



Office of Statewide Health Planning and Development



Facilities Development Division
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APPLICATION FOR PREAPPROVAL
SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

APPLICATION NO.

OSP -0002-10

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

1.0 Manufacturer:

Manufacturer's Technical Representative: Panos G. Papavizas, P.E.

Mailing Address: Baltimore Aircoil Company
P.O. Box 7322

Phone and E-mail: Baltimore, MD 21227
410-799-6438
ppapavizas@baltimoreaircoil.com

2.0 Product Name:

Product Type: Cooling Tower

Product Model No.: Series 3000 Cooling Tower (see Attachment A for models)

General Description of Primary Function:
Evaporative Heat Rejection

3.0 Applicant:

Company Name: Baltimore Aircoil Company

Contact Person: William E. Dietrich

Mailing Address: P.O. Box 7322
Baltimore, MD 21227

Phone and E-mail: 410-799-6237
wdietrich@baltimoreaircoil.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development for the actual costs incurred by the department for review.

[Signature]
(Signature of Applicant)

6/29/2009
(Date)

Vice President, Engineering
(Title)

Baltimore Aircoil Company
(Company Name)

4.0 Registered Design Professional Preparing the Report:

Company Name: W. E. Gundy & Associates, Inc.
Name: William E. Gundy, P.E.
License No.: California C 26539
Mailing Address: P.O. Box 2900
Hailey, ID 8333
Phone and E-mail: 208-788-5989
wegai@mindspring.com

5.0 California Licensed Structural Engineer Review and Acceptance of Report:

Company Name: Same as above
Name:
License No.:
Mailing Address:
Phone and E-mail:

6.0 Anchorage Pre-Approval:

- Anchorage is pre-approved under OPA- (Separate application for anchorage pre-approval is required)
- Anchorage is not Pre-approved

7.0 Certification Method:

- Testing in accordance with: AC-156 Other: (Please Specify)
- Analysis
- Experience data
- Combination of Testing, Analysis, and/or Experience Data: (Please Specify)
See explanation on page 3

8.0 Testing Laboratory (if Applicable):

Laboratory Name: Structural Engineering and Earthquake Simulation
Contact Name: Laboratory (SEESL)
Mailing Address: Mark Pitman
Department of Civil, Structural, and Environmental
Engineering
Phone and E-mail: University at Buffalo - State University of New York
212 Ketter Hall, North Campus
Buffalo, NY 14260-4300
716-645-3733
mpitman@eng.buffalo.edu

9.0 Approval Parameters:

Seismic Capacity of Equipment or Component (F_p/W_p) = 1.40
 S_{DS} (Spectral response acceleration at short period) = 1.40
 a_p (In-structure equipment or component amplification factor) = 2.5
 R_p (Equipment or component response modification factor) = 3.0
 I_p (Importance factor) = 1.5
 z/h (Height Factor Ratio) = 0 to 1.0
 Equipment or Component Fundamental Period(s) = See Attachment B
 Overall dimensions and weight (or range thereof) = See Attachment A

10.0 List of attachments supporting the special seismic certification of equipment or components:

- Test Report
- Drawings
- Manufacturer's Catalog
- Calculations
- Others:

11.0 OSHPD Approval:

Approved By: Chris Tokas (Signature)

Name: CHRIS TOKAS

Title: SEIR

Date: 6/29/09

EXP. DATE: 12/31/2012

Certification method: Primary method of qualification is shake table testing in accordance with ICC-ES AC156. Analysis used to account for significant options and accessories.

OSHPD APPROVAL

	<u>APPROVED</u>	<u>UP TO</u>
	<u>SDS (g)</u>	<u>Z/h</u>
<u>COOLING TOWER</u>	<u>1.4</u>	<u>0.0</u>
<u>COOLING TOWER</u>	<u>0.9</u>	<u>1.0</u>

Attachment A:

Model No. ¹	No. of Sections	Shipping Weight ² (lbs)	Operating Weight ² (lbs)	Unit Length (in)	Unit Width (in)	Height to Fandeck (in)
3240C	1	7610	15200	101.75	216.5	103.75
3240C-JM	1	7610	15200	101.75	216.5	103.75
3272C	1	7730	15320	101.75	216.5	103.75
3299C	1	7790	15380	101.75	216.5	103.75
3333C	1	8060	16190	101.75	216.5	119.75
3333C-JM	1	8060	16190	101.75	216.5	119.75
3333C-KM	1	8060	16190	101.75	216.5	119.75
3333C-LM	1	8060	16190	101.75	216.5	119.75
3358C	1	8090	16220	101.75	216.5	119.75
3379C	1	8140	16270	101.75	216.5	119.75
3412C	1	9390	19000	117.25	240.5	119.75
3412C-JM	1	9390	19000	117.25	240.5	119.75
3412C-KM	1	9390	19000	117.25	240.5	119.75
3412C-LM	1	9390	19000	117.25	240.5	119.75
3412C-MM	1	9390	19000	117.25	240.5	119.75
3436C	1	9440	19050	117.25	240.5	119.75
3455C	1	9710	19770	117.25	240.5	135.75
3455C-KM	1	9710	19770	117.25	240.5	135.75
3455C-LM	1	9710	19770	117.25	240.5	135.75
3455C-MM	1	9710	19770	117.25	240.5	135.75
3473C	1	10900	22730	141.75	258.5	119.75
3473C-KM	1	10900	22730	141.75	258.5	119.75
3473C-LM	1	10900	22730	141.75	258.5	119.75
3473C-MM	1	10900	22730	141.75	258.5	119.75
3482C	1	9760	19820	117.25	240.5	135.75
3501C	1	10950	22780	141.75	258.5	119.75
3527C	1	9920	19980	117.25	240.5	135.75
3552C	1	11510	25150	141.75	258.5	135.75
3552C-LM	1	11510	25150	141.75	258.5	135.75
3552C-MM	1	11510	25150	141.75	258.5	135.75
3552C-NM	1	11510	25150	141.75	258.5	135.75
3583C	1	15650	32890	167.125	288.5	135.75
3583C-MM	1	15650	32890	167.125	288.5	135.75
3604C	1	11670	25310	141.75	258.5	135.75
3618C	1	15700	32940	167.125	288.5	135.75
3648C	1	11680	25320	141.75	258.5	135.75
3672C	1	12440	26080	141.75	258.5	135.75
3676C	1	15860	33100	167.125	288.5	135.75
3725C	1	15870	33110	167.125	288.5	135.75
3728C	2	14460	30700	141.75	258.5	185.5

Model No. ¹	No. of Sections	Shipping Weight ² (lbs)	Operating Weight ² (lbs)	Unit Length (in)	Unit Width (in)	Height to Fandeck (in)
3728C-NM	2	14460	30700	141.75	258.5	185.5
3728C-OM	2	14460	30700	141.75	258.5	185.5
3781C	2	14620	30860	141.75	258.5	185.5
3828C	2	14630	30870	141.75	258.5	185.5
3872C	2	15380	33700	141.75	258.5	217.5
3872C-OM	2	15380	33700	141.75	258.5	217.5
3872C-PM	2	15380	33700	141.75	258.5	217.5
3923C	2	15590	33910	141.75	258.5	217.5
3970C	2	16550	34870	141.75	258.5	217.5
3985C	2	16360	36500	141.75	258.5	249.5
3985C-PM	2	16360	36500	141.75	258.5	249.5
3985C-QM	2	16360	36500	141.75	258.5	249.5
31056C	2	16440	36590	141.75	258.5	249.5
31132C	2	20830	43080	167.125	288.5	217.5
31132C-PM	2	20830	43080	167.125	288.5	217.5
31132C-QM	2	20830	43080	167.125	288.5	217.5
31132C-RM	2	20830	43080	167.125	288.5	217.5
31213C	2	21530	45760	167.125	288.5	268.875
31213C-QM	2	21530	45760	167.125	288.5	268.875
31213C-RM	2	21530	45760	167.125	288.5	268.875
31301C	2	23450	47680	167.125	288.5	268.875
Notes:	1. Actual unit model numbers may include suffixes designating number of cells, optional constructions, and accessories. 2. Weights are base unit weights and do not include options and accessories.					

Attachment B:

	Fundamental Frequency (Hz)		Fundamental Period (sec)	
	UUT A	UUT B	UUT A	UUT B
X (Length)	3.59	3.22	0.28	0.31
Y (Width)	5.16	3.03	0.19	0.33
Z (Height)	5.03	11.66	0.20	0.09