APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0119-10

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

1.0

TOSHIBA INTERNATIONAL CORPORATION	Steve Unger
Manufacturer	*Manufacturer's Technical Representative*

13131 West Little York Rd, Houston, Texas 77041
Mailing Address

(800) 231-1412	
Telephone	*E-mail Address*

2.0

4200FA, G8000 & G9000 series UPS	**Universal Power Supplies**
Product Name	*Product Type*

See attachment 1 for a listing of Seismically Certified models.
Product model No (List all unique product identification numbers and/or serial numbers)

General Description: A continuous duty, double conversion three-phase, on-line, solid-state Uninterruptible Power Supply system. The UPS operates utilizing existing utility distribution system to provide high quality, uninterruptible power to critical loads. The UPS consists of an AC/DC Rectifier, DC/DC Converter/Battery Charger, DC/AC IGBT Inverter, integral static bypass, front-accessible controls, display, and monitor

3.0

EQUIPMENTANCHORAGE.COM	JONATHAN ROBERSON, S.E.
Applicant Company Name	*Contact Person*

5877 Pine Ave, Suite 210, Chino Hills, CA. 91709
Mailing Address

(406) 541-EASE (3273)	*jon@easeco.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	December 1, 2010
	Date
SENIOR ENGINEER	***EQUIPMENTANCHORAGE.COM***
Title	*Company Name*

Registered Design Professional Preparing the Report

4.0 ***EQUIPMENTANCHORAGE.COM***
Company Name

Jonathan Roberson, S.E. | S4197
Contact Name | *California License Number*

5877 Pine Ave, Suite 210, Chino Hills, CA. 91709
Mailing Address

909-606-7622 | jon@easeco.com
Telephone | *E-mail Address*

California Licensed Structural Engineer Review and Acceptance of the Report

5.0 ***EQUIPMENTANCHORAGE.COM***
Company Name

Jonathan Roberson, S.E. | S4197
Contact Name | *California License Number*

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Anchorage Pre-Approval

6.0

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

☒ Anchorage is not Pre-approved ***SEE ATTACHMENT 1: TABLE 6***

Certification Method

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

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

Testing Laboratory (if applicable)

8.0 ***Environmental Testing Laboratory, Inc.*** | Brady Richard
Company Name | *Contact Name*

11034 Indian Trail, Dallas, TX 75229-3513
Mailing Address

972-247-9657 | brady@etldallas.com
Telephone | E-mail:

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)= **1.0**

Equipment or Component fundamental frequency(s) = **SEE ATTACHMENT 1**

Building period limits (if any) = **NO LIMIT**

Overall dimensions and weight (or range thereof) = **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

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* ☐

☐ *Calculations* ☒ *Others (Please Specify):* **ATTACHMENT 1**

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

Signature & Date **1/25/10**	**December 31, 2016** *Approval Expiration Date*
Chris Tokas, SHFR *Name & Title*	S_{DS} (g) = **2.0** z/h = **1.0** *Special Seismic Certification Valid Up to*

Condition of Approval (if any):

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ATTACHMENT 1: Seismic Certified Components

Table 1: Seismic Certified Components: Toshiba International UPS Models

PRODUCT LINE	RATING	VOLTAGE (IN / OUT)	W (IN)	D (IN)	H (IN)	MAX. WT. (LBS)	MOUNT	BASIS
4200 Series UPS	15kVA	480V / 480V	20	37.2	60	1,033	Floor	Interpolated
	20kVA	480V / 480V	20	37.2	60	1,033	Floor	Interpolated
	30kVA	480V / 480V	20	37.2	60	1,033	Floor	UUT
	50kVA	480V / 480V	35.6	38.8	59.7	1,687	Floor	UUT
G8000 Series UPS	80kVA	480V / 200V	36.8	32.5	79.2	2,316	Floor	Interpolated
	80kVA	480V / 480V	36.8	32.5	79.2	1,851	Floor	Interpolated
	100kVA	480V / 200V	36.8	32.5	79.2	2,316	Floor	UUT
	100kVA	480V / 480V	36.8	32.5	79.2	1,851	Floor	UUT
	120kVA	480V / 480V	55.1	31.8	79.2	2557	Floor	Interpolated
	150kVA	480V / 480V	55.1	31.8	79.2	2557	Floor	Interpolated
	175kVA	480V / 480V	55.1	31.8	79.2	3157	Floor	Interpolated
	225kVA	480V / 480V	55.1	31.8	79.2	3157	Floor	UUT
G9000 Series UPS	80kVA	480V / 480V	27.6	32.8	78.7	860	Floor	Interpolated
	100kVA	480V / 480V	27.6	32.8	78.7	866	Floor	UUT
	160kVA	480V / 480V	35.4	32.7	78.7	1200	Floor	Interpolated
	225kVA	480V / 480V	35.4	32.7	78.7	1250	Floor	Interpolated
	300kVA	480V / 480V	51.2	32.7	78.7	2260	Floor	Interpolated
	500kVA	480V / 480V	70.9	32.7	78.7	3300	Floor	Interpolated
	750kVA	480V / 480V	90.6	32.7	78.7	4062	Floor	UUT

Notes:

1) For a complete listing of model numbers recognized by this report, see Tables 3, 4, & 5.

Table 2: Lowest Resonant Frequencies of Units Tested

UUT	FRONT-TO-BACK AXIS	SIDE-TO-SIDE AXIS	TOP-TO-BOTTOM AXIS
4200-30kVA UPS	8.4	6.0	27.5
4200-50kVA UPS	10.8	9.1	> 50
G9000- 100kVA UPS	7.9	5.0	18.9
G9000- 750kVA UPS	5.8	5.4	5.7
G8000-100kVA UPS	4.6	8.4	15.9
G8000-225kVA UPS	5.1	5.8	12.4

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ATTACHMENT 1: Seismic Certified Components

Table 3: Seismically Certified 4200FA Series Models

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sample Model #	T	4	2	D	3	K	5	0	0	X	A	M	X	P	-	S

Digit	Parameter Addressed	Alphanumeric Character Definition	Characters Accepted Within This Report
1, 2, 3	Product Series Identifier	C42 = Toshiba 4200FA Series UPS 25kVA and below T42 = Toshiba 4200FA Series UPS above 25kVA	C42 T42
4	AC Input V identifier	B = 208V/120 Delta/Wye Input transformer C = 240V Delta/ Wye Input transformer D = 480V Delta/ Wye Input transformer F = 208V/120 Wye Input/ Output (No transformer) K = 480V/277 Wye Input/ Output transformer N = 380V/400/415 Delta/ Wye Input/ Output transformer P = 380V/220 Wye Input/ Output transformer Q = 400V/230 Wye Input/ Output transformer	B C D F K N P Q
5	Input Phase quantity identifier	1 = Single Phase 3 = Three Phase	3
6	AC Output V identifier	F = 208V/120 Wye Input/ Output (No transformer) H = 220V/127 Wye Output transformer J = 240V Wye Output transformer K = 480V/277 Wye Input/ Output transformer N = 380V/400/415 Delta/ Wye Input/ Output transformer P = 380V/220 Wye Input/ Output transformer Q = 400V/230 Wye Input/ Output transformer	F H J K N P Q
7, 8, 9	UPS kVA rating	150 = 15 kVA 250 = 25 kVA 300 = 30 kVA 500 = 50 kVA	150 250 300 500
10	Alternate Bypass AC Input V identifier	B = 208V/120 C = 240V Delta/ Wye D = 480V Delta/ Wye F = 208V/120 Wye K = 480V/277 Wye N = 380V/400/415 Wye P = 380V/220 Wye Q = 400V/230 Wye	B C D F K N P Q
11	Output Frequency identifier	5 = 50 Hz 6 = 60 Hz A = Auto-Sensing	5 6 A
12	Maintenance Bypass options	M = Internal Maintenance Bypass Switch D = Disabled Internal Maintenance Bypass Switch X = No Internal Maintenance Bypass	M D X
13	Internal Battery Option	B = Internal Batteries X = No Internal Batteries	X
14,15	OEM client / customer identification	P- = Philips Healthcare N- = Toshiba International Corporation	P- N-
16	Special Certification or Specific identification code	S = Seismically Qualified	S

Note: Only those characters listed in the last column are recognized and accepted by this document.

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Table 4: Seismically Certified G8000 Series Models

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sample Model #	T	8	0	S	3	K	1	0	K	K	6	X	S	P	T	S

Digit	Parameter Addressed	Alphanumeric Character Definition	Characters Accepted Within This Report
1, 2, 3	Product Series Identifier	T80 = Toshiba G8000 series T8i = Toshiba G8000i series T8M = Toshiba G8000MM series	T80 T8i
4	AC Input V identifier	F = 200 / 208V N = 380/400V S = 480V M = 600V	F N S M
5	Input Phase quantity identifier	1 = Single Phase 3 = Three Phase	3
6	AC Output V identifier	F = 200 / 208V K = 480V P = 380V Q = 400V M = 600V	F K P Q
7, 8, 9	UPS kVA rating	08K = 80 kVA / kW 10K = 100 kVA / kW 80 kVA / kW 100 kVA / kW 120 / 125 kVA / kW 150 kVA / kW 175 / 180 kVA / kW 225 kVA / kW	08K 10K 08K 10K 12K 15K 18K 22K
10	Alternate Bypass AC Input V identifier	F = 200 / 208V K = 480V P = 380V Q = 400V M = 600V	F K P Q
11	Output Frequency identifier	5 = 50 Hz 6 = 60 Hz	5 6
12	Bypass options	N = No Option X = Standard option	X
13	Parallel Options	S = Single Module M = Parallel Module	S
14,15	OEM client / customer identification	PT = Philips Healthcare TM = Toshiba Medical 2H = Toshiba International Corporation manuf. version code NH = Toshiba International Corporation manuf. version code	PT TM 2H NH
16	Special Certification or Specific identification code	S = Seismically Qualified	S

Note: Only those characters listed in the last column are recognized and accepted by this document.

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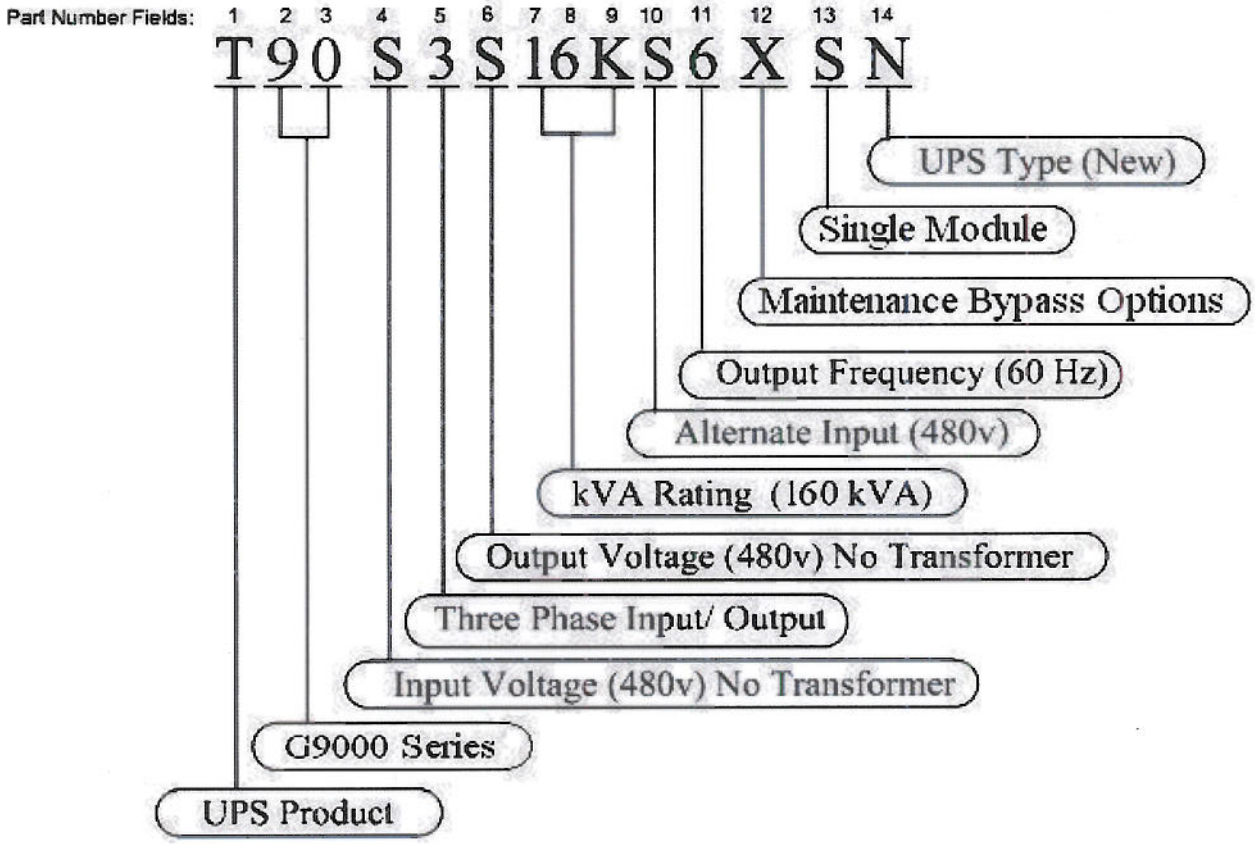
ATTACHMENT 1: Seismic Certified Components

Table 5: Seismically Certified G9000 Series UPS Models



Input/ Output Voltages (Part Number Fields 4 & 6)

S = 480V Delta (no transformer) **(Standard)**

kVA Ratings (Part Number Fields 7,8,9)

08K = 80 kVA
10K = 100 kVA
16K = 160 kVA
22K = 225 kVA
30K = 300 kVA
50K = 500 kVA
75K = 750 kVA

Alternate Input (Part Number Field 10)

S = 480V Delta (no transformer) **(Standard)**

Output Frequency (Part Number Field 11)

6 = 60 Hz **(Standard)**

Maintenance Bypass Options

(Part Number Field 12)

X = Not Required **(Standard)**

Options 1 (Part Number Field 13)

S = Single Module **(Standard)**

UPS Type (Part Number Field 14)

N = New Unit
R = Refurbished

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Table 6: Pending OSHPD Anchorage Pre-Approvals (OPA)

COMPONENT	OPA NO.	APPROVAL STATUS
G9000 80KVA TO 225KVA UPS	OPA-2610-10	PENDING
G9000 300KVA TO 750KVA UPS	OPA-2611-10	PENDING

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