APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0175 – 10

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

1.0

KONE	Tony Shelton
Manufacturer	*Manufacturer's Technical Representative*

700 Central Expressway South, Suite 400, Allen TX 75013
Mailing Address

469-854-8800 Ext. 7763	Tony.shelton@kone.com
Telephone	*E-mail Address*

2.0

SEE ATTACHMENT 1	**ELEVATOR EQUIPMENT**
Product Name	*Product Type*

SEE ATTACHEMENT 1
Product model No (List all unique product identification numbers and/or serial numbers)

General Description: Selected components for control of traction elevator. Rigid base mounted units shall be mounted in a free-standing condition. The LCE Controller and MLB Drive Modules are separate cabinets, but must be mounted in contract with one another and bolted together in accordance with Kone installation instructions.

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	March 31, 2011 *Date*
SENIOR ENGINEER *Title*	***EQUIPMENTANCHORAGE.COM*** *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) = ***SEE ATTACHMENT 1 TABLE 3***

S_{DS} (Spectral response acceleration at short period) = ***SEE ATTACHMENT 1 TABLE 3***

a_p (In-structure equipment or component amplification factor) = ***SEE ATTACHMENT 1 TABLE 3***

R_p (Equipment or component response modification factor) = ***SEE ATTACHMENT 1 TABLE 3***

I_p (Importance factor) = ***1.5***

z/h (Height factor ratio)=***1.0***

Equipment or Component fundamental period(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):* **ATTACHMENTS 1 & 2**

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

10/27/2011	**December 31, 2016**
Signature & Date	*Approval Expiration Date*
M. R. Karim, SHFR	S_{DS} (g) = **See Section 9.0** 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: SEISMIC CERTIFIED COMPONENTS

TABLE 1: KONE ELEVATOR DRIVES & CONTROLLERS

Component	Manuf.	Kone Model No.	Dimensions (in)			Wt. (lb)	Mount [A]	UUT
			Width	Depth	Height			
KCM831 LCE Traction Elevator Logic Controller	Kone	KCM831	17	14	89	255.5	Floor	1
V3F25-100 MLB Drive Module	Kone	V3F25-100	31.8	17.7	72	516	Floor	2
LCE Elevator Logic and Drive Controller Cabinet w/ KDM40 Drive Module	Kone	KCM 831	24	14.25	79	320	Floor	B1
LCE Elevator Logic and Drive Controller Cabinet w/ KDM60 Drive Module	Kone	KCM 831	24	14.25	79	< 400	Floor	
LCE Elevator Logic and Drive Controller Cabinet w/ KDM90 Drive Module	Kone	KCM 831	24	14.25	79	400	Floor	B2

Table Notes:

A) **Mount:** Establishes the general mounting type(s) under which the tabulated components are seismically certified
- **Floor**: a free-standing, floor- mounted condition with the component rigidly attached to a supporting structure and no lateral support above the base.

TABLE 2: KONE ELEVATOR AUTOTRANSFORMERS

Component	Manuf.	Kone Model No.	Dimensions (in)			Wt. (lb)	Mount [A]	UUT
			Width	Depth	Height			
10 kVA AutoTransformer	GTi [B]	KM785077G06	13.5	13.5	18.0	56	Floor	
15 kVA AutoTransformer	GTi	KM785077G01	13.5	13.5	18.0	61	Floor	A1
25 kVA AutoTransformer	GTi	KM785077G02	13.5	13.5	18.0	77	Floor	
35 kVA AutoTransformer	GTi	KM785077G03	13.5	13.5	18.0	101	Floor	A2
45 kVA AutoTransformer	GTi	KM785077G04	18.0	16.5	27.5	155	Floor	3, A3

Table Notes:

A) **Mount:** Establishes the general mounting type(s) under which the tabulated components are seismically certified
- **Floor**: a free-standing, floor- mounted condition with the component rigidly attached to a supporting structure and no lateral support above the base.

B) GTI: Grand Transformer, Inc.

C) Component features and Subassembly Summary:
- NEMA or NEC Type 1 or better; carbon steel enclosure
- Copper winding
- Core encapsulation: Open Core and Coil with vacuum impregnated epoxy resin
- Ferraz Shawmut Fuseblock with fuses by Bussman or Littlefuse.

APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

ATTACHMENT 1: SEISMIC CERTIFIED COMPONENTS

TABLE 3: DESIGN BASIS OF EQUIPMENT

UNIT	S_{DS}	z/h	I_P	a_P	R_P	E_H	E_V
LCE Elevator Logic and Drive Controller Cabinet w/ KDM Drive Module	1.93	1.0	1.5	2.5	6.0	1.45Wp	0.39Wp
KCM831 LCE Traction Elevator Logic Controller w/ V3F25-100 MLB Drive Module	1.23	1.0	1.5	2.5	6.0	0.93Wp	0.25Wp
GTIi AutoTransformer	2.33	1.0	1.5	1.0	2.5	1.68Wp	0.93Wp

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ATTACHMENT 2: SCHEDULE OF TEST SPECIMENS

UUT 1

Manufacturer:	Kone Elevator, Inc.
Model:	KCM831 LCE Traction Elevator Logic Controller
Identification:	Model KCM831 Serial No.: 20303984
UUT Function:	Traction elevator logic controller
Mounting:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure. Floor using (3)-3/8" Hex Cap Screw on an Aluminum Plate 60" x 48 ½" x 3. Unit is fastened to the adjacent drive cabinet with machine screws spaced along the height of the unit at front and rear edges in accordance with Kone installation instructions.

UUT Properties:

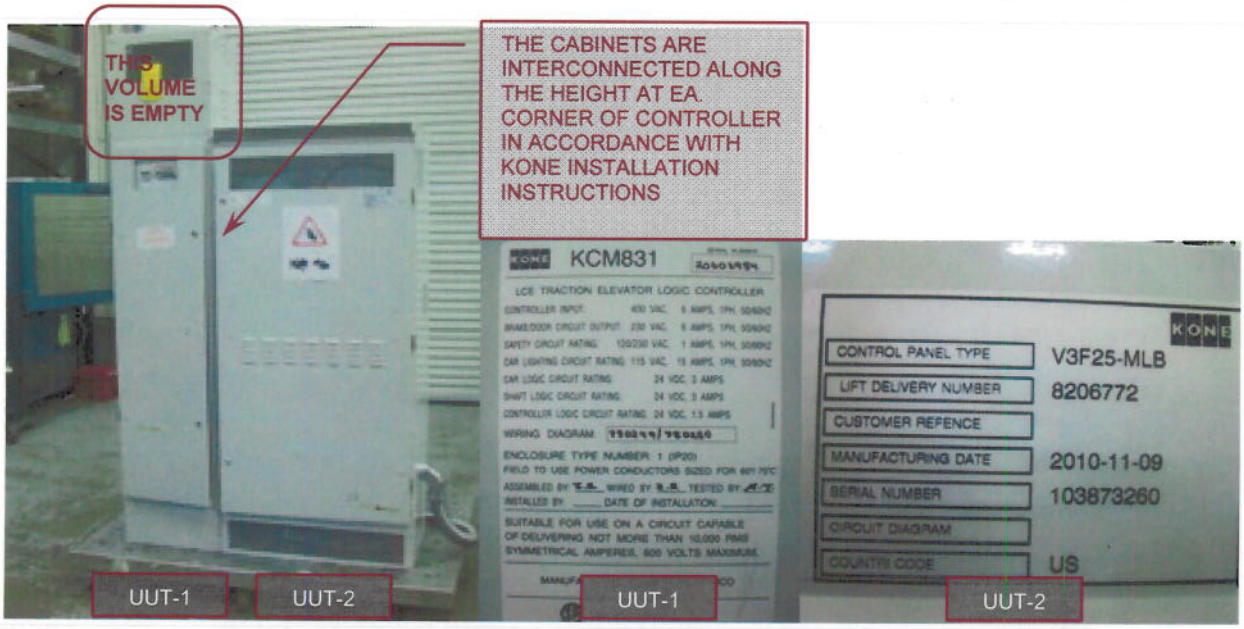
DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
WIDTH	DEPTH	HEIGHT		F/B	S/S	VERT	OFF-AXIS
17	14	89	255.6	7.0	23.8	16.0	---

UUT 2

Manufacturer:	Kone Elevator, Inc.
Model:	V3F25-100 MLB Drive Module
Identification:	Model V3F25-100 MLB Serial No.: 103873260
UT Function:	Traction elevator hoist machine drive module
Mounting:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure. Floor using (3)-3/8" Hex Cap Screw on an Aluminum Plate 60" x 48 ½" x 3. Unit is fastened to the adjacent drive cabinet with machine screws spaced along the height of the unit at front and rear edges in accordance with Kone installation instructions.

UUT Properties:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
WIDTH	DEPTH	HEIGHT		F/B	S/S	VERT	OFF-AXIS
13.5	13.5	18.0	101	7.0	4.9	26.0	---



APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

ATTACHMENT 2: SCHEDULE OF TEST SPECIMENS

UUT 3

Manufacturer:	Grand Transformers, Inc. (GTi)
Model:	45 kVA Three-phase Autotransformer
Identification:	Part No.: GT-F812E Serial No.: KM785077G04 (Kone Model No.) Model No.: C3A-09000-10
UUT Function:	Autotransformer for support of Kone Elevator's equipment
Description:	Enclosure: NEMA Type 1 Painted carbon steel Copper windings Core encapsulation: Open Core & Coil with vacuum impregnated Ripley 468-2 epoxy resin coating Fuseblock mfg: Ferraz Shawmut Fuses: Bussman
Mounting:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure

UUT Properties:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
WIDTH	DEPTH	HEIGHT		F/B	S/S	VERT	OFF-AXIS
18.0	16.5	27.5	155	47.7	45.8	17.4	17.7

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APPLICATION FOR PREAPPROVAL
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ATTACHMENT 2: SCHEDULE OF TEST SPECIMENS

UUT A1

Manufacturer:	Grand Transformers, Inc. (GTi)
Model:	15 kVA Three-phase Autotransformer
Identification:	Part No.: GT-F809E Model No.: C3A-02500-10 Serial No.: KM785077G01 (Kone Model No.)
UUT Function:	Autotransformer for support of Kone Elevator's equipment
Description:	Enclosure: NEMA Type 1 Painted carbon steel Copper windings Core encapsulation: Open Core & Coil with vacuum impregnated Ripley 468-2 epoxy resin coating Fuseblock mfg: Ferraz Shawmut Fuses: Bussman
Mounting:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure

UUT Properties:

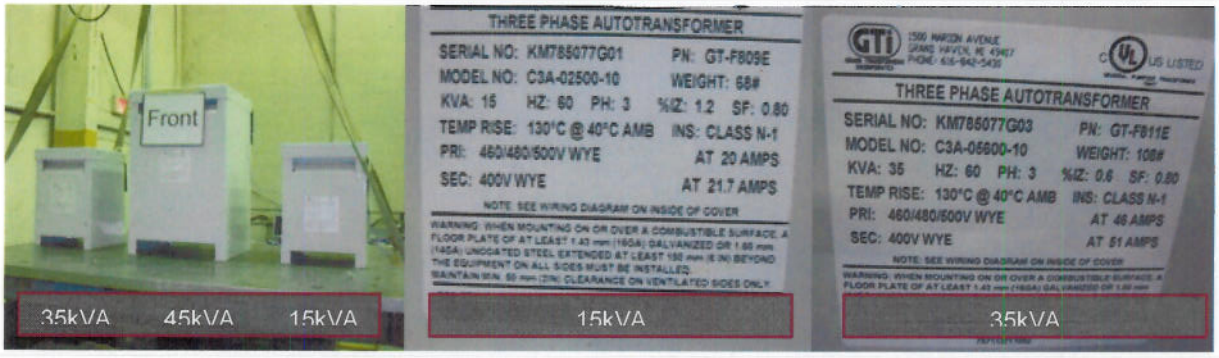
DIMENSIONS (in.)			WEIGHT	LOWEST RESONANT FREQUENCY (Hz.)			
WIDTH	DEPTH	HEIGHT	(lb.)	F/B	S/S	VERT	OFF-AXIS
13.5	13.5	18.0	61	31	17.9	20.5	20.5

UUT A2

Manufacturer:	Grand Transformers, Inc. (GTi)
Model:	35 kVA Three-phase Autotransformer
Identification:	Part No.: GT-F811E Model No.: C3A-05600-10 Serial No.: KM785077G03 (Kone Model No.)
UUT Function:	Autotransformer for support of Kone Elevator's equipment
Description:	Enclosure: NEMA Type 1 Painted carbon steel Copper windings Core encapsulation: Open Core & Coil with vacuum impregnated Ripley 468-2 epoxy resin coating Fuseblock mfg: Ferraz Shawmut Fuses: Bussman
Mounting:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure

UUT Properties:

DIMENSIONS (in.)			WEIGHT	LOWEST RESONANT FREQUENCY (Hz.)			
WIDTH	DEPTH	HEIGHT	(lb.)	F/B	S/S	VERT	OFF-AXIS
13.5	13.5	18.0	101	47.1	N/A	39.6	30.0



APPLICATION FOR PREAPPROVAL
SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS
ATTACHMENT 2: SCHEDULE OF TEST SPECIMENS

UUT A3

Manufacturer:	Grand Transformers, Inc. (GTi)
Model:	45 kVA Three-phase Autotransformer
Identification:	Part No.: GT-F812E Serial No.: KM785077G04 (Kone Model No.) Model No.: C3A-09000-10
UUT Function:	Autotransformer for support of Kone Elevator's equipment
Description:	Enclosure: NEMA Type 1 Painted carbon steel Copper windings Core encapsulation: Open Core & Coil with vacuum impregnated Ripley 468-2 epoxy resin coating Fuseblock mfg: Ferraz Shawmut Fuses: Bussman
Mounting:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure

UUT Properties:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)			
WIDTH	DEPTH	HEIGHT		F/B	S/S	VERT	OFF-AXIS
18.0	16.5	27.5	155	47.7	45.8	17.4	17.7

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ATTACHMENT 2: SCHEDULE OF TEST SPECIMENS

UUT B1	LCE Elevator Logic Controller w/ KDM40 Drive Module
MANUFACTURER:	Kone
MODEL:	KCM831 w/ 40A Drive
FUNCTION:	The traction elevator logic controller is the combined elevator logic controller and hoisting machine drive
DESCRIPTION:	Intercom phone: EL V, Terraneo 603R; LCE option boards, including LCEEAQ earthquake board (seismic switch and cwt derail inputs); Electric Brake Release Switch Module; Switch Module: Controller Inspection/Bypass; LCECPU Module: Controller Main Processor; LCEADON Module: Hoistway Interface and Safety String Circuit; Grounding Kit/Earthing Rail; Terminal Assembly; KDA Module; LCE Power Module; Control Transfomer; Terminal Blocks; 40A Drive Module
MOUNTING:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure

UUT PROPERTIES:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
WIDTH	DEPTH	HEIGHT		X-Axis	Y-Axis	Z-Axis
24	14.25	79	320	5.1	5.1	13.7

UUT B2	LCE Elevator Logic Controller w/ KDM90 Drive Module
MANUFACTURER:	Kone
MODEL:	KCM831 w/ 90A Drive
FUNCTION:	The traction elevator logic controller is the combined elevator logic controller and hoisting machine drive
DESCRIPTION:	Intercom phone: EL V, Terraneo 603R; LCE option boards, including LCEEAQ earthquake board (seismic switch and cwt derail inputs); Electric Brake Release Switch Module; Switch Module: Controller Inspection/Bypass; LCECPU Module: Controller Main Processor; LCEADON Module: Hoistway Interface and Safety String Circuit; Grounding Kit/Earthing Rail; Terminal Assembly; KDA Module; LCE Power Module; Control Transfomer; Terminal Blocks; 90A Drive Module
MOUNTING:	**Floor Mounted** : a free-standing, base mounted condition with no lateral support above the base and a direct connection between unit base and supporting structure

UUT PROPERTIES:

DIMENSIONS (in.)			WEIGHT (lb.)	LOWEST RESONANT FREQUENCY (Hz.)		
WIDTH	DEPTH	HEIGHT		X-Axis	Y-Axis	Z-Axis
24	14.25	79	400	4.7	5.3	36.3