



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

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: **OSP – 0057 – 10**

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Siemens Industry, Inc.

Manufacturer's Technical Representative: Carlos Yi

Mailing Address: 8 Fernwood Road, Florham Park, NJ 07932

Telephone: (973) 593 – 2663 Email: carlos.yi@siemens.com

Product Information

Product Name: Siemens XLS Fire Control Panels

Product Type: Fire Control Panel

Product Model Number: Various (See Attachment)

(List all unique product identification numbers and/or part numbers)

General Description: Fire Control Panels with internal and external components as shown in the attachment.

Mounting Description: Wall Mounted

Applicant Information

Applicant Company Name: Tobolski Watkins Engineering, Inc.

Contact Person: Derrick A. Watkins, Ph.D., S.E.

Mailing Address: 9246 Lightwave Avenue Suite 140, San Diego, CA 92123

Telephone: (858) 381-5843 Email: dwatkins@tobolskiwatkins.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant: *Derrick Watkins* Date: 11/25/2013

Title: Executive Vice President Company Name: Tobolski Watkins Engineering, Inc.

"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: Tobolski Watkins Engineering, Inc.

Name: Derrick A. Watkins, Ph.D., S.E. California License Number: S 5257

Mailing Address: 9246 Lightwave Avenue Suite 140, San Diego, CA 92123

Telephone: (858) 381-5843 Email: dwatkins@tobolskiwatkins.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.

Contact Name: Ratish Rao

Mailing Address: 1536 East Valencia Drive, Fullerton, CA 92831

Telephone: (714) 879 – 6110 Email: ratish.rao@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) = 1.50

S_{DS} (Design spectral response acceleration at short period, g) = 2.0

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) = 2.5

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component Natural Frequencies (Hz) = See Attachments

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

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) = _____

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, 2010: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): Attachments

OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2019

Signature:  Date: March 10, 2015

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.00 z/h = 1

Condition of Approval (if applicable): _____





Table 2

**Special Seismic Certification
Certified Subcomponent Matrix**

TWEI Project No.: 2014-0832-CO-001

Manufacturer Siemens

Model Line: XLS Fire Control Panel – Enclosure Parts

Certified Product Construction Summary:

Certified Options Summary:
See list below

Certified Mounting Summary:

Building Code: CBC 2013 **Seismic Certification Limits:** $S_{DS} = 2.00g$ $z/h = 1.0$ $I_p = 1.5$

Type	Manufacturer	Model	Description	Notes	UUT
Bracket	Siemens Industry, Inc.	PAD3-BATT-BRKT	Battery hold down bracket		1
	Siemens Industry, Inc.	PAD4-BATT-BRKT	Battery hold down bracket		2
	Siemens Industry, Inc.	CAB-55-BRKT	Battery hold down bracket		8,9
	Siemens Industry, Inc.	CAB-100-BRKT	Battery hold down bracket		7,10
	Siemens Industry, Inc.	COM-BRK	Bracket for fiber modules		9,10
Door	Siemens Industry, Inc.	CAB2-BD	CAB2 door set		9
	Siemens Industry, Inc.	CAB2-RD	CAB2R door set, red	<i>Same as CAB2-BD (color)</i>	
	Siemens Industry, Inc.	CAB2-XBD	CAB2 transponder door	<i>Similar to CAB2-BD (without inner door)</i>	
	Siemens Industry, Inc.	CAB2-XRD	CAB2 transponder door, red	<i>Same as CAB2-XBD (color)</i>	
	Siemens Industry, Inc.	CAB3-BD	CAB3 door set	<i>Part of CAB3</i>	6,10
	Siemens Industry, Inc.	CAB3-RD	CAB3R door set, red	<i>Same as CAB3-BD (color)</i>	
	Siemens Industry, Inc.	CAB3-XBD	CAB3 transponder door	<i>Similar to CAB3-BD (without inner door)</i>	
Enclosure	Siemens Industry, Inc.	CAB3-XRD	CAB3 transponder door, red	<i>Same as CAB3-XBD (color)</i>	
	Siemens Industry, Inc.	CAB1	Cabinet (doors and back box)		3
	Siemens Industry, Inc.	CAB1R	Cabinet (doors & back box), red	<i>Same as CAB1 (color)</i>	
	Siemens Industry, Inc.	CAB2	Cabinet (doors and back box)	<i>Interpolate CAB1 & CAB3</i>	
	Siemens Industry, Inc.	CAB2-BB	Back box	<i>Part of CAB2</i>	9
	Siemens Industry, Inc.	CAB2R	Cabinet (doors & back box),red	<i>Same as CAB2 (color)</i>	
	Siemens Industry, Inc.	CAB2-RB	Back box, red	<i>Part of CAB2R</i>	
	Siemens Industry, Inc.	CAB2-X	CAB2 with transponder door	<i>CAB2 with CAB2-XBD</i>	
	Siemens Industry, Inc.	CAB3	Cabinet		6
	Siemens Industry, Inc.	CAB3-BB	Back box	<i>Part of CAB3</i>	6,10
Siemens Industry, Inc.	CAB3R	Cabinet	<i>Same as CAB3 (color)</i>		

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Table 2

**Special Seismic Certification
Certified Subcomponent Matrix**

TWEI Project No.: 2014-0832-CO-001

Manufacturer Siemens

Model Line: XLS Fire Control Panel – Enclosure Parts

Certified Product Construction Summary:

Certified Options Summary:
See list below

Certified Mounting Summary:

Building Code: CBC 2013 **Seismic Certification Limits:** $S_{DS} = 2.00g$ $z/h = 1.0$ $I_p = 1.5$

Type	Manufacturer	Model	Description	Notes	UUT
Enclosure	Siemens Industry, Inc.	CAB3-RB	Back box	Part of CAB3R	
	Siemens Industry, Inc.	CAB3-X	CAB3 with transponder door	Similar to CAB3 (without inner door)	
	Siemens Industry, Inc.	CAB-BATT	Enclosure for batteries		7,8
	Siemens Industry, Inc.	CAB-BATT/R	Enclosure for batteries	Same as CAB-BATT (color)	
	Siemens Industry, Inc.	EN-PAD	Enclosure for PAD-3		1
	Siemens Industry, Inc.	EN-PADR	Enclosure for PAD-3	Same as EN-PAD (color)	
	Siemens Industry, Inc.	PAD-3	Enclosure		1
	Siemens Industry, Inc.	PAD-3R	Enclosure	Same as PAD-3 (color)	
	Siemens Industry, Inc.	PAD-4	Enclosure		2
	Siemens Industry, Inc.	REMBOX2	Enclosure	Similar to REMBOX4 (smaller size)	
	Siemens Industry, Inc.	REMBOX4	Enclosure		4,5
Plate	Siemens Industry, Inc.	ID-SP	Mounting plate		3,6
	Siemens Industry, Inc.	REMBOX2-MP	Mounting plate	Similar to REMBOX4-MP (smaller size)	
	Siemens Industry, Inc.	REMBOX4-MP	Mounting plate	Part of REMBOX4	5
	Siemens Industry, Inc.	BCM	Blank control plate		3
	Siemens Industry, Inc.	OD-BP	Blank plate		6,9,10
	Siemens Industry, Inc.	OD-BP-R	Blank plate	Same as OD-BP (color)	
	Siemens Industry, Inc.	OD-GP	Grill plate	Similar to OD-BP (louver)	
	Siemens Industry, Inc.	OD-GP-R	Grill plate	Same as OD-GP (color)	
	Siemens Industry, Inc.	OD-LP	Lens plate		3,6,9,10
	Siemens Industry, Inc.	CAB-MP	Cabinet mounting plate		9,10

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Table 3

**Special Seismic Certification
Certified Subcomponent Matrix**

TWEI Project No.: 2014-0832-CO-001

Manufacturer: Siemens

Model Line: XLS Fire Control Panel – Subcomponents

Certified Product Construction Summary:

Certified Options Summary:
See list below

Certified Mounting Summary:
Inside XLS Fire Control Panel cabinet

Building Code: CBC 2013 **Seismic Certification Limits:** $S_{DS} = 2.00g$ $z/h = 1.0$ $I_p = 1.5$

Type	Manufacturer	Model	Description	Notes	UUT
Battery	Siemens Industry, Inc.	BT-33	7AH Battery		1,2
	Siemens Industry, Inc.	BTX-2	55 AH Battery		8,9
	Siemens Industry, Inc.	BTX-3	100 AH Battery		7,10
Battery Charger	Siemens Industry, Inc.	PSC-12	Power supply & bat charge		3,6,9,10
	Siemens Industry, Inc.	PSX-12	Power supply & bat charge		6
Cable	Siemens Industry, Inc.	CCL	CAN-CABLE		6
Circuit Board	Siemens Industry, Inc.	AIC	Audio Input Card		6
	Siemens Industry, Inc.	CC-2	Card Cage-2 slot	<i>Similar to CC-5 (fewer slots)</i>	
	Siemens Industry, Inc.	CC-5	Card Cage-5 slot		3,6,9,10
	Siemens Industry, Inc.	CDC-4	Detector Card	<i>Same as (label)</i>	
	Siemens Industry, Inc.	CRC-6	Detector Card	<i>Same as NIC-C (label)</i>	
	Siemens Industry, Inc.	CSB	Sounder Board		6
	Siemens Industry, Inc.	DAC-NET	Digital Audio Card		6,9
	Siemens Industry, Inc.	DLC	Device Loop Card		3
	Siemens Industry, Inc.	FN2006	Fiber optic interface		9,10
	Siemens Industry, Inc.	FN2007	Fiber optic interface		9,10
	Siemens Industry, Inc.	FMT-A-ADPT	Wiring Adapter		6
	Siemens Industry, Inc.	LPB	Local Page Board		6,9
	Siemens Industry, Inc.	MLC	MXL Line Card Loop		10
	Siemens Industry, Inc.	NIC-C	Network interface card		6,10
	Siemens Industry, Inc.	NRC	Network Ring Card		9,10
	Siemens Industry, Inc.	OCM-16	Output Control Module		5
	Siemens Industry, Inc.	PTB	Power Termination Board		3,6, 9,10
Siemens Industry, Inc.	RNI	Remote Network Interface		4,5	

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Table 3

**Special Seismic Certification
Certified Subcomponent Matrix**

TWEI Project No.: 2014-0832-CO-001

Manufacturer: Siemens

Model Line: XLS Fire Control Panel – Subcomponents

Certified Product Construction Summary:

Certified Options Summary:
See list below

Certified Mounting Summary:
Inside XLS Fire Control Panel cabinet

Building Code: CBC 2013 **Seismic Certification Limits:** $S_{DS} = 2.00g$ $z/h = 1.0$ $I_p = 1.5$

Type	Manufacturer	Model	Description	Notes	UUT
Circuit Board	Siemens Industry, Inc.	TZC-8B	FF Telephone Card		6
	Siemens Industry, Inc.	VESDA-NET-HLI	High level interface for Vesda		10
	Siemens Industry, Inc.	VPM	Vesda peripheral module		10
	Siemens Industry, Inc.	XDMC	Digital message card		9
	Siemens Industry, Inc.	ZAC-40	Zone Amplifier Card		6,9
	Siemens Industry, Inc.	ZAM-180	Zone Amplifier Module		6
Circuit board	Siemens Industry, Inc.	ZIC-2C	Zone Adapter Card		3
	Siemens Industry, Inc.	ZIC-4A	Zone Indicating Card		3,10
	Siemens Industry, Inc.	ZIC-8B	Zone Indicating Card		3
Control Panel	Siemens Industry, Inc.	FCM-6	Fan Control Module		6
	Siemens Industry, Inc.	LCM-8	LED Annunciator Module		6
	Siemens Industry, Inc.	PMI	Operator interface		3,4,6
	Siemens Industry, Inc.	PMI-2	Personal machine interface		9,10
Mounting Plate	Siemens Industry, Inc.	ID-MP	Door Mounting Plate		5,6
	Siemens Industry, Inc.	VPM-MP	Mounting plate for VPM		10
PA Microphone	Siemens Industry, Inc.	LVM	Live Voice Module		4,6,9
Power Supply	Siemens Industry, Inc.	PAD-4-MB	Aux. power supply		2
	Siemens Industry, Inc.	PAD-3-MB	Aux. power supply		1
Switch	Siemens Industry, Inc.	SCM-8	Switch Module		5,6
	Siemens Industry, Inc.	SIM-16	Switch Module		5
Telephone	Siemens Industry, Inc.	FMT	Fireman's Telephone		4,6

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UUT - 1

**UNIT UNDER TEST (UUT)
Summary Sheet**

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: PAD-3

Product Construction Summary:
Painted, cold rolled carbon steel power supply enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
PAD3-BATT-BRKT, EN-PAD, PAD-3, BT-33, PAD-3-MB

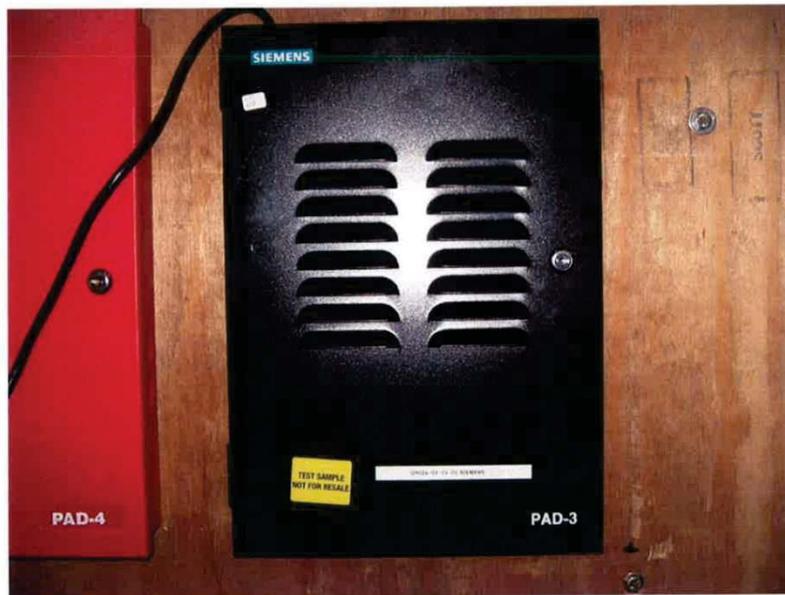
UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
24	12.00	2.40	17.00	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using four (4) #14 1" hex head type A grade 2 bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

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UUT - 2

UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: Pad-4

Product Construction Summary:
Painted, cold rolled carbon steel power supply enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
PAD4-BATT-BRKT, PAD-4, BT-33, PAD-4-MB,

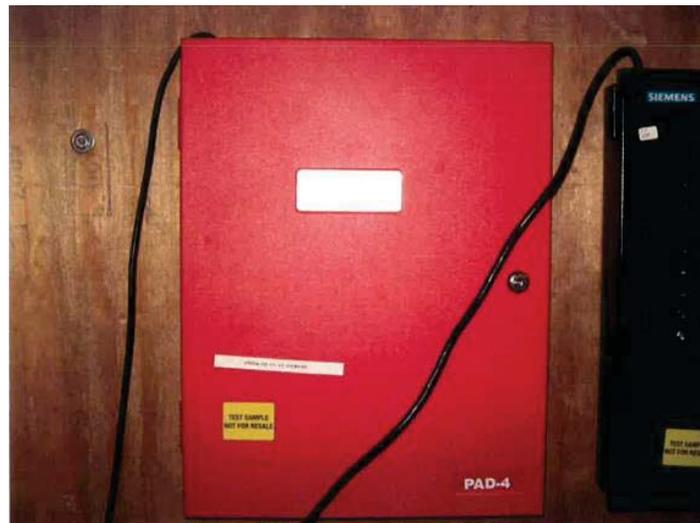
UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
24	12.00	2.40	17.00	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using four (4) #14 1" hex head type A grade 2 bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

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UUT - 3

**UNIT UNDER TEST (UUT)
Summary Sheet**

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: CAB-1

Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
BCM, OD-LP, CAB1-TK, PSC-12, CC-5, DLC, PTB, ZIC-2C, ZIC-4A, ZIC-8B, PMI

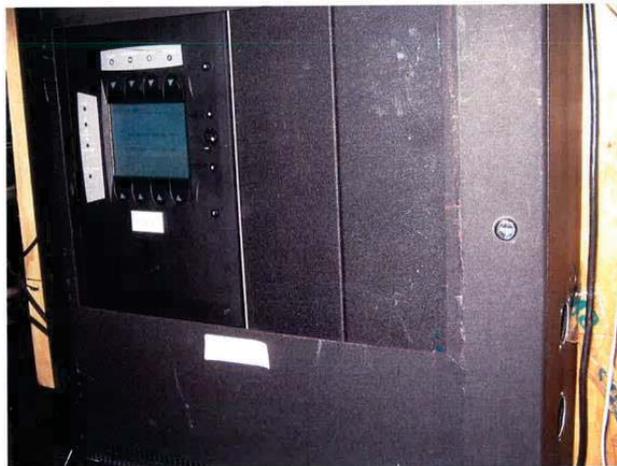
UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
70	26.10	8.28	27.00	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using three (3) 5/16" commercial grade 2 or less bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: REMBOX4 (config #1)

Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
RNI, PMI, LVM, FMT

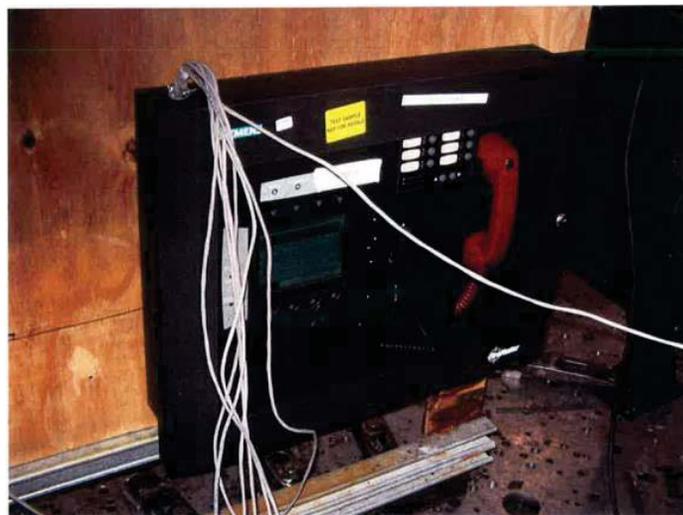
UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	24.00	4.86	18.80	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using four (4) #14 1" hex head type A grade 2 bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

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UUT – 5

UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: REMBOX4 (config #2)

Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
REMBOX4-MP, RNI, ID-MP, SCM-8, SIM-16

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	24.00	4.86	18.80	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using four (4) #14 1" hex head type A grade 2 bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

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**UNIT UNDER TEST (UUT)
Summary Sheet**

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: CAB-3

Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
CAB3-BD, CAB3-BB, OD-BP, OD-LP, CAB3-TK, PSX-12, CCL, AIC, CC-5, CSB, DAC-NET, LPB, NIC-C, PTB, TZC-8B, ZAC-40, ZAM-180, FCM-6, LCM-8, PMI, ID-MP, LVM, SCM-8, FMT

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
173	26.10	8.28	62.50	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using four (6) #14 1" hex head type A grade 2 bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: CAB-BATT (2-100AH)

Product Construction Summary:
Painted, cold rolled carbon steel battery cabinet (2-100AH).

Options/Subcomponent Summary:
CAB-100-BRKT, BTX-3

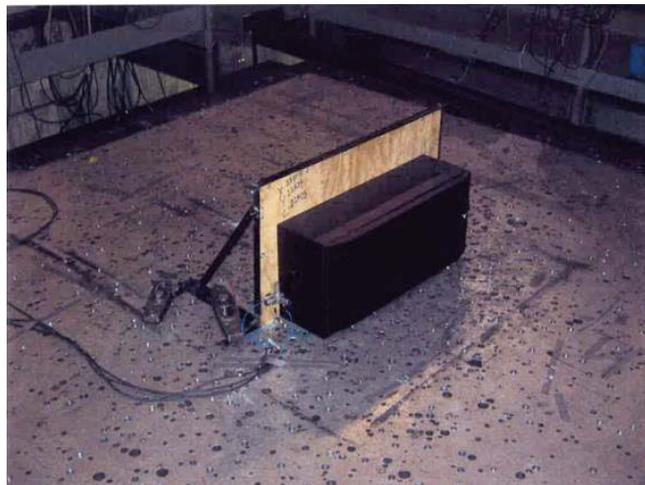
UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
136	26.10	8.25	13.00	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using five (5) #14 1" hex head type A grade 2 bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0074-CO-003

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: CAB-BATT (2-55AH)

Product Construction Summary:
Painted, cold rolled carbon steel battery cabinet (2-55AH)

Options/Subcomponent Summary:
CAB-55-BRKT, BTX-2

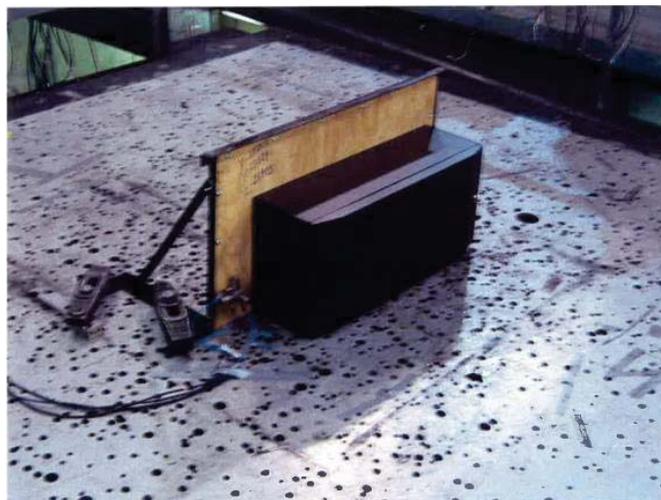
UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
84	26.10	8.25	13.00	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using six (6) #14 1" hex head type A grade 2 bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

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**UNIT UNDER TEST (UUT)
Summary Sheet**

TWEI Project No.: 2014-0832-CO-001

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: CAB-2

Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosures, NEMA type 1 enclosure.

Options/Subcomponent Summary:
CAB2-BB, CAB2-BD, OD-LP, OD-BP, CC-5, LVM, ZAC-40, DAC-NET, NRC, LPB, PSC-12, PTB, CAB-55-BRKT, BTX-2, PMI-2, FN2006, FN2007, COM-BRK, XDMC, CAB-MP

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
90	26.10	8.28	44.75	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using four (4) 5/16" Diameter grade 8 Hex Head bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

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UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0832-CO-001

Manufacturer: Siemens

Model Line: XLS Fire Control Panel

Model Number: CAB-3

Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
CAB3-BB, CAB3-BD, CAB-MP, OD-LP, OD-BP, CC-5, ZIC-4A, NIC-C, NRC, PSC-12, PTB, CAB-100-BRKT, BTX-3, PMI-2, FN2006, FN2007, COM-BRK, MLC, VPM, VPM-MP, Vesda-Net-HLI

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
173	26.10	8.28	62.50	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC 156	2.00g	1.0	1.5	3.20g	2.40g	1.33g	0.53g

Test Mounting Details:



UUT wall mounted to the test fixture using six (6) 5/16" Diameter grade 8 Hex Head bolts.

Unit maintained structural integrity and remained functional per manufacturer requirement.
Contents were included in testing per operating conditions.

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