State of California – Health and Human Services Agency

oshpd
Office of Statewide Health Planning and Development

Facilities Development Division www.oshpd.ca.gov/fdd
400 R Street. Suite 200, Sacramento, California 95811-6213 Phone (916) 440-8300 Fax (916) 654-2973

APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0090-10

Check whether application is: NEW [X] RENEWAL [ ]

1.0

Siemens Industry, Inc.
Building Technologies Division
Manufacturer

Brian D. Campbell
Manufacturer's Technical Representative

5400 Triangle Pkwy, Norcross, GA 30092
Mailing Address

800-964-4114
Telephone

campbell.brian@siemens.com
E-mail Address

2.0

WL Low Voltage Switchgear, Type RCS rear-connected switchboard
Product Name

Switchgear, NEMA 1 Indoor Enclosure
Product Type

WL Low Voltage Switchgear – main breaker, feeder, tie sections. See attachment for models.
Product model No (List all unique product identification numbers and/or serial numbers)

General Description: Rigid base mounted Type WL Low Voltage Power Circuit Breaker Switchgear, and Type RCS rear-connected switchboard.

3.0

Siemens Industry, Inc.
Building Technologies Division
Applicant Company Name

Brian D. Campbell
Contact Person

501 Fountain Parkway, Grand Prairie, TX 75050
Mailing Address

(817) 652-6603
Telephone

campbell.brian@siemens.com
E-mail Address

I hereby agree to reimburse the Office of Statewide Health Planning and Development for the actual costs incurred by the department for review.

Brian Campbell
Signature of Applicant

June 28, 2010
Date

Senior Product Engineer
Title

Siemens Industry, Inc.
Company Name

4.0 Registered Design Professional Preparing the Report

W. E. Gundy & Associates Inc.
Company Name

William E. Gundy — *Contact Name*
CE-26539 — *California License Number*

P.O. Box 2900 Hailey, ID 83333
Mailing Address

(208) 788 5989 — *Telephone*
wgundy@wegai.com — *E-mail Address*

5.0 California Licensed Structural Engineer Review and Acceptance of the Report

Tobolski Watkins Engineering, Inc.
Company Name

Derrick A. Watkins — *Contact Name*
S 5257 — *California License Number*

3710 Ruffin Road, San Diego, CA 92123
Mailing Address

(858) 381-5843 — *Telephone*
dwatkins@tobolskiwatkins.com — *E-mail Address*

6. Anchorage Pre-Approval

☐ *Anchorage is pre-approved under OPA-*
(Separate application for anchorage pre-approval is required)

☒ Anchorage is not Pre-approved

7. Certification Method

☒ *Testing in accordance with:* ☒ *ICC-ES AC-156* ☐ *Other (Please Specify):*

☐ *Analysis*
☐ *Experience data*
☐ *Combination of Testing, Analysis, and/or Experience Data (Please Specify):*

8. Testing Laboratory (if applicable)

Clark Dynamic Test Laboratory — *Company Name*
J.R. Antenucci, Test Manager — *Contact Name*

1801 Route 51 South, Jefferson Hills, PA 15025
Mailing Address

(412) 382-5500 — *Telephone*
jrantenucci@clarkdynamic.com — *E-mail Address*

Approval Parameters

9.0 *Design in accordance with ASCE 7-05 Chapter 13*: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = 1.0g

S_{DS} (Spectral response acceleration at short period) = 1.33g [See Attachment A, Table # 3]

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

R_p (Equipment or component response modification factor) = 6.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio)= 1.0 [See Attachment A, Table # 3]

Equipment or Component fundamental period(s) = See Attachment A, Table # 1

Building period limits (if any) = None

Overall dimensions and weight (or range) = See Attachment A, Table # 2

Equipment or Components @ grade designed in accordance with ASCE 7-05 Chapter 15: ☐ Yes ☒ No

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

S_{DS} (Spectral response acceleration at short period) =

S_1 (Spectral response acceleration at 1 second period) =

R (Response modification coefficient)=1.0

Ω_0 (System overstrength factor) =1.0

C_d (Deflection amplification factor) =1.0

I_p (Importance factor) =1.5

Height to Center of Gravity above base =

Equipment or Component fundamental period(s) = Sec

Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2007: ☐ Yes ☒ No

10.0 ***List of attachments supporting the special seismic certification of equipment or components:***

☒	*Test Report*	☐	*Drawings*	☒	*Manufacturer's Catalog*
☐	*Calculations*	☒	*Others (Please Specify): Cover letter*		

11.0 ***OSHPD Approval*** *(For Office Use Only)*

Signature & Date **11/30/2010**	**December 31, 2016** *Approval Expiration Date*
Chris Tokas, SHFR *Name & Title*	S_{DS} (g) = **1.33** z/h = **1.00** *Special Seismic Certification Valid Up to*

Condition of Approval (if any):

Table 1 - Tested Specimen Information

Test Specimen	Width (in)	Height (in)	Depth (in)	Weight (lb)	Resonant Frequencies (Hz)			Enclosure
					F-B	S-S	V	
UUT 1-A	22	92	60	3,000	7.8	5.5	> 33	NEMA 1
UUT 1-B	32	92	60	3,300				NEMA 1

Table 2 - Certified Enclosure Details

Enclosure	Width (in)	Height (in)	Depth (in)	Max Weight (lb)	Max C.G. Height	Certified Breakers	
						Max Size	Type
NEMA 1	22	92	60	3,000	60 in	3,200 Amp	Non-fused
	32	92	60	3,300	62 in	5,000 Amp	Non-fused

Table 3 - Seismic Certification Levels

Level Qualified		F_p / W_p
S_{DS}	z/h	
2.13	0.0	0.96
1.33	1.0	1.00

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