



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: Evelyn Esteban

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

Telephone: (973) 593 - 6582 Email: evelyn.esteban@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: Rigid wall mounted

Applicant Information

Applicant Company Name: TRU Compliance, by Structural Integrity Associates, Inc.

Contact Person: Andy Coughlin, S.E.

Mailing Address: 5215 Hellyer Avenue Suite 210, San Jose, Ca 95138

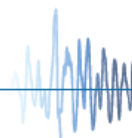
Telephone: 510-379-5319 Email: acoughlin@structint.com

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:  Date: 11/06/2017

Title: Director, TRU Compliance Company Name: TRU Compliance, by Structural Integrity Associates, 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: TRU Compliance, by Structural Integrity Associates, Inc.

Name: Andy Coughlin, S.E. California License Number: S6082

Mailing Address: 5215 Hellyer Avenue Suite 210, San Jose, Ca 95138

Telephone: 510-379-5319 Email: acoughlin@structint.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

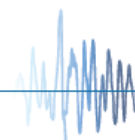
Telephone: (714) 879 - 6110 Email: ratish.rao@rts.com

Company Name: National Technical Systems, Inc.

Contact Name: Morrison Blackwell-White

Mailing Address: 38995 Cherry Street

Telephone: (877)245-7800 Email: morrison.blackwell-white@rts.com





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FACILITIES DEVELOPMENT DIVISION

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) = 2.0

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, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☐ Drawings ☐ Calculations ☐ Manufacturer's Catalog

☒ Other(s) (Please Specify): Attachments

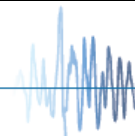
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature:  Date: December 14, 2017

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): _____



TRU PROJECT NO. 1700911



TRU Compliance, by Structural Integrity Associates, Inc.
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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700911



Manufacturer: Siemens Industry Inc.		Table Description: Enclosure Parts			TABLE 2
Model Line: Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular					
Building Code: CBC 2016		Seismic Certification Limits: S_{DS} = 2.0 g z/h = 1.0 I_p = 1.5			
Component Type	Manufacturer	Model	Description	Notes	UUT
Bracket	Siemens Industry Inc.	PAD3-BATT-BRKT	Battery hold down bracket		1
		PAD4-BATT-BRKT	Battery hold down bracket		2
		CAB-55-BRKT	Battery hold down bracket		8,9
		CAB-100-BRKT	Battery hold down bracket		7,10
		COM-BRK	Bracket for fiber modules		9,10
Door	Siemens Industry Inc.	CAB2-BD	CAB2 door set		9
		CAB2-RD	CAB2R door set, red	Same as CAB2-BD (color)	Interp.
		CAB2-XBD	CAB2 transponder door	Similar to CAB2-BD (without inner door)	Interp.
		CAB2-XRD	CAB2 transponder door, red	Same as CAB2-XBD (color)	Interp.
		CAB3-BD	CAB3 door set	Part of CAB3	6, 10
		CAB3-RD	CAB3R door set, red	Same as CAB3-BD (color)	Interp.
		CAB3-XBD	CAB3 transponder door	Similar to CAB3-BD (without inner door)	Interp.
		CAB3-XRD	CAB3 transponder door, red	Same as CAB3-XBD (color)	Interp.
Enclosure	Siemens Industry Inc.	CAB1	Cabinet (doors and back box)		3
		CAB1R	Cabinet (doors & back box), red	Same as CAB1 (color)	Interp.
		CAB2	Cabinet (doors and back box)		Interp.
		CAB2-BB	Back box	Part of CAB2	9
		CAB2R	Cabinet (doors & back box),red	Same as CAB2 (color)	Interp.
		CAB2-RB	Back box, red	Part of CAB2R	Interp.
		CAB2-X	CAB2 with transponder door	CAB2 with CAB2-XBD	Interp.
		CAB3	Cabinet		6

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700911



Manufacturer: Siemens Industry Inc.		Table Description: Enclosure Parts			TABLE 2
Model Line: Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular					
Building Code: CBC 2016		Seismic Certification Limits: $S_{DS} = 2.0 g$ $z/h = 1.0$ $I_p = 1.5$			
Component Type	Manufacturer	Model	Description	Notes	UUT
Enclosure	Siemens Industry Inc.	CAB3-BB	Back box	Part of CAB3	6,10
		CAB3R	Cabinet	Same as CAB3 (color)	Interp.
		CAB3-RB	Back box	Part of CAB3R	Interp.
		CAB3-X	CAB3 with transponder door	Similar to CAB3 (without inner door)	Interp.
		CAB-BATT	Enclosure for batteries		7,8
		CAB-BATT/R	Enclosure for batteries	Same as CAB-BATT (color)	Interp.
		EN-PAD	Enclosure for PAD-3		1
		EN-PADR	Enclosure for PAD-3	Same as EN-PAD (color)	Interp.
		PAD-3	Enclosure		1
		PAD-3R	Enclosure	Same as PAD-3 (color)	Interp.
		PAD-4	Enclosure		2
		REMBOX2	Enclosure	Similar to REMBOX4 (smaller size)	Interp.
		REMBOX4	Enclosure		4,5
		PAB-ENCL	Pad & AMP booster ENCL 1HU Black	Part of Smaller PAD-5	12
		PAB-ENCL-R	Pad & AMP booster ENCL 1HU Red	Same as PAB-ENCL (color)	Interp.
		PAB2-ENCL	Pad & AMP booster ENCL 2HU Black	Part of Larger PAD-5	13
		PAB2-ENCL-R	Pad & AMP booster ENCL 2HU Red	Same as PAB2-ENCL (color)	Interp.
Plate	Siemens Industry Inc.	ID-SP	Mounting plate		3,6
		REMBOX2-MP	Mounting plate	Similar to REMBOX4-MP (smaller size)	Interp.
		REMBOX4-MP	Mounting plate	Part of REMBOX4	5
		BCM	Blank control plate		3
		OD-BP	Blank plate		6,9,10
		OD-BP-R	Blank plate	Same as OD-BP (color)	Interp.

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SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700911



Manufacturer: Siemens Industry Inc.		Table Description: Subcomponents			TABLE 3
Model Line: Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular					
Building Code: CBC 2016		Seismic Certification Limits: $S_{DS} = 2.0g$ $z/h = 1.0$ $I_p = 1.5$			
Component Type	Manufacturer	Model	Description	Notes	UUT
Battery	Siemens Industry Inc.	BT-33	7AH Battery		1,2
		BTX-2	55 AH Battery		8,9
		BTX-3	100 AH Battery		7,10
Battery Charger	Siemens Industry Inc.	PSC-12	Power supply & bat charge		3,6,9,10
		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
		CC-2	Card Cage-2 slot	Similar to CC-5 (fewer slots)	Interp.
		CC-5	Card Cage-5 slot		3,6,9,10
		CDC-4	Detector Card	Same as NIC-C (label)	Interp.
		CRC-6	Detector Card	Same as NIC-C (label)	Interp.
		CSB	Sounder Board		6
		DAC-NET	Digital Audio Card		6,9
		DLC	Device Loop Card		3
		XDLC	Device Loop Card		11
		FN2006	Fiber optic interface		9,10
		FN2007	Fiber optic interface		9,10
		FMT-A-ADPT	Wiring Adapter		6
		LPB	Local Page Board		6,9
		MLC	MXL Line Card Loop		10
		NIC-C	Network interface card		6,10
		NRC	Network Ring Card		9,10
		OCM-16	Output Control Module		5

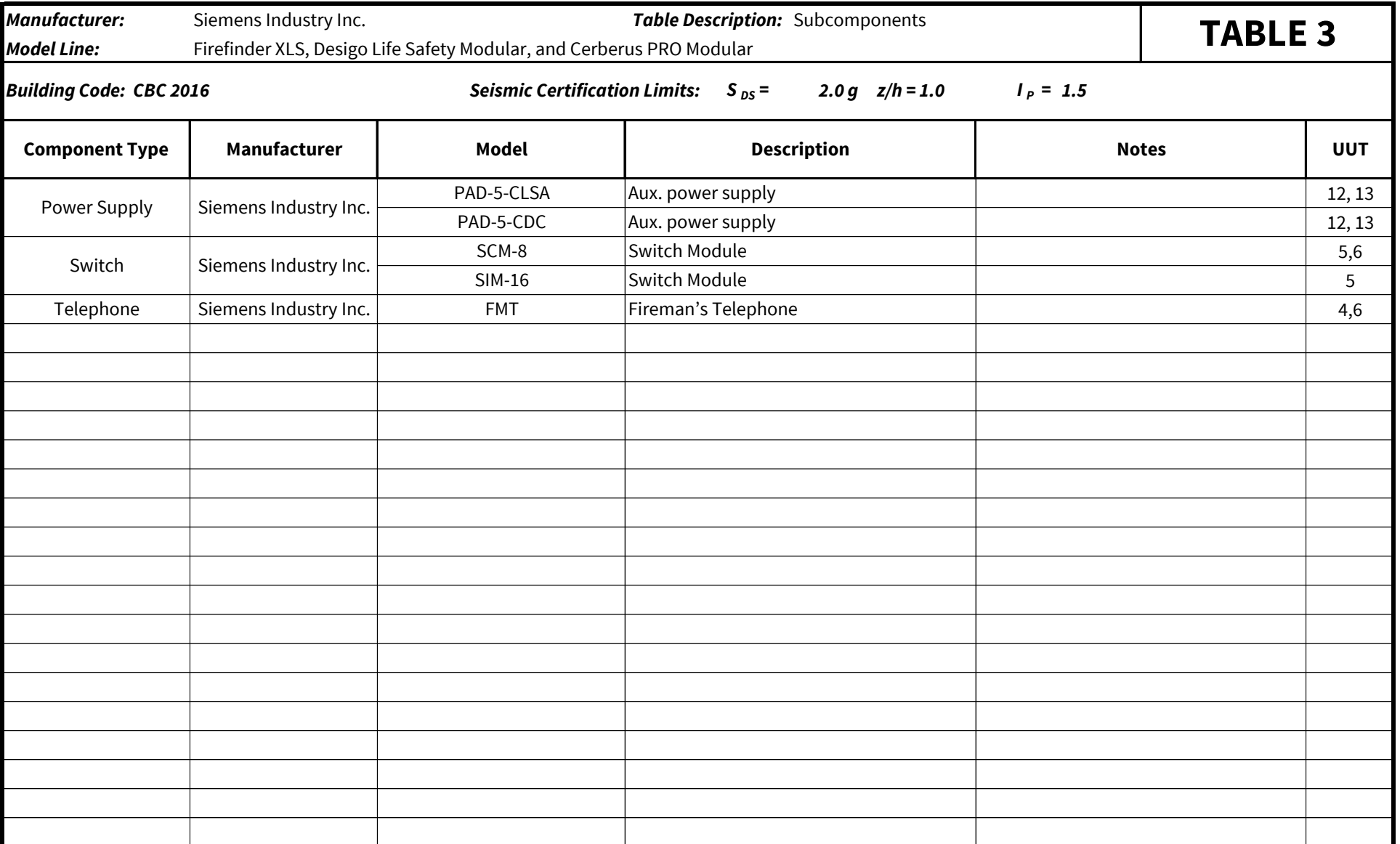
SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENT MATRIX

TRU PROJECT NO. 1700911



Manufacturer: Siemens Industry Inc.		Table Description: Subcomponents			TABLE 3
Model Line: Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular					
Building Code: CBC 2016		Seismic Certification Limits: $S_{DS} = 2.0 g$ $z/h = 1.0$ $I_p = 1.5$			
Component Type	Manufacturer	Model	Description	Notes	UUT
Circuit Board	Siemens Industry Inc.	PTB	Power Termination Board		3,6,9,10
		RNI	Remote Network Interface		4,5
		TZC-8B	FF Telephone Card		6
		VESDA-NET-HLI	High level interface for Vesda		10
		VPM	Vesda peripheral module		10
		XDMC	Digital message card		9
		ZAC-40	Zone Amplifier Card		6,9
		ZAM-180	Zone Amplifier Module		6
		ZIC-2C	Zone Adapter Card		3
		ZIC-4A	Zone Indicating Card		3,10
		ZIC-8B	Zone Indicating Card		3
Control Panel	Siemens Industry Inc.	FCM-6	Fan Control Module		6
		LCM-8	LED Annunciator Module		6
		PMI	Operator interface		3,4,6
		PMI-2	Personal machine interface		9,10
		FCM2041-U2	Personal machine interface		11
		FCM2041-U3	Personal machine interface		11
Mounting Plate	Siemens Industry Inc.	ID-MP	Door Mounting Plate		5,6
		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
		PAD-3-MB	Aux. power supply		1
		PAD-5-MB	Aux. power supply		12, 13

TRU PROJECT NO. 1700911



UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



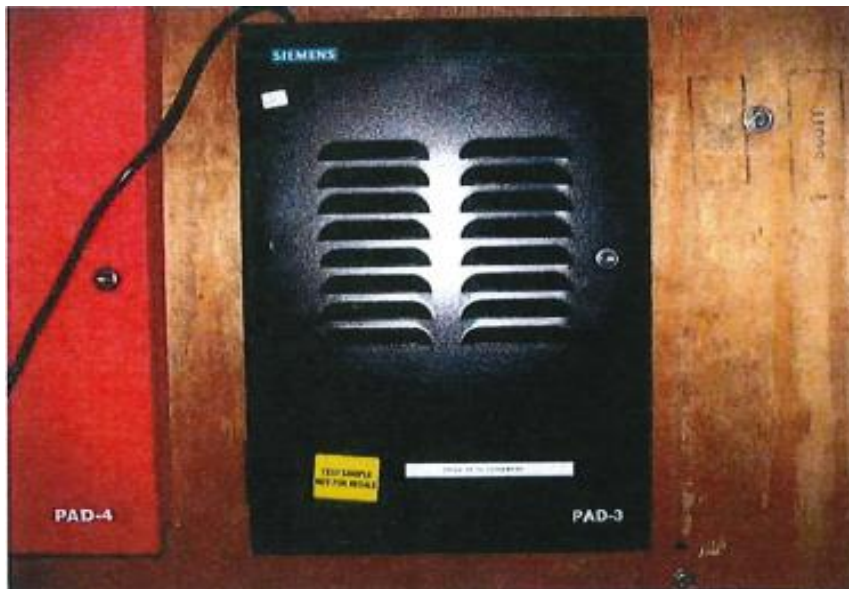
Manufacturer:	Siemens Industry Inc.	UUT 1
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	PAD-3	
Serial Number:		N/A

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)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
24	2.4	12	17	N/A	N/A	N/A			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 2
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	PAD-4	
Serial Number:		N/A

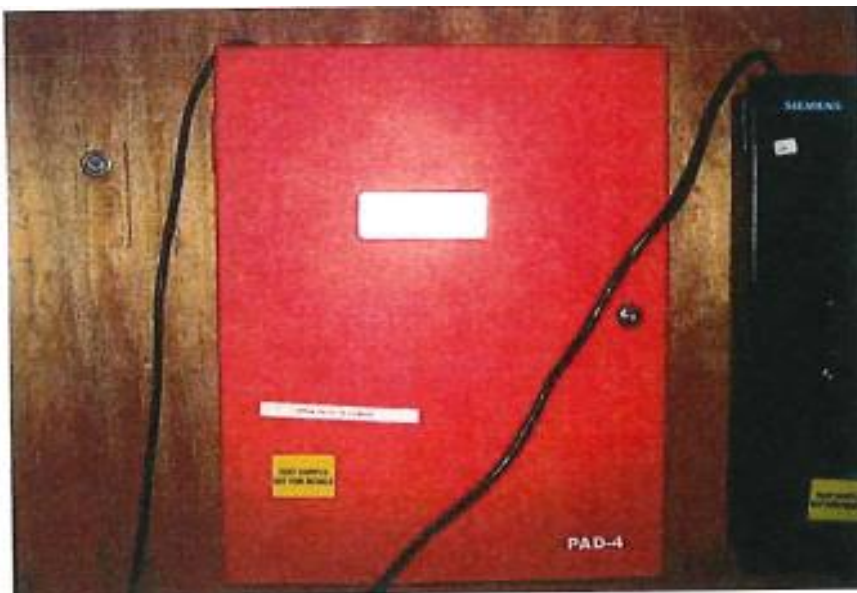
Product Construction Summary:
Painted, cold rolled carbon steel power supply enclosure, NEMA type 1 enclosure.

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

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
24	2.4	12	17	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 3
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	CAB-1	
Serial Number:		N/A

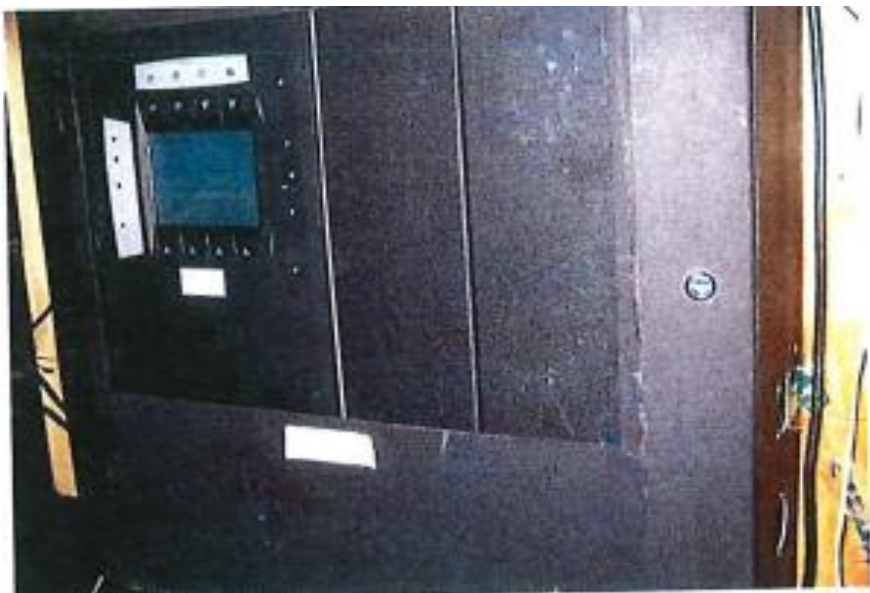
Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosure, NEMA type 1 enclosure.

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)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
70	8.3	26	27	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 4
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	REMBOS4 (config #1)	
Serial Number:		N/A

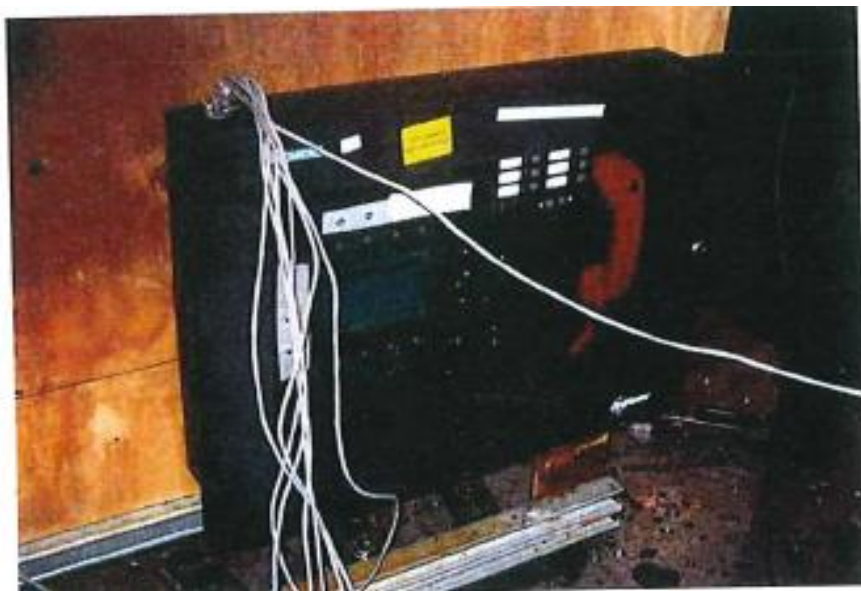
Product Construction Summary:
Painted, cold rolled carbon steel alarm cabinet enclosure, NEMA type 1 enclosure.

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

UUT Properties						
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	4.9	24	18.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 5
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	REMBOX4 (config #2)	
Serial Number:		N/A

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)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
33	4.9	24	18.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911




Manufacturer:	Siemens Industry Inc.	UUT 6
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	CAB-3	
Serial Number:		N/A

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)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
173	8.3	26	62.5	N/A	N/A	N/A			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911




Manufacturer:	Siemens Industry Inc.	UUT 7
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	CAB-BATT (2-100AH)	
Serial Number:		N/A

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

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

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
136	8.3	26	13	N/A	N/A	N/A			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 8
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	CAB-BATT (2-55AH)	
Serial Number:		N/A

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

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

UUT Properties									
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
84	8.3	26	13	N/A	N/A	N/A			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 9
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	CAB-2	
Serial Number:		N/A

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)	Dimension (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
90	8.3	26	44.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.

Contents were included in testing per operating conditions.

TRU Compliance, by Structural Integrity Associates, Inc.

844-TRU-0200 | info@trucompliance.com

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 10
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	CAB-3	
Serial Number:		N/A

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)	Dimension (in)			Lowest Natural Frequency (Hz)					
	Depth	Width	Height	Front-Back	Side-Side	Vertical			
173	8.3	26	62.5	N/A	N/A	N/A			
UUT Highest Passed Seismic Run Information									
Building Code		Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156	2.0	1.0	1.5	3.2	2.4	1.33	0.53

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 after shake table test.

Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 11
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	CAB-1	
Serial Number:		N/A

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

Options/Subcomponent Summary:
XDLC, FCM2041-U2, FCM2041-U3

UUT Properties										
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)						
	Depth	Width	Height	Front-Back	Side-Side	Vertical				
64	8.3	26	27	N/A	N/A	N/A				
UUT Highest Passed Seismic Run Information										
Building Code		Test Criteria		S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156		2.0	1.0	1.5	3.2	2.4	1.67	0.67
				2.5	0.0					

Test Mounting Details:

Unit was mounted to shake table wall fixture using (4) 3/8" Lag Screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911



Manufacturer:	Siemens Industry Inc.	UUT 12
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	PAB-ENCL	
Serial Number:		N/A

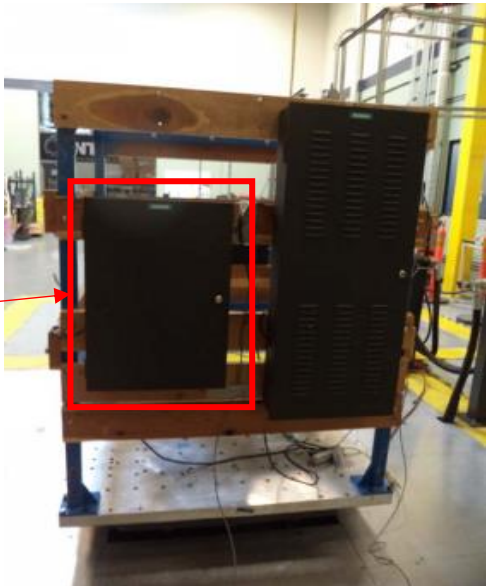
Product Construction Summary:
Painted, cold rolled carbon steel power supply enclosure, NEMA type 1 enclosure.

Options/Subcomponent Summary:
PAB-ENCL, PAD-5 ADAPTER PLATE, PAD-5-MB, PAD-5-CLSA, PAD-5-CDC

UUT Properties										
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)						
	Depth	Width	Height	Front-Back	Side-Side	Vertical				
28	3.75	16	24	N/A	N/A	N/A				
UUT Highest Passed Seismic Run Information										
Building Code		Test Criteria		S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156		2.0	1.0	1.5	3.2	2.4	1.67	0.67
				2.5	0.0					

Test Mounting Details:

UUT12



Unit was mounted to shake table wall fixture using (4) 1/4" Lag Screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.

UNIT UNDER TEST (UUT) SUMMARY SHEET

TRU PROJECT NO. 1700911




Manufacturer:	Siemens Industry Inc.	UUT 13
Model Line:	Firefinder XLS, Desigo Life Safety Modular, and Cerberus PRO Modular	
Model Number:	PAB2-ENCL	
Serial Number:		N/A

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

Options/Subcomponent Summary:
PAB2-ENCL, PAD-5 ADAPTER PLATE, PAD-5-MB, PAD-5-CLSA, PAD-5-CDC

UUT Properties										
Weight (lb)	Dimension (in)			Lowest Natural Frequency (Hz)						
	Depth	Width	Height	Front-Back	Side-Side	Vertical				
49	5.5	16	40	N/A	N/A	N/A				
UUT Highest Passed Seismic Run Information										
Building Code		Test Criteria		S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC156		2.0	1.0	1.5	3.2	2.4	1.67	0.67
				2.5	0.0					

Test Mounting Details:



UUT13

Unit was mounted to shake table wall fixture using (6) 1/4" Lag Screws.
Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
Contents were included in testing per operating conditions.