



American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

Dayton Chapter
PO Box 3202 Dayton, OH 45401
<http://www.daytonashrae.org>



6th Annual Dayton Green Expo

Thursday, August 4, 2011

Where: Heapy Engineering,
1400 W Dorothy Lane,
Dayton, OH

Time: Expo 11:00AM - 5:30PM

Cost: Free

12:00 PM Seminar:
Energy and BIM

2:00 PM Seminar -
Keynote Speaker
The Future of
Sustainability in
the A/E/C
Industry

Mark MacCracken, CEO,
CALMAC
Chair USGBC's Executive
Committee

4:00 PM Seminar -
Panel Discussion
Federal
Government
Sustainability
Initiatives

Register at: www.heapy.com

Food and beverages will
be provided throughout
the day

GBCI CE and AIA LU Credit

COMING EVENTS:

- ◆ Dayton ASHRAE BOG Meeting — July 21, 2011
8 AM Heapy Engineering
- ◆ Region 5 Chapters Regional Conference:
August 12-13, 2011, Indianapolis indyashrae.org
- ◆ Dayton GREEN EXPO August 4, 2011 @ Heapy Engineering

ASHRAE

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President's Monthly Brief:



Greetings from your new President! I am Steve Meier, Service Manager for Wat-Kem Mechanical who has been active in the Dayton ASHRAE Chapter for 3 years. All of the contacts I have made and presentations I have been a part of at Dayton ASHRAE have been a huge part in advancing my career in the HVAC field. I look forward to working with all of you this coming year!

The new ASHRAE Society President, Ronald "Ron" Jarnigan, has made "Sustaining ASHRAE through Leadership" a theme for this year. For the Society to thrive, we need to continue to grow new leaders at all levels of the organization. Dayton ASHRAE has several opportunities for you to get involved. Want to work with students? Join the Student Activities Committee. Interested in the programs we offer? CTTC is for you. Or maybe you are interested in helping grow membership or raise research dollars. Both the membership and research committees can use a hand. Interested in a future officer position? Get involved with the Board of Governors – we meet the third Thursday of every month at 8 AM at Heapy Engineering. No pay, but there are always donuts from Bill's. Feel free to contact me at smeier@watkem.com.

We are finalizing our programs for the coming year, so any suggestions or ideas you have should be forwarded to Jeremy Fauber, CTTC chair, or any board member as soon as possible. I believe we will have a great line-up of "Back to Basics" Tech sessions as well as great main presentations.

The Chapters Regional Committee meeting will be in Indianapolis August 11-13, 2011 (flyer attached). To really understand how ASHRAE works from the bottom up, the Business Session and Committee meetings are a must. The Chapter will pay registration and mileage for all board members and will pay Saturday registration and mileage for any committee members to attend the Saturday sessions. Contact a board member if you are interested.

Don't forget the Green Expo on Thursday, August 4th – Dayton ASHRAE is a co-sponsor of the event. See the front page of this newsletter for more information.

Steve Meier

President, Dayton ASHRAE



Check out

The Student Zone

on page 3!



Research Promotion Notes: Dayton Chapter sets new HIGH in Re- search Contributions in 2010-2011:

\$12,193.94

Donation form on page 7 for 2011-2012!

The Student Zone



Student Chapters Need Speakers

Student chapters at both the University of Dayton and Sinclair Community College are looking for speakers for their 2011-2012 programs. If you have something to share, contact:

Brad.turnwald@gmail.com (UD) or
Russell.marcks@sinclair.edu (SCC)

Students Need Books!

So you just got your new Applications Handbook and are wondering what to do with the old one? Donate it to a current college student—bring it to the next ASHRAE meeting—we'll make sure a deserving student benefits!



**Air Conditioning Systems Engineer –
Emerson Climate Technologies, Inc. –
Sidney, OH**



Emerson Climate Technologies, a business of Emerson, is the world's leading provider of heating, air conditioning, and refrigeration solutions for residential, industrial and commercial applications.

Position will provide systems analysis, simulation modeling, and test validation related to fixed and variable capacity HVAC systems, and the control algorithms related to these systems. This effort will support the launch of new advanced technology compressors and electronics as well as technical support to help customers successfully apply new and existing scroll compressors into newly designed HVAC systems. Will perform cost, value and performance analyses of AC and heat pump systems and sub-systems involving current and advanced compression and applied HVAC components. Travel 10%.

Requirements:

Masters Degree in Engineering related to thermal sciences required plus a minimum of 3 years relevant HVAC system experience. A PhD in Engineering is preferred. Candidate must have strong and demonstrated experience related to modeling, simulation, and testing of HVAC systems. Must be proficient in general theory and heat transfer and thermodynamic analysis of reversible vapor compression cycle and associated HVAC components. Knowledge of simulation modeling of thermal devices and control algorithm is required. Must have PC based computer skills including familiarity with programming languages (C++, Visual Basic, etc), data acquisition system and simulation software. Knowledge of Psychrometric Room operation and systems performance testing desired. Familiarity with Variable-Capacity system technology and System Fault Diagnosis would be a plus. Must have excellent written and verbal communication skills and a passion for engineering.

Apply online at <http://www.emersonclimate.com>.

Emerson Climate Technologies, Inc. is an equal opportunity employer. If you need an accommodation to assist you with applying for jobs at Emerson Climate Technologies, please call 937-498-3016.

Save the Date!
Dayton Green Expo
August 4, 2011



Interested in a committee assignment with Dayton ASHRAE? Contact our incoming President Steve Meier at 573-3072 or smeier@watkem.com. You'll be glad you did!



Dayton ASHRAE Needs You!

Wanted: Individual to work with current Research Promotion Chair (Dennis Lammlein) with the goal of becoming RP Chair in the future.

Qualifications: Willingness to talk to members about contributing to ASHRAE Research.

Wanted: Webmaster for the Dayton ASHRAE Website to take over from Russ Marcks.

Qualifications: Ability to use web authoring software to update and freshen the website and add new, interactive features desired by members.

Each of these positions requires just a few hours a month. Please contact President Steve Meier (smeier@watkem.com) or any Board Member (see page 2 for directory).



Employers



Have a Job to Fill?

Advertise in your Dayton ASHRAE Newsletter and on the Dayton ASHRAE Website.

Insert a business-card size ad for \$20 a month or \$100 a year.

All proceeds to Dayton ASHRAE Scholarship Fund.

Send ad copy to : Lorraine.Kapka@Sinclair.edu

Dayton ASHRAE Members

Need a Job?

Submit your profile to your Dayton ASHRAE Newsletter.

We'll print it for FREE!

Limited to 250 words plus contact information.

Send ad copy to : Lorraine.Kapka@Sinclair.edu

Volunteers Needed

Ready to Give Back to YOUR Industry?

Dayton ASHRAE needs members to work on committees.

Contact Steve Meier at:
smeier@watkem.com

2011-2012 ASHRAE RESEARCH Dayton ASHRAE

Contribution Form



2010-2011 saw ASHRAE continue its leadership in developing standards and guidance for the design, operation and maintenance of healthy, energy-efficient buildings. The Dayton Chapter again met their goal to raise money for research, setting a new high. Research dollars help fund the science behind the handbooks and standards, making sure that guidance has a solid foundation.

This industry gives all of us our livelihood. ASHRAE's research and educational programs are what keeps our industry and profession on the leading edge and assures its continued existence. Confident that you will recognize the benefits of this investment, I am asking you to help fund future HVAC&R research and development. Together, we can all make a difference!

Amount enclosed: ___ \$250 ___ \$150 ___ \$100 ___ \$50 ___ Other (specify) _____

Name: _____

Address: _____

Phone Number: _____

Member Number (If known): _____

Donation in memory of: _____

Do you want to be recognized in the Dayton newsletter as a contributor? (circle) YES NO

Mail completed form with your check, payable to ASHRAE Research to:

Denny Lammlein
29 Sandelwood Street
Springboro, OH 45066

Invest in the Future:

Support ASHRAE Research!



For Release:

June 20, 2011

Contact: Jodi Scott, Public Relations
678-539-1140
jscott@ashrae.org

New ASHRAE Handbook Volume Tackles Tall Buildings



ATLANTA – Tall buildings can be a tall order for HVAC designers. The newly published 2011 ASHRAE Handbook—HVAC Applications has a new chapter that focuses on the unique design issues that tall buildings present.

2011 HVAC Applications also contains 60 other chapters on a broad range of applications, written to help HVAC&R design engineers and others use the fundamentals, equipment and systems described in other ASHRAE Handbook volumes.

“HVAC Applications has up-to-date, real-world guidance from many of the world’s leading authorities in their areas of expertise,” Rex Noble, chair of the subcommittee that supervised the 2011 revision of the volume, said. “This volume covers an incredibly wide variety of topics, from residential, commercial, educational and health care facilities to agriculture, aircraft, fire and smoke management, solar energy, seismic- and wind-resistant design—even nuclear facilities. In addition to the new chapter on tall buildings, we have a second new chapter on ultraviolet germicidal irradiation.”

The cost of the 2011 ASHRAE Handbook—HVAC Applications is \$195 for the print version, which includes a searchable CD, or \$165 for the CD only. ASHRAE members receive the print/CD version as a member benefit. The 2011 HVAC Applications volume also is being added to ASHRAE Handbook Online, (available at <http://handbook.ashrae.org>).

To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide) or visit www.ashrae.org/bookstore.

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

Save the Date!
Dayton Green Expo
August 4, 2011
See attached flyer to register!



The Official Jobs Board for the American Society of
Heating, Refrigerating and Air-Conditioning Engineers

Welcome to ASHRAEJobs.com

Your source for HVACR Engineering Careers

ASHRAE jobs



ASHRAE Half-Day Course

Understanding Standard 189.1-2009 for High-Performance Green Buildings

Building a Greener Tomorrow, Today

Are you looking for a total building sustainability package? Standard 189.1-2009 is the answer to those who strive to design, build, and operate green buildings.

Based on Standard 189.1-2009, Standard for the Design of High-Performance Green Buildings, this course examines the provisions in the standard that can reduce negative environmental impacts through high-performance buildings design, construction and operation practices.

The standard addresses site sustainability, water use efficiency, energy efficiency, indoor environmental quality (IEQ), and the building's impact on the atmosphere, materials and resources. These five subject areas, as well as plans for construction and high-performance operation, are each discussed in the course.

Understanding of the basic requirements and applications of Standard 189.1-2009 is essential as building environmental awareness continues to grow. Reserve your seat before it's too late, and learn about this new high-performance green building standard.

Course Topics

- Purpose and Scope of the Standard
- Definitions, Abbreviations, and Acronyms
- Administration and Enforcement
- Site Sustainability
- Water Use Efficiency
- Energy Efficiency
- Indoor Environmental Quality (IEQ)
- The Building's Impact on the Atmosphere, Materials and Resources
- Construction and Plans for Operation
- Normative Reference

Instructor:



*Tom Lawrence, Ph.D., P.E.,
Member ASHRAE, LEED-AP*

When: Saturday, August 6, 2011, 1:00 pm - 4:00 pm

Where: Duke Energy Convention Center, 525 Elm St., Cincinnati, OH 45202

Cost: \$159 (\$79.50 - ASHRAE Member / Federal Government Employee)

[Click here to Register](#)



Dayton Chapter ASHRAE

<http://www.daytonashrae.org>

Membership Application and Roster Information 2011 - 2012

Your Name			Your Company Name		
Home Address			Business Address		
City	State	Zip	City	State	Zip
() -			() -	() -	
Home Phone	Spouse Name		Business Phone	Ext.	Fax Number
Home e-mail address			Business e-mail address		

SEND NEWSLETTER TO: Home Address Home email address Business Address Business email address

I prefer Lunch Meetings _____ I prefer Dinner Meetings _____ I have no preference _____

Chapter achievements are accomplished through active committee involvement. If you would like to promote your Society by serving as a committee chair or assist on one of the chapter committees, please indicate in which committee you are interested below. Please indicate your first preference by number 1 and so on.

- Education
 Membership
 Research
 Historian
 Newsletter
 Chapter Office
 CTTC (Refrigeration; Technical, Energy & Government; Programs)
 Golf Outing
 Communication
 Holiday Party
 Honors & Awards

Please Select Your Preferred Roster Affiliation

Consultant Contractor Industry/Government Retired
 Education Student: School _____ Degree _____ Approximate Graduation Date _____

Wholesalers, Manufacturer's Rep/Sales Offices, Fill in trade names of products you represent below

Air Devices	Louvers and Dampers
Air Handlers	Make-Up Air Units
Boilers	Packaged A/C
Building Automation	Pre-Insulated Pipe
Chillers	Pumps
Coils	Sound Attenuation
Computer Room Equipment	Steam Specialties
Cooling Towers	Air Terminal Units
Ductwork	Thermal Storage
Dust Collection	Unit Heaters
Fans	Unit Ventilators
Fan Coil Units	Vibration Isolators
Filtration	Valves
Heat Exchangers	Variable Speed Drives
Heating Equipment	Water Source Heat Pumps
Humidity Control	Water Treatment
Kitchen, Laboratory Fume Hoods	Other

*Dayton Chapter ASHRAE dues for the Society year beginning July 1, 2011 and ending June 30, 2012 are \$95 per year. Dayton Chapter ASHRAE dues include 6 dinner/lunch meetings, and both you and a guest for the holiday event. * Note: Be sure to begin paying Local dues when you pay your National Dues.*

Please return this application and a check or money order in the amount of \$95 made payable to Dayton ASHRAE to:

DAYTON ASHRAE, PO Box 3202, Dayton, OH. 45401

Paid local dues with your annual dues? Please return the form anyway!



Region V
Chapter Regional Conference
Indianapolis, Indiana
August 11-13, 2011



Come join us August 11-13th 2011 as we host the 2011 ASHRAE Region V Chapter Regional Conference! The Indiana Chapter is proud to be your host and show off our great city!

Thursday Aug 11th:

Join us for a round of golf at the famous Brickyard Crossing Golf Course with 4 holes inside the Indianapolis Motor Speedway. Be at the course ready to golf at 1:00 p.m. The Welcome Reception starts at 6:15 p.m. and the Caucus starts at 8 p.m.

Friday Aug 12th:

After our business meeting and President's Lunch, we will have our tech session/tour at Citizens Thermal District Chilled Water and Steam Plants. Citizens Thermal is the second largest Central Plant in the US and serves downtown Indianapolis, IUPUI Campus and Lucas Oil Stadium, home of the 2012 Super Bowl. Spouse/Family Events will be available throughout the conference. Then we will be off to the Indianapolis Motor Speedway Hall of Fame Museum to enjoy dinner, take a tour of the track and tour the Museum of vintage race cars.

Saturday Aug 13th:

The committee workshops and Awards Luncheon will cap off our weekend.



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Mark your calendars today and bring the whole family and enjoy all that Indianapolis has to offer. There is something for everyone.

ASHRAE Region V Chapter Regional Conference

August 11 – 13, 2011

Crowne Plaza Hotel – Indianapolis Downtown at Historic Union Station

From Pullman train car hotel rooms featuring period décor and upscale modern amenities to a downtown location adjacent to Lucas Oil Stadium and the Indianapolis Convention Center, this hotel’s accommodations promise to a convenient home away from home in a unique, historic setting.

This hotel’s downtown Indianapolis location is near attractions, such as the Lucas Oil Stadium, Indianapolis Motor Speedway, Victory Field, the Indianapolis Children’s Museum, Indianapolis Zoo and NCAA Hall of Champions. Union Station operates as an active train station and the muffled rumblings of trains regularly passing through adds to the ambiance of staying in our hotel.

The Hotel’s Romanesque revival-style hotel features 273 guestrooms, Pullman’s Restaurant & Lounge and over 50,000 sq. ft. of meeting space. It is also listed in the National Register of Historic Places and housed within America’s First Union Station. Our hotel is popular for its authentic Pullman train car rooms decorated after period personalities.

www.crowneplaza.com/ind-downtown

123 West Louisana Street
Indianapolis, IN 46225
(317) 631-2221

For Hotel reservations call 1-877-227-6963, our event code is ASHRAE and the rate is \$135.00 per night. Rooms are being held on a first come first serve basis until July 26, 2011 at 5:00 p.m. eastern time, so act quickly.

Places of interest near the Hotel



Victory Field



Indiana War Memorial



NCAA Hall of Champions



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American Society of Heating, Refrigerating And Air-Conditioning Engineers

Region V, Chapters Regional Conference

Crowne Plaza Hotel

Indianapolis, Indiana

August 11-13, 2011

Schedule/Agenda

Thursday

August 11th

	<u>Meeting</u>	<u>Invited Attendees</u>	<u>Location</u>
	Travel on your own	All	Indianapolis
12:00 p.m. 8:00 p.m.	Registration	All	Atrium
1:00 p.m. 10:00 p.m.	Hospitality	All	Suite
1:00 p.m. 6:00 p.m.	Golf	By Registration	Brickyard Crossing Golf Course
6:15 p.m. 7:45 p.m.	Welcome Reception	All	Illinois Street Ballroom East
7:45 p.m. 8:00 p.m.	Orientation	Delegates & Alternates	Illinois Street Ballroom West
8:00 p.m. 9:00 p.m.	Caucus	Delegates & Alternates	Illinois Street Ballroom West
9:15 p.m. ? p.m.	Regional Planning Discussion	Delegates & Alternates & Regional Officers	Hospitality Suite

Friday

August 12th

	<u>Meeting</u>	<u>Invited Attendees</u>	<u>Location</u>
7:00 a.m. 6:00 p.m.	Registration	All	Atrium
7:00 a.m. 6:00 p.m.	Chapter History Displays	All	Illinois Central
7:00 a.m. 6:30 p.m.	Hospitality	All	Suite
6:30 a.m. 8:00 a.m.	Continental Breakfast	All	Illinois East
7:30 a.m. 11:15 a.m.	General Business Session I	All	Illinois Street Ballroom West
11:30 a.m. 1:00 p.m.	President's Lunch	All	Illinois Street Ballroom East
1:00 p.m. 4:00 p.m.	Technical Session/Tour	All	ISBE/Citizens Thermal
1:15 p.m. 5:00 p.m.	Spouse Companion/Family Activities	Companions & Children	Meet in Lobby
4:15 p.m. 5:00 p.m.	Executive Session	Delegates & Alternates	Illinois Street Ballroom West
6:00 p.m. 10:30 p.m.	Dinner Event	All	IMS Hall of Fame Museum



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**Saturday
August 13th**

		<u>Meeting</u>	<u>Invited Attendees</u>	<u>Location</u>
7:00 a.m.	10:00 a.m.	Registration	All	Atrium
7:00 a.m.	12:00 p.m.	Hospitality	All	Suite
7:00 a.m.	8:30 a.m.	Continental Breakfast	All	Milwaukee Alcove
7:00 a.m.	2:30 p.m.	Chapter History Displays	All	Illinois Central
8:00 a.m.	11:00 a.m.	Workshop: CTTC	Committee Members	Nickel Plate
8:00 a.m.	11:00 a.m.	Workshop: Student Activities	Committee Members	C&O
8:00 a.m.	9:30 a.m.	Workshop: Chapter Operations	Chapter Officers	B&O
8:00 a.m.	11:00 a.m.	Workshop: Membership Promotion	Committee Members	New York Central
8:00 a.m.	11:00 a.m.	Workshop: Research Promotion	Committee Members	Milwaukee
9:30 a.m.	11:00 a.m.	Workshop: Historical	Committee Members	B&O
11:15 a.m.	1:15 p.m.	Awards Lunch	All	Illinois Street Ballroom East
1:15 p.m.	2:30 p.m.	General Business Session II	All	Illinois Street Ballroom West
2:30 p.m.	3:30 p.m.	CRC Review	Past & Future CRC Host	To be determined



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GOLF OUTING AT “THE BRICKYARD”

Thursday Afternoon, August 11, 2011



Golf will start at 1:00 p.m. at “The Brickyard” golf course on Thursday August 11th. Please sign up early for this event. We currently have a quantity of 5 foursomes reserved. (Contact Heather Hawkins at heather@vc-solutions.com immediately if you plan on playing). Cost is \$90.00 per person paid directly to the golf course and travel is on your own.

- Voted One of Americas Top 100 Public Golf Courses by Golf Digest and Golfweek.
- 4 holes inside the oval and 14 holes adjacent to backstretch of the race track.
- Designed by noted golf course designer Pete Dye.
- Hosted the PGA Champions Tour Comfort Classic for 7 years 1994-2000.
- Host course for the 2009 Indiana Open Championship.
- Only one of a few courses in country to Host LPGA, PGA, & Champions Tour Events.



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TECHNICAL SESSION/TOUR – 3 PDH'S
CITIZENS THERMAL PLANT TOUR AND PRESENTATION
Friday Afternoon, August 12, 2011

Technical Session/Tour Schedule

- 1:00 pm – Todd Fuller and Robert Purdue Presentation on Indianapolis District Steam and Chilled Water Systems
- 1:45 pm – Walk/ride to location, sign-in, split into 2 groups (one for Chilled Water Plant, one for Steam Plant)
- 2:00 pm – Tour 1 begins
- 2:45 pm – Groups switch plants
- 3:00 pm – Tour 2 begins
- 3:45 pm – Walk/ride back to hotel



Tour of West Street Chilled Water Plant

Citizens' original chilled water plant, the West Street Plant in downtown Indianapolis, first became operational in 1991. The current West Street facility provides air conditioning for more than 60 large facilities for customers in downtown Indianapolis. Customers include IU Health, IUPUI, State Office Building, Conrad Hotel, Indiana War Memorial, State Capitol, and several large downtown hotels.



An expansion completed in 2008 included the addition of two 2,000-ton electric chillers and a new piping distribution extension to serve Lucas Oil Stadium and the Convention Center. The addition brought the plant capacity to 36,250 tons, which also includes six 5,000-ton steam drive chillers and one 2,250-ton electric chiller. Additional phases will allow for the installation of three more 2,000-ton chillers. The Perry K Steam Plant provides the steam to power six turbine drive machines. The West Street Plant is staffed with operators 24 hours a day, seven days a week.

There are two existing satellite chilled water plants connected to the distribution system, and a third chilled water plant is under construction to serve the New Wishard Hospital. The IUPUI North plant was relocated to a new hospital building in 2007, and has an operating capacity of 5,500 tons. The Illinois Street plant was first placed into operation in 2005; after an expansion in 2008 the capacity totals 8,500 tons. The New Wishard hospital chilled water plant (the CBP) will initially include two 3,000-ton chillers; it will have an ultimate capacity of 18,000 tons and will be operational by summer 2012. The total chilled water plant capacity of the downtown district cooling system available for dispatch will be 60,800 tons when the first phase of the CBP is complete, and the ultimate capacity can be increased to 78,800 tons in the future.



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Tour of C.C. Perry “K” Generating Station and District Steam System

The C. C. Perry K Generating Station is the primary source of steam for the Indianapolis district steam system owned and operated by Citizens Thermal (CT). The plant produces steam and electricity from a variety of fuel sources including coal, oil, natural gas, and coke oven gas. Steam production is the plant’s principal function and is distributed through an underground pipe network to industrial, commercial, governmental, and residential customers in the central business district of Indianapolis. The piping network involves 24 miles of piping, which distributes steam to roughly 200 individual customers. In terms of steam sales, this particular district steam system is second only to New York City in the United States. In 2010 Citizens Thermal Energy sold nearly 7 billion pounds of steam to their customers on the Indianapolis System. About half of this steam is produced by burning trash at the Indianapolis Resource Recovery Facility operated by Covanta Energy Systems of Indianapolis. The CT system has the capacity to produce up to 2,000,000 pounds of steam an hour.



The plant was originally built in 1893 as an electric generating station. Over time the plant evolved into a district steam production facility, although some electric production capabilities remain. Numerous plant upgrades and improvements have been completed to meet current operating standards and environmental rules and regulations. Several major upgrades have occurred since 1998 including the conversion of three coal-fired boilers to coke oven gas and/or natural gas, updating feeders on two stoker fired boilers, installing low NOX burners on the pulverized coal boiler, and installing a sludge press for the water treatment building.

Todd Fuller, Chilled Water Facilities Manager

Mr. Fuller has held various positions with the District Cooling system in Indianapolis since its inception in 1991. In that time he has served as plant operator, project coordinator, and for the past four years has held the position of Chilled Water Facilities Manager overseeing the day-to-day operation of the chilled water systems for Citizens Thermal. Prior to that he spent six years in the Naval Nuclear Power Program where he served onboard submarines as a propulsion plant operator and mechanic. He resides in Brownsburg, IN with his wife and three sons.

Robert Purdue, Director of Steam Operations

Mr. Purdue has been employed with Indianapolis Power & Light/Citizens Thermal since 1978. In 2000 Citizens Energy Group purchased the steam assets from IPL and created Citizens Thermal division. Mr. Purdue assumed the position of Operations and Maintenance Manager for the Thermal division. He became Director of Steam Operations in 2003, and still holds that position. Mr. Purdue is responsible for the entire steam system. He has experience in operation of water treatment, fuel procurement, boiler operation, and power plant maintenance practices. He was involved with the retrofit of the plant’s six coal fired boilers control systems from pneumatic to digital control and worked hand in hand with the control engineers during the start-up of the control system retrofit. He volunteers for Keep Indianapolis Beautiful, the Stadium Village Business Association, and Indy Parks. Mr. Purdue has also coached 4-12 grade girls’ basketball in Mooresville for the past 20 years.



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SPOUSE COMPANION/FAMILY ACTIVITIES

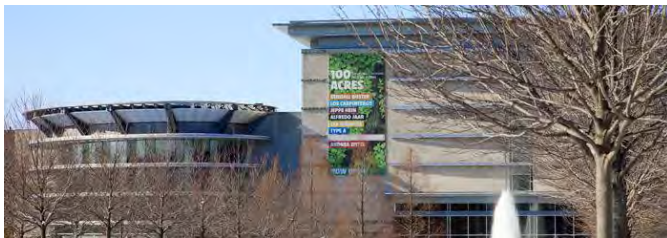
Friday Afternoon, August 12, 2011

We have the following group activities planned for Friday morning through the afternoon for spouses and family members who will not be attending the technical session/tour or business sessions.

A sign-up sheet will be available in the hospitality suite when you arrive.

- Indianapolis Zoo
- Indianapolis Children's Museum
- Indianapolis Museum of Arts
- Sightseeing in Carmel, IN (including The Center for the Performing Arts)

Details of the event will be posted when you sign up for an activity. There will be a guide from the Central Indiana ASHRAE Chapter that will help direct everyone to each of the sites. The cost of the activity is the responsibility of the spouse or family.



Indianapolis Museum of Art



The Center for the Performing Arts



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TOUR THE INDIANAPOLIS MOTOR SPEEDWAY

Friday Night Dinner Event, August 12, 2011



Photos Courtesy Forrest Mellott and Shawn Payne

We will be enjoying an evening at the Indianapolis Motor Speedway (IMS) featuring dinner in the Hall of Fame Museum. The IMS is located five miles northwest of downtown Indianapolis, and is recognized as one of the greatest racetracks in the world.

The IMS Hall of Fame Museum is located on the grounds, and is recognized as one of the most highly visible museums in the world devoted to automobiles and auto racing. In 1987, the Museum and Speedway grounds were honored with the designation of National Historic Landmark.

We will start the evening with a bus tour of the grounds which includes a lap on the track, and stops at the Pagoda, victory podium, the garage area, a Gasoline Alley suite and a chance to stop and stand on the famous "Yard of Bricks". The tour ends at the Hall of Fame Museum where time is provided to go through the exhibits while enjoying light appetizers and drinks. A buffet style dinner will be provided in the museum (tables set up around the cars!), and afterwards, there will be time to enjoy your favorite vintage race car or getting a picture taken in a race car (\$5.00 additional) before going back to the hotel. Bus transportation will be provided from the Crown Plaza Hotel to the IMS and back. A preliminary schedule of the evening's event is provided below:

Leave Crown Plaza Hotel (transportation provided)	6:00 P.M.
Arrive at the Indianapolis Motor Speedway	6:30 P.M.
Bus Tour of the IMS starts	6:45 P.M.
Tour Concludes at the IMS Museum	7:45 P.M.
Appetizers and Drinks	8:00 P.M.
Dinner Starts	8:30 P.M.
Leave IMS Museum (transportation provided)	10:00 P.M.



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ALL CRC REGISTRATION INFORMATION IS ON LINE VIA THE LINK BELOW

<https://www.indyashrae.org>

After July 29, 2011 there is a late registration fee of \$50.00

Another registration option is to fill out the forms below and mail in your registration.

Registration Information	
First Name	<input type="text"/>
Last Name	<input type="text"/>
Company Name	
Street Address	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
Postal Code	<input type="text"/>
Country	<input type="text"/>
Email	<input type="text"/>
Chapter	<input type="text"/>
Member Number	<input type="text"/>
Badge Name	<input type="text"/>
Companion Name	<input type="text"/>



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Registration Packages

Quantity	Title	Description	Cost
<input type="checkbox"/>	Full Registration	Includes Conference registration, Welcome Reception, Continental Breakfast, Tech Sessions, (includes PDH credits), Presidents Luncheon, Awards Luncheon, Business sessions, IMS Hall of Fame Museum with dinner and workshops.	230
<input type="checkbox"/>	Companion Registration	Includes conference registration, Welcome Reception, Continental breakfast, Presidents Luncheon, Awards Luncheon, and IMS Hall of Fame Museum with dinner.	125
<input type="checkbox"/>	Friday Night Event Only	Includes, Hall of Fame Museum with dinner.	100
<input type="checkbox"/>	Children Registration	Includes, Continental breakfast and Hall of Fame Museum with dinner.	75
<input type="checkbox"/>	Workshops and Awards Lunch Only	Includes, Continental breakfast, Workshops, and Awards Lunch.	50

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After July 29, 2011 there is a late registration fee of \$50.00

Payment Method

<input type="checkbox"/>	Check	Please make check payable to "ASHRAE CIC" and Mail to: BSA LifeStructures Kate Vawter – ASHRAE CIC Treasurer 9365 Counselors Row Indianapolis, IN 46240
<input type="checkbox"/>	Credit Card	Credit Card Through PayPal ASHRAE CIC will e-mail you a "Request for Money" once we receive your Registration Form.



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You are invited to the 6th Annual Dayton Green Expo Thursday, August 4, 2011

Where: Heapy Engineering, 1400 W Dorothy Lane, Dayton, OH

Time: Expo 11:00 AM - 5:30 PM

Cost: Free

Register at www.heapy.com

Food and beverages will be provided throughout the day

GBCI CE and AIA LU Credit

Exhibitor Booths

- *LED Lighting
- *Daylighting and Lighting Controls
- *Insulated Concrete Forms
- *Spray Foam Insulation
- *Sustainable Roofing Solutions
- *Solar PV Systems
- *Solar Shade Solutions
- *Humidification Systems
- *Thermal Wall Products
- *Environmental Consulting
- *Green Roofs
- *Flooring Products
- *Business Rebate Information
- *Energy Efficient Fans
- *Construction Specialty Products
- *Energy Monitoring
- *Aluminum Entrances

Energy & BIM

12:00 PM Seminar

The Future of Sustainability in the A/E/C Industry

2:00 PM Seminar - Keynote Speaker

Mark MacCracken, CEO, CALMAC
Chair USGBC's Executive Committee

Federal Government Sustainability Initiatives

4:00 PM Seminar - Panel Discussion

Government Panelists will provide their perspective on what is happening regionally and nationally regarding sustainability in their respective organizations. This will include their "green" initiatives, challenges, and future projects.

Mr. Kevin Hill, Architect & Program Manager 88th Air Base Wing, Wright Patterson Air Force Base, Dayton, OH

Other Panelists - TBA

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