



# ASHRAE LOUISVILLE CHAPTER NEWS

American Society of Heating, Refrigeration and Air Conditioning Engineers  
Serving the commonwealth for 45 years.

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Open

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## Free ASHRAE Satellite Broadcast

### Clean, Lean, and Green: IAQ for Sustainable Buildings

April 22, 2009, 1:00 p.m. - 4:00 p.m. EDT

Hosted by Koch Air  
2600 Blankenbaker Parkway  
Jeffersontown, KY 40299

Lunch will be provided

RSVP to: Jeff Murphy [jmurphy@kochair.com](mailto:jmurphy@kochair.com)  
(502-502.491.9970 Ext: 6423)



Using the guidance provided by the *IAQ Guide: Best Practices for Design, Construction, and Commissioning* developed through collaboration with ASHRAE, AIA, BOMA, EPA, SMACNA and USGBC, this broadcast will challenge the building community to use enhanced IAQ practices to create a more sustainable built environment. Join ASHRAE in learning more about your role in transforming mid-range practice into best practice for healthy, productive, sustainable indoor environments.

## CHAPTER PRESIDENT MESSAGE

Luke Powell – Chapter President

We received really good feedback from our April meeting. Mr. Benator's presentation on how to be an outstanding leader was really informative. The presentation was obviously cut down due to the time constraints we put on Mr. Benator, but hopefully in the future we can have him back for a half-day or full-day seminar.

As summer quickly approaches, the 2008-2009 ASHRAE year is coming to a close. But don't quit on us yet, we still have a few events left that you will want to be a part of! Next Wednesday, April 22nd is our free satellite broadcast, hosted by Koch Air. Then on Monday, May 11th, we will have our annual golf scramble at Glenmary...which is always a good time of fellowship, networking, and a few people actually doing something that resembles playing golf. Of course, don't forget about the annual meeting held here in June.

Starting in August of this year, I will pass the reins of the Louisville ASHRAE Chapter to Jeff Murphy. Jeff has done a wonderful job handling our programs and CTTC for the last two years. He will now

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## CHAPTER WEBMASTER

Matthew Nitzken  
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step up and be Chapter President, and I more than confident in Jeff's abilities to lead and grow our chapter. Thanks to everyone that has volunteered their time and efforts over the last year, it's made my job as President much easier! Special thanks to all the Officers and Committee Chairs for all of your hard work:

**Jeff Murphy, Julian Donahue, Tom Weber, Ed Dusch, Joe Nitzken, Hope Evans, Tim Robertson, Matt Hargan, Matthew Nitzken and Brent Caswell**

This group really puts in a lot of time to make the Chapter function and they rarely receive the recognition they deserve, so next time you see one of them, let them know that you appreciate their efforts!

### **MONITORS NEEDED FOR ASHRAE 2009 CRC**

The Host Committee for the 2009 ASHRAE Annual Meeting at the Galt House June 20-24 is still looking for additional volunteers to serve as Tech Session or Short Course Monitors during the meeting. Anyone volunteering is given free registration for the entire program from Saturday to Wednesday. This is worth over \$500!

Chris Tyler sent a confirming email to people who have already signed up on April 3. If you received that message, you have already been added to the database and do not need to respond to this message.

#### **Monitor Duties:**

- Requested to help for a half day shift, 4 hours (2 sessions)
- Report to Sessions Chair in Speakers Lounge for session assignments and last minute instructions
- Check for appropriate sessions signs
- Operate lights for the speakers
- Record attendance data
- Monitor admissions and ensure that the program gets started on time
- Assure that the program runs as smoothly as possible
- Report any problems to Day Captain for resolution

#### **Monitor Benefits:**

Complimentary meeting registration which entitles you to attend any of the technical session during the four day conference (This does not include the short courses or PDS).

To sign up to volunteer, please call Chris Tyler at **859-255-9665**, or send an email to **chris@thermaleq.com**.

We appreciate your assistance in making this a successful meeting!

**LOUISVILLE/BLUEGRASS ASHRAE CHAPTERS 2009 GOLF OUTING**

May 11, 2009 @ 1:00pm Glenmary Country Club  
10200 Glenmary Farm Drive Louisville KY 40291 502/239-6601

Directions from Louisville: (30 minutes) Take I-265/KY-841 to exit 17. Bardstown Road/US-150s/US-31E toward Bardstown for 1 mile, turn left onto Glenmary Farm Drive for .1 mile, turn right at 10200 Glenmary Farm Drive.

Directions from Lexington: (60 minutes) Take I-64W toward Louisville, merge onto I-265S/KY-841S via exit 19A then take exit 17 Bardstown Road/US-150S/US-31E toward Bardstown for 1.3 miles, turn left onto Glenmary Farm Drive for .1 mile, turn right at 10200 Glenmary Farm Drive.

This will be a shotgun start, straight (select ball) foursome scramble.

Box lunch from 11:30AM – 12:30PM @ clubhouse with dinner & awards following the game.

Team AWARDS: Low Score, Draw 1, Draw 2, Draw 3

Individual AWARDS: (3) Closest to the hole on green

On site Events and Mulligans: on sale @ registration table prior to tee-off

Cooler will be provided on each cart for golfers to purchase beverages and snacks from Bar Area "Six Pack Special"

NOTE: COLLARED SHIRTS, NO DENIM

**Completed form and check payable to ASHRAE must be received by April 24, 2009 in order to play (Limit 108 players)**

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ENTRY FORM

\_\_\_\_\_ Foursome @ \$ 320.00

\_\_\_\_\_ Sponsor Sign @ \$ 60.00

Participant

Dinner  
(steak/chicken)

Company

Phone #

Captain \_\_\_\_\_

Player # 2 \_\_\_\_\_

Player # 3 \_\_\_\_\_

Player # 4 \_\_\_\_\_

Sponsor Company Name \_\_\_\_\_

Contact \_\_\_\_\_ Phone # \_\_\_\_\_

Please Return To: Brent Caswell

CAS • AIR • CO, inc.  
PO Box 69  
Goshen KY 40026-0069  
502/228-4257



## May Technical Seminar

On February 18<sup>th</sup>, Governor Steve Beshear announced the state of Kentucky's new High Performance Building Standards. In an on-going effort to educate our state's workforce, ASHRAE Bluegrass Chapter, AIA Kentucky, USGBC and the KY Finance Cabinet are collaborating to host a full-day workshop with technical seminars on ***Friday, May 15<sup>th</sup>, at the Kentucky Transportation Cabinet building in Frankfort.*** If your firm is interested in working on state public jobs, you may be required to comply with these new standards. You won't want to miss this opportunity to become acquainted with the process, network with construction industry colleagues, and attend sessions for professional development hours (this program will qualify for AIA learning units). The program will include:

- **Commissioning Process for LEED** – 1 hour presentation by Candice Burks Rogers, CxA, LEED AP (Paladin, Inc.)
- **Maintaining Existing Buildings** – 1 hour presentation by Professor Tim Wentz, P.E., HBDP, LEED AP (University of Nebraska)
- **Maintain to Sustain: Delivering ASHRAE's Sustainability Promise** – 1 hour presentation by William A. Harrison, 2008-09 ASHRAE Society President
- **Lunch** (included with admission)
- **KY High Performance Building Standards**
  - Overview of new standards, how they were developed and how they are being implemented – by Paul Kaplan (Senior Advisor to the Secretary of Finance) & Joe Meyer (Associate Director of Architecture) of the Commonwealth of KY Finance Cabinet
  - LEED NC 2009 EA Credit 1 – How to approach the energy points required by the High Performance Building Standards – 1 hour presentation by Kevin Mussler, P.E., LEED AP, CxA and Jeremy Smith, P.E., LEED AP, CGD, CMTA Consulting Engineers, Inc.
  - Panel discussion of implementing these new LEED guideline standards in KY
  - Question & Answer session for the panel



# AIA Kentucky

A Society of The American  
Institute of Architects

Program details are being finalized and online registration will be announced soon (on-line registration will be available at [www.aiaky.org](http://www.aiaky.org)). In the meantime, please save the date on your calendar to attend the May 15<sup>th</sup> seminar and presentations. Admission will only be \$35 (including lunch).

Additionally, booth space is currently still available. Contact Chris Tyler ([chris@thermaleq.com](mailto:chris@thermaleq.com), 859-255-9665) for details.

## **ASHRAE CRC 2009 NOTICE**

Region VII CRC in Mobile is only months away!

Effective, this Tuesday, you are invited to visit our interactive registration website! We hope you will find it easy to use and full of opportunities to have a GREAT EXPERIENCE in Mobile at your CRC!

*If you find a few things out of order, just drop us a note and we will correct as quickly as we can.*

Our CRC committee has worked to make this a relaxing yet exciting family experience as you enjoy a brief visit to our Gulf Coast! Special thanks to ALL of our CRC committee members, Pat and Art for their insight into helping plan this event. From the very onset, our objective was to build a CRC that could provide you an opportunity to “get away from it all” while performing the very important work of a CRC. Whether your time is spent in the luxurious spas of the Battlehouse Hotel (your primary destination for CRC2009 in downtown Mobile, AL) or a day trip to numerous local attractions such as golf, fishing, beaches, casino’s, shopping or historical tours, this trip can be a great adventure for you and your family. For a complete list of activities and attractions, dig into our website and plan your time with us.

In these challenging economic times, we are worked very hard to keep your expenses reasonable without compromising the quality of your trip. The best value we are offering is the **CRC VALUE Package** which wraps in the major events at a very economical cost while leaving you the flexibility to register for many other events Ala Carte. Again, we want this to be a great family event. To make sure it is affordable we have received great support from our numerous sponsors which translates into lower cost spouse/significant other packages and the children’s packages. We encourage you to take advantage of these as well. A special thanks to our generous sponsors and the hard work of our fund raising chairman Danny Dunaway (and his team at Hydro Technologies).

In closing, CRC 2009 will not be a success without the participation of you, the ASHRAE Chapters in Region VII. Please register early and plan to stay longer as you enjoy your time with us!

If you have any questions, don’t hesitate to call or email us.

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## **Louisville to Host 2009 ASHRAE Annual Meeting**

For the first time since 1973, the ASHRAE Annual Meeting will be held in Louisville, at the Galt House Hotel, from Saturday, June 20 through Wednesday, June 24, 2009. As usual, some Society functions and the ASHRAE Learning Institute (ALI) short course program will start earlier. The Technical Program theme will focus on “Optimal Air Quality Management. The meeting arrangements are summarized below. Full descriptions of the Conference Program will be published in *Insights* in April. Volunteers to help with monitoring the presentation sessions and for other activities during the meeting week are still being sought. Contact Ken Peet at LSE Engineering. [kpeet@lse-engineering.com](mailto:kpeet@lse-engineering.com), (502-584-8930) or Matt Hargan at [mhargan@i9nsightbb.com](mailto:mhargan@i9nsightbb.com), (502-235-6757).



**ASHRAE Annual Conference Rolls into Louisville**

2009 Louisville Annual Conference

June 20-24, 2009

Galt House Hotel and Suites

The pounding hoof beats into the final turn. The tinkle of ice in a frosted mint julep. The plaintive echoes of the river craft as they signal the drawbridge. The sights and sounds of Louisville... "My Old Kentucky Home" on the mighty Ohio River...and the home of ASHRAE's 2009 Annual Conference. "Rolling on the River" is our theme and our mission. Maintain the momentum. Push the envelope. Lead the world. Sustainability is our goal...the future is in our hands.

### **Accommodations**

The 2009 Louisville Annual Conference is held at the **Galt House Hotel and Suites**, 140 North Fourth St. Louisville, KY 40202. Located on the Ohio River, the hotel is the largest hotel in Kentucky.

### **Rates:**

Standard Room West Tower

\$114 single/double

Executive Suite East Tower

\$140 single/double

For reservations, call 1-800-843-4258 or 502-589-5200 or visit

<https://reservations.ajshotels.com/redirect.do?groupNumber=471546&cid=71407001>

A one night's deposit is required for each reservation but the card is not charged until 30 days from arrival.

**Hyatt Regency Louisville** is also holding rooms for the Conference.

320 W. Jefferson

Rates: \$129 single/\$154 double

For reservations, call 1-800-233-1234 or 502-581-1234 or visit

<http://louisville.hyatt.com/groupbooking/sdfrlashr2009>

### **ASHRAE Technical Program**

ASHRAE seeks to advance the state of the art in indoor environmental control by focusing the technical program on optimal air quality management. Programs and papers present the latest developments in improving indoor air quality, ranging from comfort to energy savings for different applications. In addition, the technical program is organized along the following tracks:

- Applications
- Business Management
- Exergy
- Fundamentals
- Large Building Systems and Applications
- Indoor Air Quality
- Operational Topics
- Refrigeration
- Sustainability/LEED
- Systems and Equipment

The complete technical program will be available online in mid-March and published in April Insights.

## **Social Events Offer Great Opportunity to Network and Relax**

### **Welcome Party**

6:30-10:30 p.m.

Saturday, June 20

Churchill Downs

What would a trip to Louisville be without an opportunity to visit Churchill Downs, the most famous racetrack in America and the home of the pinnacle of horse racing success, The Kentucky Derby? Busing to Churchill Downs begins at 6:30 with a short reception held in the Churchill Downs Paddock, where jockeys receive last-minute instructions before the races from world-famous trainers. Sip on a mint julep while you mingle with Churchill Downs staff and learn more about the horses and events that make the track legendary.

Dinner is served at 7:30 p.m. and includes smokehouse brisket of beef, garlic-and-chili-rubbed chicken served with au gratin potatoes, sweet corn fritters, collard greens, cole slaw and Italian pasta salad. Desserts include cookies, brownies and Derby Pie.

Horse racing in Kentucky is rich in history, dating back to 1789 when the first race course was laid out in Lexington. It was almost 100 years later, in 1875, that Churchill Downs officially opened and began its tradition as "Home of the Kentucky Derby." Churchill Downs racetrack recently underwent the most renovations in its history.

### **President's Luncheon**

Noon-2 p.m.

Monday, June 22

Galt House

President-Elect Gordon Holness presents his 2009-10 presidential theme, *Energy Efficiency in Existing Buildings – Sustaining our Future by Rebuilding our Past*. Certificates of appreciation to retiring Board members are presented, and the 2009-10 officers and Board of Directors installed. Spouses and guests are invited to attend. Tickets are required and are available for purchase with your registration.

### **Member's Night Out**

Tuesday, June 23

Galt House

You visited Churchill Downs on Saturday night, but tonight you'll get to experience "real" horse racing. Following dinner, the staff from Churchill Downs puts on a mock racing event. You'll have race stats to review and a voucher showing your horse so you can cheer it on during the race.

### **Technical Tours**

Sunday, June 21

## Scribner Place YMCA and Aquatic Center

3:15- 5:15 p.m.

**Cost: \$20**

The \$23 million Scribner Place YMCA and Aquatic Center is a redevelopment project in downtown New Albany, Ind. (across the river from Louisville). The building has made a first step toward revitalizing New Albany's historic district. The long-awaited project had 2,000 membership units by opening day. Three months after opening, the YMCA has 3,200 membership units (10,000 members), or almost 14 percent of Floyd County's population.

Scribner Place is an 82,000-square-foot building, with a wellness center, gymnasium, group exercise studios, indoor track, a 3-story indoor climbing wall, multipurpose room, a high-tech active gaming experiences room and aquatic center with three pools.

Special design features include separate ventilation air controlled by building CO2 monitoring, variable refrigerant volume system for heating and cooling, natural day-lighting, and an aquatic center separated from the building by a glass wall, with pool dehumidification and building pressure differential control between the pool and adjacent areas. This technical tour features a look at the basement mechanical room next to the pool wall, the HVAC equipment outside of the building (for pool dehumidification) and on the roof (for ventilation air), and the Variable Refrigerant Volume system throughout the building.

## Louisville Medical Center

Development of central steam and chilled water plant

Monday, June 22

2:15-4:15 p.m.

**Cost: \$5 (site is about a 15 minute walk from the hotel)**

Tour the plant and see its six boilers capable of 350,000 pounds of steam per hour and 28,000 tons of cooling capacity to serve over 5 million square feet of floor area in the medical center district. The replacement cost of the plant is estimated to be \$75 million.

Operation of the plant began in November 1954 with three coal-fired steam boilers. In the early years, the agencies served were General Hospital, Frazier Rehab, Children's Hospital, Jewish Hospital, the old Methodist Hospital, and the University of Louisville's Medical-Dental Research Building.

In the late 1960s, the plant added two more coal fired boilers, and a chilled water facility was constructed with initial capacity of 6000 tons. This expansion was required to serve the University's new medical/dental school complex. Jefferson Community College was connected to the plant during that project.

Another major expansion was completed around 1980 adding a sixth boiler and more cooling capacity to serve Norton Hospital and the new University Hospital three-building complex.

Subsequent additions and renovations occurred through 2008 to serve new customers such as, Kosair Children's Hospital, Rudd Heart and Lung Center, the Frazier expansion, and three large research buildings on the university campus.

### **University of Louisville**

HVAC System for a Class 100/1000 cleanroom

Monday, June 22

2:30-5:00 p.m.

**Cost: \$20**

The Lutz Micro/Nano Technology Center, located in the Belknap Research Building at the University of Louisville, opened in 2006 and houses the only general purpose microfabrication cleanroom facility in the state of Kentucky.

The 10,000 square feet of class 100/1000 laboratory space is used for teaching fundamentals and current fabrication techniques to students and research activities related to integrated circuits, micro electro mechanical devices such as sensors and actuators and electro-optic devices.

The cleanroom air is conditioned to maintain precise temperatures and remove most particulates. Low particle counts in the cleanroom areas are achieved by air change rates of up to 240 air changes per hour and the use of several filtering stages with a final high-efficiency filter as the last stage.

### **CMTA Corporate Headquarters Building**

Tuesday, June 23

1:30-4 p.m.

**Cost: \$20**

CMTA, a top 100 MEP consulting engineering firm, designed its new corporate headquarters to showcase engineering techniques for in an energy efficient office building. The two-story, 20,000-square-foot building is being designed and constructed to LEED® Gold requirements and has received the *Designed to Earn ENERGY STAR* designation. The building is located in Norton Commons on the eastern edge of Louisville Metro.

The building was initially modeled at 33 kBtu/sf/yr and is targeted to achieve a greater than 95 percent ENERGY STAR® rating. Special features include insulated concrete form (ICF) walls, geothermal heating and cooling (800 sf/ton), daylighting (windows and solar tubes), solar domestic hot water heating and demand control ventilation for indoor air quality. CMTA has documented the cost of targeted LEED credits to demonstrate to potential clients how to cost effectively pursue LEED.

### **About Norton Commons**

Norton Commons is a traditional neighborhood development combining the basic tenets of New Urbanism to create a high quality of life and preserve the rich, natural heritage of Kentucky. It is a pedestrian-oriented community where residents may shop, work and play within walking distance of their homes. Norton Commons features homes that are near one another and that

orient themselves to the streets in a manner that enhances a neighborly spirit. Approximately 25 percent of the total development is open space consisting of squares, greens, bike paths, playgrounds and walkways. There are spaces that preserve the natural setting to enhance the habitat for wild species and preserve ecological features.

### **General Tours Let You See All Louisville Has To Offer**

#### **Falls and Hubers Farm**

Saturday, June 20

10 a.m.-2 p.m.

Cost: \$60 per person

The fossil beds at the Falls of the Ohio provide living proof (or once living proof) that an ocean and coral reef existed more than 350 million years ago in what is now Clark County. The coral reef, as we find it today, stretches from Louisville north to Indianapolis. The fossilized reef lies exposed only at the Falls of the Ohio and a few limestone quarries around Indiana. Nowhere else in the world does such a large, exposed fossil reef exist. More than 220 acres of exposed, Devonian age fossil beds make up the Falls of the Ohio. After seeing the falls, visitors venture into the rolling hills of Floyd County, Ind., and the family farm of Joe Huber. Visitors receive a warm welcome and a delicious home-cooked, meal. Browse the craft shop, tour the gardens or shop at the fruit stand.

#### **Marengo Cave**

Sunday, June 21

10 a.m.-3:30 p.m.

Cost: \$81 per person

Marengo Cave has amazed visitors since its discovery in 1883. Discover the stunning beauty of this National Landmark and its massive flowstone deposits, the delicate soda straw formations and slender totem pole stalagmites. The tour winds through formation-filled rooms and past huge flowstone deposits. Take a seat in the Crystal Palace room and enjoy a video of the cave's discovery. Its unique Penny Ceiling is a favorite with all ages. Next, enjoy lunch at the Blue River Cafe. Located in a quaint building on Main Street in Milltown, Ind., this local establishment offers home-style menu items to tourists and locals alike.

#### **Historic Bardstown**

Sunday, June 21

8:30 a.m.-3:30 p.m.

Cost: \$68 per person

Visit Kentucky's best-known plantation, My Old Kentucky Home at Federal Hill, which was immortalized in song by Stephen Foster who penned the song after visiting in 1852. Guides in period costumes escort guests through Federal Hill, a stately Georgian Colonial mansion replicating the antebellum world. Lunch is at the historical Old Talbott Tavern said to be the oldest western stagecoach stop in America. Since the late 1700s, the Old Talbott Tavern on Court Square has provided shelter, food and drink to travelers. The old stone reminder of Bardstown's beginnings still welcomes visitors to the bustling downtown area. Heaven Hill Distillery Bourbon Heritage Center, made out of the same materials used in bourbon making, is one of Kentucky's premier attractions. Heaven Hill offers interactive exhibits on the birth of bourbon, the role of whiskey throughout history and the process by which many of the distillery's well-known brands are prepared. The "Taste of Heaven Hill" barrel-shaped tasting room offers visitors a chance to sample some of the distillery's finest creations.

### **Glass and Clay**

Monday, June 22  
2:30 p.m.-5:45 p.m.  
Cost: \$53 per person

Share the mystery and beauty of glass while visiting Glasworks with its hot glass studios, flameworking studios and the cold glass working studios of Architectural Glass Art. Watch resident artists, glass blowers, flameworkers, cutters and designers create magnificent pieces of glass art. Visitors can make their own sun-catcher. The final stop is Louisville Stoneware, which has masterfully created the finest pottery since 1905. Unique hand-painted designs and bright glazes add the distinctive touch for which Louisville Stoneware is famous.

### **Best of the Bluegrass**

Tuesday, June 23  
9:00 a.m.-3:30 p.m.  
Cost: \$67 per person

Visit the heart of the world-famous Bluegrass Region of Kentucky featuring majestic horse farms that grace the landscape with preserved antebellum homes. **What began as a dream ended as a retirement and rescue facility for pensioned Thoroughbreds. Old Friends at Dream Chase Farm provides a home for "at-risk" racehorses** whose racing and breeding careers have come to an end. Relax and enjoy lunch at one of Versailles' best restaurants. Built in 1927, the structure is listed on the National Historic Register. Dine at Cleveland's at the Woodford Inn dedicated to creating good food prepared using the freshest ingredients. Visitors to the Woodford Reserve Distillery feel they have stepped back in time. The tour offers visitors a chance to see how the early distilling pioneers first produced bourbon. The distillery's master distiller makes premium bourbon using old-fashioned copper pot stills. Visitors view historic museum exhibits and an educational film that celebrates the site's history.

### **Mega Cavern**

Tuesday, June 23  
2-4:30 p.m.  
Cost: \$40 per person

Mega Cavern, a 100-acre former limestone quarry, is located beneath the Louisville Zoo and operated from the 1930s to the 1970s. Once the mineral rights ran out, the owners began backfilling the underground with recycled materials such as rock, brick, concrete and sand. The cavern has around 3.2 million net square feet of rentable space and is classified as a 100-acre underground green building. Tenants include general warehousing, records storage, boat and RV storage, salt storage, tile construction, and food distribution. During the course of the 70-minute tram tour, visitors learn about this green building technology as well as geology, underground mining techniques and recycling. Also learn about the history of the cavern, which acted as a Cuban missile crisis bunker in 1962 that would protect up to 50,000 people.