



# APPLICATION FOR PREAPPROVAL SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

<b>APPLICATION NO.</b>
<b>OSP – 0060-10</b>

Check whether application is: NEW  RENEWAL

1.0 Siemens Industry, Inc. Brian D. Campbell  
 Building Technologies Division Manufacturer's Technical Representative  
*Manufacturer*

5400 Triangle Pkwy, Norcross, GA 30092  
*Mailing Address*

800-964-4114 campbell.brian@siemens.com  
*Telephone* *E-mail Address*

2.0 Safety Switches General Duty, Heavy Duty, and Double Throw  
*Product Name* *Product Type*  
 Safety Switches

General Duty, Heavy Duty, and Double Throw Safety Switches (See attachment #1).  
*Product model No (List all unique product identification numbers and/or serial numbers)*

*General Description:*  
 Wall mounted Safety Switches inside sheet metal enclosure.

3.0 Siemens Industry, Inc. Brian D. Campbell  
 Building Technologies Division Contact Person  
*Applicant Company Name*

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

(817) 652-6603 campbell.brian@siemens.com  
*Telephone* *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.

  
*Signature of Applicant*

April 26, 2010  
*Date*

Senior Product Engineer  
*Title*

Siemens Industry, Inc.  
*Company Name*

1/k



**Registered Design Professional Preparing the Report**

4.0 BHB Consulting Engineers, P.C. Company Name

Greg McCombs S 4329  
Contact Name California License Number

2766 S Main Street, Salt Lake City, UT 84115  
Mailing Address

(801) 355-5656 greg.mccombs@bhengineers.com  
Telephone E-mail Address

**California Licensed Structural Engineer Review and Acceptance of the Report**

5.0 BHB Consulting Engineers, P.C. Company Name

Greg McCombs S 4329  
Contact Name California License Number

2766 S Main Street, Salt Lake City, UT 84115  
Mailing Address

(801) 355-5656 greg.mccombs@bhengineers.com  
Telephone E-mail Address

**Anchorage Pre-Approval**

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

Anchorage is not Pre-approved

**Certification Method**

7.0  Testing in accordance with:  ICC-ES AC-156  Other (Please Specify):

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Analysis

Experience data

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

**Testing Laboratory (if applicable)**

8.0 Wyle Laboratories Don Smith, Test Dept. Manager  
Company Name Contact Name

7800 Highway 20 West, Huntsville, AL 35806  
Mailing Address

(256) 716-4221 don.smith@wyle.com  
Telephone E-mail Address

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**Approval Parameters**

9.0

Design in accordance with ASCE 7-05 Chapter 13:  Yes  No

Design Basis of Equipment or Components ( $F_p/W_p$ ) = 1.5

- $S_{DS}$  (Spectral response acceleration at short period) = 2.0
- $a_p$  (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
- Equipment or Component fundamental period(s) = N/A
- Building period limits (if any) = n/a
- Overall dimensions and weight (or range) = [see attachment 1]

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

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

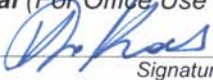
- $S_{DS}$  (Spectral response acceleration at short period) =
- $S_1$  (Spectral response acceleration at 1 second period) =
- $R$  (Response modification coefficient) = 1.0
- $\Omega_0$  (System overstrength factor) = 1.0
- $C_d$  (Deflection amplification factor) = 1.0
- $I_p$  (Importance factor) = 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):

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

 _____ Signature & Date <b>Chris Tokas, SHFR</b> _____ Name & Title	4/30/2010	December 31, 2013 Approval Expiration Date
Condition of Approval (if any):	$S_{DS}$ (g) = <b>2.0</b> $z/h$ = <b>1.0</b> Special Seismic Certification Valid Up to	

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**Siemens Wall Mounted Safety Switch Product Summary**

<b>Unit Range</b>	<b>Amperage</b>	<b>Height</b>	<b>Width</b>	<b>Depth</b>	<b>Weight</b>	<b>Notes</b>
GFxxx	30-600	8" – 57"	6" – 27"	6" – 15"	5 lbs – 165 lbs	Specimens 1, 3, 4, and 6
GNFxxx	30-600	8" – 45"	8" – 26"	6" – 15"	12 lbs – 116 lbs	
HFxxx	30-1200	15" – 67"	9" – 40"	9" – 15"	12 lbs – 388 lbs	Specimens 7, 9, 10, 13, and 14
HNFxxx	30-1200	44" – 55"	9" – 40"	9" – 15"	12 lbs – 307 lbs	
DTFxxx	30-1200	29" – 74"	10" – 28"	6" – 7"	38 lbs – 415 lbs	Specimens 15, 17, and 18
DTNFxxx	30-1200	25" – 72"	10" – 42"	6" – 10"	33 lbs – 475 lbs	Specimens 20 and 22
Note: Dimensions are rounded to the nearest inch.						
For wall mounted equipment, natural frequencies measured in tests are those of the backboards and not the components. Components' natural frequencies were not determined in the tests.						

Attachment # 1 (Page # 2 of 2)

**Shake Table Test Parameters**

<b>Unit Under Test</b>	<b>S<sub>DS</sub> (g)</b>	<b>z/h</b>	<b>A<sub>FLX</sub></b>	<b>A<sub>RIG</sub></b>	<b>A<sub>FLX</sub>/A<sub>RIG</sub></b>	<b>R<sub>p</sub>/I<sub>p</sub></b>
GF321NR	2.0	1	3.2	2.4	1.33	1.0
GF323NR	2.0	1	3.2	2.4	1.33	1.0
GF324NR	2.0	1	3.2	2.4	1.33	1.0
GF326NR	2.0	1	3.2	2.4	1.33	1.0
HF361J	2.0	1	3.2	2.4	1.33	1.0
HF363J	2.0	1	3.2	2.4	1.33	1.0
HF364J	2.0	1	3.2	2.4	1.33	1.0
HF367J	2.0	1	3.2	2.4	1.33	1.0
HF368J	2.0	1	3.2	2.4	1.33	1.0
DTF361	2.0	1	3.2	2.4	1.33	1.0
DTF363R	2.0	1	3.2	2.4	1.33	1.0
DTF364R	2.0	1	3.2	2.4	1.33	1.0
DTFN366R	2.0	1	3.2	2.4	1.33	1.0
DTFN368R	2.0	1	3.2	2.4	1.33	1.0