

ASHRAE Rochester



VOLUME 10, ISSUE 5

JANUARY 2016

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You are cordially invited to the

59th Annual Valentine Dinner Dance

Hosted by ASHRAE Rochester

Friday, February 5, 2016

The Strathallan Rochester - a DoubleTree by Hilton

550 East Ave

Rochester, New York

7:00pm Reception - Hors d'oeuvres & cocktails
8:00pm Dinner - As you select
9:15pm Dessert, Coffee and Dancing

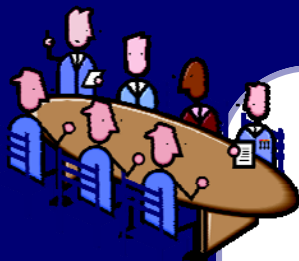
Menu Selections

Pan roasted Atlantic salmon
Roasted organic Chicken
Wood roasted 6oz. Filet
Chef's choice vegetarian option



Refer to pages 8, 9, 10 for more details

Statements made in this publication are not expressions of the Society or of the chapter and may not be reproduced without special permission of the chapter.



Chapter Officers

President
Christina Walter
585-486-2148
cmwalter@trane.com

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585-289-6816 / 218-0737(fax)
jeff.close@pres-services.com

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585-303-0729
william.clark@DayAutomation.com

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Paul Kenna, PE
585-272-4650
pkmkenna@gmail.com

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jwiedrick@bergmannpc.com

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kwind@rochester.rr.com

Nominating
Ed Burns 585-739-7548
ejb@mechtechvac.com

Buyer's Guide
Marianne Schumacher 585-217-3942
marianne.schumacher@jci.com

ASHRAE 2015-2016 Meeting Schedule

| Date | Event | Theme | Location |
|----------------------|---|-------------------------|------------------------------------|
| Monday, 1/11/2016 | Operation and Applying Drives <i>(presented by Kevin Diehl - Yasawa America, Inc.)</i> | <i>(PDH Approved)</i> | Mario's @ 12:00 PM |
| Friday, 2/5/2016 | Annual ASHRAE Valentines Dinner Dance <i>(Stratthallan)</i> | --- | Stratthallan @ 7:00 PM |
| Monday, 2/8/2016 | Building Load Analysis <i>(presented by Robert Feduik, Carrier Corporation)</i> | Membership Promotion | Mario's @ 12:00 PM |
| Monday, 3/14/2016 | Chapter Facility Tour <i>(University of Rochester - Strong Hospital Central Plant)</i> | --- | Strong Hospital @ 5:00 PM |
| Monday, 4/11/2016 | Retro-Commissioning Existing Buildings <i>(presented by Al Rodgers & Ron Sanger)</i> | <i>(PDH Pending)</i> | TBD @ 12:00 PM |
| Monday, 5/9/2016 | Annual ASHRAE Golf Outing and Picnic <i>(Ravenwood Golf Course)</i> | --- | 9:30 AM Golf 4:30 - 8:00 Picnic |

Note: Dates, topics and presenters are subject to change, any updates will be posted on our website (rochester.ashraechapters.org).

ASHRAE Region I - Chapters Regional Conference (CRC)

| Date | Event | Location |
|----------------------|---|----------------|
| 8/18/16 - 8/20/16 | <u>SAVE THE DATE</u> - The Rochester ASHRAE Chapter is hosting the Region I CRC. | Hyatt Downtown |

Mission Statement

ASHRAE will advance the arts and sciences of heating, ventilation, air conditioning, refrigeration and related human factors to serve the evolving needs of the public and ASHRAE members.



Shaping Tomorrow's
Built Environment Today

Vision Statement

- will be the global leader in the arts and sciences of heating, ventilation, air conditioning and refrigeration.
- will be the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines.
- will be the primary provider of opportunity for professional growth, recognizing and adapting to changing demographics, and embracing diversity.

President's November Message

January President's Message:

Our December lunch meeting was well attended. I would like to thank Mr. **Jeffrey Day**, Vice President of Day Automation for his presentation on Control Systems – Ways to Find Performance Issues.

We hope to see you at our January meeting, as we welcome **Kevin Diehl** of Yasawa America to present on AC Drives – Operation and Application Considerations. Come and enjoy *Making Connections!*

The ASHRAE Winter Conference and AHR Expo is quickly approaching on January 23-27, 2016, in Orlando, Florida. The ASHRAE Learning Institute will offer many courses during the conference. If you would like to attend the conference and any of the courses, more information can be found at <https://www.ashrae.org/membership--conferences/conferences/2016-ashrae-winter-conference>.

On Friday, February 5th, 2016 the Rochester ASHRAE Chapter will be hosting its 59th Annual Valentine Dinner Dance at the Stratthallan Rochester. **Jody and Matthew McGarry** put on a fantastic evening event. If you haven't attended it before, please consider joining us. If you've gone before, then you know all about the fantastic food, music, flowers and chocolates. It is a terrific time!



Christina Walter, 2015-2016 President

Lastly, Ed Burns is the Chairperson for the Nominating Committee. If you feel that you or someone you know would make a good board member for the Rochester Chapter, please contact Ed at ejb@mechtechvac.com.

Please continue to check out our website at www.rochester.ashraechapters.org for information on upcoming chapter meetings, current officer list and contact information, our current newsletter and more! Or if Facebook is your preferred method of communication take a moment to 'like' us at www.facebook.com/#!/ashraerochester.

Christina Walter
2015-2016 President - Rochester Chapter

Highlights from December ASHRAE Meeting



(Above) Jeff Day, Day Automation, leads a discussion on Control Systems



Jeff Close (left) and Jeff Day (right), after drawing a name for the 50/50 raffle.

January Meeting Info

Please consider joining us for this upcoming monthly meeting and/or please forward this e-mail to anyone you may think would be interested in attending or benefit from this presentation.

January ASHRAE Meeting << PDH APPROVED >>

Date: Monday, January 11th, 2016
Location: Mario's Italian Restaurant
Time: 12:00 PM Lunch Buffet ... Presentation to start approx. 12:30pm
Cost: \$25.00
Speaker: Kevin Diehl—Yasawa America
Topic: Operation and Applying Drives
Note: (1) PDH

Remember, as an option, we have on-line payments available via PayPal. (no PayPal account required)

<< Pay for Meeting Registration online via PayPal >>

Use the following link: <http://rochester.ashraechapters.org/meetings.html>

Cash or check payment is still accepted at the door with your reservation.

Please RSVP no later than noon Thursday January 7th to Tim Duprey
Phone: 585.330.6430 or e-Mail ... ASHRAERochester@gmail.com, tim.duprey@pres-services.com or tduprey@rochester.rr.com.





This section of the newsletter is reserved for those firms wishing to advertise their desires to hire from the Chapters Membership.

If you are interested in utilizing this FREE service provided by the Rochester Chapter, please contact our Chapter President, Christina Walter 585-486-2148 or by email cmwalter@trane.com.

This service is available to ASHRAE members for any local firm in our industry looking for knowledgeable persons in the HVAC&R industry.

Presidential Award Of Excellence



Download



Achievements

Chapter:

Fiscal Year:

| | | | |
|----------------------------------|-----------|-----------------|-------------------|
| ▶ Chapter Operations | Par: 1000 | Min Points: 400 | Total Points: 300 |
| ▶ Chapter Technology Transfer | Par: 1050 | Min Points: 450 | Total Points: 400 |
| ▶ Grassroots Government Advocacy | Par: 650 | Min Points: 500 | Total Points: 0 |
| ▶ Historical Criteria | Par: 300 | Min Points: 100 | Total Points: 0 |
| ▶ Membership Promotion | Par: 800 | Min Points: 500 | Total Points: 385 |
| ▶ RP | Par: 1050 | Min Points: 800 | Total Points: 305 |
| ▶ Student Activities | Par: 500 | Min Points: 300 | Total Points: 0 |

Like us on Facebook!



Visit our new Facebook page by searching for "ASHARE Rochester" on Facebook. Any ideas for additions or improvements email to Mark Kukla at mark@airsystemsbalancing.com. Keep up to date with current events and photos from recent meetings.



You are cordially invited to the
**59th Annual
Valentine Dinner Dance**
Hosted by ASHRAE Rochester

Friday, February 5, 2016

The Strathallan Rochester - a DoubleTree by Hilton
550 East Ave
Rochester, New York

7:00pm Reception - Hors d'oeuvres & cocktails
8:00pm Dinner - As you select
9:15pm Dessert, Coffee and Dancing

Menu Selections

Pan roasted Atlantic salmon
Roasted organic Chicken
Wood roasted 6oz. Filet
Chef's choice vegetarian option



For reservations, please mail or fax this registration form by January 24, 2016.

Make checks payable to Rochester Chapter ASHRAE and mail to:

Jody McGarry
ABR Wholesalers, Inc.
510 North Goodman Street
Rochester, New York 14609
Phone (585) 482-3601 | Fax (585) 482-6698

Name: _____ Beef · Chicken · Fish · Vegetarian

Name: _____ Beef · Chicken · Fish · Vegetarian

Number of people ___ x \$65* per person = \$_____ (enclosed)



January 5, 2016

Dear ASHRAE Members,

On Friday, February 5, 2016, ASHRAE will be hosting its 59th Annual Valentine Dinner Dance at the Strathallan Rochester: a Double Tree by Hilton. ASHRAE is asking for your corporate support to donate \$350.00, billed to you as an advertising expense, to help defray the cost of this event. Your sponsorship will enable us to provide you with lively entertainment, a delicious meal, special desserts, and an evening with friends and colleagues you won't soon forget.

Your \$350 sponsorship comes with two complimentary dinners to the event, but this year, we're giving our sponsors a chance to save on more tickets! If you would like to sponsor the event and reserve a table for 10, consider becoming a gold-level sponsor. For \$825, you'll receive a reserved table, 10 dinners, and special "gold-level" sponsor designation.

As always, your sponsorship will be listed in the dinner program and dance flyers, as well as being listed in a full-page advertisement in the R.E.S monthly publication. You will certainly be recognized by your peers as an ASHRAE supporter.

An invoice is attached for your convenience. We thank you for your support and look forward to sharing this fantastic evening with you!

Very truly yours,

Jody McGarry
Valentine Dance Committee



Invoice

Advertising for February 2016 Promotion

(Check One)

Sponsor: \$325

Gold-Level Sponsor: \$800

Please make check payable to: ROCHESTER CHAPTER ASHRAE and mail to:

Rochester Chapter ASHRAE
c/o ABR Wholesalers, Inc.
ATTN: Jody McGarry
510 North Goodman Street
Rochester, NY 14609

Commitment

We would like to support the Rochester ASHRAE 2016 Promotion and agree to fulfill our commitment by March 1, 2016.

Company Name_____

Signed by_____

Date signed_____

Please return your check or commitment no later than January 24, 2016 to ABR Wholesalers, Inc. Thank you for your support.

Rochester Chapter

Committee Chairs Updates

Research Promotion

The winner from the December meeting was Brandon Farnsworth-Weinblatt, who also donated his \$45 winnings back to Research!

Young Engineers in ASHRAE

Dear YEA Members:

Registration for the Spring 2016 YEA Leadership Weekend is now open! Visit www.ashrae.org/YLW to register and for more information.

The event is scheduled for February 19-21, 2016 in Austin, Texas. Registration is \$400 and includes hotel accommodations for Friday and Saturday, meals during the event (dinner on Friday, all meals on Saturday, and breakfast and lunch on Sunday), and all necessary materials and resources. Space is limited to the first 30 registrants.

Sincerely,
Matt Kremers
YEA Chapter Chair

Membership

The passing of James David "Jim" Ormond

We are saddened to hear on the passing of Jim Ormond. Jim passed away suddenly on October 9, 2015 at age 79. Jim was a 44 year member of ASHRAE, joining in 1971. He is survived by his wife Elizabeth of 51 years; daughter Denise and partner Tim; grandsons, Nathan and Evan Maniscalco; sister, Virginia Ormond of Aylmer, Ontario. Jim was a 36 year employee of Bausch and Lomb working here and in many cities around the world. He was an avid gardener, great cook, and a Polio survivor. To light a candle of remembrance, visit www.aliferemembered.com. Please consider a donation to Polio Children, 155 Dunrovin Lane, Rochester, NY 14618, or a contribution of blood at the Red Cross.

Board of Governors Meeting Minutes



Rochester Chapter - ASHRAE
 Board of Governors Meeting
 December 10th, 2015 7:30 AM
 Location: Trane, 75 Town Centre Dr.
 Rochester, NY 14623

AGENDA

| | | |
|---|------------------------------|---|
| President / CRC Alternate | Christina Walter | X |
| President Elect / Program | Jeff Close | X |
| Secretary | Bill Clark | X |
| Treasurer | Paul Kenna | |
| Immediate Past President / CRC Delegate | Ed Burns | |
| Board of Gov. (1) | Steve Dear | |
| Board of Gov. (1) | Sam Scorsone | X |
| Board of Gov. (2) | Branden Farnsworth-Weinblatt | X |
| Board of Gov. (2) | Tom Streber | X |
| Board of Gov. (3) | Mike Benedict | |
| Board of Gov. (3) | Scott Edwards | X |
| Attendance | Tim Duprey | X |
| Historian | Lee Loomis | |
| Membership Promotion | Jake Hall | X |
| Newsletter Editor | Scott Edwards | X |
| Resource Promotion | Matt Devlin | |
| Awards | Al Rodgers | |
| CTTC | Jeff Wiedrick | X |
| Education | Bill Murray | |
| Publicity | Mark Kukla | |
| Website | Kevin Wind | |
| YEA Chair | Matt Kremers | X |
| Student Activities | Chris Lukasiewicz | |
| Nominating (2 nd Past President) | Michelle Sommerman | |
| Picnic/Golf Chair | Jim Browe | X |
| Buyers Guide | Marianne Schumacher | |
| Valentine's Dinner Dance | Jody M. McGarry | |
| Chapter Tech Energy & Govt Activities | Tom Burke | |
| Refrigeration | Mike Nohle | |

Board of Governors Meeting Minutes

Roll Call: The above noted individuals were present.

Call to Order: 7:35 AM

Meeting Minutes:

- | | |
|--|---------------------|
| 1. Call to Order | Chris Walter |
| 2. Roll Call | Bill Clark |
| 3. President Elect / Program | Jeff Close |
| <ul style="list-style-type: none"> • All remaining meetings are set for the year • Jeff Day to present this month • | |
| 4. Approval of previous meeting's minutes | All |
| <ul style="list-style-type: none"> • Motion to Approve - Jeff Wiedrick • Second - Scott Edwards | |
| 5. Treasurer's Report 2015/2016 | Paul Kenna |
| <ul style="list-style-type: none"> • Not Present. No Report | |
| 6. Committee Reports | |
| <ul style="list-style-type: none"> • Technology Transfer Committee Program/Tech Sessions Technology Transfer <ul style="list-style-type: none"> ○ No Report | Jeff Wiedrick |
| <ul style="list-style-type: none"> • Membership <ul style="list-style-type: none"> ○ 244 members, 1 new member in December ○ Members who are delinquent have been contacted and most have renewed. | Jacob Hall |
| <ul style="list-style-type: none"> • Student Activities <ul style="list-style-type: none"> ○ 1 New student member | Chris Lukasiewicz |
| <ul style="list-style-type: none"> • Education <ul style="list-style-type: none"> ○ No Report | Bill Murray |
| <ul style="list-style-type: none"> • YEA <ul style="list-style-type: none"> ○ Working on putting together some educational classes together for coming months. | Matt Kremers |
| <ul style="list-style-type: none"> • Awards & Recognition <ul style="list-style-type: none"> ○ Resubmission for Lynn Bellenger as candidate to receive Hall of Fame Award completed | Al Rodgers |
| <ul style="list-style-type: none"> • Resource Promotion <ul style="list-style-type: none"> ○ No Report | Matt Devlin |
| <ul style="list-style-type: none"> • Refrigeration <ul style="list-style-type: none"> ○ Mike and Sam to connect to work together | Mike Nohle |
| <ul style="list-style-type: none"> • Grassroots Government Advocacy <ul style="list-style-type: none"> ○ No Report | Tom Burke |
| <ul style="list-style-type: none"> • Newsletter <ul style="list-style-type: none"> ○ Newsletter to go out the week of 12/20 | Scott Edwards |
| <ul style="list-style-type: none"> • Buyers Guide <ul style="list-style-type: none"> ○ Updated paper copy to match website. ○ In process of sending emails to potential advertisers. | Marianne Schumacher |

Board of Governors Meeting Minutes

- Attendance Tim Duprey
 - 66 attendees at the November meeting.
 - Mario's to stay open through March.
 - Valencia restaurant in Gates and City Grill are potential locations for the April meeting.
 - Historian Lee Loomis
 - No Report
 - Publicity Mark Kukla
 - No Report
 - Website Steve Dear
 - Steve is reviewing what tweaks need to be made to the website.
 - Nominating Ed Burns
 - No Report
 - CRC 2016 General Chair Jim Browe
 - The list of officers and committee chairs has been set
 - ASHRAE to handle the registration for the event
 - Website to be up in January
 - Jim asks board members to help with sponsorships
 - Valentine's Dance Jody McGarry
7. Old Business Campus
- Audit Completed
 - Thank-you for sending in your MBO to Chris Walter
 - Thank-you to Mike Benedict and Tom Streber for pulling together the ASHRAE booth at MCC fair
 - Log PAOE points in monthly
 - Create/Update your Biography on www.ASHRAE.org website
 - CRC 2016 Rochester, August 18-20
8. New Business
- Grass Roots community project possibilities, STEM Outreach
 - New location for meetings is being researched
 - Resubmission for Lynn Bellenger as candidate to receive Hall of Fame Award completed
9. Next BOG meeting: Thursday, January 7th 7:30 am at Trane.
10. Adjourn 8:08 am



ASHRAE Student Membership Application

What You'll Get With Your ASHRAE Student Membership!

What's "Cool" In ASHRAE

- ASHRAE promotes energy efficiency, savings and recovery
- ASHRAE reports on building controls, automation and integration
- ASHRAE focuses on green building issues and green technology
- ASHRAE maintains standards for indoor air quality
- ASHRAE promotes solar and other alternative energy sources
- ASHRAE offers certification programs, online learning opportunities and courses and seminars at ASHRAE Conferences

How Can ASHRAE Help You?

- Provide access to new technology
- Offer professional development opportunities
- Create opportunities for networking
- Offer online continuing education programs and eLearning programs

Student Member Benefits

- Access to members-only web pages
- Discounts on ASHRAE Handbooks
- Monthly ASHRAE Journal - print and digital
- HVAC&R Industry and Society Connections eNewsletters
- Complimentary ASHRAE Annual and Winter Conference registration (AHR Expo, Student Program, Technical Sessions)
- Virtual online HVAC&R resume posting, job and internship searching program

ASHRAE Student Member Opportunities

- Society and chapter-level scholarships for both undergraduate and graduate engineering students
- Discounts for student members on select publications, go to www.ashrae.org/bookstore for more information
- Student Design Competition
- Networking with local ASHRAE Chapters
- Senior Undergraduate Project Grant Program
- At the student branch level, you'll enjoy meeting other students with similar interests - if your school hasn't yet started a student branch, take charge and contact a faculty member and ask for help on getting started!

You can continue your student membership after college with the ASHRAE SmartStart Program. After you graduate, you pay \$20 for the first year, \$50 for the second and the third years before advancing to regular member dues!

**Join ASHRAE students on Facebook
Visit www.ashrae.org/students to join!**



FIRST NAME:

LAST NAME:

DATE OF BIRTH (mm/dd/yyyy)

Current Mailing Address: (this will be where all correspondence will be sent unless otherwise specified)

Street Address: _____ Apt. # _____ City: _____
State/Province: _____ Postal Code: _____ Country: _____
Email: _____ Alternate email: _____ Phone: _____

Permanent Mailing Address: (during the Summer Months and after graduation)

Check if Current Address is the same as Permanent Address

Street Address: _____ Apt. # _____ City: _____
State/Province: _____ Postal Code: _____ Country: _____
Email: _____ Alternate email: _____ Phone: _____

ASHRAE protects contact information provided by its members and customers. To view ASHRAE's privacy policy visit www.ashrae.org/privacy-policy.

All student applicants must have the name and member number of an ASHRAE member serving as their student sponsor. If your Student Branch Advisor is an active Associate or Full member, he/she can serve as your sponsor. If you need assistance locating a sponsor, please email students@ashrae.org or call 678-539-1212. Also, you must list the name, phone and email address of your faculty advisor or course instructor.

Sponsor Name: _____ ASHRAE Member #: _____
Advisor/Instructor: _____ Phone: _____
Email: _____

To receive your subscription to the ASHRAE Journal, please answer the following questions by entering the appropriate codes in the spaces provided.

Which best describes your firm? _____

- 11. Consulting Engineering
- 12. Architect/Architectural & Eng Services
- 15. Design/Build
- 21. Contractor
- 26. Property Mgmt & Dev
- 31. Industrial Facility
- 41. Commercial Facility
- 42. Government, Healthcare, Education
- 43. Utility
- 51. Manufacturer/HVAC&R Equipment
- 61. Manufacturer's Representative
- 62. Sales Engineering
- 71. Wholesaler or Distributor
- 83. Library
- 84. Technical, Professional or Trade Association
- 86. Student ***
- 91. Other (Please Specify) _____

Which best describes your title? _____

- B. President
- C. Partner
- D. Associate
- E. Owner
- F. Vice President
- G. Vice President Eng, Chief Engineer
- K. Design Engineer
- L. Project/Application Engineer
- O. Facility Engineer/Manager
- P. Research/Development Engineer
- R. Sales Engineer, Sales
- S. Purchasing Agent
- T. Draftsperson
- U. Estimator
- W. Technician
- X. Instructor, Professor
- Y. Student ***
- Z. Librarian
- ZZ. Other (Please Specify)

ASHRAE Society Dues include \$6.00 for ASHRAE Journal. This amount is not deductible from Membership dues.

I would like to participate in the activities of the _____ ASHRAE Chapter.

School Name: _____

Street Address: _____ City _____ State: _____

Country: _____ Postal Code _____

Expected Graduation Date: _____

Full time: Part time: Degree: _____

*Classification: Freshman Sophomore Junior Senior Masters/PhD.

ASHRAE Student Membership \$20.00 USD

ASHRAE Handbook - Fundamentals IP SI

(you will receive the most current edition of Fundamentals)

More than 900 pages of HVAC&R technical information and it includes the CD! (List Price \$195)

Student Member Price: \$49.00 USD \$ _____ USD

Total \$ _____ USD

*Additional books are available at ashrae.org/studentbookstore

*Please allow up to 30 days to receive new member packets. For U.S. book orders, allow 3-5 business days from processing. For international locations and Canada, allow 7-10 business days from processing.

****Please complete the ENTIRE application to ensure accuracy. Incomplete applications will NOT be processed.****

Method of payment: VISA / Master Card American Express Diner's Club Check or money order enclosed*

Card Number: _____ Expiration Date _____ CW No. _____ Amount: _____

Signature: _____ Date: _____

Print Name (as it appears on card): _____

*Checks will be accepted in U.S and Canadian funds. Credit Card payments will be accepted in U.S. funds only.

ASHRAE Learning Institute

Seminars & Courses at ASHRAE's Winter Conference in Orlando, FL

2 WAYS TO REGISTER

Internet: www.ashrae.org/orlandocourses

Phone: Call 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

Full-Day Professional Development Seminars

~~\$485~~/\$395 ASHRAE Member – Earn 6 PDHs/AIA LUs or .6 CEUs

Commercial Building Energy Audits

Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.

Energy Modeling Best Practices and Applications

Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.

Commissioning Process in New & Existing Buildings

Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.

Operations & Maintenance of High-Performance Buildings

Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.

Designing HVAC Systems to Control Noise & Vibrations

Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.

Half-Day Short Courses

~~\$159~~/\$119 ASHRAE Member – Earn 3 PDHs/AIA LUs or .3 CEUs

Laboratory Design: The Basics and Beyond

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Advancing IAQ Problems

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

Troubleshooting Humidity Control Problems

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Commissioning Process & ASHRAE Standard 202

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

Understanding & Designing Dedicated Outdoor Air Systems

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Complying with Standard 90.1-2013: HVAC/Mechanical

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

Variable Refrigerant Flow System Design & Applications **NEW!**

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

Evaluation and Control of Legionella in Building Water Systems **NEW!**

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

Air-to-Air Energy Recovery Applications: Best Practices

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

Exceeding Standard 90.1-2013 to Meet LEED Requirements

Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.

Applications of Standard 62.1-2013

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

IT Equipment Design Evolution & Data Center Operation Optimization

Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.

Building Demand Response & the Coming Smart Grid

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

Designing High-Performance Healthcare HVAC

Monday, January 26, 2016 – 1:00 p.m. to 4:00 p.m.

Energy Management Best Practices

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

ASHRAE HVAC Design Training

2 Courses, 5 Days of Intense Instruction

Atlanta • Halifax • Hong Kong • Houston • Kuala Lumpur

Miami • Minneapolis • San Francisco • Vancouver

HVAC Design: Level I – Essentials - Registration is \$1,264 (\$1,009 ASHRAE Member)

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Visit www.ashrae.org/hvactraining to register.

Coming April 2016 - Making Net Zero Net Positive: Solving the Efficiency & Cost Paradox.



Save the date for the April 21, 2016 ASHRAE Webcast - Making Net Zero Net Positive: Solving the Efficiency & Cost Paradox. This webcast will feature industry experts who will define the importance of, and why we should strive for, net zero in the built environment. Viewers will be able to identify behaviors that create more effective ownership, design and construction teams, and will recognize the value of a collaborative process in building design and the impact on costs. With a strong emphasis on real-world applications, the program will also discuss the primary technical and financial challenges in achieving net zero buildings, and where this design approach can best be applied.

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2016 ASHRAE Winter Conference



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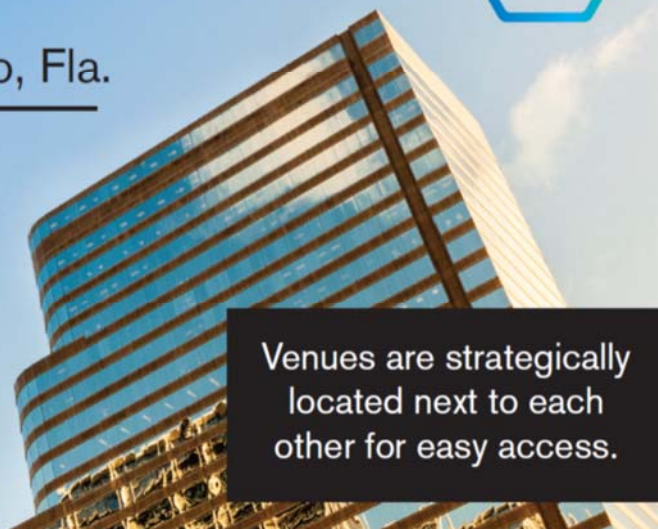
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Tips for ASHRAE Scholarship Applicants

Make sure ...

- You meet all applicable criteria
- You read the application carefully and answer all questions completely and honestly.
- The application and all required documents are submitted or postmarked on or before the applicable deadline.
- Your application is NEAT, legible (typed or handwritten clearly), and proper English (correct grammar and spelling) is used when responding to essay questions.
- To take time to submit a brief, non-required introductory cover letter
- You are clear and thorough when stating goals and financial need.
- You contact the nearest ASHRAE chapter for an interview with the Student Activities Chair or other officer to learn more about the Society.
- You find out if your school hosts an ASHRAE student branch.
- You contact ASHRAE headquarters if you have any questions and to ensure your application has been completed and submitted properly.

More information on the scholarship and details on how to apply can be found at www.ashrae.org/scholarships.

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For Release:
 Dec. 2, 2015
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Proposed ASHRAE/ACCA Standard for Energy Audits Open for Public Comment

ATLANTA – While energy audits are vital to ensuring energy efficient buildings, the audit industry has been largely unstructured. Work products that are labeled energy audits vary greatly in scope, rigor and quality.

A proposed standard from ASHRAE and the Air Conditioning Contractors of America (ACCA) would bring order to the “Wild West” of the energy audit industry.

ASHRAE/ACCA Standard 211P, *Standard for Commercial Building Energy Audits*, is open for public comment until Jan. 4, 2016. To comment or learn more, visit www.ashrae.org/publicreviews.

Standard 211P will establish consistent practices for conducting and reporting energy audits for commercial buildings.

“The standard has the potential to make a huge impact on completing energy saving projects in existing buildings,” Jim Kelsey, chair of the Standard 211P Committee, said. “Currently there is no standard that defines what constitutes an energy audit. Most practitioners in the energy audit industry are trying to do the right thing for their clients by finding projects and quantifying energy and cost savings in energy audits. However, without a consistent standard, we have seen the quality and approach to energy auditing vary widely throughout the industry. Without standardization, it’s been the Wild West out there – anyone who carries a clipboard and a camera can call themselves an energy auditor and their report an energy audit. What we hope to accomplish with this standard is to set appropriate minimum criteria for what approaches are expected, what information should be in an audit, and how that information is communicated to the end client.”

The standard will define the procedures required to perform Energy Audits Levels 1, 2 and 3; provide a common scope of work for these audit levels for use by building owners and others; establish standardized industry practices; and establish minimum reporting requirements for the results.

“One new area that I’m excited about in the standard is electronic data exchange for audit results,” Kelsey said. “In this version, we’ve adopted standardized reporting formats that are consistent with new tools to make it easy to transmit results to cities and agencies. This approach has several benefits to the energy world. First, consistent reporting enables energy auditors to streamline their processes. Currently, it is common for different customers to require different reporting formats which leads to a lot of customization for each job. Secondly, standard formats allow us to convert audit results to common data formats (such as BuildingSync XML). This makes it easier for cities, for example, to import audit results to a common database, rather than each agency requiring auditors to manually enter their results in the city’s platform.

ASHRAE first addressed audits in 2004 with its publication *Procedures for Commercial Building Energy Audits* (1st Ed), which introduced the concept of ASHRAE Energy Audit Levels 1, 2 and 3 as a shorthand for designating the depth of an energy audit. That concept is now commonly used in the commercial building sector. In 2011, a second edition, which added guidelines for best practices in energy audits, was published.

These books have been widely adopted, cited by rating programs and in cities like New York and San Francisco where local ordinances require energy audits for certain buildings.

“However, the books were written as guides, not in code-enforceable, standard language,” Kelsey said. “With the new standard, we will hone the clarity of those audit level definitions and make enforcement clearer, and potentially broaden the adoption of the ASHRAE audit levels.”

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ASHRAE Extends Paper Deadline and Announces Call for Presenters for IAQ 2016 Conference

ATLANTA – A call for papers for the IAQ 2016 Conference, “Defining Indoor Air Quality: Policy, Standards and Best Practices,” co-organized by ASHRAE and AIVC, has been extended until Dec. 14, 2015.

The conference will take place Sept. 12-14, 2016, in Alexandria, Va., at the Crowne Plaza Old Town Alexandria. To submit an abstract or for more information, visit www.ashrae.org/IAQ2016.

The conference is the 18th in the ASHRAE IAQ series since its inception in 1986 and the 37th AIVC conference. The program will focus on current and emerging definitions of indoor air quality and how they are – or could be – implemented in government policies and in standards for the design and operation of buildings and other indoor environments used worldwide. IAQ 2016 will also highlight best practice solutions that go beyond existing minimum requirements.

Authors are invited to submit papers on the following topics and others appropriate to the Conference theme:

- Definitions and metrics
 - Perception vs. performance
 - Monetization of IAQ
 - DALY (disability adjusted life years) and related approaches
 - Task performance/productivity
 - Integrated IEQ metrics
- Regulatory vs. voluntary compliance for achieving IAQ
- IAQ certification programs
- Low energy/high performance buildings and IAQ
- IAQ in sustainable building programs
- Interactions: IEQ, climate change, energy efficiency
- Monitoring
 - Sensors and big data
 - Post occupancy evaluations
- Best practices
 - Case studies with data
 - Design, construction, operation
 - Commissioning

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- Ventilation and infiltration
 - IAQ, energy and moisture impacts
 - Mechanical and natural ventilation performance
 - IEQ and natural ventilation
 - IAQ and building/ductwork airtightness
- Residential IAQ standards and policies
- IAQ in Developing Economies
- IAQ in mobile environments: aircraft, trains, ships, motor vehicles

Abstracts are due Dec. 14, 2015. Upon acceptance, papers are due March 28, 2016.

Call for Presentations

Abstracts are invited for presentations and sessions that address the conference theme.

Session proposals must include a 400 word overall abstract and titles and speaker information for presentations. Session format is flexible and may be panel discussion with short framing presentations or a group of longer format presentations. Target session length is 60 or 90 minutes.

Individual presentation proposals require a 400 word abstract and a 100-word “promotion” abstract. Accepted individual presentations will be organized into sessions by the Steering Committee.

Full length conference papers are not required for accepted presentations and sessions, but presenters must agree to recording of their presentation with slides and voiceover.

Presentation and abstracts are due March 7, 2016, and notifications of acceptance will be sent on March 28.

The conference program will include internationally acclaimed keynote speakers, original peer reviewed papers and the latest in indoor environmental quality control, plus invited speakers, workshops and panel discussions. A call for presenters will be announced after the call for papers closes. Invited speakers and keynote speakers will be announced.

The Indoor Air Quality Association and the Indoor Environmental Quality Global Alliance are partnering organizations.

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AIVC (Air infiltration and Ventilation Centre) is the IEA information center on energy efficient ventilation. In recognition of the significant impact of ventilation on energy use, combined with concerns over indoor air quality, the International Energy Agency (IEA) inaugurated the AIVC in 1979. The AIVC offers industry and research organizations technical support aimed at optimizing ventilation technology. The AIVC offers a range of services and facilities, including comprehensive database on literature standards, and ventilation data. For more information, visit www.aivc.org

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For Release:
Dec. 4, 2015
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U.S. House of Representatives Misses Opportunity to Support Energy Efficiency

ATLANTA – This week, the U.S. House of Representatives had the chance to stand with the private sector, professional and nonprofit stakeholder organizations to reaffirm its strong commitment to support the development, adoption and implementation of private sector-led, consensus-based model building energy codes. Instead, the House chose to pass the North American Energy Security and Infrastructure Act of 2015 (H.R. 8), which includes language that threatens to reduce understanding of the potential full impacts of the model building energy codes by likely limiting the technical assistance that the U.S. Department of Energy currently provides, upon request, to ASHRAE, the International Code Council, States and Indian tribes for the development, adoption and implementation of these model codes.

“While ASHRAE is disappointed with the passage of this language, we applaud the efforts of Representative Peter Welch (D-VT-At Large) in seeking an amendment to H.R. 8 that would have replaced the harmful building energy codes language with language from the bipartisan Energy Savings and Industrial Competitiveness Act of 2015 (H.R. 2177),” ASHRAE President David Underwood said.

Previously introduced by Representatives Welch and David McKinley (R-WV-1), H.R. 2177, is widely supported and has been carefully negotiated over a number of years, embodying the collective wisdom of many.

“ASHRAE remains hopeful that Congress will ultimately demonstrate its support for market-driven energy efficiency by enacting legislation that protects the development, adoption and implementation of private sector-led, consensus-based model building energy codes,” added Underwood.

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Addition of Subclass 2L Refrigerants Proposed for ASHRAE Refrigerant Safety Standard

ATLANTA – Industry input is being sought into a proposal to modify portions of ASHRAE’s refrigeration safety standard to incorporate subclass 2L flammability classifications.

Addendum *d* to ANSI/ASHRAE Standard 15-2013, *Safety Standard for Refrigeration Systems*, is open for public comment until Jan. 18, 2016. To comment or learn more, visit www.ashrae.org/publicreviews.

Standard 15 specifies safe design, construction, installation, and operation of refrigeration systems.

The 2010 edition of ANSI/ASHRAE Standard 34-2013, *Designation and Safety Classification of Refrigerants*, added an optional Subclass 2L to the existing Class 2 flammability classification of refrigerants. This change was intended to separate single component and blended refrigerants that are difficult to ignite and sustain a flame, from other Class 2 (and Class 3) flammable refrigerants.

“The expectation was that some of the Class 2L refrigerants would be commercialized and used as substitutes for Class A1 refrigerants that are in use today,” Dennis Dorman, chair of the Standard 15 committee, said. “Refrigerants in use today may come under regulatory pressure due to their relatively higher global warming potential (GWP). But to do this without major economic impact, Class 2L would have to be safely applied without the stringent application limitations imposed by Standard 15 on other flammable refrigerants. In other words, in order to be broadly applied, Class 2L refrigerants would need to be treated more like Class 1 than Class 2 or Class 3.”

At the start of its deliberations, the committee discovered that there was almost no science to support rules changes, let alone relaxation, of Class 2 requirements, according to Dorman. In July 2011, a first public review of the proposed addendum was made available with numerous comments received. Since that time, the committee has been addressing the technical issues identified from that review.

Dorman noted that Standard 15 covers the full range of applications from residential to commercial to industrial applications. As such, there is an unusual degree of complexity in considering appropriate rules for each.

Now, after almost four years of research and other supporting activities conducted by industry partners, the committee has much of the technical information to support proposed rules changes to Standard 15.

“With this public review, we are seeking suggestions for new, unusual or potentially controversial elements of the proposed addendum, which the committee believes would benefit from increased public input prior to finalizing the draft for its first formal public review,” he said. “Additionally we want to make sure that we do not overlook important safety aspects that may come from various users of the standard, both domestic and international.”

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Guidance on Low GWP Refrigerants Presented at ASHRAE Winter Conference

ATLANTA –As climate change talks in Paris conclude with signing of a historic agreement, countries with high ambient temperature characteristics are looking ahead to next-generation low global warming potential (GWP) refrigerants, which take into account environmental impact, performance, safety and costs.

Such countries with high dependency on refrigeration and air-conditioning applications are mainly located in the Middle East and particularly in the Gulf region. Those countries have traditionally been recipients of globally proven refrigeration technologies.

“This trend is witnessing a change lately with movement of regional industry to enhance its research and selection capacities but it remains framed with what is commercially available worldwide in terms of the raw materials,” Walid Chakroun said.

The challenges of hot countries in finding refrigerant alternatives for the widely used HCFC-22 in residential air-conditioning will be discussed in a seminar chaired by Chakroun at the ASHRAE 2016 Winter Conference, which takes place Jan. 23-27, Orlando, Fla. The ASHRAE co-sponsored AHR Expo is being held Jan. 25-27, next door at the Orange County Convention Center. To register for the ASHRAE Conference, which includes free access to the Expo, visit www.ashrae.org/orlando.

The Technical Program features eight tracks, some 100 sessions and more than 300 speakers. It runs Sunday, Jan. 24, through Wednesday, Jan. 27, and offers over 200 Professional Development Hours, as well as Continuing Education Units, which can be applied toward a Professional Engineering license in many states, including the state of Florida.

The seminar, “Evaluating Low-GWP Refrigerants for Air-Conditioning Industry in High Ambient Temperature Countries,” is sponsored by the United Nations Environmental Programme (UNEP) and the United Nations Industrial Development Organization (UNIDO).

Chakroun, who serves as ASHRAE’s representative to UNEP, noted that most of governments in the region have started to apply new energy efficiency requirements for air-conditioning equipment. Known as Minimum Energy Performance Standards (MEPS), these standards will certainly have impact on the choice of refrigerant as well as design and operating characteristics of air-conditioning units. Meeting those conditions for high-ambient climates is another challenge for countries with air conditioning consuming 50 to 60 percent of their domestic power supply, according to Chakroun.

As a response to the above issues, UNEP and UNIDO designed and launched a regional project, known as PRAHA, for assessing the feasibility of low-GWP alternatives. The project aims to practically assess next-generation low-GWP refrigerants taking into account energy efficiency, environmental impact, performance, safety and cost.

The project involves partnerships of 13 international/regional technology providers and equipment manufacturers, seeking to independently assess and evaluate the techno-economic feasibility of low-GWP refrigerants in comparison with existing commercially available refrigerants, such as HCFCs and HFCs for different domestic and medium size commercial air-conditioning applications.

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Speakers will discuss the outcome of these tests and a comparison of the results, which by no means endorse any of the tested refrigerants, but shed light on possible workable refrigerant alternatives for high ambient operation, Chakroun said. Other aspects of the project deal with economics, technology transfer and the challenges to deploy low-GWP alternatives, including recommendations of further required investigation.

Additional sessions at the ASHRAE Winter Conference that address low GWP include:

- Refrigerant Advances
- Evaluating Low-GWP Refrigerants for Air-Conditioning Industry in High Ambient Temperature Countries
- Making the Commercialization of Low-GWP Refrigerants a Reality
- Highlights from the 24th IIR International Congress of Refrigeration
- Improving the Efficiency of Low-GWP Commercial Refrigeration Systems
- Compression Challenges for Low-GWP Refrigerants
- Trending Research and Advances in Simulation

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Innovative Buildings Recognized by ASHRAE with Technology Awards

ATLANTA – Wind turbines, subcooled glycol/water, geothermal wells, reuse of coil condensation water and a central heat pump water heating system are among the innovative measures used in the five buildings receiving ASHRAE Technology Awards.

The awards recognize outstanding achievements by members who have successfully applied innovative building design. Their designs incorporate ASHRAE standards for effective energy management and indoor air quality. Winning projects are selected from entries earning regional awards.

First place awards will be presented at the ASHRAE 2016 Winter Conference, Jan. 23-27, Orlando, Fla.

Following are summaries of the winning projects:

Walgreens Net Zero Store

Benjamin A. Skelton, P.E., BEMP, president, Cyclone Energy Group, Chicago, Ill., receives first place in the new commercial buildings category for the Walgreens Net Zero Store, Evanston, Ill. The building is owned by Walgreen Co.

The global retail pharmacy brand set out with a vision to create a scalable retail building design that would serve as a showcase for innovative, sustainable and high performance design to sustainability, architecture, engineering and retail communities. The store is designed to achieve net zero energy use by the National Renewable Energy Laboratory's most stringent definition of "renewable energy generated within the building footprint."

Among its innovative features are:

- 840 roof-mounted solar panels, generating enough energy to power 30 Illinois homes for a year
- two 35-foot-tall wind turbines, using winds from Lake Michigan to generate enough power to offset annual greenhouse gas emissions from 2.2 passenger vehicles
- geo-exchange energy obtained by drilling 550 feet into the ground below the store
- LED lighting and daylight harvesting
- carbon dioxide refrigerant for heating, cooling and refrigeration equipment
- energy efficient building materials

The owner set out with a vision to create a store that would be an innovation laboratory to test products, materials, systems and equipment that could be incorporated into prototype designs and retrofit throughout existing stores. Walgreens also wanted to share the results from the design, construction and ongoing operation of the store with the public, design community and even their competition. The store is designed to facilitate tours, including hosting executives and designers from their retail competition.

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DPR Construction's San Francisco Net Positive Energy Office

Dylan T. Connelly, associate, Integral Group, Oakland, Calif., receives first place in the existing commercial buildings category for DPR Construction's San Francisco Net Positive Energy Office. DPR Construction occupies the building and has a 10 year lease with an option for 10 more years.

A national construction company, DPR sought to lead by example and transform the building industry with its retrofitted net positive 22,000 square foot San Francisco office. The office demonstrates the potential of the capabilities of integrated, innovated and replicable design, reducing energy use and improving indoor environmental conditions while being cost effective with today's technologies. The design includes a 118 kw rooftop photovoltaic system, all electric systems, operable skylights, building management system controlled ceiling fans, enhanced daylighting and living walls.

A net positive energy office building was achieved by reducing energy loads through use of efficient HVAC and electrical systems, and by installing photovoltaic and solar thermal systems on the roof to produce more energy than the building consumes. The target energy use index (EUI) was 23.6 kBtu/square foot/year and achieved a first year EU of 20.4, significantly lower than the code baseline of 49 EUI and 20 percent net positive energy. By retrofitting an existing building vs. building new, the project reduced its initial carbon footprint by over 70 percent.

Occupant comfort and health is also a top priority. A dedicated outdoor air system delivers 30 percent more ventilation than required ANSI/ASHRAE Standard 62.1-2010, *Ventilation for Acceptable Indoor Air Quality*. Heat recovery ventilators use MERV 8 pre-filters and MERV 13 final filters to filter out contaminants, increasing the efficiency of filtration and continuing to improve indoor air quality.

Another interesting feature is the use of dynamic elements, such as sunlight and plants, to activate the space, engage users and provide a connection of surroundings. Three living walls in the main lobby improve indoor air quality by absorbing volatile organic compounds while also increasing the overall wellbeing for occupants.

Anne-Marie Edward Science Building – John Abbott College

Nicolas Lemire, Ing., HFDP, president/principal, Pageau Morel and Associates, Montreal, Quebec, receives first place in the new educational facilities category for the Anne-Marie Edward Science Building at John Abbott College, Sainte- Sainte-Anne-De-Bellevue, Quebec. The building is owned by the college.

The contemporary six-story facility is named after a victim of a 1989 shooting at Ecole Polytechnique who was a science graduate of John Abbott. Anne-Marie Edward had been pursuing an engineering degree, and the community felt that through engineering, the pavilion demonstrated how humans are essential to environmental sustainability using applied knowledge and technology.

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Energy diversification is accomplished with the use of geothermal wells, electrical heating and cooling, natural gas hot water heating and solar preheating. Potable water consumption is reduced with the use of low flow plumbing fixtures and resources are maximized through reuse and recuperation:

- reuse of return air as compensation air in laboratories
- reuse of coil condensation water to humidify exhaust air
- recuperation on both general and laboratory exhausts
- recuperation through heat pump extraction and storage in stratified tanks
- recuperation of rainwater and fan-coil condensation water.

Laboratory ventilation requirements and large glazing surfaces can have devastating effects on energy efficiency. Nonetheless, the building's actual energy use is 45 percent lower than the baseline case and 10 percent lower than the proposed simulation.

Seattle-Tacoma (Sea-Tac) Airport Pre-Conditioned Air

Ken Warren, P.E., capital project manager, Port of Seattle (Wash.), receives first place in the new industrial facilities or processes category for the Sea-Tac Airport Pre-Conditioned Air project. The building is owned by the Port of Seattle.

The Port's Century Agenda sets a vision of reducing carbon emissions and air pollutants, increasing energy conservation, being socially and fiscally responsible and exceeding customer expectations. Its Pre-conditioned Air project is an important step in meeting an agenda objective of being the greenest, most energy efficient port in North America.

The system includes a pre-conditioned air plant (PCAP), piping and air handlers to provide cooling and heating for airplanes during boarding and deplaning to reduce costs for airlines, improved air quality, reduced noise and increased energy efficiency. The PCAP delivers sub-cooled glycol/water through 15 miles of piping to each of the 73 airplane gates in the existing facility, to serve the complete airplane HVAC&R needs. The system allows airplanes to shut off their jet-fueled on-board auxiliary power units (APUs), resulting in jet fuel savings and reductions in carbon dioxide and other gas emissions.

The reductions realized through the project include annual savings of:

- An estimated five million gallons in fuel; a \$15 million savings in airline fuel costs
- 40,000 metric tons of greenhouse gases, the equivalent of removing 8,000 cars from the road
- 73 tons of nitrogen oxides
- Noise pollution from aircraft parked at the gates operating their APUs

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Stack House Apartments

Jonathan M. Heller, P.E., principal engineer, Ecotope Inc., Seattle, Wash., receives first place in the residential category for the Stack House Apartments. The building is owned by Stack House Acquisition LLC.

The project includes two new multifamily buildings and one adaptive reuse of a historic building, which helped to retain some of the historical character of the neighborhood. The project covers an entire city block in the South Lake Union neighborhood of Seattle.

Innovative mechanical systems include a central heat pump water heating system in the largest of the two multifamily buildings, ductless heat pumps for 40 percent of the apartment units and common spaces, and rainwater catchment and reuse for urban agriculture on the roof. The historic building was included in the City of Seattle's pilot of an outcome-based energy code; the first program in the nation to predicate energy code compliance on post-occupancy proof of highly efficient operations. The project also participated in a stormwater treatment pilot project with Seattle Public Utilities with two biofiltration swales providing primary treatment to stormwater run-off from the Capitol Hill neighborhood before discharging to Lake Union.

The apartments are among the most energy efficient in the Pacific Northwest with measured EUIs of 19.8 kBtu/square foot/year for the West Building and 27.1 kBtu/square foot/year for the Southeast Building.

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