



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0683

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: L&H Airco

Manufacturer's Technical Representative: Kevin Castle

Mailing Address: 2530 Warren Drive, Rocklin, CA 95677

Telephone: (559) 301-9913

Email: kevinc@lhairco.com

Product Information

Product Name: L&H Airco Temperature Control Panels

Product Model Number(s): L&H Airco Temperature Control Panels

Product Category: Industrial Control Panels

Product Sub-Category: HVAC Control Panels

General Description: Control panels in light-gauge metal enclosures for buildings and mechanical equipment

Mounting Description: Wall Mounted Rigid

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Pre Compliance

Contact Person: Katie Braman

Mailing Address: 36 SW Wall St, Bend, OR 97702

Telephone: (415) 248-3047

Email: kbraman@structint.com

Title: Engineer



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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: PRE COMPLIANCE

Name: Andrew Coughlin California License Number: S6082

Mailing Address: 324 NW Hill St, Bend, OR 97703

Telephone: (415) 635-8461 Email: Andy@go-pre.com

Certification Method

- GR-63-Core
- ICC-ES AC156
- IEEE 344
- IEEE 693
- NEBS 3
- Other (Please Specify): _____

Testing Laboratory

Company Name: ELEMENT (ELMT)

Contact Person: Ratish Rao

Mailing Address: 38995 Cherry Street, Newark CA 94560

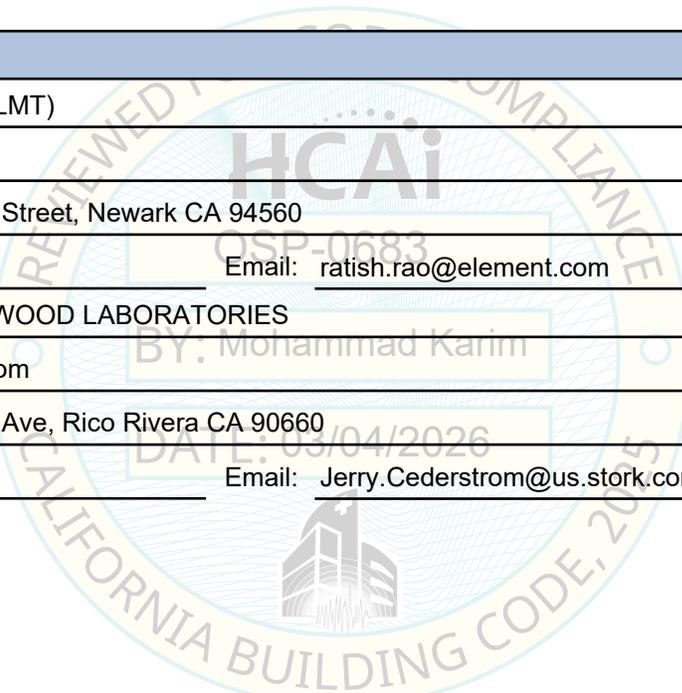
Telephone: (510) 578-3500 Email: ratish.rao@element.com

Company Name: STORK GARWOOD LABORATORIES

Contact Person: Jerry Cedestrom

Mailing Address: 7829 Industry Ave, Rico Rivera CA 90660

Telephone: (562) 949-2727 Email: Jerry.Cederstrom@us.stork.com





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Seismic Parameters

Certified Response Spectral Acceleration Factors:(F_p/W_p)

Horizontal (A Flx-H), $g = \underline{2.5}$ (A Rig-H), $g = \underline{1.68}$

Vertical (A Flx-V), $g = \underline{1.05}$ (A Rig-V), $g = \underline{0.42}$

SDS (Design spectral response acceleration at short period, g) = 1.56

H_f (Force amplification height factor) = 1.0 @ z/h = 0; 3.5 @z/h=1

R_u (Structure ductility reduction factor) = 1.0 @ z/h = 0; 1.3 @z/h=1

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

HCAI Approval (For Office Use Only) - Approval Expires on 03/04/2032

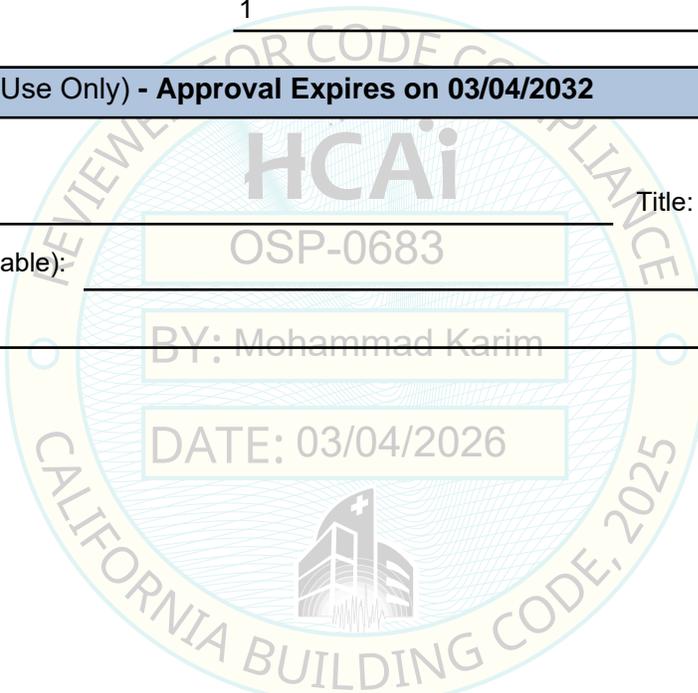
Date: 3/4/2026

Name: Mohammad Karim Title: Supervisor, Health Facilities

Condition of Approval (if applicable): OSP-0683

BY: Mohammad Karim

DATE: 03/04/2026



SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: L&H Airco

Product Type: HVAC Control Panels

Model Line: L&H Airco Temperature Control Panels

Seismic Parameters

$S_{DS} = 1.56g$ for $z/h=1, R_{\mu}=1.3, H_f=3.5$
 $S_{DS} = 1.56g$ for $z/h=0, R_{\mu}=1.0, H_f=1.0$ $I_p=1.5$

Building Codes

CBC 2025

TABLE 2

Table Description: Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
Control Transformers (Functional Devices)	RIB TR40VA001	RIB Transformer, 120-24 VAC, 40 VA		5
	RIB TR100VA001	RIB Transformer, 120-24 VAC, 100 VA		2
Power Supply (Functional Devices)	PSH40AB10	40 VA, 120-24 VAC w/ outlets		2
	PSH100A100AB10	2x100 VA, 120-24 VAC w/ outlets		5
	PSM24A24DAS	24 VAC to 1.5-28 VCD		Interp.
	PSH100A100AW	2x100 VA, 120-24 VAC w/ outlets		4
Battery Backup w/ Surge Protection (Cyber Power)	CP600LCD	600 VA w/ LCD		1,2,4
Ethernet Port & Switch (B&B Electronics)	EIR208-ST	Elinx 7 Port 10/100 Ethernet w/ 1 Port Single Mode Fiber Switch		2
Ethernet Port & Switch (NETGEAR)	FS-105	Netgear Etherfast 5 Port 10/100 Switch		5
Control Modules (Alerton BACtalk)	VAV-DD7	Field Controller		Extrap.
	VAV-DD7-E	Field Controller		Extrap.
	VAV-SD2A	Field Controller		Extrap.
	VAV-SD2A	Field Controller		Extrap.
	VAV-SD2A-E	Field Controller		Extrap.
	VAV-SD-A	Field Controller		Extrap.
	VAV-SD-E	Field Controller		Extrap.
	VAViH-SD	Field Controller		Extrap.
	VLD-362	Field Controller		Extrap.
	VLC-444	Field Controller		Extrap.
	VLC-444e	Field Controller		Extrap.
	VLC-550	Field Controller		Extrap.
	VLC-550-E	Field Controller		Extrap.
	VLC-651R	Field Controller		Extrap.
	VLC-651R-E	Field Controller		Extrap.
VLC-660R	Field Controller		Extrap.	

SPECIAL SEISMIC CERTIFICATION CERTIFIED SUBCOMPONENTS

Manufacturer: L&H Airco

Product Type: HVAC Control Panels

Model Line: L&H Airco Temperature Control Panels

Seismic Parameters

$S_{DS} = 1.56g$ for $z/h=1, R_{\mu}=1.3, H_f=3.5$
 $S_{DS} = 1.56g$ for $z/h=0, R_{\mu}=1.0, H_f=1.0$ $I_p=1.5$

Building Codes

CBC 2025

TABLE 2

Table Description: Electrical

Component (Manufacturer)	Model	Description	Notes	UUT
Control Modules (Alerton BACtalk)	VLC-660R-E	Field Controller		Extrap.
	VLC-853	Field Controller		1
	VLC-853-E	Field Controller		Interp.
	VLC-1188	Field Controller		Interp.
	VLC-1188-E	Field Controller		Interp.
	VLCA-1688	Field Controller		Interp.
	VLC-1600	Field Controller		Interp.
	VLC-1600-E	Field Controller		Interp.
	VLC-16160	Field Controller		Interp.
	VLC-16160-E	Field Controller		Interp.
	MSTP-REP	Field Controller		Interp.
	FLG-MODBUS	Field Controller		Interp.
	VLX	Field Controller		3
	VLX Platinum	Field Controller		Interp.
	EXP-1048	Field Controller		3
	EXP-10120	Field Controller		Interp.
	EXP-2200	Field Controller		3
	ACM	Field Controller		5
	ACM-BATT	Field Controller		5
	ACM-OC-2X485	Field Controller		5
	AXM 10-12-0	Field Controller		5
	AXM 10-4-8	Field Controller		5
	AXM 22-0-0	Field Controller		Interp.
	BCM-PWS 715000000	Control Module Power Supply		2
	BCM-ETH 715000100	Control Module Ethernet Module		2
	BCM-MDM 715000200	Control Module Modem		2
	BCM-MDBS 715000900	Control Module w/ Modbus Gateway		Interp.
	BCM-TUX 715000400	Control Module w/ IBEX TUX Trunk		Interp.
	BCM-MS/TP 715000300	Control Module w/ 1 MS/TP Segment		2
	Transducers (Veris)	PXULX055 w/ LCD	Universal Differential Pressure Transducer	
PX3ULX05		Universal Differential Pressure Transducer		5

UUT 2

Test Report# R₀02900 Rev A – TCP-2

Manufacturer: L&H Airco
Model Line: L&H Airco Temperature Control Panels
Model Number: TCP-2
Serial Number: N/A

Highest Passed Test Level								
S _{DS}	z/h	R _μ	H _f	I _p	A _{flx-h}	A _{rig-h}	A _{flx-v}	A _{rig-v}
1.76	1.0	1.3	3.5	1.5	2.81	1.89	1.17	0.47
1.76	0.0	1.0	1.0					

Dimensions/Weights			
Depth (in)	Width (in)	Height (in)	Weight (lbs.)
6.6	24	36	96

Lowest Natural Frequency (Hz)		
Front-Back	Side-Side	Vertical
N/A	N/A	N/A

Building Codes
CBC 2025

Test Criteria
ICC-ES AC 156-24

Construction/Option Summary
14 ga cold-formed carbon steel
NEMA 1, TCP-2 Component Panel Global

UUT Mounting Details:



UUT rigid wall mounted using (4) 3/8" bolts attached to wood panels.

Unit maintained structural integrity and remained operational per manufacturer requirement following shake table test. All contents were included in the unit per operating conditions.

List of Included Subcomponents

Description (Manufacturer)	Model #
Controls Enclosure (Hoffman)	A36N24ALP
Control Module Power Supply (Alerton BACtalk)	BCM-PWS 715000000
Control Module Ethernet w/ MS/TP (Alerton BACtalk)	BCM-ETH 715000100
Control Module Modem (Alerton BACtalk)	BCM-MDM 715000200
Control Module w/ MS/TP (Alerton BACtalk)	BCM-MS/TP 715000300
Elinx 7 Port 10/100 Ethernet, 1 Port Single Mode Switch (B&B Electronics)	EIR208-ST
40VA Power Supply 120-24VAC (Functional Devices)	PSH40AB10
Battery Backup w/ Surge Protection, 600VA (Cyber Power)	CP600LCD
RIB Transformer, 100VA (Functional Devices)	RIB TR100VA001

