



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

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

OFFICE USE ONLY

APPLICATION #: **OSP – 0078 – 10**

**OSHPD Special Seismic Certification Preapproval (OSP)**

Type:  New  Renewal

**Manufacturer Information**

Manufacturer: Siemens Industry, Inc.

Manufacturer's Technical Representative: Brian D. Campbell

Mailing Address: 501 Fountain Parkway, Grand Prairie, TX 75050

Telephone: (817) 652-6400 Email: [Campbell.Brian@siemens.com](mailto:Campbell.Brian@siemens.com)

**Product Information**

Product Name: Siemens P1, P2, P3, P4 and P5 Panelboards

Product Type: Metal Enclosed Panelboards

Product Model Number: P1, P2, P3, P4 and P5 wall mounted panelboards (see Table 1)  
(List all unique product identification numbers and/or part numbers)

General Description: Wall mounted panelboards with functions that may include, but not limited to: circuit breaker  
lighting and distribution, main switch and fusible switch.

Mounting Description: Rigid wall mounted

**Applicant Information**

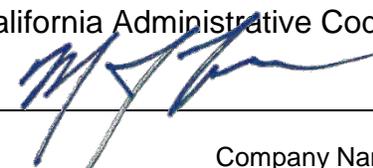
Applicant Company Name: Tobolski Watkins Engineering, Inc.

Contact Person: Matthew Tobolski, PhD, SE

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

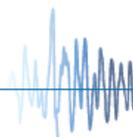
Telephone: (858) 381-5843 Email: [mtobolski@tobolskiwatkins.com](mailto:mtobolski@tobolskiwatkins.com)

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:  Date: 12/31/13

Title: President and CEO 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: Matthew Tobolski, PhD, SE California License Number: S 5648

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

Telephone: (858) 381-5843 Email: [mtobolski@tobolskiwatkins.com](mailto:mtobolski@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: Wyle Laboratories

Contact Name: Greg Mason or Don Smith

Mailing Address: 7800 Highway 20 West, Huntsville, AL 35806

Telephone: (256) 837-4411 Email: [Greg.Mason@wyle.com](mailto:Greg.Mason@wyle.com)





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

**Seismic Parameters**

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

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.35

$S_{DS}$  (Design spectral response acceleration at short period, g) = 1.80

$a_p$  (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

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

Signature:  Date: May 28, 2014

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to :  $S_{DS}$  (g) = 1.80  $z/h$  = 1

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





**Table 1**

**Special Seismic Certification  
Certified Product Matrix**

TWEI Project No.: 2013-0721-CO-001, rev. 0

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** Lighting and Power Distribution Panelboards

**Certified Product Construction Summary:**  
Carbon steel panelboard cabinets

**Certified Options Summary:**  
Siemens main breaker and branch breakers with total rating of 100-1,200 amps. Configured as lighting panelboards/power distribution panelboards (designation based on function).

**Certified Mounting Summary:**  
Rigid wall mounted panelboards. SEOR to design supports and attachments.

**Building Code:** CBC 2013      **Seismic Certification Limits:**  $S_{DS} = 1.80g$        $z/h = 1.0$        $I_p = 1.5$

Model Line	Model	Dimension (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
Lighting Panelboard	Panel Type P1 (100A - 400A)	5.75	20	26	78		
				32	96		
				38	114		
				44	132	UUT: 250A	12
				56	168		
				62	186		
				68	204		
				74	222		
	Panel Type P2 (125A - 600A)	5.75 or 7.75	20 or 24	26	78		
				32	96		
				38	114		
				44	132		
				50	150		
				56	168		
				62	186		
				68	204		
	Panel Type P3 (250A - 600A)	7.75	24	56	280		
				62	310		
				68	340	UUT: 600A	15
				74	370		
				80	400		
				71	213	UUT: 600A, 7.75"D, 20"W	13
				74	222		

© 2010 Tobolski Watkins Engineering, Inc.





**Table 2**

**Special Seismic Certification  
Certified Major Subcomponent Data**

TWEI Project No.: 2013-0721-CO-001, rev. 0

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** Lighting and Power Distribution Panelboards – Breakers

**Certified Product Construction Summary:**  
Thermal magnetic trip units only

**Certified Options Summary:**  
Interchangeable or non-interchangeable trip units (non-interchangeable breakers have “X” in catalog number, i.e. NXD6 vs. ND6)

**Certified Mounting Summary:**  
Mounted within panelboard

**Building Code:** CBC 2013      **Seismic Certification Limits:**  $S_{DS} = 1.80g$        $z/h = 1.0$        $I_p = 1.5$

Maximum Amperage	Model	Dimension (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
100A Maximum	BQD/BQD6 (15A-100A)	2.7	1.0	4.0	0.6		
			2.0		1.2		
			3.0		2.0	UUT: BQD3100 (100A)	12,13
125A Maximum	BL/BLH/HBL (10A-125A)	2.4	1.0	3.5	0.3		
			2.0		0.6		
			3.0		1.0	UUT: B3100 (100A)	12-15
	NGB/HGB/LGB (15A-125A)	2.9	5.4	1.0	0.9		
				2.0	1.9		
				3.0	2.9		
	NEB/HEB (15A-125A)	2.9	5.5	1.0	1.4		
				2.0	2.4		
				3.0	3.7		
	ED2/ED4/ED6 HED4/HED6 (15A-125A)	3.9	6.4	1.0	1.3		
				2.0	2.5		
				3.0	3.8	UUT: ED43B125 (125A)	13-15
150A Maximum	DG (50A-150A)	3.4	4.1	6.9	5.9		
225A Maximum	QJ2/QJH2/QJ2H/HQJ2 (60A-225A)	2.5	3.0	7.0	3.0		
			4.5		4.1	UUT: QJ23B225 (225A)	12,13

© 2010 Tobolski Watkins Engineering, Inc.



**Table 2**

**Special Seismic Certification  
Certified Major Subcomponent Data**

TWEI Project No.: 2013-0721-CO-001, rev. 0

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** Lighting and Power Distribution Panelboards – Breakers

**Certified Product Construction Summary:**  
Thermal magnetic trip units only

**Certified Options Summary:**  
Interchangeable or non-interchangeable trip units (non-interchangeable breakers have “X” in catalog number, i.e. NXD6 vs. ND6)

**Certified Mounting Summary:**  
Mounted within panelboard

**Building Code:** CBC 2013      **Seismic Certification Limits:**  $S_{Ds} = 1.80g$        $z/h = 1.0$        $I_p = 1.5$

Maximum Amperage	Model	Dimension (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
250A Maximum	NFGB/HFGB/LFGB (100A-250A)	3.4	4.1	6.9	6.2		
	FD6/HFD6/HHFD6 (70A-250A)	4.0	4.5	9.5	10.0	UUT: FXD63B250 (250A)	12-15
400A Maximum	NJGA/HJGA/LJGA (250A-400A)	4.2	5.5	11.0	12.6		
	JD2/JD6/HJD6/HHJD6 (200A-400A)	4.0	7.5	11.0	19.5	UUT: JXD63B400 (400A)	14
600A Maximum	NLGB/HLGB/LLGB (400A-600A)	4.2	5.5	11.0	20.9		
	LD6/HLD6/HHLD6 (250A-600A)	4.0	7.5	11.0	19.5	UUT: LXD63B600 (600A)	13-15
800A Maximum	NMG/HMG/LMG (600A-800A)	4.7	7.5	16.0	35.3		
	MD6/HMD6 (500A-800A)	6.0	9.0	16.0	61.5	UUT: MXD63B800 (800A)	14
1,200A Maximum	NNG/HMG/LMG (800A-1,200A)	6.0	9.0	16.0	55.1		
	ND6/HND6 (800A-1,200A)	6.0	9.0	16.0	61.5	UUT: NXD63B120 (1,200A)	14

© 2010 Tobolski Watkins Engineering, Inc.



**UUT – 12**

## UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2013-0271-CO-001, rev. 0

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** Lighting and Power Distribution Panelboards

**Model Number:** Lighting Panelboard – Panel Type P1

**Product Construction Summary:**  
Carbon steel panelboard cabinet.

**Options/Subcomponent Summary:**  
Configured as lighting panelboard. (1) Siemens FXD63B250, (1) Siemens QJ23B225, (8) Siemens B3100, (6) Siemens BQD3100

### UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
132	5.75	20	44	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	1.80g	1.0	1.5	2.88g	2.16g	1.20g	0.48g

**Test Mounting Details:**



Unit mounted to wall mount fixture with (4) ½" grade 5 bolts torqued to 60 ft-lbs.  
Unit maintained structural integrity and remained functional per manufacturer requirement.

© 2010 Tobolski Watkins Engineering, Inc.



**UUT – 13**

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

TWEI Project No.: 2013-0271-CO-001, rev. 0

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** Lighting and Power Distribution Panelboards

**Model Number:** Lighting Panelboard – Panel Type P2

**Product Construction Summary:**  
Carbon steel panelboard cabinet.

**Options/Subcomponent Summary:**  
Configured as lighting panelboard. (1) Siemens LXD63B600, (1) Siemens FXD63B250, (1) Siemens QJ23B225, (2) Siemens ED43B125, (2) Siemens B3100, (2) Siemens BQD3100

**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
213	7.75	20	71	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	1.80g	1.0	1.5	2.88g	2.16g	1.20g	0.48g

**Test Mounting Details:**



Unit mounted to wall mount fixture with (4) ½" grade 5 bolts torqued to 60 ft-lbs.  
Unit maintained structural integrity and remained functional per manufacturer requirement.

© 2010 Tobolski Watkins Engineering, Inc.



**UUT – 14**

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

TWEI Project No.: 2013-0271-CO-001, rev. 0

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** Lighting and Power Distribution Panelboards

**Model Number:** Power Distribution Panelboard – Panel Type P5

**Product Construction Summary:**  
Carbon steel panelboard cabinet.

**Options/Subcomponent Summary:**  
Configured as power distribution panelboard. (1) Siemens NXD63B120, (1) Siemens MXD63B800, (2) Siemens LXD63B600, (2) Siemens JXD63B400, (2) Siemens FXD63B250, (2) Siemens ED43B125, (4) Siemens B3100

**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
900	12.75	38	90	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	1.80g	1.0	1.5	2.88g	2.16g	1.20g	0.48g

**Test Mounting Details:**



Unit mounted to wall mount fixture with (4) ½" grade 5 bolts torqued to 60 ft-lbs.  
Unit maintained structural integrity and remained functional per manufacturer requirement.

© 2010 Tobolski Watkins Engineering, Inc.



**UUT – 15**

## UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2013-0271-CO-001, rev. 0

**Manufacturer:** Siemens Industry, Inc.

**Model Line:** Lighting and Power Distribution Panelboards

**Model Number:** Lighting Panelboard – Panel Type P3

**Product Construction Summary:**  
Carbon steel panelboard cabinet.

**Options/Subcomponent Summary:**  
Configured as lighting panelboard. (1) Siemens LXD63B600, (1) Siemens FXD63B250, (10) Siemens ED43B125, (4) Siemens B3100

### UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
340	7.75	24	68	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	1.80g	1.0	1.5	2.88g	2.16g	1.20g	0.48g

**Test Mounting Details:**



Unit mounted to wall mount fixture with (4) ½" grade 5 bolts torqued to 60 ft-lbs.  
Unit maintained structural integrity and remained functional per manufacturer requirement.

© 2010 Tobolski Watkins Engineering, Inc.