oshpd
Office of Statewide Health Planning and Development

State of California – Health and Human Services Agency

Facilities Development Division www.oshpd.ca.gov/fdd
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APPLICATION FOR PREAPPROVAL

SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP – 0123-10

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

1.0

The Trane Company	Steve Lotspaih
Manufacturer	*Manufacturer's Technical Representative*

3600 Pammel Creek Road, La Crosse, WI 54601
Mailing Address

608-787-4100	slotspaih@trane.com
Telephone	*E-mail Address*

2.0

Blower Coil Air Handlers	Air Terminal Device
Product Name	*Product Type*

BCHC (Horizontal) Sizes 12 to 90; BCVC (Vertical) Sizes 24 to 90
Product model No (List all unique product identification numbers and/or serial numbers)

General Description: These units are cataloged Air Handling Units which are manufactured in sizes from 12 – 90. They come in horizontal (suspended) and vertical (floor mounted) configurations. All sizes of BCHC are used with vibration isolators. All sizes of BCVC units are hard mounted. BCHC size 12 may also be non-isolated. BCVC size 24 may also be isolated. Suspended unit shall be braced with cables.

3.0

The VMC Group	John Wilson, Jr.
Applicant Company Name	*Contact Person*

113 Main St, Bloomingdale NJ, 07403
Mailing Address

973-838-1780	jwilson@thevmcgroup.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.

	10/13/2010
Signature of Applicant	*Date*
CEO	The VMC Group
Title	*Company Name*

Registered Design Professional Preparing the Report

4.0

The VMC Group
Company Name

Ahmed Haider, PE | C68541
Contact Name | *California License Number*

456-D West Huntington Drive, Arcadia CA 91007
Mailing Address

973-838-1780 | ahmed.haider@thevmcgroup.com
Telephone | *E-mail Address*

California Licensed Structural Engineer Review and Acceptance of the Report

5.0

Panache Engineering
Company Name

Eui S. Kim | S-5138
Contact Name | *California License Number*

150 North Santa Ana Ave, Arcadia, CA 91006
Mailing Address

626-203-6401 | panacheg@gmail.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

ETL/Brady Richard | Trentec/Timothy Geers
Company Name/Contact Name | *Company Name/Contact Name*

11034 Indian Trail, Dallas, TX 75229; 4600 East Tech Dr., Cincinnati, OH 45245
Mailing Address

972-247-9657 / 513-528-7900 | info@etldallas.com/tgeers@curtisswright.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) = 4.16 g

S_{DS} (Spectral response acceleration at short period) =1.85 g

a_p (In-structure equipment or component amplification factor) =2.5

R_p (Equipment or component response modification factor) =2.0 (Base mounted unit with spring isolators Only)

I_p (Importance factor) = 1.5

z/h (Height factor ratio)=1.0

Equipment or Component fundamental period(s) = See Attachment, Table # 2

Building period limits (if any) =N/A

Overall dimensions and weight (or range thereof) = See Attachment, Table # 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:):*

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

10/18/10	**December 31, 2016**
Signature & Date	*Approval Expiration Date*
Chris Tokas, SHFR	S_{DS} (g) = **1.85** z/h = **1.0**
Name & Title	*Special Seismic Certification Valid Up to*

Condition of Approval (if any): **Use of spring isolators/snubbers shall be as permitted by Section 2.0 and attachment Table 1.**

3/1

BCHC & BCVC Chart: OSP Included Components and Tested Units

Table 1: Available Sizes

Model	Unit Size	Basic Unit Weight [lbs]	Length [in]	Width [in]	Height [in]	UUT		Permitted Support Conditions			
						Isolated	Hard Mounted	Suspended with Isolators	Suspended (W/O Isolators)	Base Mounted with Isolators	Rigid Base Mounted
BCHC	12	70.4	39.75	24	14	1A	1B	X	X		
	18	76.1	39.75	28	14			X			
	24	98.9	44	28	18			X			
	36	116.1	44	40	18			X			
	54	138.9	49	40	22			X			
	72	152.2	49	48	22			X			
	90	174.8	52	48	28	3A		X			
BCVC	24	150.3	44	28	63.5	2A	2B			X	X
	36	180.4	44	40	63.5						X
	54	206.4	47	40	72.5						X
	72	228.2	47	48	72.5						X
	90	258.4	50	48	81.5		4B				X

Table 2: Summary of Tested Components

UUT	Description	L	W	H	Wt	Lowest Fn (S-S, X)	Lowest Fn (F-B, Y)	Lowest Fn (Vert, Z)
#1A	BCHC Size 12	40	24	14	70	N/A	N/A	N/A
#1B	BCHC Size 12	40	24	14	70	N/A	N/A	N/A
#2A	BCVC Size 24	44	28	64	150	1.6	6.1	13.3
#2B	BCVC Size 24	44	28	64	150	1.6	5.5	18.6
#3A	BCHC Size 90	72	48	28	450	N/A	N/A	N/A
#4B	BCVC Size 90	50	48	82	450	6.0	8.7	17.1

THE VMC GROUP

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