



APPLICATION FOR PREAPPROVAL SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.
OSP -0166-10

Check whether application is: NEW RENEWAL

1.0 ThyssenKrupp Elevator Manufacturing Inc. Doug Henderson
Manufacturer *Manufacturer's Technical Representative*
 9280 Crestwyn Hills Drive, Memphis, TN 38125
Mailing Address

731-376-3004

Telephone

Doug.henderson@thyssenkrupp.com

E-mail Address

2.0 Hydraulic Controller Hydraulic Elevator Controller
Product Name *Product Type*
 See Attachment A for product range summary.

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

General Description: TKE Hydraulic Controllers mounted to wall or side of power unit. TAC20, 20-03, 22, have dimensions of 33"H x 33"W x 12"D. TAC32 have dimensions of 28"H x 33"W x 9"D. TAC22 TALL have dimensions of 42"H x 33"W x 10 5/8"D. TAC20, 20-03, and 22 differ only in software, and weigh between 116lbs and 165lbs. TAC22 TALL controllers weigh between 168lbs and 226lbs. TAC32 controllers weigh between 133lbs and 170lbs.

3.0 ThyssenKrupp Elevator Manufacturing Inc. Doug Henderson
Applicant Company Name *Contact Person*
 9280 Crestwyn Hills Drive, Memphis, TN 38125
Mailing Address
731-376-3004 Doug.henderson@thyssenkrupp.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

February 24, 2011

Date

Product Analyst
Title

ThyssenKrupp Elevator Manufacturing Inc.
Company Name



Registered Design Professional Preparing the Report

4.0 KPFF Consulting Engineers

Company Name

Cory Harelson

S5433

Contact Name

California License Number

6080 Center Dr. Ste. 300, Los Angeles, CA 90045

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Telephone

E-mail Address

California Licensed Structural Engineer Review and Acceptance of the Report

5.0 KPFF Consulting Engineers

Company Name

Mark Hershberg

S5078

Contact Name

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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

Certification Method

- 7.0
- 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
- Wyle Laboratories Rod Thornberry
- Company Name* *Contact Name*
- 7800 Highway 20 West, Huntsville, AL 35806
- Mailing Address*
- 256-716-4229 Rod.Thornberry@Wyle.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) = 1.08g

- S_{DS} (Spectral response acceleration at short period) = 1.5g
- a_p (In-structure equipment or component amplification factor) = 1.0
- R_p (Equipment or component response modification factor) = 2.5
- I_p (Importance factor) = 1.5
- z/h (Height factor ratio) = 1.0
- Equipment or Component fundamental frequencies(s) = N/A
- Building period limits (if any) = None

Overall dimensions and weight (or range thereof) =

- TAC-20, 20-03, & 22: Height = 33", Width = 33", Depth = 12", Weight Range = 116lbs – 165lbs
- TAC-22 TALL: Height = 42", Width = 33", Depth = 10 5/8", Weight Range = 168lbs – 226lbs
- TAC-32: Height = 28", Width = 33", Depth = 9", Weight Range = 133lbs – 170lbs

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):

<p>11.0 OSHPD Approval (For Office Use Only)</p> <div style="text-align: center;"> <p>Signature & Date M. R. Karim, SHFR</p> <p>Name & Title</p> </div> <p>Condition of Approval (if any):</p>	<p>5/23/2011</p>	<p>December 31, 2016</p> <p>Approval Expiration Date</p> <p>S_{DS} (g) = 1.5 z/h = 1.0</p> <p>Special Seismic Certification Valid Up to</p>
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Attachment A: Enclosure Summary

Tested Enclosures						
Unit	Model	Width	Height	Depth	Weight	Enclosure Type
UUT 1	TAC20	33	33	12	116	NEMA 1
UUT 2	TAC22	33	33	12	165	NEMA 1
UUT 3	TAC22 TALL	33	42	10.625	168	NEMA 1
UUT 4	TAC22 TALL	33	42	10.625	226	NEMA 1
UUT 5	TAC32	33	28	9	133	NEMA 1
UUT 6	TAC32	33	28	9	170	NEMA 1

Certified Enclosures						
Model	Width	Height	Depth	Weight	Enclosure Type	Mounting
TAC20	33	33	12	116-165	NEMA 1	Wall
TAC20-03	33	33	12	116-165	NEMA 1	Wall
TAC22	33	33	12	116-165	NEMA 1	Wall
TAC22 TALL	33	42	10.625	168-226	NEMA 1	Wall
TAC32	33	28	9	133-170	NEMA 1	Wall



Attachment B: Approved Subcomponents

Tested Transformers				
Manufacturer	Product Line	Models	Mounting	Notes
MICRON / GE	Transformer	460V/0.25KVA	BP	UUT 2, 3
MICRON / GE	Transformer	460V/0.5KVA	BP	UUT 1, 5, 6
MICRON / GE	Transformer	208V/0.5KVA	BP	UUT 4

Certified Transformers				
Manufacturer	Product Line	Voltage Range	KVA Range	Mounting
MICRON / GE	Transformer	208V - 600V	0.15KVA-0.75KVA	BP

Tested Fuses				
Manufacturer	Product Line	Models	Mounting	Notes
B / L / G	Fuse panel MDA	1A, 250V	BP	UUT 2
B / L / G	Fuse Panel MDA	3A, 250V	BP	UUT 4
B / L / G	Fuse panel MDA	4A, 250V	BP	UUT 5
B / L / G	Fuse panel MDA	5A, 250V	BP	UUT 1
B / L / G	Fuse panel MDA (IPS)	250V	BP	UUT 1
B / L / G	Fuse Time Delay	3A, 600V	BP	UUT 4
B / L / G	Fuse Time Delay	4A, 600V	BP	UUT 5
B / L / G	Fuse Time Delay	8A, 600V	BP	UUT 6
B / L / G	Fuse Panel 2AG	2A, 250V	BP	UUT 5
B / L / G	Fuse Panel 2AG	3A, 250V	BP	UUT 6
B / L / G	Fuse	0.5A, 250V	BP	UUT 1
B / L / G	Fuseblock Din Rail	600V	BP	UUT 5

Certified Fuse Ranges				
Manufacturer	Product Line	Amp Range	Voltage Range	Mounting
B / L / G	Fuse panel MDA	1A - 5A	250V	BP
B / L / G	Fuse Time Delay	3A - 8A	600V	BP
B / L / G	Fuse Panel 2AG	2A - 3A	250V	BP

1. B / L / G: Bussmann / Littlefuse / Gould Shawmut



Relays				
Manufacturer	Product Line	Models	Mounting	Notes
SIEMANS	Relay PCB DPDT	24VDC, 6A	PCB / DIN	UUT 2
SIEMANS	Relay Power DPDT	6A	PCB / DIN	UUT 2
SIEMANS	Relay Power DPDT	8A	PCB / DIN	UUT 2
SIEMANS	Relay Culovl	Series 48	PCB / DIN	UUT 6
SIEMANS	Relay RPR SPDT	208V-480V	PCB / DIN	UUT 5
SIEMANS	Relay PCB DPDT	6A, 24VDC	PCB / DIN	UUT 3

Power Supply				
Manufacturer	Product Line	Models	Mounting	Notes
COSEL / LAMBDA	Power Supply	24VDC, 85-132 VAC	BP	UUT 1
COSEL / LAMBDA	Power Supply	3.2A, 24V	BP	UUT 4
COSEL / LAMBDA	Power Supply	4.3A, 24V	BP	UUT 6
TKE	Power Panel	Custom solid state circuit board	BP	UUT 4
APC / SOLA	Power Supply Standby	115V	BP	UUT 4

Starter				
Manufacturer	Product Line	Models	Mounting	Notes
SIEMANS / ABB	Starter, Motor	N/A	BP	UUT 1
SIEMANS / ABB	Starter, Electric	68A, 200-460V	BP	UUT2
SIEMANS / ABB	Starter, Electric	252A, 200-230V	BP	UUT 4

Contactor				
Manufacturer	Product Line	Models	Mounting	Notes
SIEMANS	Contactor TVS	24VDC	BP	UUT 2
SIEMANS	Contactor TVS	110-230 VAC	BP	UUT 2

Miscellaneous				
Manufacturer	Product Line	Models	Mounting	Notes
TKE	Printed Circuit Board (PCB)	188E CPU	BP	UUT 4
TKE	Monitor Assembly	Vista	BP	UUT 4

Mounting Designation:

BP - Attached directly to back panel

DOOR - Mounted through door

PCB/DIN - Part of printed circuit board which is DIN rail mounted



Attachment C: UUT Photos

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Test Report No. 57906R10-1



UUT 1



UUT 2

Wyle Laboratories, Inc.
Huntsville Facility



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UUT 3



UUT 4

Wyle Laboratories, Inc.
Huntsville Facility



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UUT 5



UUT 6

Wyle Laboratories, Inc.
Huntsville Facility