



December 7, 2010: Vol. 53, No. 05

Produced by: Richard Watters, P.E.
Chapter Newsletter Editor/ Chairman

The Therm, is a monthly Newsletter for chapter members and HVAC&R professionals alike, that provides information about the Fort Worth Chapter of ASHRAE.

[Download a PDF copy here](#)

President's Message

Hello to everyone. I would like to say thank you to everyone who was able to attend our meeting last month on ASHRAE's IAQ Guide. The Speaker was Barney Burroughs, a distinguished Lecturer and former Society President. We had a total of 51 members attend and 12 guests.

Everyone who attended the meeting last month and the seminar should have received an email with your PDH certificate from Tony Finch. If you did not receive an email, please contact Tony (tonyf@texasairsystems.com) and we will be sure that you are included on the distribution list.

Our number of delinquencies is down this month, from 28 to 23 people. Please renew your membership. Also, please remember to pay your local chapter dues. The chapter uses this money to help keep costs down on the chapter activities as well as to support our local student chapter activities.

Prior to the General Business Meeting last month we held a Seminar on ASHRAE IAQ Guide. The Speaker was Barney Burroughs. Due to the volume of material contained in the ASHRAE IAQ guide, the seminar was limited to three of the eight objections outlined in the guide. However, the seminar was still very informative and was a good lead-in to the presentation at the General Business Meeting.

Our General Business Meeting this month will also be on High Performance Green Building Design by Melissa Menna. We have an upcoming seminar on Commissioning by Michael Kaweck. The Winter Party will again be a Casino Party this year. Stay tuned for more information on both events.

Last, but certainly not least, the Society Winter Meeting will be in Las Vegas this year. The meeting will be from January 29th through February 2nd. [Click here for additional information.](#)

I am looking forward to seeing all of you later this month and please see our Chapter's Website for future event times

Sincerely,

[Ian Bost](#) Chapter President

Next Chapter Meeting

High Performance Green Buildings

December 15, 2010
11:30 A.M.

Petroleum Club
Carter::Burgess
Plaza
777 Main St.
39th Floor
Fort Worth, TX

[Click here for map.](#)

December Program/Speaker Bio.

Speaker Info:

Melissa Menna, LEED GA

Speaker Bio:

Melissa Menna, LEED GA, is a Regional Sales Engineer with Bentley Systems, responsible for the Building Performance business in the US Eastern and Southern regions. She joined Bentley in 2004 and has spent her tenure there working with owners, large A/E and engineering firms across the country with a focus on CAD, BIM and Building Energy Performance. Melissa has a BS in Business from Ohio University and recently earned her LEED Green Associate credit in January 2010.

Presentation Outline:

This fast-paced and informative discussion, geared for all audiences, will focus on various green building issues, including:

- Rating systems and their impact on the marketplace (LEED, California's Title 24, etc...)
- Early "green" designs and how they succeeded or failed
- The ongoing struggle between design intent and actual operations
- Accurately predicting the energy performance characteristics of a building
- Energy analysis and detailed simulation software for architects and engineers

Seminar Meeting Minutes – November 17, 2010

Called to order at 8:05am by Ian Bost, President

Cliff Upham introduced our speaker:

Speaker:

Barney Burroughs

Seminar Topic:

Avoiding IAQ Problems Using ASHRAE's New IAQ Guide

Synopsis:

Mr. Barney Burroughs presented:

- The Indoor Air Quality (IAQ) guide is currently only \$29 until the first of the year, then the price will go up to around \$90.
- The FED wants NET ZERO Buildings by 2020 and ASHRAE is updated its Standards accordingly.
- There are eight objectives in the IAQ Guide.
- Mr. Burroughs, due to the length of the seminar, mainly covered three of them.
- The Interactive IAQ Guide comes complete with case studies.
- Each case study contains actual photographs and field measurements.
- Many construction and design issue can be solved by a properly commissioned building.
- The last task of the commissioning agent is training the Owner.
- The end goal of designing, constructing and operating a building with a high IAQ is to have a sustainable building.
- A sustainable building is a building that will last 100 years.

Ian Bost adjourned the meeting at 11:05am.

PAOE Points

10117

5195

RP Dollars

\$30,000

\$2,750

Board of Governors Meeting Minutes – November 17, 2010

Attendees:

9 Members: Ian Bost, Richard Watters, Patty Parish, Tony Finch, Jay Sullivan, Cody Pace, Matt Carter, Clif Upham, Saul Martinez

Called to order at 1:20pm by Ian Bost, President

Ian discussed our current PAOE status. Ian went over totals in each category and went over our progress in each category and asked that each BOG member review their own plans and make sure they are all on track to achieve goal. Ian stated that Ken Fulk, our DRC, is pleased with our chapter's performance so far and that we are setting a good example for other chapters to follow. Ian requested the student activities chair persons to set up E-week activities and asked Patty Parish to pick up from the Lubbock Chapter, the Chaparral Award for attendance that we won last year.

Reports:

President-Elect (Watters)

- Richard announced that he is going to the president elect training. Richard also requested the reports for the Term be sent to him by the other BOG members in a more timely manner, no later than 1 week from meeting date.
- Working on committee chairs for next year and will assemble a nominating committee.

Secretary (Merkel)

- Not in Attendance.

Treasurer (Finch)

- Reported that Jacobs had paid their lunch payments and the chapter had sufficient funds in the bank to operate, and that he would put together a committee to collect local dues from local members not currently paying. Tony Finch will also give a \$100 dollar check from chapter funds for a donation to the Future Cities competition.

BOG At-Large (Martin, Rhodes, Sullivan)

- No report.

CTTC (Upham)

- Announced that 18 attended the seminar on IAQ Guideline by Barney Borrows
- Trying to make the December meeting a joint meeting, more to follow
- December seminar on commissioning will cost \$10, but you will get a \$5 discount on lunch meeting that follows
- January seminar on ground source heat pump will cost \$150, site location to follow.
- January ALI course will be held at Texas AirSystems Fort Worth, date to follow
- Speaker still needed for April chapter meeting.

Historian (Parrish)

- Patty is leading the region on historian PAOE points, and Patty agreed to go to Lubbock and pick up the Chaparral award.

Honors & Awards (Akers)

- Not in Attendance.

Membership Promotion (Olivo)

- Not in Attendance.

Board of Governors Meeting Minutes – November 17, 2010 (continued)

Research Promotion (Martin)

- Not in Attendance.
- Was decided that Tony Finch will send a check equal to money collected to Research for the money collected from Fall Golf tournament, and send the remaining money as it is collected.

Special Events (Carter)

- Announced the casino party will be held on January 20th with more information to follow

Student Activities (Schroeder)

- Was given a \$300 check from chapter funds, in order to give out three \$100 scholarships to students at UTA

Webmaster (Pace)

- Will set up Energy model forum through the chapter web site, more information will follow.

Welcome (Bartek)

- Not in Attendance.

YEA (Martinez)

- Is putting together a mentor program, more information to follow. Also, Chad Leveritt was submitted for our Fort Worth Chapter to the New Faces of engineering recognition program.

Old Business:

- Ian went over the delay in Roster publication and reduction in delinquencies.
- Ian also went over possible choices in location for the March 16th joint meeting but no final location was selected, more to follow

New Business:

- Ian asked for more technical articles, the two that Dan Merkel submitted this year have already been submitted. Ian also asked for every member of the BOG and all chairs to report to their respective RVC.

President Ian Bost adjourned the meeting at 2:01pm.

General Business Meeting – November 17, 2010

Meeting Called to order at 11:57am by Ian Bost, Chapter President.

Proceeded with self-introductions and the introduction of our guests by Tony Finch.

Old Business:

- Meeting minutes from last month's meeting were approved by motion from Jay Martin, Seconded by Clif Upham.
- Delinquencies were down and that we were 46% of our PAOE goal, 4,620 points out of 10,117

New Business:

- Ian Bost discussed upcoming events including the Integrated Design meeting in December, and the December commissioning seminar before the meeting, as well as the January meeting on Acoustics and the seminar in January on heat pumps, and the upcoming winter casino party at the end of January, and Ian encourage the membership to attend the winter meeting in Las Vegas on January 29th
- Ian Bost Turned the meeting over to Jay Martin
- Jay Martin talked about how well we did last year on research promotion. Fort Worth Chapter was one of the top fund raisers in the nation, and raised \$34,000, more than New York City, Chicago and Las Angeles

General Business Meeting – November 17, 2010 (continued)

- Jay Martin then called out the names and handed out the award coins and certificates to all the companies and individuals that donated money to ASHRAE Research last year.

Technical Session Minutes:

Cliff Upham introduced our speaker.

Speaker:

Barney Burroughs

Topic of Discussion:

ASHRAE IAQ Guide

Synopsis:

Presentation was focused on how to maintain indoor air quality.

- ASHRAE 62 is just a minimum code. Maintaining high levels of iaq requires advanced tactics.
- Start with source control. Eliminate or isolate all sources. Dilute ventilation.
- Building contamination can start with introduction through ventilation, walk in, and infiltration.
- Pay attention to outdoor air quality. Demand critical information for your local area. Outdoor air is critical and has many complications.
- Proper equipment selection and material selection is needed.
- Have a building flush out period prior to occupying the space.
- Merv rating is an efficiency only. Watch merv selection on pressure drop, energy, what the system has available.
- Reviewed real world examples and annual savings.
- In summary, IAQ requires a holistic approach for design and prevention. Great overall value and cost savings

Closing:

Ian Bost adjourned the meeting at 1:02pm.

Grassroots Committee Reports

Research Promotion

We have raised \$2,750 for Research Promotion, not including the money raised from the Golf Tournament, which is still pending.

Thanks, Jay Martin

Special Events

No update.

Student Activities

No update.

YEA Committee

The mentor/mentee survey was successfully digitized. We will be distributing the YEA Mentoring Program Survey soon to all eligible members.

Thanks, Saul Martinez

Chapter Financial Report

STARTING BALANCE DATE 10/28/2010
NEW BALANCE DATE 11/23/2010

Treasurer's Report

Tony Finch

Financial Data:

Starting Balance (10/28/10):	\$11,281.70
Deposits:	
11/05/2010 Eventbrite	\$125.00
11/23/2010 Roster Advertising Income from Clifton Upham	\$100.00
11/23/2010 Golf Tournament Fees - from Tony Finch for 2 teams	\$1,050.00
11/23/2010 Membership dues - Local due paid from National	\$210.00
11/23/2010 Membership dues - Local dues paid locally from B. Guffey	\$60.00
11/23/2010 Novermber Luncheon Meeting	\$1,250.00

Subtotal: \$2,795.00

Payments:

11/17/2010 Check #5344 Nick Schroeder - Scholarship Reimbursement	\$300.00
11/17/2010 Check #5345 Matt Carter - Golf Tournament Reimbursement	\$75.00
11/17/2010 Check #5346 Petroleum Club - Chapter Luncheon	\$1,032.73
11/17/2010 Check #5347 VOID	\$0.00
11/17/2010 Check #5348 Petroleum Club - Luncheon Service Charge	\$206.55
11/17/2010 Check #5349 Petroleum Club - October Parking Fees	\$72.50
11/22/2010 Check #5350 VOID	\$0.00
11/22/2010 Check #5351 Great Southwest Golf Club - 2010 Fall Golf	\$2,920.00
11/23/2010 Check #5352 H.E. Burroughs - Luncheon Speaker/expenses	\$665.97

Subtotal: \$5,272.75

New Balance as of 11/23/10: \$8,803.95

History Profile of W.O. Kelly

Recorded October 20, 2010

After sitting down with the ever so charming "WO Kelly", I was able to see into a very interesting human being. Besides his ongoing wit and humor, he is very dedicated to the HVAC industry and all that surrounds that.

He went to Texas A & M and obtained his Mechanical Engineering Degree. During his junior year, they went on field trips to Lockheed and Bell Helicopter to see how the engineers worked and quickly realized that he did not like that they were working in tiny cubicles and looked like cages. He then decided to change directions and go into engineering sales instead. He obtained his Bachelor of Business degree as well. He started out at Trane in Dallas back in 1959 and went to Lacrosse, Wisconsin to work with the Trane engineering group.

He came back to Dallas and became a member of ASHRAE back in 1960. He immediately became involved with the membership and started the tour through "the chairs" of the ASHRAE board. He achieved the Golden Gavel as President of the Fort Worth Chapter in 1975-76. The membership was not as large as today but the economy was doing quite well at the time.

History Profile of W.O. Kelly (continued)

He revealed that the most challenging part of achieving the Golden Gavel was selecting the proper staff to assist and keeping all the tasks in line. He credits a lot of that success to Linda who was the ASHRAE Secretary at the time. When asked what he would have done differently during that period, he said he would have never stopped at the restaurant on the bus trip for food. Their food never arrived and they were out of time so they decided to get up and leave. The restaurant manager was so enraged that the large group was leaving even though they had not delivered the food as of yet, he demanded that the ASHRAE group pay their bill anyway. WO asked Harold James who was the treasurer at the time to go ahead and pay the man which would also bring the chapter account to zero. Grant Johnson was kind enough to pay his next year's dues to keep the chapter solvent. They left without any food.

His advice for future members is to fulfill your membership and attend the events and meetings. You will gain much needed knowledge, understandings of the local industry and many longtime friendships. Get involved and go through the various positions "chairs" of the ASHRAE board. If you reach the President level, be sure to select a good group to support your position and keeps the tasks moving. He feels reaching the "Golden Gavel" level was the most rewarding highlight of his longtime ASHRAE membership. He got in doors with his career that may never have happened without ASHRAE.

--by Patty Parish

Winter Conference Technical Program to Focus on Net-Zero Energy Design, Greening the Industry

ATLANTA—Highlighting the importance of finding balance in design, the extravagant setting of Las Vegas serves as a unique contrast to the 2011 ASHRAE Winter Conference Technical Program's theme of net-zero energy design.

The Technical Program features a wide-range of programs and papers addressing the real cost of net-zero energy design, the efficient use of energy, the greening of the industrial base and other topics related to design, standards, codes and professional skills. In total, the program includes paper-related sessions – five technical paper sessions, 24 conference paper sessions and a poster session – application-oriented, non-paper seminars (57) and open discussion forums (8).

Numerous sessions address the "real cost of net-zero energy buildings" and cover modeling and design, applications and equipment. Also, several sessions examine how countries around the world have approached net zero, such as Cutting-Edge Japanese Technologies for Zero-Energy Buildings, Zero Energy Buildings around the World and European Net-Zero Energy Activities and Buildings.

As a nod to the Conference location, several sessions focus on HVAC systems for casinos, such as Designing for Improved Air Quality in Casinos with ETS and Historical Perspectives: Las Vegas Casino Design Past to Present.

Other sessions address the growing demand for green buildings and the importance of integrated design: Mechanical Engineer's Role in Green Building and Building Development: High Performance Teamwork for High Performance Buildings.

Additional sessions of interest include:

- Smart Grid and Net Zero Buildings: Where Are We Now?
- Energy Modeling of Existing Buildings
- Modeling Extreme Events
- Controls for Central Chiller Plant Optimization
- Next Generation Heat Exchangers for Net-Zero Design
- Thermal Comfort Evaluation and Standards

With so many to choose from, Conference attendees are often forced to narrow down which technical sessions they attend to only a few. However the Virtual Conference, free for paid Conference registrants, allows attendees to catch up with sessions they might not have been able to attend in person due to conflicting schedules. The

Winter Conference Technical Program to Focus on Net-Zero Energy Design, Greening the Industry (continued)

Virtual Conference includes access to all speakers' PowerPoint and audio presentations, an open forum for a two-week period following the conference and the ability to rate presentations.

The 2011 ASHRAE Winter Conference will take place at the Las Vegas Hilton hotel, Las Vegas, Nev. For complete conference information, including abstracts on all technical program sessions, or to register, visit www.ashrae.org/lasvegas. Those who take part in the early-bird registration before Dec. 31 can save up to \$160 from on-site costs.

Newest Version of Thermal Comfort Standard Provides New Provisions on Elevated Air Speeds

ATLANTA – New requirements regarding air speeds, analysis and documentation are included in the newly published ASHRAE thermal comfort standard, ANSI/ASHRAE Standard 55-2010, Thermal Environmental Conditions for Human Occupancy.

“The standard continues to focus on defining the range of indoor thermal environmental conditions acceptable to a majority of occupants, while also accommodating an ever increasing variety of design solutions intended to provide comfort and to respect today’s imperative for sustainable buildings,” Stephen Turner, of the Standard 55 Committee, said.

The standard specifies the combinations of indoor thermal environmental factors and personal factors that will produce thermal environmental conditions acceptable to a majority of the occupants within the space.

Standard 55 incorporates recent research innovations such as the use of elevated air speeds to widen the acceptable range of thermal conditions. The standard previously allowed modest increases in operative temperature beyond the Predicted Mean Vote/Percentage of Persons Dissatisfied (PMV/PPD) limits as a function of air speed and turbulence intensity.

The 2010 standard also includes a new method for determining the cooling effect of air movement above 0.15 m/s (30 fpm). This allows ceiling fans, or other means to elevate airspeed, to provide comfort at higher summer temperatures than were previously permissible. New provisions based on field study research allow elevated air speed to broadly offset the need to cool the air in warm conditions, replacing requirements that originated primarily from climate chamber studies.

Another revision makes clearer the mandatory minimum requirements for analysis and documentation of a design to show that it meets the standard’s requirements. In addition, a compliance form for documentation of design is included in an informative appendix. This compliance template mirrors the United States Green Building Council’s LEED® template for the thermal comfort design credit in LEED New Construction-2009, simplifying the LEED credit template for the designer during a project.

The 2010 version of the standard also includes improved and expanded graphics that better guide users of the standard in simple applications. Improvements to the SI and IP versions of the traditional “comfort zone” chart include enlargement, clarification and notes to aid users of the standard.

Standard 55 combines Standard 55-2004 and the 10 approved and published addenda to the 2004 edition into one easy-to-use, consolidated standard.

The cost of Standard 55 is \$69 (\$59, ASHRAE members). To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit www.ashrae.org/bookstore.

International Code Council (ICC) Takes Action on ASHRAE Proposals

ATLANTA – International building codes will incorporate requirements from a new load calculation standard from ASHRAE and ACCA as well as match requirements from Standard 90.1 under several recent proposals recently approved by the ICC membership.

Final action hearings took place during the last week of October to determine the final disposition on ASHRAE proposals to the ICC, which develops model codes that may be adopted by code jurisdictions in the United States or internationally. The actions taken will next appear in the 2012 I-Codes – due out in April 2011.

Under a proposal to the International Mechanical Code (IMC), inspection and maintenance of HVAC systems will be required by ANSI/ASHRAE/ACCA Standard 180-2009, Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems. The standard establishes minimum requirements for inspection and maintenance of HVAC systems to ensure proper functionality which will save energy and money for the building owner in addition to preventing potential accidents by failing systems.

“Inclusion of Standard 180 in code documents is an important advance,” Robert Baker, chair of the Standard 180 committee, said. “Proper maintenance is critical to preserving an HVAC Systems ability to continue to realize the energy efficiency capabilities that are designed into today’s systems. If we are to realize the vital energy independence goals that we have established, excellence in maintenance will be an important part of the package of things we must achieve.”

“Correctly designing and installing an HVAC system are only the first steps to proper performance of the system,” John Sedine, president, Engineered Heating & Cooling; ACCA chairman of the BOD, said. “An HVAC system must be properly maintained or it does not perform as originally designed; contributing to unhealthy environments, consuming excess energy, and reducing comfort levels. ACCA congratulates the code enforcement community’s adoption of the ACCA/ASHRAE 180 Commercial Maintenance Standard; providing code officials with a nationally-recognized standard to which they can refer. This is an important step toward safer and more efficient commercial buildings.”

Also approved were proposed changes regarding energy stringency based on requirements in ANSI/ASHRAE/IES Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings. These changes include:

- Adding requirements for areas under skylights, including lighting controls in areas where skylights are used in order to take advantage of natural light in conditioned spaces.
- Modifying equipment efficiency requirements for heat rejection and heat transfer equipment including open and closed circuit cooling towers, chillers, unitary air-conditioning and condensing units, unitary and applied heat pumps, single package vertical air conditioners and packaged terminal air conditioners
- Modifying the piping insulation requirements

Also related to 90.1 was a proposal that rewrote the majority of the commercial chapter of the IECC. This proposal maintained the reference to the prescriptive requirements of Standard 90.1, and made the following requirements consistent with 90.1-2010:

- Fenestration leakage
- Demand control ventilation
- Energy recovery
- Economizer efficiency
- Lighting controls, including daylight zone controls and manual lighting controls
- Lighting system functional testing
- Building area and space by space lighting power densities

The proposal calls for an additional path of compliance for water-cooled chillers and consolidation of and new requirements for some of the existing categories.

Chapter Officers and Committee Chairs

Officers

President	Ian L. Bost	(817) 338-1277	ian.bost@mail.ashrae.org
President-Elect	Richard J. Watters	(817) 338-1277	richard.watters@mail.ashrae.org
Secretary	Dan Merkel	(414) 807-0204	daniel.merkel@mail.ashrae.org
Treasurer	Tony Finch	(817) 656-6076	tonyfinch@mail.ashrae.org
Governor	Jay Martin	(214) 490-2072	jay.martin@mail.ashrae.org
Governor	John Rhodes	(972) 386-5629	johnrhodes@mail.ashrae.org
Governor	Jay Sullivan	(817) 805-0020	jay.sullivan@mail.ashrae.org

Committee Chairpersons

Attendance	Aaron Bartek	(817) 838-4363	aaron.s.bartek@carrier.utc.com
Audit	Phil Farco	(817) 267-8651	phil_farco@mason-dallas.com
Chapter Technology Transfer	Clif Upham	(214) 483-5000	clif.upham@engineeredair.com
Historian	Patty Parrish	(817) 791-3227	patty.parrish@us.belimo.com
Honors and Awards	Larry Akers	(817) 336-0543	lakers@fribergassociates.com
Membership	Tyson Olivo	(940) 765-9081	tolivo@victaulic.com
Newsletter	Richard J. Watters	(817) 338-1277	richard.watters@mail.ashrae.org
Refrigeration	Jeff Hammond	(817) 735-7421	jsh@freese.com
Research Promotion	Jay Martin	(214) 490-2072	jay.martin@mail.ashrae.org
Student Activities	Nick Schroeder	(817) 272-9075	nschroeder@uta.edu
Special Events	Matt Carter	(817) 805-0020	mattc@mjec.com

Editor's Notes

There are many notices coming soon. Please watch for these in your upcoming Chapter Newsletter. Things that have been discussed and may be coming: (if you have any input on one of them or all of them please contact your Chapter Board Members)

- Fall Sporting Clay Tournament (date TBD)
- Winter Party (January, 2011)
- ASHRAE Winter Meeting - January 29th through February 2nd
- Don't forget CRC in Dallas, Texas - April 14th through 16th
- Spring Golf Tournament (date TBD)

If anyone has news that pertains to ASHRAE locally please let me know and we will see about including it in an upcoming Therm.

Remember: **THIS IS YOUR CHAPTER NEWSLETTER.**

Thank you, Richard Watters

THERM Subscription Management

Need assistance? Please use the links below or contact us by [e-mail](mailto:therm@ashrae-ftw.org).

To change your e-mail address for all THERMS, [click here](#). This will only change the e-mail address to which your THERM is sent.

To ensure that *The THERM* is not blocked by spam-blocking software, add

therm@ashrae-ftw.org to your address book.

Should you encounter problems reading a THERM, you may access any issue archived on the ASHRAE Web site at [this link](#).

To subscribe from this THERM, [click here](#).

To unsubscribe from this THERM, [click here](#).

All contents copyright © 2009
Fort Worth Chapter of ASHRAE
6300 Ridglea Place, Suite 700
Fort Worth, Texas 76116