



# The THERM

Fort Worth Chapter of ASHRAE Newsletter

www.ashrae-ftw.org

September 2007

Chapter Meeting

Wednesday

September 19, 2007

Petroleum Club

39<sup>th</sup> Floor

BOG.....10:30 am

Lunch ..... 11:45 am

Program.....12:15 pm

Please R.S.V.P.

Rick O'Connor

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Program

Rives Taylor

Director of Sustainable Design

Gensler

\*Mechanical design techniques to save energy and gain LEED points.

Individual Highlights

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Hello Everyone,

It was nice to see everyone again at our August 15<sup>th</sup> kick off the year meeting. I would first like to thank Richard Long for becoming our Refrigeration Chair. I would also like to thank Jay Sullivan for becoming our Golf Tournament Director. Jay will be working with John Rhodes on our Fall Classic. Further information will be coming so please read the Therm and the website for more details.

Last month we had the pleasure to listen to Ric Rambacher, President of Engineered Air. Ric spoke about new ASHRAE guidelines that will be recommendations to achieve energy savings over the minimum code requirements of Standard 90.1-1999.

This month Richard Watters has set up a speaker to discuss LEEDS. Come learn how the LEEDS program works and how to qualify your project for this distinction.

During the Board of Governors meeting, Tony Finch our Student Activity Chair said he is about to kick off another year with local students. Tony will be looking for help with mentoring and software applications. Please see Tony if you could donate some time to help develop the next group of engineers that will be entering the workforce.

I would like to remind every member to make sure you are current on your membership and your Fort Worth Chapter dues. We use these funds to help support your chapter operations. If you would like to be a member, or know someone that "Should" be a member, please have them contact Garrett Brown, or go online [www.ashrae.org](http://www.ashrae.org) and sign up.

As always, I look forward to seeing everyone this month. Please remember to RSVP for the Meeting by September 19th. Contact me at [rick.o'connor@carrier.utc.com](mailto:rick.o'connor@carrier.utc.com) or (972) 789-3431.

Please visit the Ft. Worth Chapter website at <http://www.ashrae-ftw.org/> for a variety of useful information such as current and past newsletters, monthly meeting schedule and links to other chapters.

Respectfully,

Rick O'Connor  
Chapter President

## Program

Rives Taylor is a Texas licensed, practicing architect and educator. He is the firm-wide Director of Sustainable Design for the design firm Gensler. For three years he has also engaged with Houston Advanced Research Center, focusing on sustainable building technologies for the hot and humid climate of the Gulf Coast. For his efforts in advancing sustainable design in the Houston region he was recognized in the fall of 2005 with the President's Citation of the Houston Citizen's Environmental Coalition.

Rives focuses on Sustainable Design at the Gerald D. Hines College of Architecture of the University of Houston. Both here and at the Rice University School of Architecture, where he is a lecturer, he teaches numerous sustainable design methodology seminars as well as an advising studio on this approach. As adjunct professor at the University of Houston he teaches general quantitative structures and materials/methods core classes, architectural history and theory lectures and seminars, and architectural research methods.

He is on the board of the Rice Design Alliance, sits on its programs, editorial and fund raising committees, and is active in the local chapter of the American Institute of Architects. He is also a member of the national USGBC and is a member of its program committee. He is a board member, as well as director of communications, in the Houston USGBC chapter. He is LEED™ 2.0 accredited, and a certified Green Advantage trainer, to assist the building contractor community in its sustainable efforts.

Mr. Taylor's discussion at the September ASHRAE meeting will focus on mechanical design techniques to save energy and gain LEED points. He will discuss potential hurdles associated with the Energy and Atmosphere Credits for projects seeking LEED certification, and will talk about LEED and sustainable energy success stories in Texas.

## Minutes – Board of Governors

Attendees: Rick O'Connor, David James, Jay Martin, Ian Bost, Les Brown, Cody Pace, Don Hardin, Jay Sullivan, Dan Merkel, Richard Watters, Garret Brown, and Tony Finch.

Wendell Moore (Paris ISD) also was in attendance as an observer.

Meeting Called to order at 10:30 am by Rick O'Connor, Chapter President

### Reports:

President-Elect (David James): No report.

Secretary (Jay Martin): Tax exemption paperwork is finalized, we are sales and use tax exempt (again). Anyone who needs to buy items on behalf of the chapter is to notify the seller that it will be a tax exempt purchase. The Treasurer can provide forms for this as needed. Claims have been filed with the State for \$3,455.47 in back taxes that were paid in error between 09/01/04 and 06/30/07.

Treasurer (Ian Bost): Audit was completed 08/14/07, balance as of today is \$3,634.98 (net of outstanding checks)

Board of Governors (Sid Ellis, Cody Pace, Les Brown): No report.

### Committee Chairs:

Membership Promotion (Garret Brown): No report.

Student Activities (Tony Finch): Will be talking to student groups at UTA about participating in ASHRAE design competition.

Chapter Technology Transfer (Richard Watters): Plans have been made for Aug-Dec meetings. Brainstorming meeting to follow the Chapter Meeting today.

Research Promotion (Sid Ellis, NIA): No report.

Refrigeration (Vacant): No report.

Honors & Awards (Don Hardin): Don encouraged everyone to update their bio's online. This is how award credentials are verified.

Newsletter (David James): Deadline for newsletter entries by the Wednesday following the meeting.

Webmaster (John Rhodes, NIA): No report.

Historian (Dan Merkel): The Fort Worth Library has offered us space and cataloging services for our historical records. Dan will coordinate with Shirley Apley to make this happen this year.

Special Events (W.O. Kelly, NIA): No report.

#### Old Business:

- Meal Costs: to remain \$20/person for the upcoming Chapter year.
- Technical speakers for August and beyond, planned through December.
- Sports events for RP: 2 golf tournaments, 2 sporting clays tournaments.
- David James and Jay Martin will follow up on roster sponsors for payment and commitment for the 2007-2008 Chapter year.

#### New Business:

- Account Audit: Completed 08/14/07, balance is \$4,516.97 as of 07/31/07. Outstanding checks at that time totaled \$881.99.
- Jay Sullivan will be our new golf events coordinator.
- We will aim to have our tournament in October, date and location of tournament to be researched by Jay Sullivan.
- We will have at least one seminar this year, Garrett Brown volunteered to lead. Date and subject to follow.
- Rick O'Connor to talk to Gary Fields about helping to organize a sporting clay tournament for the fall.
- Meeting today (after Chapter meeting) to discuss CTTC programs for the rest of the year.
- November meeting is cancelled due to proximity to Thanksgiving holiday and due to historically poor attendance that month.

## **Minutes - Chapter Business Meeting**

### Business Meeting:

Meeting Called to order at 12:00 pm by Rick O'Connor, Chapter President

- Rick O'Connor, Chapter President, presiding. Rick welcomed everyone with (36) members and (11) guests present.
- Jay Martin, Secretary, introduced guests.
- Members did self introductions.
- The meeting minutes for the June meeting were approved by Cody Pace.
- Rick extended an invitation for all guests present to join the chapter by meeting with Garrett Brown after the meeting.

### New Business:

- Meal Costs: to remain \$20/person for the upcoming Chapter year.
- The fall golf tournament will be in October, details to follow in next months newsletter and at the meeting. Jay Sullivan will be organizing.
- A sporting clay tournament will be planned for the fall, details to follow.
- The roster will be published in November, please go online to verify your contact and company info is up to date.
- The Refrigeration committee chairman position is still open – Richard Long with Summit Consultants volunteered to fill this role for the '06-'07 chapter year.

### Technical Session:

Richard Watters, CTTC Chairman, introduced our speaker:



Program: Application of USGBC / ASHRAE AEDG (K thru 12) for schools

Speaker: Mr. Ric Rambacher, President of Engineered Air Co.

Biography:

Ric is the President of Engineered Air Co of DeSoto, Kansas. He has been in the HVAC industry his whole career and with Engineered Air for 14 years.



Synopsis:

USGBC / ASHRAE AEDG (K thru 12) are a series of publications designed to provide recommendations for achieving energy savings over the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-1999. The guides have been developed in collaboration with these partnering organizations: The American Institute of Architects (AIA), the Illuminating Engineering Society of North America (IESNA), the U.S. Green Building Council (USGBC), and the U.S. Department of Energy (DOE).

President Rick O'Connor adjourned the meeting at 1:30 pm.

**Treasurer's Report**

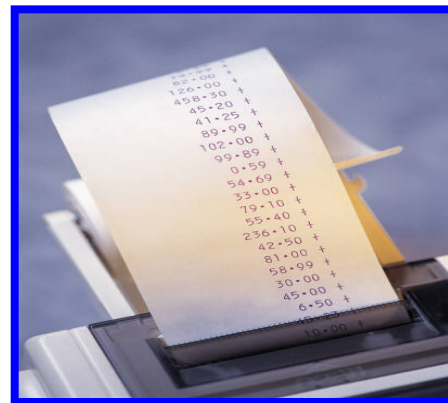
*Ian Bost*

Meeting Information:

Date of Meeting:	08/15/07
Members	36
Guests	11
<b>Total:</b>	<b>47</b>

Financial Data:

Starting Balance (7/1/07):	\$	<b>2,547.97</b>
Deposits:		
Dues	\$	1,120.00
<b>Subtotal:</b>	<b>\$</b>	<b>1,120.00</b>
Payments:		
Past Presidents Invitations	\$	32.99
<b>Subtotal:</b>	<b>\$</b>	<b>32.99</b>
<b>New Balance as of 8/1/07:</b>	<b>\$</b>	<b>3,634.98</b>



**Chapter Officers**

President	Rick O'Connor	972-789-3420	rick.o'connor@carrier.utc.com
President-Elect	David James	817-921-5434	djames@haroldjames.com



Secretary	Jay W. Martin	817-735-6756	Jay.martin@c-b.com
Treasurer	Ian Bost	817-338-1277	ibost@bhbinc.com

## Board of Governors

Cody Pace	817-336-0543	cody.pace@mail.ashrae.org
Les Brown	817-338-1277	lbrown@bhbinc.com
Sid Ellis	972-206-2590	sellis@envoromaticsystems.com

## Committee Chairs

Attendance	Rick O'Connor	972-789-3420	rick.o'connor@carrier.utc.com
Student Activities	Tony Finch	817-281-6165	tonyf@texasairsystems.com
CTTC	Richard Watters	817-338-1277	rwatters@bhbinc.com
Historian	Dan Merkel	817-838-4307	dan.merkel@carrier.utc.com
Membership	Garrett Brown	817-878-4242	gsb@summitmep.com
Research Promotion	Sid Ellis	817-206-2590	sellis@enviromaticsystems.com
Newsletter Editor	David James	817-921-5434	djames@haroldjames.com
Refrigeration	Richard Long	817-878-4242	rjdklong@juno.com
Honors and Awards	Don Hardin	817-292-6904	dchardin@swbell.net
Webmaster	John Rhodes	682-687-7655	jrhodes@aisd.net

## ASHRAE NEWS

### ASHRAE Research Investigates Photocatalytic Oxidation Technology



#### For Release:

August 20, 2007

#### Contact: Jodi Dunlop

Public Relations

678-539-1140

[jdunlop@ashrae.org](mailto:jdunlop@ashrae.org)

1791 Tullie Circle NE

Atlanta, GA 30329

**ATLANTA** – Air-cleaning equipment featuring new photocatalytic oxidation technology is used to remove contaminants from indoor and outdoor air.

But does this technology also introduce chemicals into the air?

New research from ASHRAE will provide a method for analyzing by-products from photocatalytic oxidation (PCO) air cleaning devices, improving understanding of the technology.

“This research will lead to a new generation of air cleaners that have both low energy operation and low release of chemicals,” said Carolyn Kerr, a member of ASHRAE’s Technical Committee (TC) 2.3, Gaseous Air Contaminants and Gas Contaminant Removal Equipment, which is overseeing the project. “This will assist in providing an optimal indoor environment for buildings, vehicles and facilities for comfort, health and productivity of occupants.”

PCO, used for removal of gaseous contaminants, requires less energy to operate than many existing filter systems, according to Kerr. In the best-case scenario, all of the contaminants removed are converted to non-threatening levels of carbon dioxide and water. However, the contaminant conversion process has the potential to release chemicals that are less desirable than the ones being removed from the air stream, Kerr said.

The research will investigate a variety of stand-alone and in-duct air cleaners using PCO technology, challenging them with several airborne contaminants to identify chemicals released.

ASHRAE Research Project 1457, *By-Product Production from Photocatalytic Oxidation Associated with Indoor Air Cleaning Devices*, was awarded to University of Wisconsin. The \$124,889 project is expected to take two years to complete.

The project is one of 12 ASHRAE recently approved for funding, totaling \$1.4 million. Others are:

- *Modeling Low Velocity Large Scale Fluctuating Flows in Ventilated Spaces at Transitional Reynolds Numbers*, RP-1271, Purdue University, two years, \$120,156, sponsored by TC 4.10, Indoor Environmental Modeling.
- *Particle Counter Specification for Use with Filter Performance Test Standard ANSI/ASHRAE Standard 52.2-1999*, RP-1287, RTI International, 15 months, \$101,853, TC 2.4, Particulates air Contaminants and Particulate Contaminant Removal Equipment.
- *Modeling VOC Sorption of Building Materials and Its Impact on Indoor Air Quality – Phase II*, RP-1321, Tsinghua University, two years, \$109,035, TC 4.10.
- *Stability and Accuracy of VAV Box Control at Low Flows*, RP-1353, Drexel University, 18 months, \$99,153, TC 1.4, Control Theory and Applications.
- *Method of Test to Evaluate Field Performance of Commercial Kitchen Ventilation Systems*, RP-1376, University of Minnesota, one year, \$94,048, TC 5.10, Kitchen Ventilation.
- *Recommendations Based on Field Testing and Analysis of High-Altitude Installations of Gas-Fired Boilers and Water Heaters*, RP-1388, Gas Consultants, one year, \$48,454, TC 6.10, Fuels and Combustion.
- *Study of Carbon Dioxide Condensation in Chevron Angle Plate Geometry Exchanger*, RP-1394, Washington State University, two years, \$89,315, TC 8.5, Liquid-to-Refrigerant Heat Exchangers.
- *Comparison of Vertical Display Cases*, RP-1402, University of Missouri, two years, \$104,746, TC 10.7, Commercial Food and Beverage Cooling Display and Storage.
- *Experimental Evaluation of Two-Phase Pressure Drops and Flow Patterns in U-Bends for R-134a, R-410a and Ammonia*, RP-1444, Swiss Federal Institute of Technology, three years, \$179,000, TC 1.3, Heat Transfer and Fluid Flow.
- *Experimental Validation of Modeling Tools for Mixed Gas Refrigeration Cycles*, RP-1472, University of Wisconsin, one year, \$50,000, TC 10.4, Ultra-Low Temperature Systems and Cryogenics.
- *Development of Typical-Year Weather Files from the ISH Database of Historical Weather Data from 2,500 International Locations*, RP-1477, White Box Technologies, one year, \$62,551, TC 4.2. Climatic Information.

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.

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