



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY
APPLICATION #: OSP - 0191

OSHPD Special Seismic Certification Preapproval (OSP)

Type: [] New [X] Renewal

Manufacturer Information

Manufacturer: In Compliance Services Inc.

Manufacturer's Technical Representative: Lucas Jones

Mailing Address: P.O. Box 1355, Bethel Island, CA 94511

Telephone: 925.852.9827 Email: lucas@incomplianceservices.com

Product Information

Product Name: Fuel Oil Control Panels

Product Type: Control Panels

Product Model Number: See Attachment 1
(List all unique product identification numbers and/or part numbers)

General Description: Fuel oil control panels for the management of fuel oil delivery systems. Seismic enhancements
made to the test units shall be incorporated into the production units.

Mounting Description: Rigid wall mounted.

Applicant Information

Applicant Company Name: Manwill Engineering LLC

Contact Person: Derek Manwill, SE

Mailing Address: PO Box 1194, Bend, OR 97709

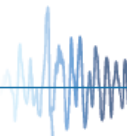
Telephone: 541.241.2102 Email: derek@manwillSE.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in
accordance with the California Administrative Code, 2016.

Signature of Applicant: [Signature] Date: 10/15/2020

Title: President Company Name: Manwill Engineering LLC

Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs





**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: Manwill Engineering LLC

Name: Derek Manwill, SE California License Number: S6266

Mailing Address: PO Box 1194, Bend, OR 97709

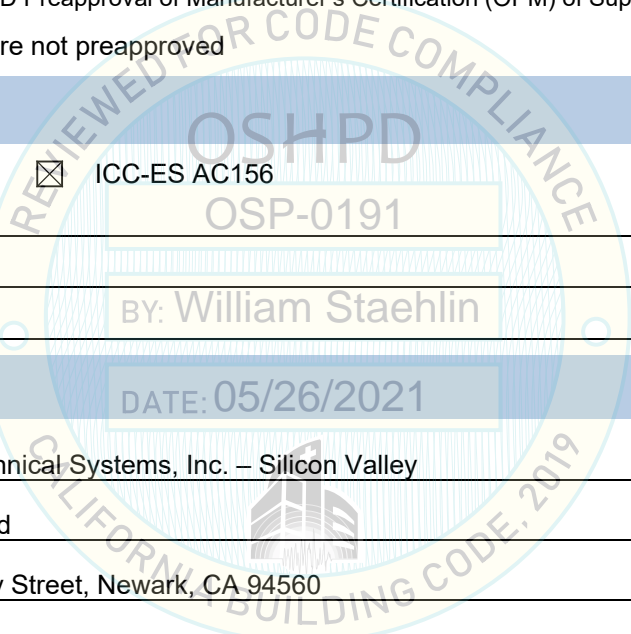
Telephone: 541.241.2102 Email: derek@manwillSE.com

Supports and Attachments Preapproval

- Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- Supports and attachments are not preapproved

Certification Method

- Testing in accordance with: ICC-ES AC156
 Other (Please Specify): _____



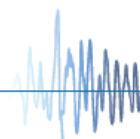
Testing Laboratory

Company Name: National Technical Systems, Inc. – Silicon Valley

Contact Name: Rajesh Nand

Mailing Address: 38995 Cherry Street, Newark, CA 94560

Telephone: 510.578.3500 Email: rajesh.nand@nts.com





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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: Yes No

Design Basis of Equipment or Components (F_p/W_p) = 1.88

S_{DS} (Design spectral response acceleration at short period, g) = 2.50

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = N/A (wall mounted)

Overall dimensions and weight (or range thereof) = See Attachments 1 & 2

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: Yes No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = by William Staehlin

C_d (Deflection amplification factor) = _____

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = _____

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): Attachments 1 & 2

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025

Signature: William Staehlin

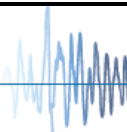
Date: May 26, 2021

Print Name: William Staehlin

Title: Senior Structural Engineer

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.50 z/h = 1

Condition of Approval (if applicable): _____



ATTACHMENT 1: CERTIFIED COMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 1

DOCUMENT NO.: 19121CR1.1

MANUFACTURER: IN COMPLIANCE SERVICES INC.						
PRODUCT FAMILY: FUEL OIL CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Custom Interior Fuel Oil Control Panels w/ Hoffman Enclosure						
C-1H	8	16	20	52	UUT 1=43lb, UUT 7=52lb	UUT 1,7
C-2H	8	20	24	89		INTERP
C-3H	8	24	24	107		INTERP
C-4H	8	20	30	111		INTERP
C-5H	8	24	30	133		INTERP
C-6H	8	30	36	200		UUT 9 ¹
Custom Interior Fuel Oil Control Panels w/ Saginaw Enclosure						
C-1S	8	16	20	50		INTERP
C-2S	8	20	24	75		UUT 3
C-3S	8	24	24	76		INTERP
C-4S	8	20	30	79		INTERP
C-5S	8	24	30	95		INTERP
C-6S	8	30	36	143		UUT 5
Custom Exterior Fuel Oil Control Panels w/ Saginaw Enclosure						
C-1X	12	24	30	112		UUT 2
C-2X	12	30	30	164		UUT 4
C-3X	12	24	36	185		INTERP
C-4X	12	30	36	231		INTERP
C-5X	12	36	42	324	UUT 6=267lb, UUT 8=324lb	UUT 6,8
MOUNTING:	Rigid wall mounted.			SEISMIC LEVEL:	S _{DS} = 2.50g for z/h = 1 I _p = 1.5	
NOTES:	<p>Product Construction: NEMA 4X stainless steel enclosure. Exterior control panels contain one interior control panel mounted to the back plate.</p> <p>Options/Subcomponents: Saginaw or Hoffman NEMA 4X enclosures as listed in Table 2. See Table 3 for a list of certified subcomponents. The weight of the complete control panel must be less than or equal to the maximum weight listed for the selected enclosure in Table 2. Interpolated weights are scaled based on relative height and width compared to the largest/heaviest enclosure tested (within each enclosure manufacturer).</p> <p>1. UUT 9, Size C-6H interior panel, was mounted inside UUT 8.</p>					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - ENCLOSURES

DOCUMENT NO.: 19121CR1.1

MANUFACTURER: IN COMPLIANCE SERVICES INC.						
PRODUCT FAMILY: FUEL OIL CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Hoffman - NEMA 4X Interior Enclosures						
CSD20168SS	8	16	20	25		UUT 1,2,7
CSD24208SS	8	20	24	34		INTERP
CSD30208SS	8	20	30	42		INTERP
CSD24248SS	8	24	24	47		INTERP
CSD30248SS	8	24	30	49		INTERP
CSD36308SS	8	30	36	67		UUT 8
Saginaw - NEMA 4X Interior Enclosures						
SCE-20EL1608SSLP	8	16	20	30		EXTRAP
SCE-24EL2008SSLP	8	20	24	43		UUT 3,4
SCE-24EL2408SSLP	8	24	24	49		INTERP
SCE-30EL2008SSLP	8	20	30	52		INTERP
SCE-30EL2408SSLP	8	24	30	53		INTERP
SCE-36EL3008SSLP	8	30	36	75		UUT 5,6
Saginaw - NEMA 4X Exterior Enclosures with Handle						
SCE-30EL2412SSLPPL	12	24	30	69		UUT 2
SCE-30EL3012SSLPPL	12	30	30	89		UUT 4
SCE-36EL2412SSLPPL	12	24	36	90		INTERP
SCE-36EL3012SSLPPL	12	30	36	94		INTERP
SCE-42EL3612SSLPPL	12	36	42	124		UUT 6,8
MOUNTING:	Rigid wall mounted.			SEISMIC LEVEL:	$S_{DS} = 2.50g$ for $z/h = 1$ $I_p = 1.5$	
NOTES:	Construction/Options: Stainless steel enclosure. Interior enclosures mount to wall or inside wall mounted exterior enclosure. Weights listed for the enclosures are the bare enclosure weights. See Table 1 for maximum allowed total weight including subcomponents.					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS

DOCUMENT NO.: 19121CR1.1

MANUFACTURER: IN COMPLIANCE SERVICES INC.						
PRODUCT FAMILY: FUEL OIL CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Automation Direct - Relay						
750-3C-120A						UUT 1,5,6
Finder - Relay						
60.13.8.012.00540						UUT 2-6
Allen Bradley - Relay						
700HC1A1-3-4						UUT 7
Phoenix Contact - Relay						
60.13.8.012.00540						UUT 8
Macromatic - Relay						
ARP120AGR						UUT 1,2
Square D - Relays						
8501-KA91-V20						UUT 3,4
9050-JCK11-V20						UUT 5,6
Siemens - Circuit Breakers						
5SJ4111-7HG41						UUT 1-6
5SJ44218-7HG41						UUT 5,6
Allen Bradley - Circuit Breakers						
1492-SP2C150						UUT 8
1492-SP1C050						UUT 7,8
Square D - Motor Starter						
GV2-P14H7/6-10A						UUT 5,6
Allen Bradley - Motor Starter						
140M-D8E						UUT 8
Allen Bradley - Contactor						
100-C23D10						UUT 8
Floyd Bell - Audible Alarm						
UO-09-628-Q						UUT 7,8
Square D - Pilot Lights						
9001-KT38LGG31						UUT 1-6,8
9001-KT38LYA31						UUT 1-6
9001-KT38LRR31						UUT 1-6,8
Allen Bradley - Pilot Lights						
800T-QTH2G						UUT 7
800T-QTH2Y						INTERP
800T-QTH2R						UUT 7
Square D - Switch						
9001-KS63FBH2						UUT 1-6,8
Allen Bradley - Switches						
800T-J17						UUT 7
800T-H17D1						UUT 7
Square D - Push Button						
9001-KR1B						UUT 1-6,8
NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.						

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 19121CR1.1

MANUFACTURER: IN COMPLIANCE SERVICES INC.						
PRODUCT FAMILY: FUEL OIL CONTROL PANELS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Allen Bradley - Push Button						
800T-A2						UUT 7
Weidmueller - Terminal Block						
WDU-4						UUT 1-6
Phoenix Contact - Terminal Blocks						
UT4						UUT 8
UT4-HESI						UUT 8
UTB 2.5						UUT 8
Allen Bradley - Terminal Block						
1492-J4						UUT 7
Seimens - Controllers						
6ES7 212-1BD30-0XB0					CPU	UUT 3-6
KTP-600					6in touchscreen	UUT 4
KTP-1000					10in touchscreen	UUT 3,5,6
6EP1-332-1SH71					Power supply	UUT 3-6
6GK7 277-1AA00-0AA0					Ethernet switch	UUT 3-6
6ES7 241-1AH30-0XB0					Serial data	UUT 3-6
6ES7 221-1BH30-0XB0					Input module	UUT 3-6
6ES7 222-1BH30-0XB0					Output module	UUT 3-6
Allen Bradley - Controllers						
1763-L16BWA					CPU	UUT 7,8
2711PC-T6C20D					6in touchscreen	UUT 7
2711PC-T10C4D1					10in touchscreen	UUT 8
1606-XLE80E					Power supply	UUT 7,8
1783-US05T					Ethernet switch	UUT 7,8
4983-DC120-5					Serial data	UUT 7,8
1492-IQ16					Input module	UUT 7,8
1762-OWB					Output module	UUT 7,8
Red Lion - Controller						
DSPX00U					Data station	UUT 7,8
Fieldserver - Controller						
FS-QS					Gateway protocol converter	UUT 7,8
MOUNTING:	Mounted within unit.			SEISMIC LEVEL:	$S_{DS} = 2.50g$ for $z/h = 1$ $I_p = 1.5$	
NOTES:	Construction/Options: Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.					

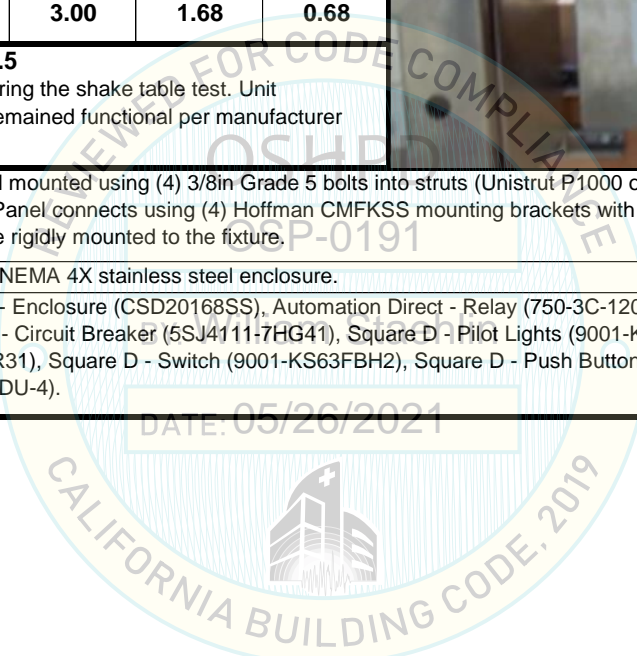
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 1

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.					
MODEL NUMBER:		C-1H-UUT1 (custom configuration for UUT 1)					
UNIT FUNCTION:		FUEL OIL CONTROL PANEL					
SERIAL NUMBER:		N/A					
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)			
DEPTH	WIDTH	HEIGHT		F-B	S-S	V	
8	16	20	43	N/A	N/A	N/A	
CODE & CRITERIA:		2019 CBC		ICC-ES AC156			
TEST LABORATORY:		NTS SILICON VALLEY					
REPORT & DATE:		R83315		April 21, 2011			
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)		
2.50	1	4.00	3.00	1.68	0.68		
IMPORTANCE FACTOR, I_p = 1.5							
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.							
MOUNTING:		Rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture.					
CONSTRUCTION:		Hoffman NEMA 4X stainless steel enclosure.					
SUBCOMPONENTS:		Hoffman - Enclosure (CSD20168SS), Automation Direct - Relay (750-3C-120A), Macromatic - Relay (ARP120AGR), Siemens - Circuit Breaker (5SJ4111-7HG41), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LYA31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Weidmueller - Terminal Block (WDU-4).					



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 2

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.				
MODEL NUMBER:		C-1X				
UNIT FUNCTION:		FUEL OIL CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
12	24	30	112	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NTS SILICON VALLEY				
REPORT & DATE:		R83315		April 22, 2011		
S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
IMPORTANCE FACTOR, I_p = 1.5						
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.						
MOUNTING:		Exterior enclosure is rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture. Interior enclosure is wall mounted to exterior enclosure back plate using (4) 3/8in Grade 5 bolts.				
CONSTRUCTION:		Saginaw NEMA 4X stainless steel exterior enclosure. Hoffman NEMA 4X stainless steel interior enclosure.				
SUBCOMPONENTS:		Saginaw - Enclosure (SCE-30EL2412SSLPPL), Hoffman - Enclosure (CSD20168SS), Finder - Relay (60.13.8.012.00540), Macromatic - Relay (ARP120AGR), Siemens - Circuit Breaker (5SJ4111-7HG41), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LYA31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Weidmueller - Terminal Block (WDU-4).				



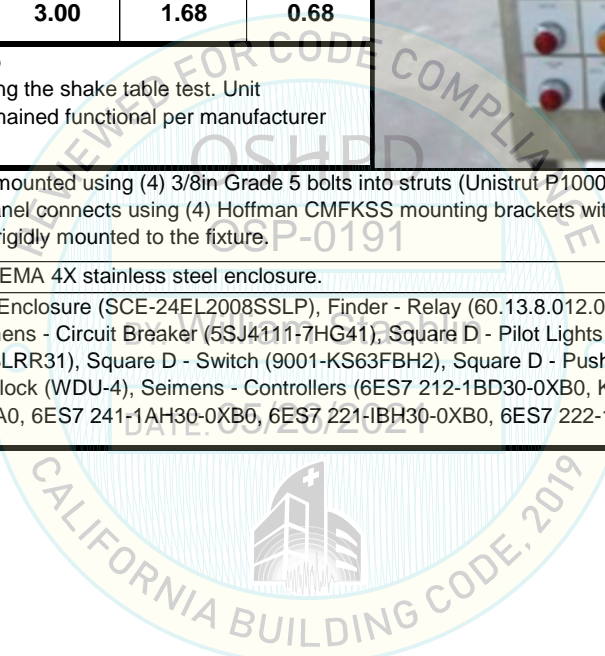
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 3

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.				
MODEL NUMBER:		C-2S				
UNIT FUNCTION:		FUEL OIL CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
8	20	24	75	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NTS SILICON VALLEY				
REPORT & DATE:		R83315		April 21, 2011		
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
IMPORTANCE FACTOR, I_p = 1.5						
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.						
MOUNTING:		Rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture.				
CONSTRUCTION:		Saginaw NEMA 4X stainless steel enclosure.				
SUBCOMPONENTS:		Saginaw - Enclosure (SCE-24EL2008SSLP), Finder - Relay (60.13.8.012.00540), Square D - Relay (8501-KA91-V20), Siemens - Circuit Breaker (5SJ4111-7HG41), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LYA31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Weidmueller - Terminal Block (WDU-4), Seimens - Controllers (6ES7 212-1BD30-0XB0, KTP-1000, 6EP1-332-1SH71, 6GK7 277-1AA00-0AA0, 6ES7 241-1AH30-0XB0, 6ES7 221-1BH30-0XB0, 6ES7 222-1BH30-0XB0).				



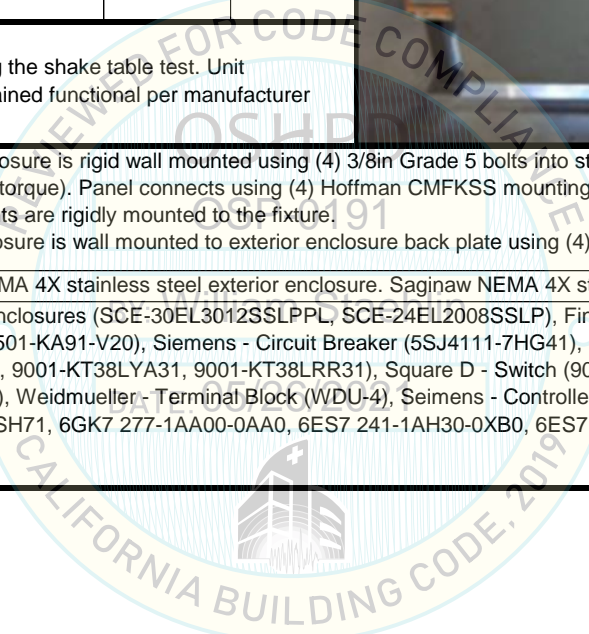
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 4

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.				
MODEL NUMBER:		C-2X				
UNIT FUNCTION:		FUEL OIL CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
12	30	30	164	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NTS SILICON VALLEY				
REPORT & DATE:		R83315		April 22, 2011		
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
IMPORTANCE FACTOR, I_p = 1.5						
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.						
MOUNTING:		Exterior enclosure is rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture. Interior enclosure is wall mounted to exterior enclosure back plate using (4) 3/8in Grade 5 bolts.				
CONSTRUCTION:		Saginaw NEMA 4X stainless steel exterior enclosure. Saginaw NEMA 4X stainless steel interior enclosure.				
SUBCOMPONENTS:		Saginaw - Enclosures (SCE-30EL3012SSLPPL, SCE-24EL2008SSLP), Finder - Relay (60.13.8.012.00540), Square D - Relay (8501-KA91-V20), Siemens - Circuit Breaker (5SJ4111-7HG41), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LYA31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Weidmueller - Terminal Block (WDU-4), Seimens - Controllers (6ES7 212-1BD30-0XB0, KTP-600, 6EP1-332-1SH71, 6GK7 277-1AA00-0AA0, 6ES7 241-1AH30-0XB0, 6ES7 221-1BH30-0XB0, 6ES7 222-1BH30-0XB0).				



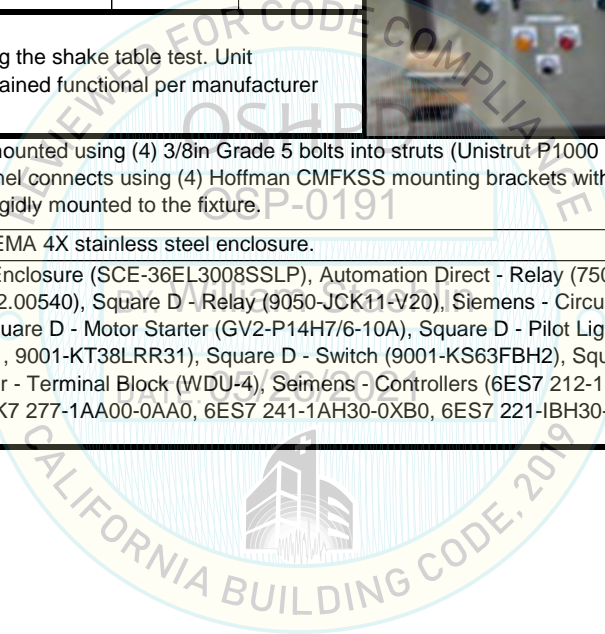
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 5

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.				
MODEL NUMBER:		C-6S				
UNIT FUNCTION:		FUEL OIL CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
8	30	36	143	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NTS SILICON VALLEY				
REPORT & DATE:		R83315		April 21, 2011		
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
IMPORTANCE FACTOR, I_p = 1.5						
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.						
MOUNTING:		Rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture.				
CONSTRUCTION:		Saginaw NEMA 4X stainless steel enclosure.				
SUBCOMPONENTS:		Saginaw - Enclosure (SCE-36EL3008SSSLP), Automation Direct - Relay (750-3C-120A), Finder - Relay (60.13.8.012.00540), Square D - Relay (9050-JCK11-V20), Siemens - Circuit Breakers (5SJ4111-7HG41, 5SJ44218-7HG41), Square D - Motor Starter (GV2-P14H7/6-10A), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LYA31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Weidmueller - Terminal Block (WDU-4), Seimens - Controllers (6ES7 212-1BD30-0XB0, KTP-1000, 6EP1-332-1SH71, 6GK7 277-1AA00-0AA0, 6ES7 241-1AH30-0XB0, 6ES7 221-1BH30-0XB0, 6ES7 222-1BH30-0XB0).				



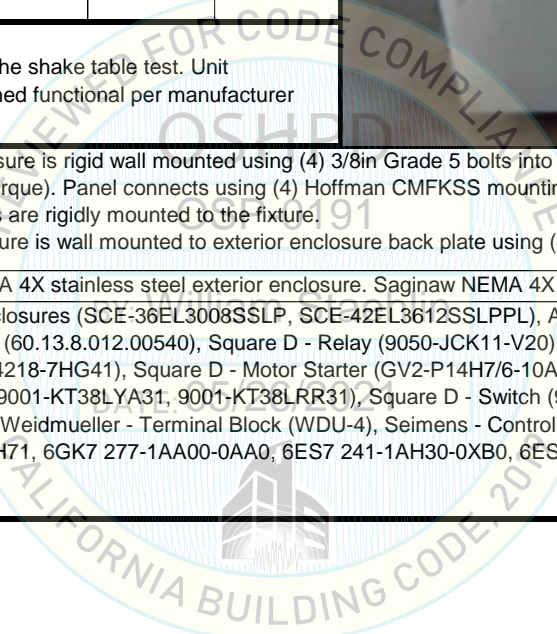
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 6

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.				
MODEL NUMBER:		C-5X-UUT6 (custom configuration for UUT 6)				
UNIT FUNCTION:		FUEL OIL CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
12	36	42	267	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NTS SILICON VALLEY				
REPORT & DATE:		R83315		April 22, 2011		
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
IMPORTANCE FACTOR, I_p = 1.5						
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.						
MOUNTING:		Exterior enclosure is rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture. Interior enclosure is wall mounted to exterior enclosure back plate using (4) 3/8in Grade 5 bolts.				
CONSTRUCTION:		Saginaw NEMA 4X stainless steel exterior enclosure. Saginaw NEMA 4X stainless steel interior enclosure.				
SUBCOMPONENTS:		Saginaw - Enclosures (SCE-36EL3008SSLP, SCE-42EL3612SSLPPL), Automation Direct - Relay (750-3C-120A), Finder - Relay (60.13.8.012.00540), Square D - Relay (9050-JCK11-V20), Siemens - Circuit Breakers (5SJ4111-7HG41, 5SJ44218-7HG41), Square D - Motor Starter (GV2-P14H7/6-10A), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LYA31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Weidmueller - Terminal Block (WDU-4), Siemens - Controllers (6ES7 212-1BD30-0XB0, KTP-1000, 6EP1-332-1SH71, 6GK7 277-1AA00-0AA0, 6ES7 241-1AH30-0XB0, 6ES7 221-1BH30-0XB0, 6ES7 222-1BH30-0XB0).				



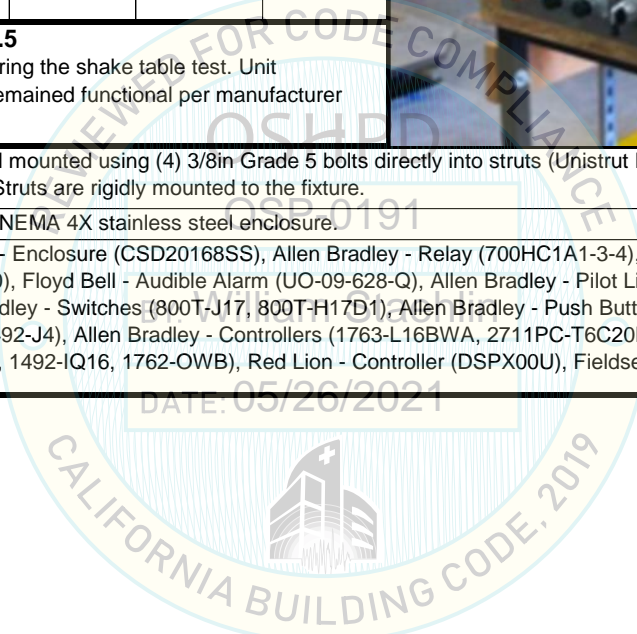
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 7

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.					
MODEL NUMBER:		C-1H-UUT7 (custom configuration for UUT 7)					
UNIT FUNCTION:		FUEL OIL CONTROL PANEL					
SERIAL NUMBER:		N/A					
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)			
DEPTH	WIDTH	HEIGHT		F-B	S-S	V	
8	16	20	52	N/A	N/A	N/A	
CODE & CRITERIA:		2019 CBC		ICC-ES AC156			
TEST LABORATORY:		NTS SILICON VALLEY					
REPORT & DATE:		R93510		September 4, 2013			
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)		
2.50	1	4.00	3.00	1.68	0.68		
IMPORTANCE FACTOR, I_p = 1.5							
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.							
MOUNTING:		Rigid wall mounted using (4) 3/8in Grade 5 bolts directly into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Struts are rigidly mounted to the fixture.					
CONSTRUCTION:		Hoffman NEMA 4X stainless steel enclosure.					
SUBCOMPONENTS:		Hoffman - Enclosure (CSD20168SS), Allen Bradley - Relay (700HC1A1-3-4), Allen Bradley - Circuit Breaker (1492-SP1C050), Floyd Bell - Audible Alarm (UO-09-628-Q), Allen Bradley - Pilot Lights (800T-QTH2G, 800T-QTH2R), Allen Bradley - Switches (800T-J17, 800T-H17D1), Allen Bradley - Push Button (800T-A2), Allen Bradley - Terminal Block (1492-J4), Allen Bradley - Controllers (1763-L16BWA, 2711PC-T6C20D, 1606-XLE80E, 1783-US05T, 4983-DC120-5, 1492-IQ16, 1762-OWB), Red Lion - Controller (DSPX00U), Fieldserver - Controller (FS-QS).					



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 8

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.				
MODEL NUMBER:		C-5X-UUT8 (custom configuration for UUT 8)				
UNIT FUNCTION:		FUEL OIL CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
12	36	42	324	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NTS SILICON VALLEY				
REPORT & DATE:		R93510		September 4, 2013		
S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
IMPORTANCE FACTOR, I_p = 1.5						
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.						
MOUNTING:		Exterior enclosure is rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture. Interior enclosure is wall mounted to exterior enclosure back plate using (4) 3/8in Grade 5 bolts.				
CONSTRUCTION:		Saginaw NEMA 4X stainless steel exterior enclosure. Hoffman NEMA 4X stainless steel interior enclosure.				
SUBCOMPONENTS:		Saginaw - Enclosure (SCE-42EL3612SSLPPL), Hoffman - Enclosure (CSD36308SS), Phoenix Contact - Relay (60.13.8.012.00540), Allen Bradley - Circuit Breakers (1492-SP2C150, 1492-SP1C050), Allen Bradley - Motor Starter (140M-D8E), Allen Bradley - Contactor (100-C23D10), Floyd Bell - Audible Alarm (UO-09-628-Q), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Phoenix Contact - Terminal Blocks (UT4, UT4-HESI, UTB 2.5), Allen Bradley - Controllers (1763-L16BWA, 2711PC-T10C4D1, 1606-XLE80E, 1783-US05T, 4983-DC120-5, 1492-IQ16, 1762-OWB), Red Lion - Controller (DSPX00U), Fieldserver - Controller (FS-QS).				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 9

DOCUMENT NO.: 19121CR1.1

MANUFACTURER:		IN COMPLIANCE SERVICES INC.				
MODEL NUMBER:		C-6H				
UNIT FUNCTION:		FUEL OIL CONTROL PANEL				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
8	30	36	200	N/A	N/A	N/A
CODE & CRITERIA:		2019 CBC		ICC-ES AC156		
TEST LABORATORY:		NTS SILICON VALLEY				
REPORT & DATE:		R93510		September 4, 2013		
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.50	1	4.00	3.00	1.68	0.68	
IMPORTANCE FACTOR, I_p = 1.5						
Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.						
MOUNTING:		Interior enclosure is wall mounted to exterior enclosure back plate using (4) 3/8in Grade 5 bolts. Exterior enclosure is rigid wall mounted using (4) 3/8in Grade 5 bolts into struts (Unistrut P1000 or equal) with spring nuts (19ft-lb torque). Panel connects using (4) Hoffman CMFKSS mounting brackets with (1) 3/8in Grade 5 bolt per bracket. Struts are rigidly mounted to the fixture.				
CONSTRUCTION:		Saginaw NEMA 4X stainless steel exterior enclosure. Hoffman NEMA 4X stainless steel interior enclosure.				
SUBCOMPONENTS:		Saginaw - Enclosure (SCE-42EL3612SSLPPL), Hoffman - Enclosure (CSD36308SS), Phoenix Contact - Relay (60.13.8.012.00540), Allen Bradley - Circuit Breakers (1492-SP2C150, 1492-SP1C050), Allen Bradley - Motor Starter (140M-D8E), Allen Bradley - Contactor (100-C23D10), Floyd Bell - Audible Alarm (UO-09-628-Q), Square D - Pilot Lights (9001-KT38LGG31, 9001-KT38LRR31), Square D - Switch (9001-KS63FBH2), Square D - Push Button (9001-KR1B), Phoenix Contact - Terminal Blocks (UT4, UT4-HESI, UTB 2.5), Allen Bradley - Controllers (1763-L16BWA, 2711PC-T10C4D1, 1606-XLE80E, 1783-US05T, 4983-DC120-5, 1492-IQ16, 1762-OWB), Red Lion - Controller (DSPX00U), Fieldserver - Controller (FS-QS).				

