



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT  
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC  
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0273 – 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 FC2025/2050 & FC922/924 Fire Alarm Control Panels

Product Type: Fire Alarm Control Panel

Product Model Number: Various (See Attachment)

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

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

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](mailto: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](mailto: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 ( $F_p/W_p$ ) = 1.88

$S_{DS}$  (Design spectral response acceleration at short period, g) = 2.5

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

$R_p$  (Equipment or component response modification factor) = 6.0

$\Omega_0$  (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) = \_\_\_\_\_

$\Omega_0$  (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) = \_\_\_\_\_

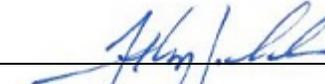
Tank(s) designed in accordance with ASME BPVC, 2010:  Yes  No

**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) = 2.50  $z/h$  = 1

Condition of Approval (if applicable): \_\_\_\_\_







**Table 2**

## Special Seismic Certification Certified Subcomponent Matrix

TWEI Project No.: 2014-0827-CO-001

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** FC2025/2050, FT2050, FC922/924, FT924 Fire Alarm Control Panel

**Certified Options Summary:**

- Note: Suffix "2" at end of model number represents Desigo branding label.  
 Suffix "3" at end of model number represents Cerberus PRO branding label.  
 Suffix "1" at end of model number represents universal component.  
 "R"=Red, "U"=Black

**Building Code:** CBC 2013      **Seismic Certification Limits:**  $S_{DS} = 2.50g$        $z/h = 1.0$        $I_p = 1.5$

Vendor	Model Number	Description	Notes	UUT
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**Enclosure Detail**

Siemens Industry, Inc.	One Height Enclosure	FHB2001-U1/R1	Back Box		3
		FHD2004-U1	Inner Door		3
		FHD2001-U2/R2	Outer Door		3
		FHD2001-U3/R3	Outer Door	<i>Same as FHD2001-U2/R2 (label)</i>	
		FHD2006-U1	Clear Lens		3
		FHA2035-U1/R1	Trim Kit	<i>Similar to FHA2036-U1/R1 (smaller size)</i>	
	Two Height Enclosure	FHB2002-U1/R1	Back Box		1,2
		FHD2004-U1	Inner Door		1,2
		FHD2005-U1	Inner Door	<i>Similar to FHD2004-U1 (window)</i>	
		FHD2002-U2/R2	Outer Door		2
		FHD2003-U2/R2	Outer Door		1
		FHD2002-U3	Outer Door	<i>Same as FHD2002-U2/R2 (label)</i>	
		FHD2003-U3/R3	Outer Door	<i>Same as FHD2003-U2/R2 (label, color)</i>	
		FHD2006-U1	Clear Lens		1,2
		FHA2036-U1/R1	Trim Kit		1

**Component Detail**

Siemens Industry, Inc.	FCM2018-U2, FCM2019-U2	Operating Interface Units		1,3
	FCM2018-U3, FCM2019-U3	(18 = w/o LED module; 19 = w/LED module)		2
	FCI2016-U1, FCI2017-U1	Periphery Boards (16 = 250pt; 17 = 500pt.)		1,2
	FTI-2001-A1	Fire Terminal Board		3
	FCA2015-U1	Digital Alarm Communicator Transmitter		1
	FN2001-U1	SAFEDLINK / FCnet Network Module		1,3
	FCI2011-U1	NAC Expansion Module		2
	XCI2001-U1	Releasing Module		1

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**Table 2**

## Special Seismic Certification Certified Subcomponent Matrix

TWEI Project No.: 2014-0827-CO-001

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** FC2025/2050, FT2050, FC922/924, FT924 Fire Alarm Control Panel

**Certified Options Summary:**

- Note: Suffix "2" at end of model number represents Desigo branding label.  
 Suffix "3" at end of model number represents Cerberus PRO branding label.  
 Suffix "1" at end of model number represents universal component.  
 "R"=Red, "U"=Black

**Building Code:** CBC 2013      **Seismic Certification Limits:**       $S_{DS} = 2.50g$        $z/h = 1.0$        $I_p = 1.5$

Vendor	Model Number	Description	Notes	UUT
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Component Detail (Cont'd.)

Siemens Industry, Inc.	FCA2016-A1	RS485 Class A Module		1
	FCI2020-U1	Leased-Line City Tie Module		1
	FN2006-U1	Single-Mode Fiber-Optic Module		1,3
	FN2007-U1	Multi-Mode Fiber-Optic Module	<i>Similar to FN2006-U1 (integrated chip)</i>	
	FHA2031-U1	DIN-Rail Kit		1
	FHA2032-U1	Battery Bracket		1,2
	FCM2034-U2	LED Option Module	Same as FCM2023-U2 (color)	
	FCM2034-U3	LED Option Module	Same as FCM2023-U3 (color, label)	
	FCM2023-U2	LED Option Module		1
	FCM2023-U3	LED Option Module	<i>Same as FCM2023-U2 (label)</i>	
	FCM2022-U2	Blank Option Module		1
	FCM2022-U3	Blank Option Module	<i>Same as FCM2022-U2 (label)</i>	
	FP2011-U1	170 Watt Power Supply		2
	FP2012-U1	300 Watt Power Supply		1
BP-61	24V 15AH Battery Set		1,2	

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\*UUT 6 in Test Report

## UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0827-CO-001

**Manufacturer:** Siemens  
**Model Line:** FC2025/2050 Fire Alarm Control Panel  
**Model Number:** Two Height Enclosure

**Product Construction Summary:**  
 16 GA carbon steel NEMA Type 1 enclosure (Red or Black). Hinged doors with key lock.  
 FC2025/FC2050/FT2050 – Desigo branding label  
 FC922/FC924/FT924 – Cerberus PRO branding label

**Options/Subcomponent Summary:**  
 FHB2002-U1/R1, FHD2004-U1, FHD2003-U2/R2, FHD2006-U1, FHA2036-U1/R1, FCM2018-U2, FCM2019-U2,  
 FCI2016-U1, FCI2017-U1, FCA2015-U1, FN2001-U1, XCI2001-U1, FCA2016-A1, FCI2020-U1, FN2006-U1, FHA2031-U1,  
 FHA2032-U1, FCM2023-U2, FCM2022-U2, FP2012-U1, BP-61

### UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
60	6.0	28.0	28.5	N/A	N/A	N/A

### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2013	ICC-ES AC 156	2.50g	1.0	1.5	4.00g	3.00g	1.67g	0.67g

### 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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# UUT – 2

\*UUT 7 in Test Report

## UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0827-CO-001

**Manufacturer:** Siemens  
**Model Line:** FC2025/2050 Fire Alarm Control Panel  
**Model Number:** Two Height Enclosure

**Product Construction Summary:**  
 16 GA carbon steel NEMA Type 1 enclosure (Red or Black). Hinged doors with key lock.  
 FC2025/FC2050/FT2050 – Desigo branding label  
 FC922/FC924/FT924 – Cerberus PRO branding label

**Options/Subcomponent Summary:**  
 FHB2002-U1/R1, FHD2004-U1, FHD2002-U2/R2, FHD2006-U1, FCM2018-U3, FCM2019-U3, FCI2016-U1, FCI2017-U1, FCI2011-U1, FHA2032-U1, FP2011-U1, BP-61

### UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
60	6.0	28.0	28.5	N/A	N/A	N/A

### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S <sub>Ds</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2013	ICC-ES AC 156	2.50g	1.0	1.5	4.00g	3.00g	1.67g	0.67g

### 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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**UUT – 3**

\*UUT 8 in Test Report

# UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2014-0827-CO-001

**Manufacturer:** Siemens

**Model Line:** FC2025/2050 Fire Alarm Control Panel

**Model Number:** One Height Enclosure

**Product Construction Summary:**  
 16 GA carbon steel NEMA Type 1 enclosure (Red or Black). Hinged doors with key lock.  
 FC2025/FC2050/FT2050 – Desigo branding label  
 FC922/FC924/FT924 – Cerberus PRO branding label

**Options/Subcomponent Summary:**  
 FHB2001-U1/R1, FHD2004-U1, FHD2001-U2/R2, FHD2006-U1, FCM2018-U2, FCM2019-U2, FTI-2001-A1, FN2001-U1, FN2006-U1

### UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
30	4.5	15.0	20.0	N/A	N/A	N/A

### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S <sub>Ds</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2013	ICC-ES AC 156	2.50g	1.0	1.5	4.00g	3.00g	1.67g	0.67g

**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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