



# CLEVELAND ASHRAE NEWSLETTER

March 2008



## MARCH MEETING

### *Equipment & Design Considerations Associated with Thermal Energy Storage Using Ice*

March 17, 2008

Times:	4:15-5:30pm	Board Meeting
	5:30-6:15pm	Happy Hour
	6:15-7:15pm	Dinner
	7:15-8:15pm	Presentation

Speaker: Frank Morrison  
Location: Harry's Steakhouse  
5664 Brecksville Road  
Independence, OH 44131

R.S.V.P. @ (216) 373-0315 by 12:00 Noon on Friday, March 14th for Reservations.  
Please state if you need a CPD Certificate. Dress Attire is Business Casual.

Mr. Frank Morrison, of Baltimore Aircoil Company, will be presenting at our March 17th meeting. He will be discussing "Equipment and Design Considerations associated with Thermal Energy Storage using Ice." Frank's presentation will cover:

- Ice storage basics
- Ice versus chilled water storage
- Ice storage design considerations
- Full and partial storage systems
- Internal and external melt systems
- LEED Considerations for Ice Thermal Storage
- Ice storage installations and applications

## This Month's Sponsor

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If you are interested in sponsoring the newsletter,  
please contact Matt Morgan at 216-391-3700.



# THE PRESIDENT'S CORNER

BY KEN WISSNER



Looking at the calendar, spring should be right around the corner...but as I sit at Hopkins watching the snow fall and temperature drop while waiting for my flight to leave, (already 3 hours late to go some place without snow and much warmer) I'm quickly reminded that I am still in Cleveland, anything can happen and the second major snow storm of the season is here and quite likely, the worst this year. Once again, Mother Nature prevails!

If you haven't given thought to or previously attended an ASHRAE satellite broadcast, here's your chance. The satellite broadcast / webcast "Integrated Building Design" is Wednesday April 16th from 1:00 to 4:00 p.m. and Three (3) Professional Development Hours

or three (3) AIA Learning Units will be awarded to viewers who complete the "Participant Reaction Form" following the program. For information about the program presenters, visit [www.ashrae.org/ibdbroadcast](http://www.ashrae.org/ibdbroadcast). ASHRAE is also offering a \$50 membership discount for viewers of this event.

Even though our current weather wouldn't support it, it won't be long before we get out the clubs, dust them off and hit the golf course. So keep an eye out for information on the June golf outing in an upcoming newsletter.

I look forward to seeing you Monday and as a reminder; make sure to reserve a seat for the meeting and bring a friend as we're sure you'll find the topic to be interesting.

Remember the sacrifice of our servicemen and keep them in your prayers as they serve our country.

## OFFICERS & COMMITTEE CHAIRMEN

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### Golf Outing

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### Engineer's Week

James G. MacMillan

### Special Events (December Social)

Mike Denk

### Budget & IRS Compliance

Fred H. Hollman

### Sunshine Fund

James W. Wickert



## SPEAKER BIO

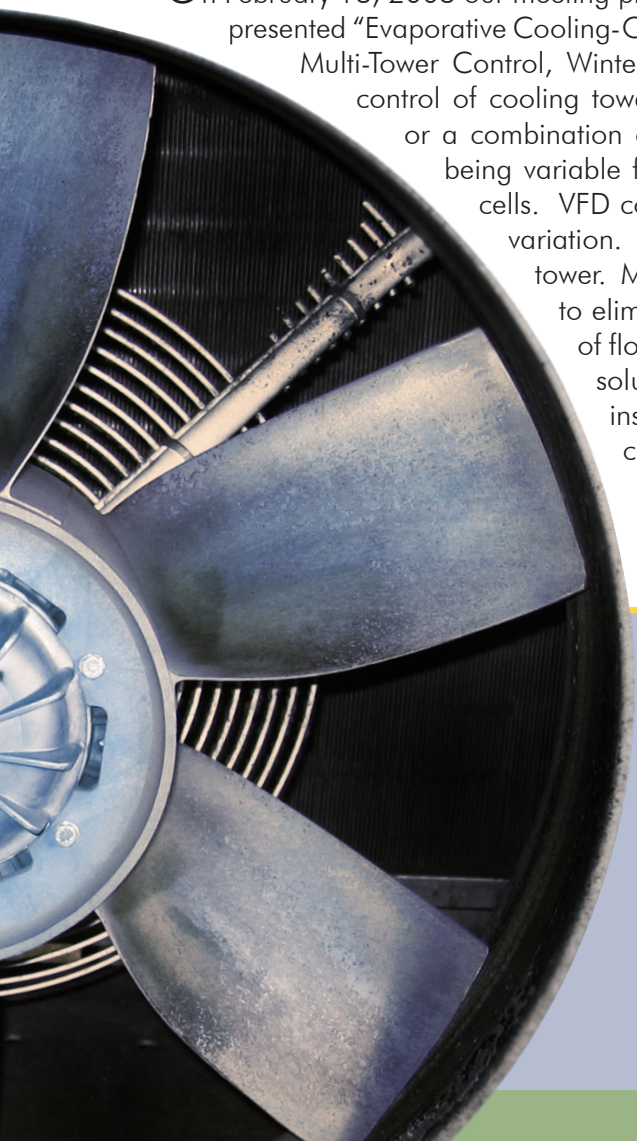
Frank Morrison is currently Manager, Global Product Marketing and Business Development at Baltimore Aircoil Company. Frank has worked in both Product Engineering and Research & Development at BAC, as well as managed the R&D Labs and the Design Operations Group, before moving to Marketing. In Marketing, he has served as Closed Circuit Cooling Tower Product Manager and Manager of Product Marketing before moving to his current position in Global Marketing.

Frank earned a BS in Mechanical Engineering from Drexel University in Philadelphia, Pennsylvania and an MBA from Loyola College in Maryland. He is also a member of ASHRAE and participates on the ASHRAE 90.1 Energy Committee and both the TC8.6 Cooling Tower and TC3.6 Water Treatment Technical Committees. Lastly, Frank holds numerous patents and has authored various articles and technical papers.



## FEBRUARY MEETING RECAP

On February 18, 2008 our meeting presenter was Mr. Dick LeClaire, of SPX Cooling Technologies. Mr. LeClaire presented "Evaporative Cooling-Opportunities and Misconceptions." During his presentation, Dick discussed Multi-Tower Control, Winter Operation, Plume Abatement and Water Conservation. Temperature control of cooling towers typically is accomplished through water-side control, air-side control or a combination of these. Air-side control is often recommended with the best scenario being variable frequency drives on all cells or at a minimum, two speed motors for the cells. VFD controls minimize wear on the tower components and minimize cell-to-cell variation. Winter operation of cooling towers can present an icing condition on the tower. Monitoring the tower's performance can prevent this condition, but methods to eliminate icing should always be verified with the manufacturer. The reversal of flow for short periods, using low speeds and on an hourly basis might be one solution, but the tower manufacturer should provide guidelines specific to the installed equipment. Thank you Mr. LeClaire for visiting with our Cleveland chapter and providing valuable insights to cooling tower operation.



## ASHRAE RESEARCH PROMOTION

Thank you to everyone who made the Honor Roll donations in February 2008!

(Donations of \$100 or more)

Thorson Baker & Associates



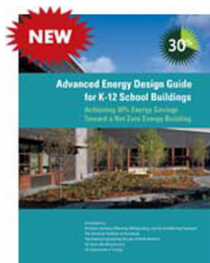
## IN THE NEWS...



### Advanced Energy Design Guides Free Download

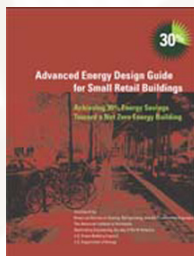
The Advanced Energy Design Guide series provides a sensible approach to easily achieve advanced levels of energy savings without having to resort to detailed calculations or analysis. The four-color guides offer contractors and designers the tools, including recommendations for practical products and off-the-shelf technology, needed for achieving a 30% energy savings compared to buildings that meet the minimum requirements of ANSI/ASHRAE/IESNA Standard 90.1-1999. The energy savings target of 30% is the first step in the process toward achieving a net-zero energy building, which is defined as a building that, on an annual basis, draws from outside resources equal or less energy than it provides using on-site renewable energy sources.

These guides have been developed through the collaboration of ASHRAE, the American Institute of Architects (AIA), the Illuminating Engineering Society of North America (IESNA), and the U.S. Green Building Council (USGBC), with support from the Department of Energy (DOE), to help meet all of an owner's energy performance requirements. In an effort to promote building energy efficiency, ASHRAE and its partners have made these guides available for download (PDF) at no charge.



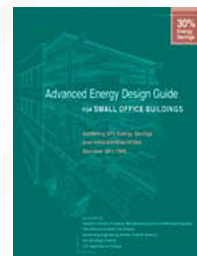
#### K-12 School Buildings

For elementary, middle, and high school buildings, which have a wide variety of heating and air-conditioning requirements. Options for daylighting, an important component in schools, are included.  
I-P units.



#### Small Retail Buildings

For retail buildings up to 20,000 ft<sup>2</sup>, the bulk of retail space in the U.S. Addresses typical uses: retail (other than shopping malls); strip shopping centers; automobile dealers; building material, garden supply, and hardware stores; department stores; drugstores; equipment and home furnishing stores; liquor stores; and wholesale goods (except food).  
I-P units.



#### Small Office Buildings

For office buildings up to 20,000 ft<sup>2</sup> the bulk of office space in the U.S.; and provides benefits and savings for the building owner while maintaining quality and functionality of the office space. Awards: USGBC 2005 Leadership Award; Stars of Energy Efficiency Award, Honorable Mention (Alliance to Save Energy); and Best Sustainable Practice Award, Honorable Mention (SBIC).  
I-P units.

[Click here to begin your free download!](#)



## HELP WANTED...



### WANTED

Creative self-starter willing to make a committee their own. Must also have a strong desire to get involved and help out local ASHRAE chapter as much as they can. TEGA needs someone to do something now!

The bar couldn't be set any lower. Please TEGA needs you! E-mail Matt Nelson ([mnelson@brewer-garrett.com](mailto:mnelson@brewer-garrett.com)) for more information.

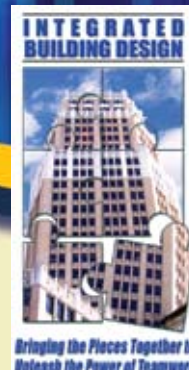
### WANTED

Any self-proclaimed cyber-jockey with enough cache to handle helping out the Webmaster of our own [clevelandashrae.org](http://clevelandashrae.org) website. No contact information will be given, because if you can contact me you either know me or know enough to be a big help. By the way, the time commitment for this starts around 5 mins/month. Good luck.

# ASHRAE Satellite Broadcast/Webcast



**April 16, 2008**  
**1:00–4:00 P.M. EDT**



## **INTEGRATED BUILDING DESIGN: Bringing the Pieces Together to Unleash the Power of Teamwork**

This broadcast explains what you and other members of the building team must do to advance high-performance buildings with improved design, construction and operations processes. Buildings that meet the needs of occupants and truly achieve sustainability objectives can only be created if the building community shares its knowledge and experiences. Join ASHRAE in learning more about your role in integrated building design and helping to create a sustainable built environment.

This free program is sponsored by ASHRAE's Chapter Technology Transfer Committee. For complete details, visit our website at [www.ashrae.org/ibdbroadcast](http://www.ashrae.org/ibdbroadcast).

### **How to Participate**

- You may host a broadcast site for your colleagues.
- You may register to view with others at a site near you.
- You may register to view the Webcast on your PC.

### **PDH Credits**

Three (3) Professional Development Hours or three (3) AIA Learning Units will be awarded to viewers who complete the "Participant Reaction Form" following the broadcast.

*On April 16th from 1-4pm at WKYC-TV the local ASHRAE chapter will host this ASHRAE Satellite Broadcast.*

*For reservations e-mail Matt Nelson at:*  
[mnelson@brewer-garrett.com](mailto:mnelson@brewer-garrett.com)

### **About the Presenters**

Kent Peterson, ASHRAE's 2007-2008 president, will introduce the broadcast program

- Walter Grondzik, Architectural Engineer and Professor in the Department of Architecture, Ball State University, Muncie, Indiana—"What is Integrated Building Design?"
- Charles Gulledge III, P.E., MAI, CSI, ASHRAE Distinguished Lecturer, Senior Mechanical Engineer, AC Corporation, Greensboro, North Carolina, "The Integrated Design Process"
- Drury B. Crawley, Technology Development Manager, U.S. Department of Energy, Washington, DC—"Achieving Net-Zero Energy Buildings Through Integrated Building Design?"
- Paul Torcellini, Team Leader for Commercial Buildings Research, National Renewable Energy Laboratory, Golden, Colorado—"Bringing the Pieces Together—Actual Applications"

### **New Member Discount**

Non-member participants will be given a \$50 discount for applying for ASHRAE membership. A special membership application will be available at satellite broadcast sites or by request at [membership@ashrae.org](mailto:membership@ashrae.org).

### **Registration**

Online registration for satellite site coordinators and Webcast viewers will begin March 1, 2008, at [www.ashrae.org/ibdbroadcast](http://www.ashrae.org/ibdbroadcast). Satellite viewer registration will begin March 15, 2008. There is no fee for registration. If you have any questions, call 678-539-1139 or email [ashrae-satellitebroadcast@ashrae.org](mailto:ashrae-satellitebroadcast@ashrae.org).



# CHAPTER CALENDAR



September 17, 2007

OSFC Update

Location: [Harry's Steakhouse](#)

October 15, 2007

ASHRAE Handbook Chapter: Psychrometrics

Location: [Harry's Steakhouse](#)

November 19, 2007

Insulating in Below Ambient Conditions

Location: [Harry's Steakhouse](#)

December 2007

NO MEETING

January 17, 2008 (Lunch Meeting) 12:00PM

LEED Insights and Information  
for Every ASHRAE Engineer

Location: [Sheraton Hotel](#)

February 18, 2008

Evaporative Cooling:

Opportunities and Misconceptions

Location: [Harry's Steakhouse](#)

March 17, 2008

Equipment & Design Considerations Associated with  
Thermal Energy Storage Using Ice

Location: [Harry's Steakhouse](#)

April 16, 2008

ASHRAE Satellite Broadcast/Webcast

April 21, 2008

Dehumidification In Commercial Buildings

Location: [Harry's Steakhouse](#)

May 19, 2008

Fan Technology & Operation Schemes

Location: [Harry's Steakhouse](#)

June 2008

Membership Promotion Golf Outing

August 2008

Research Promotion Golf Outing

