

APPLICATION FOR OSHPD SPECIAL SEISMIC	OFFICE USE ONLY		
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #:	OSP – 0166 – 10	
OSHPD Special Seismic Certification Preapproval (OSP)			
Type: 🗌 New 🛛 Renewal			
Manufacturer Information			
Manufacturer: Thyssen Krupp Elevator Manufacturing Inc.			
Manufacturer's Technical Representative: Doug Henderson			
Mailing Address: _ 9280 Crestwyn Hills Drive, Memphis, TN 38125			
Telephone: 731.376.3004 Email: Doug.H	lenderson@thyssenkrup	p.com	
Product Information			
Product Name: <u>Hydraulic Controller</u>			
Product Type: Hydraulic Elevator Controller			
Product Model Number: Varies, see attachment. (List all unique product identification numbers and/or part numbers) General Description: Carbon steel cabinets with internal component units to address anomalies observed during testing shall be incorporated			
Mounting Description: _ Wall mounted - rigid			
Applicant Information			
Applicant Company Name: TRU Compliance, by Structural Integrity A	ssociates, Inc.		
Contact Person: Matthew J. Tobolski, PhD, SE			
Mailing Address: <u>5215 Hellyer Ave., Suite 210, San Jose, CA 95138</u>			
Telephone: 541.205.4064 Email: mtobol	ski@structint.com		
I hereby agree to reimburse the Office of Statewide Health F accordance with the California Administrative Code, 2016.	Planning and Develo	pment review fees in	
Signature of Applicant:	Date:	10/17/2017	
Title: <u>Executive Advisor</u> Company Name: <u>TRU C</u>	ompliance, by Structural	Integrity Associates, Inc.	
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs" STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15)	MMM	OSHPD Page 1 of 3	

STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15)



California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)
Company Name:
Name: Matthew J. Tobolski, PhD, SE California License Number: S5648
Mailing Address: _ 5215 Hellyer Ave., Suite 210, San Jose, CA 95138
Telephone: 541.205.4064 Email: <u>mtobolski@structint.com</u>
Supports and Attachments Preapproval
Supports and attachments are preapproved under OPM- (Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
Supports and attachments are not preapproved
Certification Method
 Testing in accordance with: ICC-ES AC156 Other (Please Specify):
Testing Laboratory
Company Name: Wyle Laboratories
Contact Name: Rod Thornberry
Mailing Address:7800 Highway 20 West, Huntsville, AL 35806

Telephone: 256.716.4229 Email: Rod.Thornberry@Wyle.com

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic New	eds'
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OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters
Design in accordance with ASCE 7-10 Chapter 13: 🖂 Yes 🗌 No
Design Basis of Equipment or Components $(F_p/W_p) = 1.08$
S_{DS} (Design spectral response acceleration at short period, g) = <u>1.5</u>
a_p (In-structure equipment or component amplification factor) = <u>1.0</u>
R_{p} (Equipment or component response modification factor) = 2.5
Ω_0 (System overstrength factor) = 2.0
I_p (Importance factor) = 1.5
z/h (Height factor ratio) = _1
Equipment or Component Natural Frequencies (Hz) = See Attachment
Overall dimensions and weight (or range thereof) = See Attachment
Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: 🗌 Yes 🛛 No
Design Basis of Equipment or Components (V/W) =
S _{DS} (Design spectral response acceleration at short period, g) =
S _{D1} (Design spectral response acceleration at 1 second period, g) =
R (Response modification coefficient) =
Ω_0 (System overstrength factor) =
Cd (Deflection amplification factor) =
I_p (Importance factor) = 1.5
Height to Center of Gravity above base =
Equipment or Component Natural Frequencies (Hz) =
Overall dimensions and weight (or range thereof) =
Tank(s) designed in accordance with ASME BPVC, 2015: 🗌 Yes 🖾 No
List of Attachments Supporting Special Seismic Certification
Test Report(s) Drawings Calculations Manufacturer's Catalog
Other(s) (Please Specify): Attachment
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2022
Discontinue 1/1/1/1
Signature: Date: January 12, 2018
Print Name: Timothy J Piland Title: SSE
Special Seismic Certification Valid Up to : $S_{DS}(g) = 1.5$ $z/h = 1$
Condition of Approval (if applicable):
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"
STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 12/16/15) Page 3 of 3

TRU PROJECT NO. 1700693

Manufacturer:	Thyssen Krupp Eleva	itor Manufac	turing Inc.				SLE 1
Model Line:	Hydraulic Controller					IAD	DLC T
Certified Product Cons	truction Summary:						
NEMA 1, 11 Gauge carb	on steel enclosure						
Certified Options Sum	•						
See Tables 2 - 11 for a c	complete listing of cer	tified compo	onents.				
Mounting Configuration	on:						
Wall mounted - rigid							
Note: Installed mounting co	nfiguration must be of simi	ilar configuratic	on and equiva	alent strengtł	n and stiffness to t	hose tested.	
Building Code: CBC 20	16	Soismic	Cortificati	on Limite.	S= 15	$a = \frac{1}{2} h = 1.0$	1-= 15
Building Code: CBC 20	16	Seismic (Certificati	on Limits:	S _{DS} = 1.5	g z/h=1.0	<i>I</i> _P = 1.5
		1	Certification mensions		S _{DS} = 1.5 Weight	•	
Building Code: CBC 20. Model Line	16 Model	1				g z/h=1.0 Notes	l _P = 1.5
_		Dir	mensions	(in)	Weight	•	
_	Model	Dir Depth	mensions Width	(in) Height	Weight (lb)	•	UUT
-	Model TAC20	Dir Depth 12	mensions Width 33	(in) Height 33	Weight (lb) 116	•	UUT
Model Line	Model TAC20 TAC20-03	Dir Depth 12 12	width 33 33	(in) Height 33 33	Weight (lb) 116 116	•	UUT 1 Interp.
Model Line	Model TAC20 TAC20-03 TAC22	Dir Depth 12 12 12 12	wensions Width 33 33 33 33	(in) Height 33 33 33 33	Weight (lb) 116 116 165	•	UUT 1 Interp. 2
Model Line	Model TAC20 TAC20-03 TAC22 TAC32	Dir Depth 12 12 12 9	Width 33 33 33 33 33 33	(in) Height 33 33 33 33 28	Weight (lb) 116 116 165 170	•	UUT 1 Interp. 2 5, 6
Model Line	Model TAC20 TAC20-03 TAC22 TAC32	Dir Depth 12 12 12 9	Width 33 33 33 33 33 33	(in) Height 33 33 33 33 28	Weight (lb) 116 116 165 170	•	UUT 1 Interp. 2 5, 6
Model Line	Model TAC20 TAC20-03 TAC22 TAC32	Dir Depth 12 12 12 9	Width 33 33 33 33 33 33	(in) Height 33 33 33 33 28	Weight (lb) 116 116 165 170	•	UUT 1 Interp. 2 5, 6
Model Line	Model TAC20 TAC20-03 TAC22 TAC32	Dir Depth 12 12 12 9	Width 33 33 33 33 33 33	(in) Height 33 33 33 33 28	Weight (lb) 116 116 165 170	•	UUT 1 Interp. 2 5, 6
Model Line	Model TAC20 TAC20-03 TAC22 TAC32	Dir Depth 12 12 12 9	Width 33 33 33 33 33 33	(in) Height 33 33 33 33 28	Weight (lb) 116 116 165 170	•	UUT 1 Interp. 2 5, 6



TRU PROJECT NO. 1700693



Manufacturer: Model Line:	Thyssen Krupp Elevator Ma Hydraulic Controller	anufacturing Inc.	Table Description: Contactors		TABLE 2
Building Code: CBC 20	016	Seismic Certi	fication Limits: $S_{DS} = 1.5 g z/h = 1.0$	<i>I</i> _P = 1.5	
Component Type	Manufacturer	Model	Description	Note	es UUT
		298AG2	Contactor, 3-pole, AC		2
		298AG4	Contactor, 3-pole, AC		3,6
Contactors	Siemens	298BE1	Mini, 4-pole		3
		804BC1	TVS 110-230 VAC		2,3
		804BC2	TVS 24 VDC		2,3

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Nanufacturer: Nodel Line:	Thyssen Krupp Elevator M Hydraulic Controller	anufacturing Inc.	Table Description: Starters		TABLE 3
uilding Code: CBC 2	2016	Seismic Certi	fication Limits: $S_{DS} = 1.5 g z/h = 1.0$	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
		787AF1	200-460V, 22A		Extra
		787AF3	200-460V, 55A		Extra
		787AF11	200-460V, 68A		2
Electronic Starter	Siemens	787AF12	200-460V,80A		Inter
	Siemens	787AF5	200-460V, 105A		Inter
		787AF9	200-460V, 157A		Inter
		787AF7	200-460V, 130A		Inter
		787AF14	200-230V, 252A		3,6

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Manufacturer: Model Line:	Thyssen Krupp Elevator M Hydraulic Controller	Ianufacturing Inc.	Table Description: Fuses		TABLE 4
Building Code: CBC 2	ilding Code: CBC 2016		Seismic Certification Limits: $S_{DS} = 1.5 g z/h = 1.0$ $I_P = 1.5$		
Component Type	Manufacturer	Model	Description	Notes	s UUT
		412BF1	Fuseblock, DIN rail, 1 pole		2,3
Fuseblock DIN Rail Bussman	Bussman	412BC1	Fuseblock, DIN rail, 1 pole		2,3
	412BE2	600V, 30A, 2-Pole		5,6	
		409BP20	600V, 3A		3
Fuse Panel FNQ Bussman		409BP23	600V, 4A		1,2,5
	Bussman	409BP24	600V, 5A		Interp
	409BP25	600V, 6A		Interp	
		409BP28	600V, 8A		6
		409CW500	250V, 0.5A		Extrap
Fuse Panel 2AG	Bussman	409CW1000	250V, 1A		Extrap
Fuse Panel 2AG	DUSSIIIdII	409CW2000	250V, 2A		5
		409CW3000	250V, 3A		6
		409BR5	1A		2,3
		409BR7	2A		1,2,3
Fuse Panel MDA	Bussman	409BR9	3A		3
		409BR10	4A		5,6
		409BR11	5A		1,3
Fuse	Bussman	118763	0.5A Fuse, 250V, AGC		1

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Nanufacturer: Nodel Line:	Thyssen Krupp Elevator M Hydraulic Controller	lanufacturing Inc.	Table Description: Power Supplies		TABLE 5
Building Code: CBC 2	016	Seismic Certif	Fication Limits: $S_{DS} = 1.5 g z/h = 1.0$	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
		672BW1	24VDC, 50W		1,2,3,5
		672DE001	24VDC, 60W		Interp
Dowor Supplies	Lambda	672DE002	24VDC, 120W		Interp
Power Supplies	Lallipud	672DF001	48VDC, 120W		Interp
		672BY1	24VDC, 150W		Interp
		672CC1	48VDC, 150W		3

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Manufacturer: Model Line:	Thyssen Krupp Elevator M Hydraulic Controller	anufacturing Inc.	Table Description: Relays		TABLE 6
Building Code: CBC 2	016	Seismic Certi	fication Limits: $S_{DS} = 1.5 g z/h = 1.0$	$I_{P} = 1.5$	
Component Type	Manufacturer	Model	Description	Notes	UUT
	690CA3	6A, 24VDC		1,2,3	
Relays	Тусо	690CA5	6A, 110VDC		2,3
Relays	Tyco	690AJ8	208-480VAC		3,5
		690CJ1	115VAC		2,3

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TABLE 7		escription: Transformers	nufacturing Inc. To	Thyssen Krupp Elevator Ma Hydraulic Controller	
ding Code: CBC 2016 Seismic Certification Limits: S _{DS} = 1.5 g z/h = 1.0 I _P = 1.5					Building Code: CBC 201
UU	Notes	Description	Model	Manufacturer	Component Type
3	-	nase, 0.25 kVA, 115-575V	874DJ Sii		
Inte		nase, 0.5 kVA, 208-600V	874EM Sii	GE	Transformers
1,5		nase, 0.5 kVA, 115 - 600V	874DA Sii		

SPECIAL SEISMIC CERTIFICATION UUT NUMBERING CROSS REFERENCE

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Dufacturer: Thyssen Krupp Elevator Iel Line: Hydraulic Controller	TABLE 8	
Test Report	Old UUT #	New UUT #
Wyle 57906R10-1	1	1
Wyle 57906R10-1	2	2
Wyle 57906R10-2	1	3
Wyle 57906R10-3	1	5
Wyle 57906R10-3	2	6

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Model Line:	Thyssen Kru	ipp Elevator Manufa	cturing Ir	IC.						-	
mouel Line.	Hydraulic Co	ontroller						ι	JUT	L	
Model Number:	TAC20				Serial Nu	ımber:	N/A				
Product Constru	ction Summary:										
NEMA 1 Enclosur	е Туре										
<u> </u>											
	nponent Summary:	BR11 Power Suppl	• 672BW	1. Dolay . 6	00003						
ruse rallets: 403	JDF 23, 409DR 1, 403	BRII Power Supply	y: 012DW	1, Relay . 0	90CA3						
			UUT Pro	operties							
Weight		Dimension (in)		-		Lowes	t Natural	Frequen	cy (Hz)	y (Hz)	
(lb)	Depth	Width		ight	Front	Front-Back		Side	Vertical		
116						N/A N/A N/A					
		UUT Highest I									
Building Code		Test Criteria		S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g	
CBC	2016	ICC-ES AC156		1.5	1	1.5	2.4	1.8	1.0	0.4	
Test Mounting D	etails:										
j				- C	1 1000	10000					
					1.00-94						
			10	x123		21	110				
	7		-		and the second second	12 500	1.00				
	and the second				and the second second	- 11					
				TAL	80		E				
	and the second se										
							-				
	-										
	-										
The LILLT was me	unted to a wall me	unting fixture using		crada 5 bo	Its						

Contents were included in testing per operating conditions.

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Manufacturer:	Thyssen Kru	pp Elevator Manufa	cturing Ir	nc.						~
Model Line:	Hydraulic Co	ontroller							JUT	2
Model Number:	TAC22				Serial N	umber:	N/A			
Product Constru	iction Summary:									
NEMA 1 Enclosu	re Type									
Contactors: 298	nponent Summary: BAG2, 804BC1, 804BC 672BW1; Relays : 69	C2; Starter: 787AF1		locks: 412	BF1, 412	3C1; Fuse	e Panels: 4	409BP23,	409BR5,	409BR7;
			UUT Pro	operties	1					
Weight		Dimension (in)					1	al Frequency (Hz)		
(lb)	Depth	Width		ight	Front-Back					tical
165	12	33		33				N/A N/A		
		UUT Highest I		eismic Rur	n Informa	tion			1	.
Build	ing Code	Test Criter	ia	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016		ICC-ES AC15	ICC-ES AC156		1	1.5	2.4	1.8	1.0	0.4
Test Mounting D	Details:									
		TORING MILES IN	TACEE				1 ±			

The UUT was mounted to a wall mounting fixture using (6) 3/8" Grade 5 bolts. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

TRU PROJECT NO. 1700693



Manufacturer:	Thyssen Krupp Elevator Manufacturing Inc.			
Model Line:	Hydraulic Controller			UUT 3
Model Number:	TAC22 Tall	Serial Number:	N/A	
Product Constructi	on Summary:			
NEMA 1 Enclosure 7	Гуре			

Options/Subcomponent Summary:

Contactors: 298AG4, 298BE1, 804BC1, 804BC2; **Starter:** 787AF14; **Fuse Blocks:** 412BF1, 412BC1; **Fuse Panels:** 409BP20, 409BR5, 409BR7; 409BR9, 409BR11 **Power Supplies:** 672BW1, 672CC1; **Relays**: 690CA3, 690CA5, 690AJ8, 690CJ1

			UUT Pro	operties									
Weight		Dimension (in)	Dimension (in)			Lowest Natural Frequency (Hz)							
(lb)	Depth	Width	Hei	ight	Front	-Back	Side	Side Vertica		tical			
168	10.625	33	4	12	N/A		N/A		N/A N/A				
		UUT Highest I	Passed Se	ismic Run	Informa	tion							
Building Code		Test Criteria		S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)			
СВС	CBC 2016 ICC-ES AC156		1.5	1	1.5	2.4	1.8	1.0	0.4				

Test Mounting Details:



The UUT was mounted to a wall mounting fixture using (6) 3/8" Grade 5 bolts. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

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Manufacturer:	Thyssen Kru	pp Elevator Manufa	cturing In	IC.						
Model Line:	Hydraulic Co		C					ו ו	JUT	5
Model Number:	TAC32				Serial Nı	ımber:	N/A			
Product Construc NEMA 1 Enclosure	-									
Options/Subcomp Starter: 787AF11;	-	BE2; Fuse Panels: 4		409CW200	0, 409BR:	10; Powe	r Supply:	672BW1;	Relay : 69	8LA06
			UUT Pro	operties						
Weight		Dimension (in)				Lowes	t Natural	Frequen	cy (Hz)	
(lb)	Depth	Width	Hei	ight	Front-Back		Side-Side		Vertical	
133	133 9 33 28 N/A N				N	/A	N/A			
		UUT Highest H	Passed Se	ismic Run	Informa	tion				
Buildin	g Code	Test Criteria		S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC	2016	ICC-ES AC15	56	1.5	1	1.5	2.4			0.4
Test Mounting De	tails:					E The second sec				

The UUT was mounted to a wall mounting fixture using (6) 3/8" Grade 5 bolts. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.

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Manufacturer:	Thyssen Kru	ipp Elevator Manufa	acturing Inc							<u> </u>
Model Line:	Hydraulic Co	ontroller							JUT	6
Model Number:	TAC32				Serial Nı	ımber:	N/A			
Product Constru	-									
NEMA 1 Enclosur	е Туре									
Ontions/Subcom	ponent Summary:									
-		14; Fuse Block: 412	BE2: Fuse I	Panels: 4	109BP28,	409CW30	00.409BF	10: Tran	sformer:	874DA
	04, Starten 1877.	17, I use biveni 112		r unctor	10501 20,	10301133	00, 1000.	(10, 110	5101111011	
			UUT Prop	perties	_					
Weight	5	Dimension (in)		• .				Frequency (Hz)		
(lb)	Depth	Width			Front-Back N/A		Side-Side N/A			tical
170	9	33 UUT Highest I	28 Passed Seis			-	IN	/A	IN	/A
Buildi	ng Code	Test Criter		S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g
	2016	ICC-ES AC1	56	1.5	1	1.5	2.4	1.8	1.0	0.4
Test Mounting Do	etails:									
				-		-				
				-						
			-	PARTY IN COLUMN						
				TOCO2		-				
	20		Survey St.							
			TALEE		100					
			5		112					
		and a second			Sil inter					
			1 14				-			
				-	49					
		= 111		-						
	1		18 7 ·	-	12 4					
				-	17 5					

The UUT was mounted to a wall mounting fixture using (6) 3/8" Grade 5 bolts. Unit maintained structural integrity and remained functional per manufacturer requirement. Contents were included in testing per operating conditions.