APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0134 – 10

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

1.0

Lightolier Controls Philips Controls	Mitchell Hefter
Manufacturer	*Manufacturer's Technical Representative*

2828 Trade Center Drive - Suite 130B, Carrollton, TX 75007

Mailing Address

(972) 389-6167	controls.support@philips.com
Telephone	*E-mail Address*

2.0

Lightolier Controls "lyteswitch"	Low-voltage lighting control panels
Product Name	*Product Type*

SEE ATTACHMENT 1

Product model No (List all unique product identification numbers and/or serial numbers)

General Description: Rigid wall mounted intelligent control of lighting circuits, including emergency lighting. Control options include scheduling of circuits via an internal astronomical time-clock, occupanct sensors, photocells, local control via pushbutton at panel, remote mechanical or digital switches, and integration with building management systems.

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.

	November 18, 2010
Signature of Applicant	*Date*
PRINCIPAL 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*

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

909-606-7622 | jon@easeco.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

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:

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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) =	***1.5g***
S_{DS} (Spectral response acceleration at short period) =	***2.0g***
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* ☐ *Manufacturer's Catalog*

☐ *Calculations* ☐ *Others (Please Specify):*

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

1/10/11	**December 31, 2016**
Signature & Date	*Approval Expiration Date*
Chris Tokas, SHFR	S_{DS} (g) = **2.0** z/h = **1.0**
Name & Title	*Special Seismic Certification Valid Up to*

Condition of Approval (if any):

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APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

ATTACHMENT 1: Seismically Certified Components

Table 1: Seismic Qualified Components: ***Philips Lightolier Controls – lyteswitch, & Strand Brand Low Voltage Lighting Control***

PRODUCT LINE MODEL NO.		BREAKER VOLTAGE	W (IN)	D (IN)	H (IN)	MAX. WT. (LBS)	MOUNT	BASIS
LIGHTOLIER CONTROLS	STRAND BRANDING							
LSW-12-PRO	76971	---	14.38	3.92	20.90	125	Wall	Interpolated
LSW-24-PRO	76972	---	22	4.1	21.50	125	Wall	Interpolated
LSW-24-PROB120	76921	120V	22	4.1	34.00	125	Wall	Interpolated
LSW-24-PROB277	76931	277V	22	4.1	34.00	125	Wall	UUT-1
LSW-36-PRO	76973	---	22	4.1	34.00	125	Wall	Interpolated
LSW-36-PROB120	76922	120V	22	4.1	50.25	125	Wall	Interpolated
LSW-36-PROB277	76932	277V	22	4.1	50.25	125	Wall	Interpolated
LSW-48-PRO	76974	---	22	4.1	34.00	125	Wall	Interpolated
LSW-42-PROB120	76923	120V	22	4.1	50.25	125	Wall	Interpolated
LSW-42-PROB277	76933	277V	22	4.1	50.25	125	Wall	UUT-2

Note: The "Lightolier Controls" name is in the process of being re-branded to "Philips Controls". This brand transition is expected to complete by end of 2011. Model numbers will remain the same.

3.1 OCTOBER 21, 2010 TEST SPECIMENS

3.1.1 LSW-24-PROB (277V)

Name: Lightolier Controls "lyteswitch" 24-Circuit Low-Voltage Lighting Control Panel

Designation: LSW-24-PROB (277V)

UTT Number: 1

UUT Function: The control panel provides low-voltage, intelligent lighting control with scheduling of circuits and integration of occupancy sensors and photocells

Description: Panel enclosure is 16 ga. steel construction conforming to both NEMA and UL Type 1 ratings and includes the subassemblies listed in Table 4.

- Panasonic WR616K-84 20A HID Relay (Single Pole)
- Panasonic WR6172-84 480V 20A HID Relay (Double Pole)
- Altech D20 Circuit Breakers
- Power Supply
- Control board

Service Mounting Wall - Surface Mounted

Model No.: LSW-24-PROB, 24 CIRCUIT, 20 AMP/CIRCUIT, 277 VAC, 50/60 Hz

Dimensions: 22"W x 4.1"D x 34.78"H

Weight: 125 lbs.

3.1.2 LSW-42-PROB (277V)

Name: Lightolier Controls "lyteswitch" 42-Circuit Low-Voltage Lighting Control Panel

Designation: LSW-42-PROB (277V)

UTT Number: 2

UUT Function: The control panel provides low-voltage, intelligent lighting control with scheduling of circuits and integration of occupancy sensors and photocells.

Description: Panel enclosure is 16 ga. steel construction conforming to both NEMA and UL Type 1 ratings and includes the subassemblies listed in Table 4.

- Panasonic WR616K-84 20A HID Relay (Single Pole)
- Panasonic WR6172-84 480V 20A HID Relay (Double Pole)
- Altech D20 Circuit Breakers
- Power Supply
- Control board

Service Mounting Wall - Surface Mounted

Model No.: LSW-42-PROB, 42 CIRCUIT, 20 AMP/CIRCUIT, 277 VAC, 50/60 Hz

Dimensions: 22"W x 4.1" D x 50.25"H

Weight: 125 lbs.

3.2 OTHER MODELS & BRANDS

This section addresses models and Product Series that were not specifically tested.

3.2.1 Other Models

See Table 4 for a list of configurations and options that are recognized by this report.

Table 4: Lightolier Controls "lyteswitch" Low-Voltage Lighting Control Panel Allowed Model Number Variables

Feature or Option	LWS24 PROB UUT1	LWS42 PROBU UT2	LWS12 PRO	LWS24 PRO	LWS36 PRO	LWS48 PRO	LWS24 PROB	LWS36 PROB	LWS42 PROB
Configurable # of Relays	24	42	12	24	36	48	24	36	42
• Single Pole Relay	X	X	X	X	X	X	X	X	X
• Double Pole Relay	X	X	X	X	X	X	X	X	X
Circuit Breakers									
• 15 Amp Breaker	X	X	X	X	X	X	X	X	X
• 20 Amp Breaker	X	X	X	X	X	X	X	X	X
Relay Operating Voltage									
• 120VAC, 240VAC, 277VAC, 347VAC	X (277VAC Tested)	X (277VAC Tested)	X	X	X	X	X	X	X
Panel Operating Voltage									
• Standard Model									
○ 120VAC	X	X	X	X	X	X	X	X	X
• Universal Voltage Model									
○ 120VAC	X	X	X	X	X	X	X	X	X
○ 240VAC	X	X	X	X	X	X	X	X	X
○ 277VAC incl. int. transformer	X	X	X	X	X	X	X	X	X
○ 347VAC	X	X	X	X	X	X	X	X	X
Configuration									
• Master	X	X	X	X	X	X	X	X	X
• Slave	X	X	X	X	X	X	X	X	X
Control									
• Internal Time clock(native to std electronics)	X	X	X	X	X	X	X	X	X
• Lyteswitch Button Station • (External Device)									
• Lytemode Button Station (External Device)									
• Intellisight Occupancy Sensors (External Device)									
• Intellisight Photocells (External Device)									
• DMX512 Protocol(native to std electronics)	X	X	X	X	X	X	X	X	X
• Pathport DMX512 via Ethernet (Option Card)	X	X	X	X	X	X	X	X	X
• BACnet (External Device)									
• LonWorks (External Device)									
Enclosure: NEMA Type 1 / UL Type 1	X	X	X	X	X	X	X	X	X
Options									
• Ethernet Card	X	X	X	X	X	X	X	X	X
• Barrier Kit	X	X	X	X	X	X	X	X	X
Mounting									
• Wall – Surface mounted	X	X	X	X	X	X	X	X	X
• Wall – Flush mounted	X	X	X	X	X	X	X	X	X

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