5-480-360-200-WTD	CUL	Class 1, Zone 1 & 2	11A & 11B	T3B
13	1	Inside - Process	1 Ton Crane Hoist A-200	Kito Corp.	ER2-0101S				40 degrees C
14	1	Inside - Process	1 Ton Crane Trolley A-200	Kito Corp.					40 degrees C

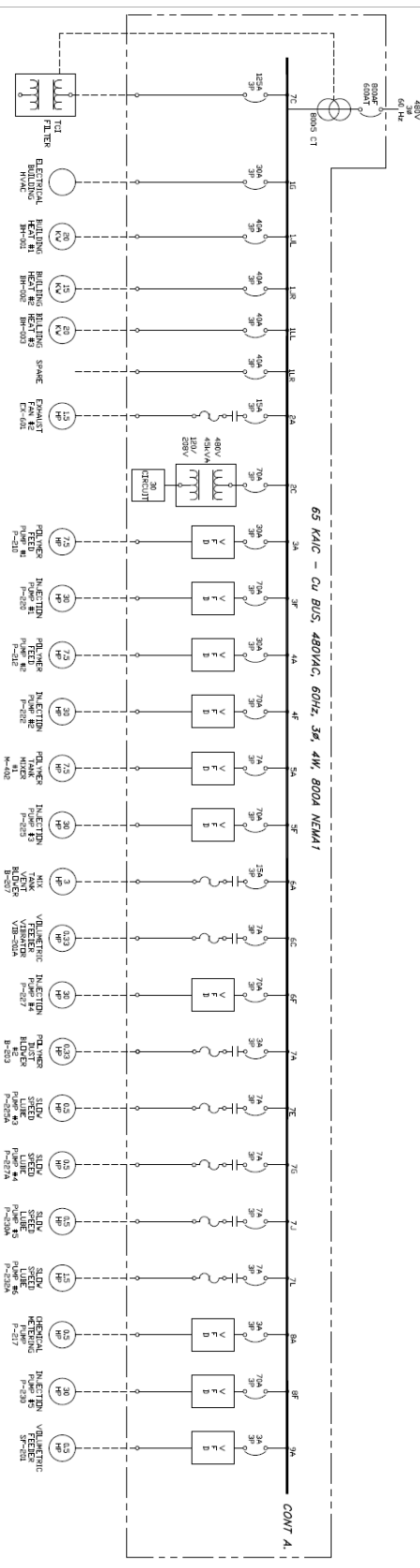
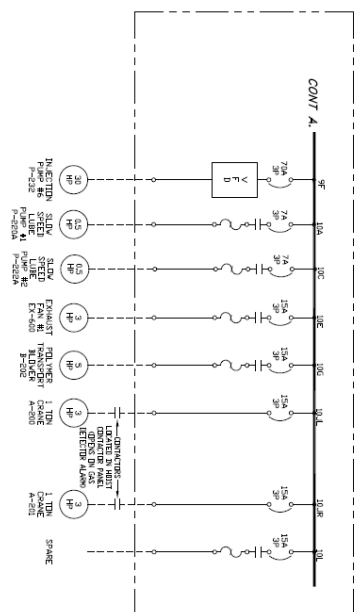
**** See Note below for items 13 and 14**

15	16	Inside - Process	LED Lights	Dialight	LTD3C4D2P	CSA	Class I, Div 2	ABCD	T4A
16	1	Inside - Process	Float Switch LS-200	Wellmark	686F-1B-1N.N	CSA	Class I	D	(-)20 to 400F
17	1	Inside - Process	Transmitter	Rosemount	3051L2AA0FD21AAKBQ4	CSA	Class 1, Div.1 Class 1, Zone 2	Gr ABCD 11C	T5
18	8	Inside - Process	Mag Meter	Rosemount	8711SHA020R1NOQ4	CSA	Class 1, Div.1 Class 1, Zone 2	Gr ABCD 11C	T5
19	14	Inside - Process	Mag Meter Transmitter	Rosemount	8712ESR1A1N0PA1AXM4Q4	CSA	Class 1, Div.1 Class 1, Zone 2	ABCD	T4
20	12	Inside - Process	Pressure Transmitter	Rosemount	G5A2B21AKB M5	CSA	Class 1, Zone 2	11C	T5
21	6	Inside - Process	1" Mag Meter	Rosemount	8705NHA010C9W0N0G1Q4CR	CSA	Class 1, Zone 2		T5
22	6	Inside - Process	Pressure Transmitter	Rosemount	2088G3S22A1K8M5P0054	CSA	Class 1, Div 2	ABCD	T4
23	2	Inside - Process	Actuator (CIV 801, 805)	Brady	630250-21403536	CSA	Class 1, Div	ABCD	T6
24	2	Inside - Process	Explosion-Proof Light Switch	Appleton	EDSF23WQ	CUL-2360	Class 1, Div 2	B	-
25	1	Inside - Process	Mixer RIO	A&E	MixerRIO D-30222	CUL-39ZU	Class 1, Div 2	-	-
26	1	Inside - Process	Injection RIO	A&E	RIO Panel D-29894	CUL-39ZU	Class 1, Div 2	-	-
27	1	Inside - Process	Methane Detector	Det-Tronics	UD10A5N25T2	CSA	Class 1, Div 2	BCD	T4
28	1	Inside - Process	Display for Methane Detector	Det-Tronics	010195-041	CSA	Class 1, Div 2	ABCD	T4
29	1	Inside - Process	Pressure Switch	ITT Industries	132P44C6H	CSA	Class 1, Div 2	ABCD	T5
General Purpose Areas									
30	3	Inside - MCC Rm	LED Lights	Dialight	LTM3C4D2P	CSA	unclassified	-	T5
31	1	Inside - MCC Rm	Main PLC	Automation & Electronics	Main PLC D-29895	cUL	unclassified	-	-
32	1	Inside - MCC Rm	MCC	AllenBradley	6501823335/600	cUL	unclassified	-	-
33	1	Inside - MCC Rm	Filter	Harmonic Guard Active	ALC100A01H6000	cUL	unclassified	-	-
34	1	Outside	HVAC	MarvAir	AVPA30	CSA	unclassified	-	-
35	1	Inside - Air Comp Rm	Instrument Air Compressor K-205	Ingersol Rand	IRN7.5H-TAS-100L	CSA	unclassified	-	-
36	1	Inside - Process	Exhaust Fan EX-600	Cook	195 ACE	cUL	XPRF	-	-
37	1	Inside - Process / MCC	Hazardous wall cable penetration barrier	Roxtec		CSA			

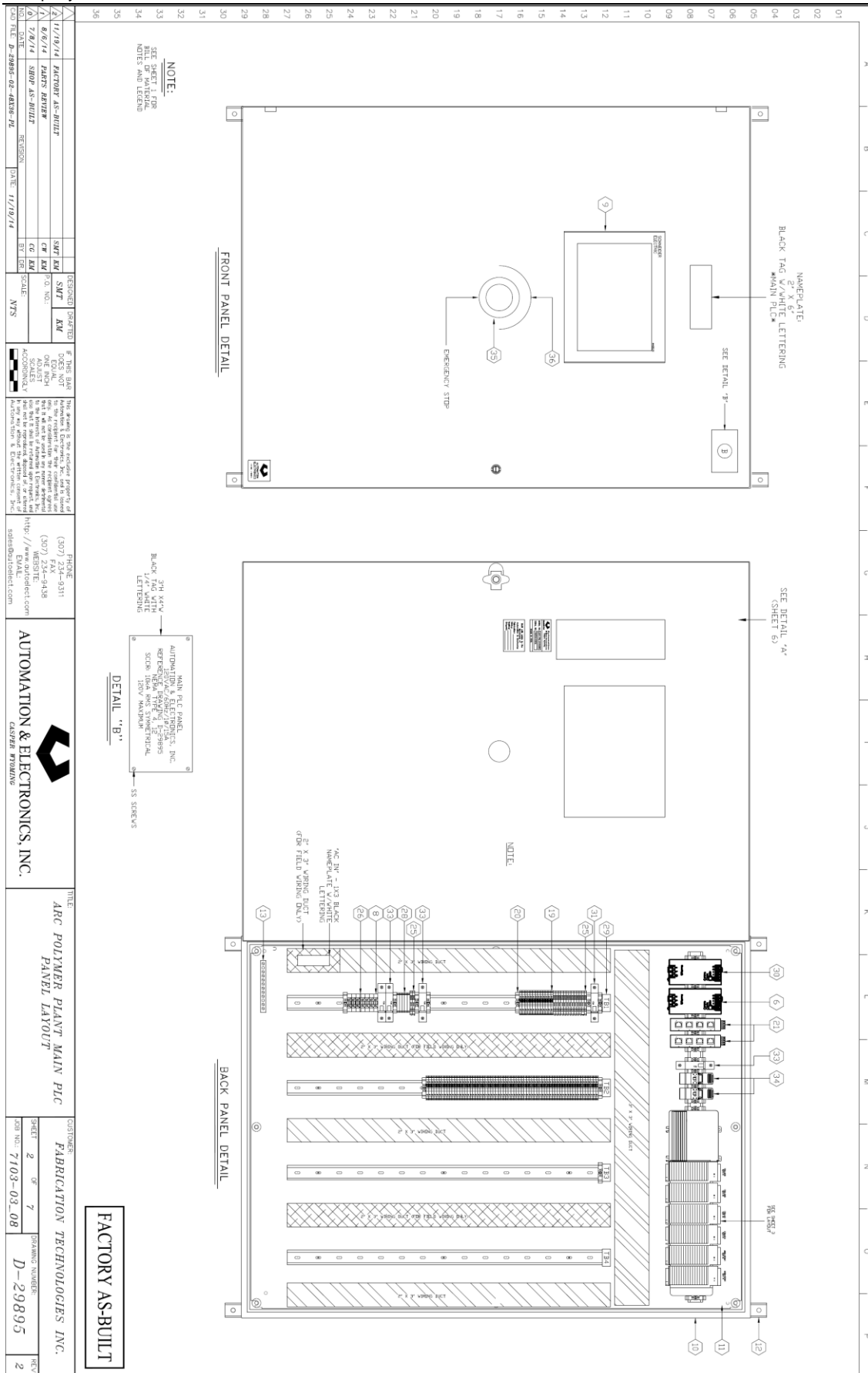
Controls for crane motor are suitable for the declared environment as they protected by item #27, a methane gas detector as per CSA-C22.1-12 Canadian Electrical Code Part 1- 22 Ed, Section 18-070. The crane motor itself is totally enclosed fan cooled.

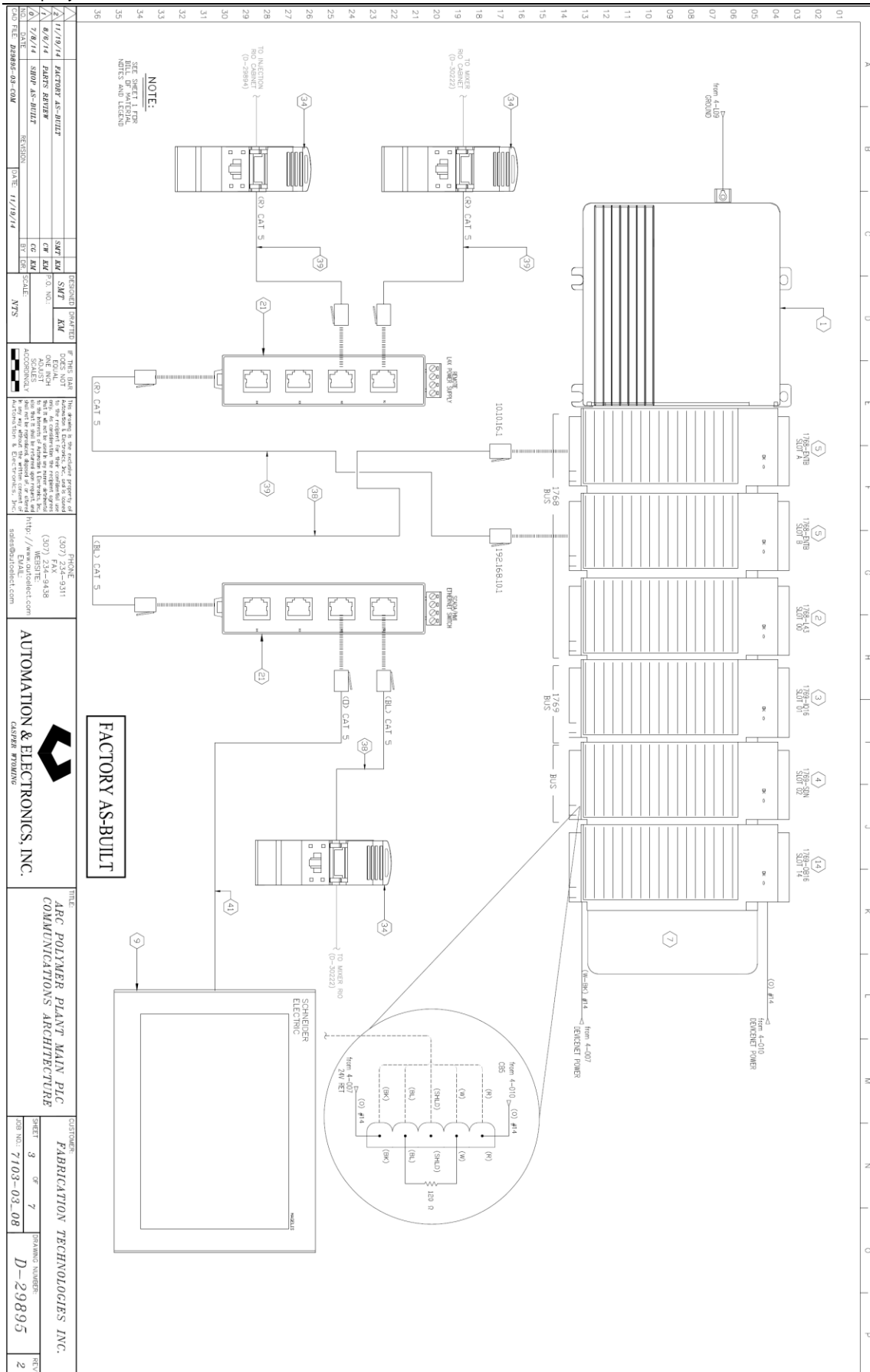
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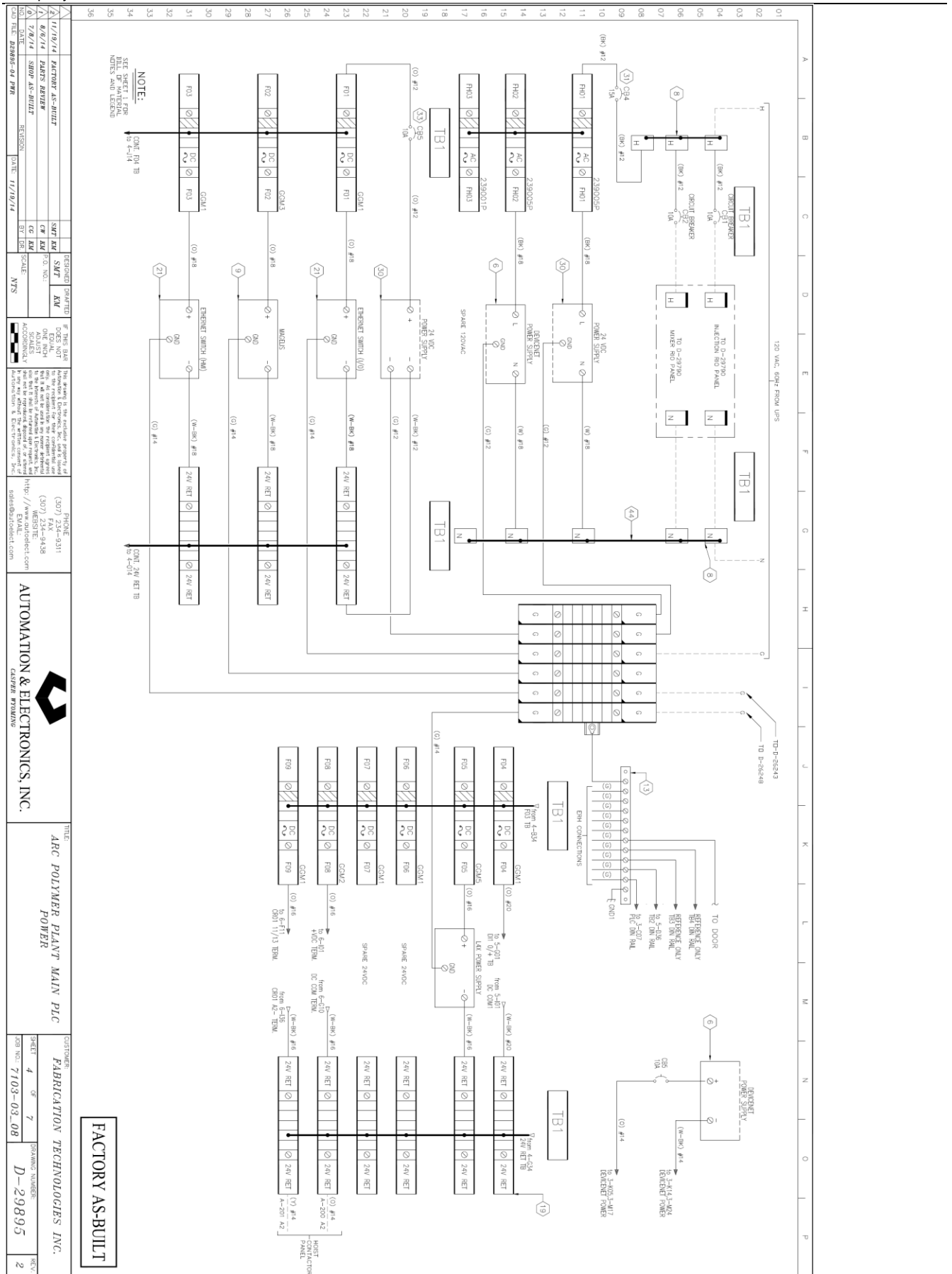
- 2) WCO
- HEIGHT - 90" MAXIMUM
- UNITS TO BE INSTALLED IN CONTAINER
- 2) TOP ENTRY
- 3) SERVICE ENTRANCE BAYED - MAIN BREAKER
- 4) LT. CIL CSA WATED - REFINE IN HORIZONTAL
- 5) PROVIDE HEAT LOSS FOR ENTIRE MCG
- 6) 5" FALSE VENT AND RE-VENTED COMMUNICATIONS
- 7) "SMART" MCG EQUIPMENT
- 7) PROVIDE ADJUSTABLE TYP MAIN

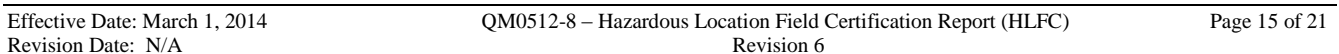
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Effective Date: March 1, 2014	QM0512-8 – Hazardous Location Field Certification Report (HLFC)	Page 11 of 21
Revision Date: N/A	Revision 6	









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QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

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