



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

APPLICATION #: **OSP – 0353 – 10**

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Seeley International Pty Ltd

Manufacturer's Technical Representative: Michael Kozuch

Mailing Address: 112 OSullivan Beach Road, South Australia, Australia

Telephone: 602-353-8066 Email: mkozuch@seeleyinternational.com

Product Information

Product Name: Climate Wizard Packaged Air Conditioning Units

Product Type: Packaged Air Conditioning Units

Product Model Number: CW-H15

(List all unique product identification numbers and/or part numbers)

General Description: AC powered HVAC unit with indirect evaporative cooling. See attachment for complete product details.

Mounting Description: Rigid Base Mount

Applicant Information


Applicant Company Name: Seeley International Pty Ltd

Contact Person: Michael Kozuch

Mailing Address: 112 OSullivan Beach Road, South Australia, Australia

Telephone: 602-353-8066 Email: mkozuch@seeleyinternational.com

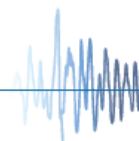
I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant: 

Date: 7/23/13

Title: Sales Engineer Company Name: Seeley International Pty Ltd

"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dvnamic Needs"





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

Company Name: MRH Structural Engineers, Inc
Name: Mohammad Hariri, S.E California License Number: SE3545
Mailing Address: 1411 N. Batavia Street, Ste. 121, Orange, CA 92867
Telephone: 714-633-6302 Email: Mrh_se@sbcglobal.net

Supports and Attachments Preapproval

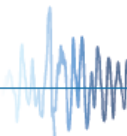
- Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- Supports and attachments are not preapproved

Certification Method

- Testing in accordance with: ICC-ES AC156
- Other (Please Specify): _____

Testing Laboratory

Company Name: ANCO Engineers, Inc.
Contact Name: Paul Ibanez
Mailing Address: 1965A 33rd St., Boulder, CO 80301
Telephone: 303-443-7580 x239 Email: paul@ancoengineers.com





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Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: Yes No

Design Basis of Equipment or Components (F_p/W_p) = 1.8

S_{DS} (Design spectral response acceleration at short period, g) = 2.5

a_p (In-structure equipment or component amplification factor) = 1.0

R_p (Equipment or component response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.5

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1

Equipment or Component Natural Frequencies (Hz) = See Attachments.

Overall dimensions and weight (or range thereof) = See Attachments.

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) = _____

C_d (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, 2010: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): See Attachments

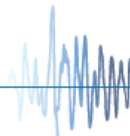
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2019

Signature:  Date: August 20, 2013

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.5 z/h = 1.0

Condition of Approval (if applicable): _____



3334.01 Seeley International UUT Summary and CPM

 1965A 33rd Street Boulder, CO 80301 (303)443-7580		UUT #1 Unit Under Test (UUT) Summary Sheet ANCO Project Number: 3334.01						
Manufacturer:	Seeley International Pty Ltd							
Model Line:	Climate Wizard Air Conditioners							
Model Number:	CW-H15							
Product Construction Summary:	Painted Aluminum air conditioner with supply air fan, indirect heat exchanger pack, and water reservoir with pumps. Unit was tested with reservoir full of water.							
Options/ Subcomponent Summary:	None. Sold as tested.							
UUT Properties								
Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)				
	Depth	Width	Height	Front-Back	Side-Side	Vertical		
822	78.2	71.8	69.4	12	12	28		
UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S_{DS}	z/h	I_p	A_{FLX-H}	A_{RIG-H}	A_{FLX-V}	A_{RIG-V}
CBC 2013	ICC-ES AC-156	2.5	1	1.5	4.0	3.0	1.68	0.68
Test Mounting Details:								
								
12 grade 8 5/16"-18 bolts were used to hold the base frame to the table. The Base frame is an integral part of the UUT and will always be used. Manufacturer provided hardware was used to attach the cooler to the base frame.								

Form: UUT, revision 0.0

3334.01 Seeley International UUT Summary and CPM

Table 2.1: Seeley International Certified Product Matrix

Part Number	Dimensions (in)			Weight (lb)	Mounting	Tested/ Interpolated	Result
	Length	Width	Height				
Climate Wizard Indirect Evaporative Cooler							
CW-H15	78.20	71.80	69.40	822	Rigid Base	UUT#1	PASS ¹

Table 2.2: Shake Table Test Parameters

BUILDING CODE	TEST CRITERIA	S _{DS} (g)	z/h	HORIZONTAL		VERTICAL	
				A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2013	ICC-ES AC156	2.5	1	4	3	1.67	0.67

Table 2.3: UUT Resonance Frequency

UUT Identification	RESONANCE FREQUENCY (Hz)		
	Front-to-Back	Side-to-Side	Vertical
1	12	12	28

- Note that PASS indicates that the tested unit passed all functional tests and maintained structural integrity after the ICC-ES AC 156 test.