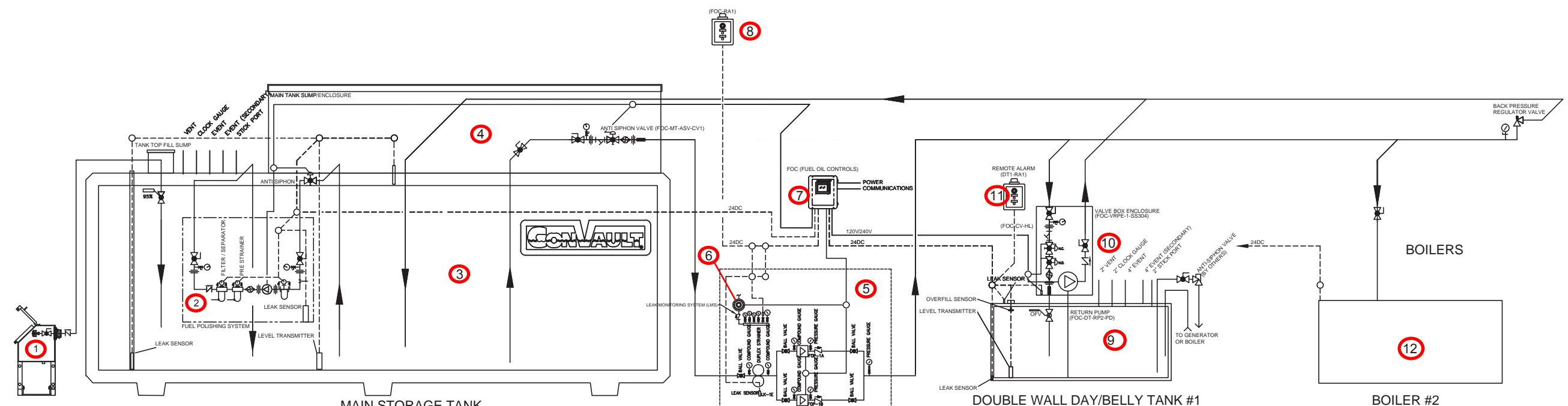


SAFESITE™ FOC (FUEL OIL CONTROLS) - FLOW SCHEMATIC



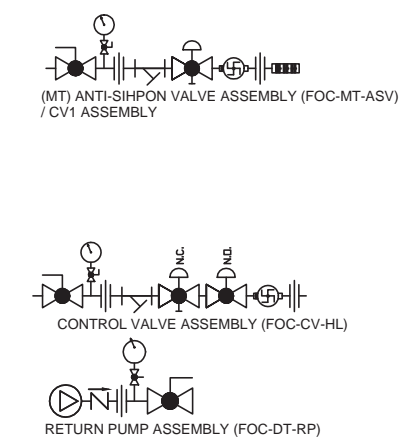
MAJOR OPTIONS:

- FOC (FUEL OIL CONTROLS)
- FOC-CWK COLD WEATHER KIT (WINDOW AND HEATER)
- FOC-RAS-NYS-1 REMOTE ALARM
- 101.1-MT1-ASV-CV MAIN TANK ANTI-SIPHON / CV1 VALVE ASSEMBLY
- FOC-MT-SUMP MAIN TANK TANK TOP CONTAINMENT SUMP/ENCLOSURE
- FOC-MT-TM MAIN TANK TANK MONITORING W/ TANK LEVEL PROBE AND INTERSTITIAL LEAK SENSOR
- FOC-MT-SUMP-LK MAIN TANK TANK TOP SUMP LEAK SENSOR
- FOC-DT1 DAYTANK CONTROLS
- FOC-DT-RP1 DAYTANK 1 RETURN PUMP, BALL VALVE AND CHECK VALVE
- FOC-CV-HL BALL VALVE, GAUGE, UNIONS, STRAINER, CONTROL VALVE, SOLENOID VALVE & VISUAL FLOW INDICATOR
- FOC-B2 BOILER FEED CONTROLS, BALL VALVE & VISUAL FLOW INDICATOR
- FOC-PRV BACK PRESSURE REGULATOR VALVE & PRESSURE GAUGE
- FOC-MT-REMOTE FILL MAIN TANK REMOTE FILL OPTION

OTHER EQUIPMENT (IF INDICATED)

- CHECK VALVE
- BALL VALVE
- PRESSURE GAUGE W/ PETCOCK
- UNION
- WYE STRAINER
- SOLENOID WITH BYPASS
- VISUAL FLOW INDICATOR
- FUEL SUPPLY PUMP
- FUEL FILTER / WATER SEPARATOR
- FUEL RETURN PUMP
- 10 GPM FLOW RESTRICTOR
- MECHANICAL OVERFILL PREVENTION VALVE
- VACUUM PUMP

CONTROL VALVE ASSEMBLY DETAIL



TYPICAL WIRING			
DEVICE	POWER	WIRE TYPE	COMMENT
INCOMING POWER FEED	SINGLE PHASE (208/230)	(4) #10 AWG THHN	L1, L2, NEUT & GROUND
INCOMING POWER FEED	THREE PHASE (208/230)	(5) #10 AWG THHN	L1, L2, L3, NEUT & GROUND
PUMP(S) POWER	SINGLE PHASE (208/230)	(3) #12 AWG THHN	L1, L2 & GROUND
PUMP(S) POWER	THREE PHASE (208/230)	(4) #12 AWG THHN	L1, L2, L3 & GROUND
SOLENOID VALVE(S)	SINGLE PHASE (115)	(3) #14 AWG THHN	HOT, NEUT & GROUND
LEVEL PROBE(S)	24VDC	(3) #18-#22 AWG SHIELDED CABLE (NO SPEC FOR CABLE)	+DC, SIGNAL & GROUND
LEAK SENSOR(S)	24VDC	(2) #18-#22 AWG CABLE (NO SPEC FOR CABLE)	+DC, SIGNAL & GROUND
(REC) WATER SENSOR(S) (OPTIONAL)	24VDC	(3) #18-#22 AWG CABLE (NO SPEC FOR CABLE)	+DC, -DC & SIGNAL RETURN
(REC) DIFFERENTIAL GAUG(S) (OPTIONAL)	24VDC	(3) #18-#22 AWG CABLE (NO SPEC FOR CABLE)	+DC, N.C. & N.O.
REMOTE ANNUNCIATOR RS485	COMMUNICATION	BELDEN 3107A, 9842, 9729, 8723 OR EQUAL	22 AWG MIN.

Legend	
Number	Equipment
1	Remote Fill
2	Stand-Alone Filtration Unit
3	ConVault (Main Tank)
4	Tank Top Transition Box (Sump Box)
5	Duplex Pump Set
6	Leak Vacuum Monitoring System
7	SafeSite Fuel Oil Controller
8	Remote Annunciator (Main Tank)
9	Day Tank (Belly Tank for Generator)
10	Return Pump - Control Valve Assembly Enclosure (Cabinet)
11	Remote Annunciator (Day Tank)
12	Boiler

FOC

General Notes:

SYSTEM OPTIONS:
 FUEL SYSTEM CONTROLS
 ALL SYSTEM OPTIONS
 FOS(FOC-CUSTOM)
 FOS(FOC-CWK)

PUMPSET OPTIONS:
 MT1(DPS-LMS-VAC-4-PUMP)
 MT1(DPS-PUMPSET)

DAYTANK #1 OPTIONS:
 DT1(FOC-CV-HL)
 DT1(FOC-DT-LVL-PKG)
 DT1(FOC-DT-OFV)
 DT1(FOC-DT-RP) (ALL PUMPS)
 DT1(FOC-DT-RPE) (ALL)
 DT1(FOC-DT-DW)
 DT1(FOC-RA1)
 _DAYTANK #2 OPTIONS

MAIN TANK #1 OPTIONS:
 MT1(FOC-MT) (TANK CONT.)
 MT1(FOC-MT) (TANK DRAWING)
 MT1(FOC-MT) (TFS)
 MT1(FOC-MT-ASV-CV)
 MT1(FOC-MT-LVL-PKG)

BOILER OPTIONS:
 BOIL(FOC-B2)

Other Options:
 MT1(FOC-MT-REMOTE FILL)
 MT1(FOC-MT-SUMP)
 MT1(FOC-RA1) RAS-NYS-1-24DC

Core engineered solutions
 safety. compliance. reliability.

Location & Contact

Washington DC (headquarters):
 620 Herndon Parkway Suite 120
 Herndon VA 20170
 Phone: 800.628.5502

New York
 1141 River Road
 Selkirk, NY 12158
 Phone: 518.635.4343

Project Name and Address:
 FOC-FOS CONFIGURATOR

SafeSite fuel system controls

Core ENGINEERED SOLUTIONS
 www.core-es.com
 info@core-es.com
 (NY) 518.635.4343
 (VA) 703.563.0320

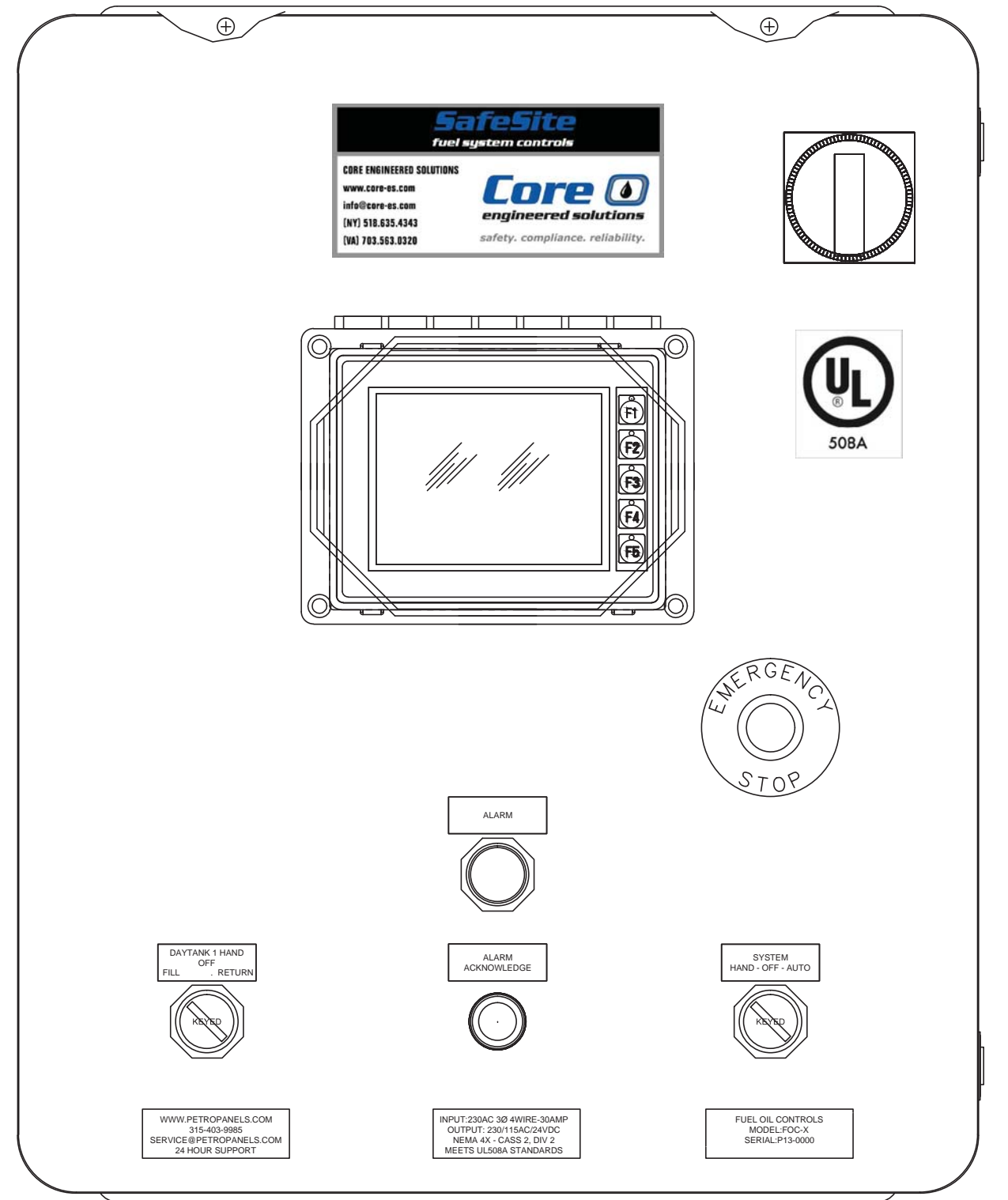
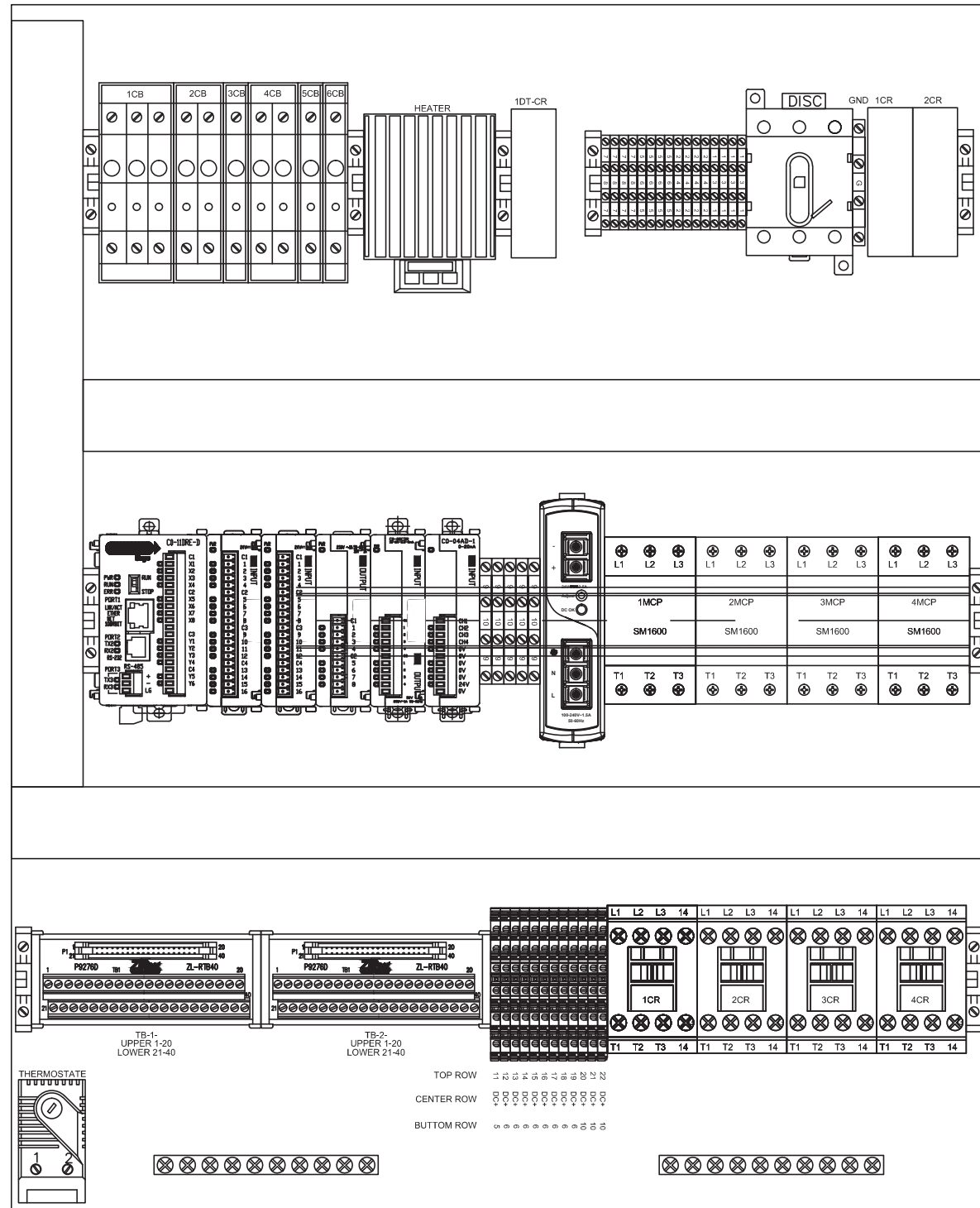
Core engineered solutions
 safety. compliance. reliability.

Date: 03/24/16
 Rev: 6.015 / Project Rev: 000
 Scale: n/a
 Drawing: PXX-XXXX-XXXX

Sheet #
F01

File Name : FOC-FOS-R6.015_addedmechav.dwg
 Created Date : April 13, 2015
 Plot Date : 3/24/2016 4:50:51 PM
 Plot By : www.PennPanels.com/Cadd Guy
 Paper size : ANSI B (11.00 x 17.00 inches)
 Plot Scale : 1" = 1/8" x 1/8"

FUEL OIL CONTROLLER



NEMA 4X 24X20X6

General Notes:

SYSTEM OPTIONS	PUMPSET OPTIONS
..._FOS_(FOC-CUSTOM)	..._MT1_(DPS-LMS-VAC-4-PUMP)
..._FOS_(FOC-CWK)	..._MT1_(DPS-PUMPSET)
DAYTANK #1 OPTIONS	
..._FOS_(FOC-FOS-SP)	..._DT1_(FOC-CV-HL)
	..._DT1_(FOC-DT-LVL-PKG)
	..._DT1_(FOC-DT-OFV)
	..._DT1_(FOC-DT-RP) (ALL PUMPS)
..._MT1_(FOC-MT) (TANK CONT.)	..._DT1_(FOC-DT-VRPE RPE) (ALL)
..._MT1_(FOC-MT) (TANK DRAWING)	..._DT1_(FOC-DT-DW)
..._MT1_(FOC-MT) (TFFS)	..._DT1_(FOC-RA1)
..._MT1_(FOC-MT-ASV-CV)	
..._MT1_(FOC-MT-LVL-PKG)	DAYTANK #2 OPTIONS
..._MT1_(FOC-MT-REMOTE FILL)	
..._MT1_(FOC-MT-SUMP)	
..._MT1_(FOC-RA1) RAS-NYS-1-24DC	
BOILER OPTIONS	
	..._BOIL_(FOC-B2)



Location & Contact

Washington DC (headquarters):
620 Herndon Parkway Suite 120
Herndon VA 20170
Phone: 800.628.5502

New York
1141 River Road
Selkirk, NY 12158
Phone: 518.635.4343

Project Name and Address:
FOC-FOS CONFIGURATOR

THIS DOCUMENT IS THE PROPERTY OF PETROPANELS.COM AND CORE ENGINEERED SOLUTIONS. DO NOT REPRODUCE, FURNISH TO OTHERS, OR USE FOR OTHER THAN PURPOSE INTENDED WITHOUT EXPRESS WRITTEN CONSENT OF PETROPANELS.COM AND CORE ENGINEERED SOLUTIONS. ALL WHOSE RIGHTS ARE HERIN RESERVED.

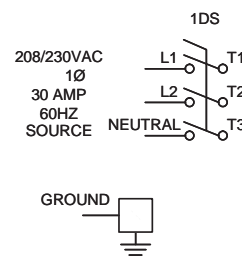


Date: 03/24/16	Sheet #
Rev: 6.015 / Project Rev: 000	E01
Scale: n/a	
Drawing: PXX-XXXX-XXXX	

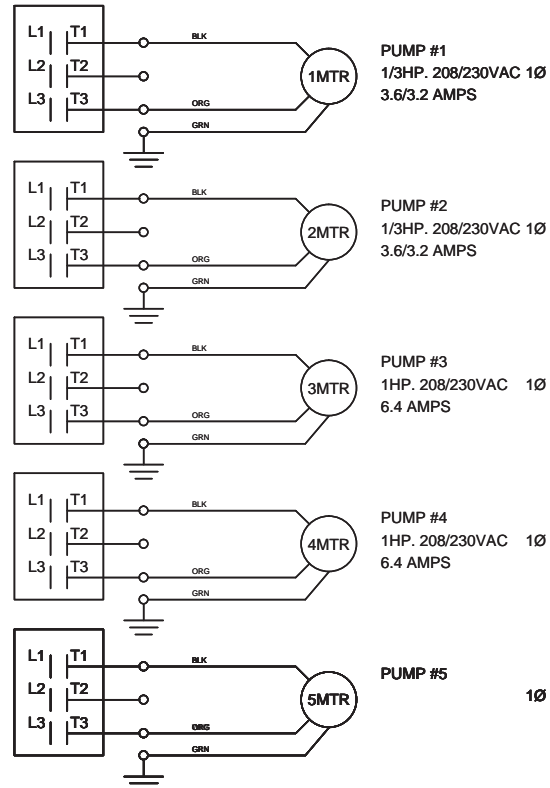
File Name : FOC-FOS-R6-015_addedmechav.dwg
Created Date : April 13, 2015
Plot Date : 3/24/2016 4:51:36 PM
Plot By : www.PetroPanel.com/Cadd Guy
Paper Size : ANSI B (11.00 x 17.00 inches)
Plot Scale : 1" = 14.845"

SAFESITE™ FOC FIELD WIRING

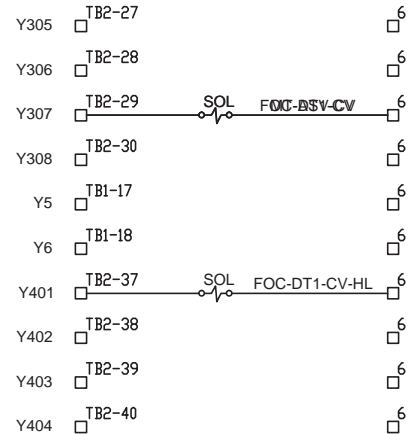
INCOMING POWER CONNECTIONS



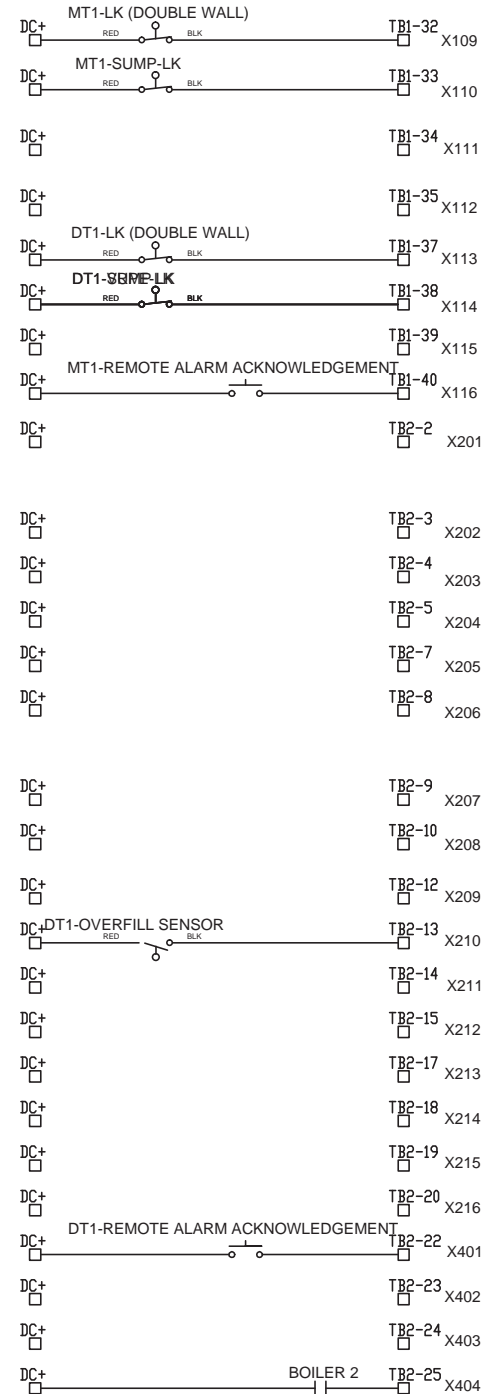
5 PUMP SYSTEM 230 OUTPUT PUMP POWER CONNECTIONS



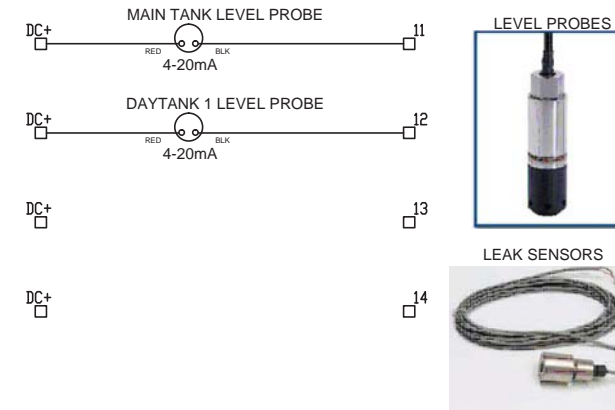
120 VAC OUTPUT SOLENOID POWER



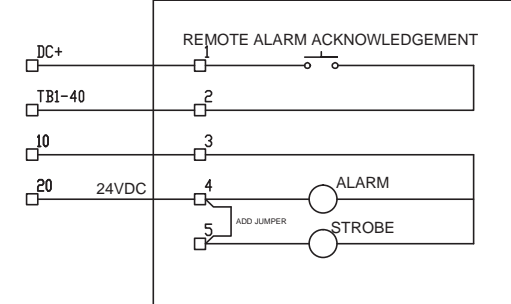
24VDC FIELD INPUT CONNECTIONS



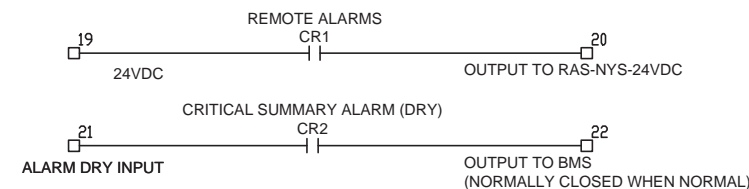
4-20mA FIELD INPUT CONNECTIONS



REMOTE ALARM RAS-NYS-1-24VDC



ALARMS CONTACTS



TYPICAL WIRING

DEVICE	POWER	WIRE TYPE	COMMENT
INCOMING POWER FEED	SINGLE PHASE (208/230)	(4) #10 AWG THHN	L1, L2, NEUT & GROUND
INCOMING POWER FEED	THREE PHASE (208/230)	(5) #10 AWG THHN	L1, L2, L3, NEUT & GROUND
PUMP(S) POWER	SINGLE PHASE (208/230)	(3) #12 AWG THHN	L1, L2 & GROUND
PUMP(S) POWER	THREE PHASE (208/230)	(4) #12 AWG THHN	L1, L2, L3 & GROUND
SOLENOID VALVE(S)	SINGLE PHASE (115)	(3) #14 AWG THHN	HOT, NEUT & GROUND
LEVEL PROBE(S)	24VDC	(3) #18-#22 AWG SHIELDED CABLE (NO SPEC FOR CABLE)	+DC, SIGNAL & GROUND
LEAK SENSOR(S)	24VDC	(2) #18-#22 AWG CABLE (NO SPEC FOR CABLE)	+DC, SIGNAL & GROUND
(REC) WATER SENSOR(S) (OPTIONAL)	24VDC	(3) #18-#22 AWG CABLE (NO SPEC FOR CABLE)	+DC, -DC & SIGNAL RETURN
(REC) DIFFERENTIAL GAUG(S) (OPTIONAL)	24VDC	(3) #18-#22 AWG CABLE (NO SPEC FOR CABLE)	+DC, N.C. & N.O.
REMOTE ANNUNCIATOR RS485	COMMUNICATION	BELDEN 3107A, 9842, 9729, 8723 OR EQUAL	22 AWG MIN.

General Notes:

SYSTEM OPTIONS	PUMPSET OPTIONS
..._FOS_CUSTOM	..._MT1_DPS-LMS-VAC-4-PUMP
..._FOS_CWIK	..._MT1_DPS-PUMPSET
..._FOS_FOS-SP	..._DAYTANK #1 OPTIONS
..._MT1_FOC-MT (TANK DRAWING)	..._DT1_FOC-DT-LV-HL
..._MT1_FOC-MT (TFS)	..._DT1_FOC-DT-LV-PKG
..._MT1_FOC-MT-ASV-CV	..._DT1_FOC-DT-OFV
..._MT1_FOC-MT-LVL-PKG	..._DT1_FOC-DT-RP (ALL PUMPS)
..._MT1_FOC-MT-REMOTE FILL	..._DT1_FOC-DT-VRPE RPE (ALL)
..._MT1_FOC-MT-SUMP	..._DT1_FOC-DT-DW
..._MT1_FOC-RA1 RAS-NYS-1-24DC	..._DT1_FOC-RA1
..._BOILER_OPTIONS	..._DAYTANK #2 OPTIONS
..._BOILER_FOC-B2	



Location & Contact

Washington DC (headquarters):
620 Herndon Parkway Suite 120
Herndon VA 20170
Phone: 800.628.5502

New York
1141 River Road
Selkirk, NY 12158
Phone: 518.635.4343

Project Name and Address:
FOC-FOS CONFIGURATOR

THIS DOCUMENT IS THE PROPERTY OF PETROPANELS.COM AND CORE ENGINEERED SOLUTIONS. DO NOT REPRODUCE, FURNISH TO OTHERS, OR USE FOR OTHER THAN PURPOSE INTENDED WITHOUT EXPRESS WRITTEN CONSENT OF PETROPANELS.COM AND CORE ENGINEERED SOLUTIONS. ALL WHOSE RIGHTS ARE HEREIN RESERVED.



Date: 03/24/16

Rev: 6.015 / Project Rev: 000

Scale: n/a

Drawing: PXX-XXXX-XXXX

Sheet #

E02

File Name : FOC-FOS-R6.015_addedmechadv.dwg
Created Date : April 13, 2015
Plot Date : 3/24/2016 4:51:47 PM
Plot By : www.PennPanel.com/Cadd Guy
Paper size : ANSI B (11.00 x 17.00 inches)
Plot Scale : 1" = 1/8" = 0.125"