



THERMOGRAM



The New Jersey Chapter of ASHRAE Newsletter

www.njashrae.com

April 2009

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ASHRAE
Engineering
for
Sustainability

NJ Chapter of ASHRAE Meeting

Tuesday, May 5th, 2009

at

Woodbridge Hotel & Conference Center

(formerly Sheraton)

515 Route 1 South & Gill Lane, Iselin, NJ



Win Win Negotiating Skills

Presented by

Barry Benator, PE, CEM
ASHRAE Distinguished Lecturer
Benatech, Inc.

Cost: \$50.00 Members
\$55.00 Non-members
\$ 5.00 Students

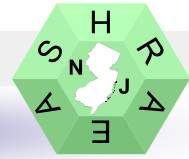
RSVP: REPLY@NJASHRAE.COM or call 732-218-7463
By May 1st, 2009

4:30 Board of Governors Meeting
5:30 Dinner and Presentation Speaker

Upcoming Event

Sign up for ASHRAE Distinguished Lecturer Julian de Bullet's
Technical Lecture on April 29th, 2009— Details on page 6

ASHRAE Annual Conference: details page 11



COMMITTEES
(continued)

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Scholarships
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Seminars
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Special Events/ Golf Outing
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Technical Sessions
Mark Richter, P.E.
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Calendar of Upcoming Meetings



NJ ASHRAE Golf Outing in Memory of Gordon Stillwell -
Date and Location- TBA

JUNE 2, 2009 Spouses Night—NJ Meadowlands

Do you have a topic of interest that you would like to present at a NJ ASHRAE meeting?

Presentations of a non-commercial nature are always welcomed. Contact any chapter officer or committee chairperson for more information.

www.njashrae.com
WWW.REPLY@NJASHRAE.COM

ASHRAE Society
Toll Free Number
1-800-527-4723



President's Message

Dear Chapter Members,

Although the Spring season has sprung and summer season is around the corner, the NJ chapter is still in full bloom.

We have of some activities that you do not want to miss

NJ ASHRAE Technical One Day Workshop: Cutting edge technical workshops on Central Plant and Chilled water design topics presented by ASHRAE Distinguished Lecturer Mr. Julian DeBullet, is a must for young engineers in the business and senior engineers needing a primer on various Chiller topics.

May 5th Dinner Meeting: In these economic times, Negotiating is an integral part of the engineering profession. Unfortunately, there are myths about what it takes to be a successful negotiator. This presentation dispels those myths and offers proven strategies to help you negotiate what you require, while at the same time helping your counterpart meet his or her needs. The objective is for both parties to be successful so you both want to do business with each other again. At the end of the negotiating process, both parties should be *winners!* ASHRAE Distinguished Lecturer, Mr. Barry Benator CEM will be presenting on Negotiating Skills to provide tips on negotiating a contract or project in your favor.

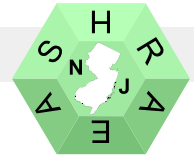
2009 NJ ASHRAE Golf Outing in Memory of Gordon Stillwell: In memoriam of the late Mr. Gordon Stillwell of Stillwell Hanson, NJ ASHRAE will continue our annual spring golf outing at Golf Hollow Country Club in Somerville N.J. This is a great time of year to take the day and bring a client or just catch up with colleagues.

June Dinner Meeting: Tentatively set for early June, we will be arranging another outing to the N.J. Meadowlands for a night of great food, harness horse racing, and the chance to win on a Trifecta. The dinner meeting will be offered at a discount for chapter members and a guest.

Mark

2008-2009 Presidential Award of Excellence (PAOE) Summary

Chapter #	Chapter Name	Chapter Members/ students	Member Promotion	Student Activities	Research Promotion	CTTC	History	Chapter Operations	Chapter PAOE Totals
007	N.J.	787	480	1387	290	945	225	740	4067



May Dinner Menu

Tossed Garden Salad

Roast Top Sirloin

Vegetables & Potatoes

Carrot Cake

Iced Tea, Coffee, Hot Tea

*Vegetarian entrée also available



Speaker Bio : Barry Benator, PE, CEM

Barry Benator is founder and president of BENATECH, INC., a consulting and training firm serving clients throughout the U.S. and internationally. Specializing in leadership and management services for the engineering profession, he has more than 30 years of engineering, project management and training experience. He has project managed more than 100 projects, and both he and BENATECH have received awards and commendations for their engineering and training performance. He has taught leadership and management skills to more than 5,000 engineers, managers, executives and others in leadership positions. He has served as an adjunct instructor at Mercer University in their MBA program.

Mr. Benator is coauthor of *Project Management & Leadership Skills for Engineering & Construction Projects* and developer of more than 20 courses on leadership, project management, communication skills, negotiating skills, energy engineering and life cycle costing. A certified *Situational Leadership*[®] trainer and a certified *Myers-Briggs Type Indicator*[®] practitioner, Mr. Benator has been a pioneer in helping engineers make that sometimes difficult transition from engineer to supervisor/leader and project manager. He has been active in technical and professional organizations, and has received awards for his technical and leadership contributions, including the *Energy Innovation Award* from the Department of Energy and the *Engineering Excellence Award* from the Consulting Engineers Council of Georgia.

Mr. Benator will be speaking about “Win-Win Negotiating Skills”

Negotiating is an integral part of the engineering profession. Unfortunately, there are myths about what it takes to be a successful negotiator. This presentation dispels those myths and offers proven strategies to help you negotiate what you require, while at the same time helping your counterpart meet his or her needs. The objective is for both parties to be successful so you both want to do business with each other again. At the end of the negotiating process, both parties should be *winners!*

Green ASHRAE News:

Stimulus Funding for Schools Provides Energy Efficiency Opportunities
ASHRAE Advanced Energy Design Guide Provides Simple Tool

As school boards and superintendents develop programs to utilize recent U.S. economic recovery stimulus funds, projects focused on improving energy efficiency can result in long-term savings for school districts.

Guidance from The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) can help schools earn an A+ in achieving that efficiency.

The American Recovery and Reinvestment Act (ARRA) signed by President Obama on February 17, 2009, provides significant funding and financing opportunities to modernize, renovate and repair public schools. Under the "State Fiscal Stabilization Fund" up to \$48.3 billion can be allocated to schools. An additional \$25 billion in eligible bonds also have been authorized.

ASHRAE and other leading building industry organizations have developed the *Advanced Energy Design Guide for K-12 School Buildings*. The guide provides recommendations for achieving 30 percent energy savings over the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-1999. Estimates show that a full 16 percent of schools districts' controllable costs is spent on energy.

"Beyond energy savings, by implementing the recommendations, schools may benefit from an improved learning environment, reduced operating costs, reduced environmental and climate impacts, and enhanced teaching opportunities on the environment," ASHRAE President Bill Harrison said.

The recommendations in the guide allow those involved in designing or constructing school buildings to easily achieve advanced levels of energy savings without having to resort to detailed calculations or analysis. All of the energy-saving recommendations for each of the eight U.S. climate zones are summarized in a single table. Additional recommendations point to other opportunities to incorporate greater savings into the design of the building.

More than 14,000 free copies of the *Advanced Energy Design Guide for K-12 School Buildings* were sent to school systems in the United States last spring.

Details on the stimulus funding for educational facilities can be found on the Department of Education's Recovery page (<http://www.ed.gov/policy/gen/leg/recovery>). Copies of the *Advanced Energy Design Guide for K-12 School Buildings* are available for free download at www.ashrae.org/freeaedg or print copies may be ordered from the ASHRAE Bookstore at www.ashrae.org

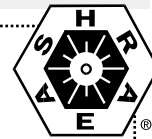
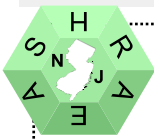
Region 1 CRC— Invite from Garry Myers, Region I DRC

Greetings fellow ASHRAE Region I members. The annual Chapter's Regional Conference (CRC) is where the membership meets ASHRAE society. Chapters give their annual reports, the Regional officers present update on their committee activities, and motions for change are brought forward and acted upon. This year the Region I CRC will be held in Albany, New York and is hosted by the Northeast Chapter. The conference kicks off on Thursday, August 27th.and concludes on Saturday the 29th.

As this is a week earlier than usual, I thought I would get the official flyer to you early to facilitate your planning. The CRC '09 committee has been working hard for two years planning this event and has a lot to offer. Please mark your calendar and join us for this exciting event.

- Garry Myers

Visit www.ashraeregion1.org website for additional information and event registration form



NJ ASHRAE presents Julian deBullet Technical One Day Workshop Wednesday April 29, 2009

Julian R. deBullet, ASHRAE Distinguished Lecturer
Technical Workshop Program Schedule

- 8:30–9:15 am Registration and Continental Breakfast
- 9:15–10:15 am Energy Analysis - Option or Necessity?
- 10:15–10:30 Break
- 10:30– 11:30 Condenser Water Heat Recovery
- 11:30–12:15 pm - Complimentary Lunch
- 12:15–1:15 pm Variable Primary Chilled Water Flow Systems
- 1:15–1:30 Break
- 1:30–2:30 pm High Performance Chilled Water Design
- 2:30 pm End

Price of \$95 includes lunch (walk-ins \$110)

Please book early, class size is limited to 25 attendees
Workshop is being held at JCP&L Red Bank Facility—directions on next page

Name _____ Phone Number: _____

Company Name _____

Email address _____

RSVP to reply@njashrae.com no later than April 24th

JULIAN R. DE BULLET Biography

Julian R. de Bullet has over 30 years experience in the HVAC industry. His career has concentrated on the applied use of Chilled Water and All-Air systems as a manager of applied equipment sales and as a manager of a service/performance contracting operation.

Mr. de Bullet the Director of Industry Relations for McQuay International, based in Washington D.C. He is responsible for assisting McQuay customers and McQuay sales representatives in HVAC&R system design and specification. He is a member of numerous industry associations concentrating on energy efficiency and responsible refrigerant use.

As ASHRAE Vice President (2001/2003), he served on the Board of Directors and the Executive Committee and was Chair of Member Council and Publishing Council. He is Past President of the National Capital Chapter and was Director and Regional Chair for ASHRAE Region III. He is an ASHRAE Distinguished Lecturer. He chaired the Professional Development Committee and is a member of the Programs and Education Council and the Society Advocacy Committee.



Directions to JCP&L - Red Bank Facility

One River Center - Building 3
331 Newman Springs Rd., Red Bank, NJ 07701

Directions from North Jersey:

Take Parkway South to Exit 109 (Red Bank / Lincroft). Pay toll and get in the CENTER Lane before the light. Turn LEFT (heading East) onto Newman Springs Road. Get into the RIGHT hand lane. Travel UNDER the Parkway.

First light is for Half Mile Road, go straight through this light.
500 feet later is another light for the driveway into the Mack Cali Office building campus.
Second light is for the office building campus driveway. Turn RIGHT at this light onto the driveway.

****Go approx. 200 ft to the first driveway on your right. Turn into this driveway / parking lot. This is Building 3, Main entrance / lobby to Building 3 is all the way down at the end of the driveway. Parking is tight, and you may have to park and walk a distance to get into the building.**

Once you enter through the main entrance into the lobby, DO NOT CHECK IN WITH THE GUARD. Take elevator to 3rd Floor, turn right and walk around to the open set of JCP&L glass doors across the atrium from the elevator bank.

Directions from South Jersey:

Take Parkway North to Exit 109 (Red Bank / Lincroft).

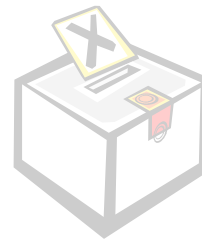
Stay in right lane and head East, merging onto Newman Springs Road.
DO NOT CHANGE LANES. Stay in right lane only.

After merging, turn Right at the first light. This is the entrance driveway into the office building campus. Follow directions above starting with **“**Go approx. 200 ft....”**

NJ ASHRAE Nomination Slate 2009-2010

Officers

- President – Janet Shipton
- President Elect – Chris Phelan
- Vice President – Vacant
- Treasurer – Roger Shults
- Secretary – James Sarno P.E.



Board of Governors

- Linda Carolan
- Jori Fahrenfeld
- Mark Richter
- John Tellefsen P.E.
- Scott Smith

Leadership Interview - Stan Slabinski

Some past chapter presidents disappear while others stay involved. One very active past president is Stan Slabinski. Most chapter members recognize him due to his lengthy involvement with ASHRAE. I decided to interview Stan and share his perspectives. Stan was born in Wilkes Barre, Pennsylvania. His older brother was an electrical engineer but he spent much of his time on mechanical work at the firm. His brother encouraged his interest in drafting in junior high school. He started college at Penn State. He received his BS and MS at NCE/NJIT.



Elaine and Stan

He went to work at Ross Engineering after college. He started his technical career as an engineer in the office designing industrial ovens. The company had a division located in Toledo, Ohio that moved to New Brunswick in about 1968. The division was known as Kathabar. Not everyone from Ohio moved to New Jersey so they had openings in R&D. He worked in that unit for the next twenty years. He then spent five years in applications and six more years in sales. His lengthy time at Kathabar gave him the detail understanding of desiccant dehumidification.

The move from a technical career to sales scares many of us. Most engineers shy away from sales. They think of a vacuum salesman with equipment under their arm knocking on doors. The R&D at Kathabar was budget cut during a recession. A long time sales person was about to retire. Stan knew the product line, the key customers, and their applications. Kathabar would normally require years of experience before you were placed in a sales position. He assisted clients in solving their problems while making sales. It is much easier to sell a product you fully understand and believe in. Stan made the transition with ease.

He became an ASHRAE member along a familiar path. He was taking an HVAC course at NCE. The ASHRAE handbook was required for the course. You had to join ASHRAE to receive a free handbook. It was a great deal for ASHRAE in that we have had a 40+ year member to show for that deal. His work at Kathabar led him to join various technical committees. Stan enjoys the tasks. He also commented that it keeps you connected with industry. At TC meetings, you share things you have learned and learn from others. You establish a technical network related to your specific needs. You can also guide ASHRAE towards research in specific areas. Stan was a member of Technical Council and attended ASHRAE Winter and Summer meetings. He worked on various chapter committees and offices in New Jersey Chapter. His easy going disposition and sense of humor made for teamwork during his time as president. "I still have fond feelings for all the board members when I was an officer."

He was elected as Director at Large (DAL) of ASHRAE. He describes it as the "best job and activity I ever was involved in related to ASHRAE." It was a great experience working on the President Elect Advisory committee, attending Society Board meetings and being the EXO member from the Board to standing committees. Everything was great. The ASHRAE officers that I worked with were first rate and good role models. I learned a lot from them. As a DAL you are assigned to be EXO to two or three committees at a time. You are rotated on to many committees during your term. You spend most of the time listening and observing the operation of the committee. You guide the committee related to Board activities and report back to the President on how the committee is functioning. "It was a great job."

Stan enjoys, hunting camping, working in the garden, and spending time with his family. He bought a 27' trailer last summer and plans to do much more camping. His lovely wife Elaine, three children, and five grandchildren keep him active. None of his offspring went into engineering. All are successful. "Perhaps one of the grand kids will be an engineer."

Bob Daly
Chapter Historian



ASHRAE Learning Institute Spring 2009 Online Courses

Live Instructor Learn at your Computer Limited Class Size Real-Time Instructors

book

1. Internet: <http://www.ashrae.org/onlinecourses>

2. Phone: Call toll-free 1-800-527-4723

\$169 ASHRAE Members/ \$236 Non-members

Note: You may register up to 24 hours prior to an online course

Earn 3 PDHs/AIA LUs or .3 CEUs

Courses:

MasterFormat 2004 for HVAC Specifications: Monday, April 27, 2009

Natural Ventilation: Monday, May 4, 2009

The Commissioning Process & Guideline 0: Wednesday, May 6, 2009



ALERT....ALERT....ALERT....CHAPTER DUES ARE NEEDED!....ALERT....ALERT....ALERT

The New Jersey chapter of ASHRAE supports ASHRAE Research, scholarship awards, high school and college engineering programs and provides continuing education programs for our members and the community. All of these tasks are funded for the most part by your chapter dues.

Unfortunately, even though our membership roles have been stable for a very long time we are experiencing a severe shortage in dues payments. We believe that some of the problem has to do with the membership renewal form and we have addressed this with Society.

In the meantime, it is not too late to rectify the unintentional oversight.

Please review your membership renewal form and if you find that the second line is blank and you wish to either become or remain a member of our local chapter simply send a \$50 check payable to New Jersey ASHRAE, attention:
Chris Phelan, Treasurer, 228 Scoles Ave., Clifton, NJ 07012.

The New Jersey chapter is one of the largest ASHRAE chapters by membership in the world. We have a big responsibility to forward the good works of Society and we rely on our members financial support to achieve those goals.

Thank you,

Russ Graham
Membership Chair





REGION 1 Officers 2008 – 2009

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Regional Refrigeration Chair
(Position Vacant)

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ASHRAE Rolls into Louisville for 2009 Annual Conference

The pounding hoof beats into the final turn. Ice tinkles in the glass of a frosted mint julep. The plaintive echoes of rivercraft are heard as they signal the drawbridge. These are the sights and sounds of Louisville....the home of ASHRAE's 2009 Annual Conference.

"*Rolling on the River* serves as the conference theme and echoes ASHRAE's mission," Bill Harrison, ASHRAE president, said. "A steady flow of rapidly advancing standards and research, both complimented by our technical and educational program, will enhance ASHRAE's ability to drive the ongoing transformation to a more sustainable built environment."

The ASHRAE Annual Conference takes place June 20-24. To register or for more information, visit www.ashrae.org/louisville. Most events take place at the waterfront Galt House Hotel.

The ASHRAE technical program, with nearly 100 sessions, focuses on optimal indoor air quality. It begins Sunday, June 21, and ends Wednesday, June 24, with all sessions at the Galt House. Complete program details will soon be available at www.ashrae.org/louisville. The technical program features a large building systems track that begins with an introduction to large buildings and addresses sustainable large building design, energy modeling, smoke control and specifically indoor sports facilities, entertainment venues, and museums and libraries. Other tracks with multiple programs include systems and equipment, indoor air quality, exergy and sustainability.

The conference keynote speaker is Susan Roaf, professor of architectural engineering at Heriot Watt University, Edinburgh. Roaf's thought-provoking comments include a range of building- and climate-related risks that individuals will face in the future along with a range of actions that homeowners and legislators can take to future-proof lifestyles against the growing challenges of the 21st century. She speaks at the Plenary Session on Saturday and the technical plenary on Sunday.

The ASHRAE Learning Institute offers two full-day professional development seminars and four half-day short courses, focusing on a range of HVAC&R related topics. New sessions include *Data Center Energy Efficiency* and *Air-to-Air Energy Recovery Systems*. ASHRAE's Standard 90.1 course has been revamped to focus on using the standard to meet LEED and federal tax credit requirements.

ASHRAE also launches its newest certification program - Commissioning Process Management Professional. The certification recognizes that those who manage the commissioning process need to have people- and project-management skills in addition to knowledge of building design, construction, operations and maintenance. For more information, visit www.ashrae.org/cmpm.

ASHRAE technical tours offer an inside view of how technology developed by members is practically applied in building environments. Tours include the central steam and chilled water plant at Louisville Medical Center, an HVAC system for a Class 100/1000 cleanroom at the University of Louisville, the CMTA Corporate Headquarters Building, and the Scribner Place YMCA and Aquatic Center.

In addition, ASHRAE President-Elect Gordon Holness, P.E., Fellow ASHRAE, Life Member, a consulting engineer and chairman emeritus, Albert Kahn Associates Inc., Detroit, Mich., takes office as 2008-09 president. Holness presents his inaugural address at the president's luncheon on Monday, June 22, focused on energy efficiency in existing buildings.

*****Go to page 13 for information on Conference sessions*****



ASHRAE Provides Federal Recovery Act Resources

With U.S. economic recovery stimulus funds coming down the pipeline, state and local governments have a once-in-a-lifetime opportunity to upgrade and modernize the nation's infrastructure.

To encourage investment in projects with the greatest long-term impact, ASHRAE has put together resources to help its members engage decision-makers in identifying and planning projects in their areas. Two resource packages related to recovery funding and energy efficiency in schools are being distributed to ASHRAE's 124 chapters in the United States, encompassing some 35,000 members. The packages and supporting information can be found at www.ashrae.org/recovery.

"The American Recovery and Reinvestment Act provides significant funding to federal agencies and state and local governments for the improvement of government-owned infrastructure," Bill Harrison, ASHRAE president, said. "ASHRAE members have the knowledge, experience and resources to assist state and local governments in determining projects with the greatest value and return on investment."

An *ASHRAE Member's Guide to Recovery Funding* provides information on the American Recovery and Reinvestment Act, areas of funding, resources available and tips for engaging state and local decision makers.

Energy Efficiency in Schools, Smart Investments of Recovery Funding provides information targeted to school administrators and state recovery fund managers to encourage investment in energy efficient schools

Re-Engineering the Past: Congressional Briefing Held on High-Performing Historic Buildings

Historic buildings don't have to remain in the past when it comes to energy efficiency.

Instead, such structures can maintain their historical characteristics and also take advantage of new technologies and products that will improve their energy use. A briefing for Congressional staff on turning older structures into high-performing historic buildings will take place from 11:30 a.m.-1 p.m. April 15 in 12 Cannon House Office Building.

The briefing is sponsored by the High-Performance Building Congressional Caucus Coalition, which works to heighten awareness and inform policymakers about the major impact buildings have on health, safety and welfare. ASHRAE serves as the Coalition's secretariat and is a leading sponsor of the briefing with the American Institute of Architects and the National Trust for Historic Preservation.

"As the saying goes 'the most sustainable building is one you never have to build,'" Doug Read, ASHRAE program director of government affairs, said. "Historic buildings already have a significant amount of embodied resources in the bricks and mortar, so it only makes sense to maintain the historic nature of the structure while improving its energy efficiency."

Rep. Judy Biggert, R-Ill., Rep. Russ Carnahan, D-Mo., and Rep. Mike Turner, R-Ohio, will provide welcome remarks. Speakers are:

- Emily Wadhams, vice president of public policy at the National Trust for Historic Preservation, giving an introduction to historic buildings.
- Patrick Lally, director of congressional affairs for the National Trust for Historic Preservation, speaking on opportunities for high-performance, policies and technologies.
- Ralph DiNola, Assoc. AIA, principal with Green Building Services, who will provide examples of high-performance historic buildings



In a Down Economy, an Uplifting Conference: ASHRAE 2009 Annual Conference in Louisville

Program on optimal indoor air quality provides essential skills and networking

In the current economic environment, networking and business development opportunities are more important than ever. With its nearly 100 educational sessions, the technical program at ASHRAE's Annual Conference provides the perfect environment for developing new skills and contacts.

"Why attend the ASHRAE Annual Meeting in Louisville? Professional preservation is the purely selfish reason to attend," says Kirk Mescher, chair of ASHRAE's Conferences and Expositions Committee. "When working in HVAC&R, you need to be well educated on upcoming changes and new codes and standards, all of which are covered in the technical program. Those who develop the Handbooks and standards are there at the meeting; you should be too."

With a focus on optimal indoor air quality, the technical program runs June 21-24, at the Galt House Hotel in Louisville, Ky., with sessions on nearly every aspect of HVAC&R, from staying current with design practices to commissioning and good engineering business practices. New this year is the full range of programs scheduled in the buildings track. Complete program details are available at www.ashrae.org/louisville.

The technical program features a large building systems track that begins with an introduction to large buildings and addresses sustainable large building design, energy modeling, smoke control and specifically indoor sports facilities, entertainment venues, and museums and libraries. Other tracks with multiple programs include systems and equipment, indoor air quality, exergy and sustainability.

The program includes 60 seminars, 15 forums, more than 90 papers presented, and a technical plenary on Sunday that outlines the potential needed adaptation of cities and buildings for climate change. Sue Roaf, Ph.D., Heriot-Watt University, Edinburgh, Scotland, speaks about the concept of the low-carbon building and how we can make them happen while we redesign the built environment for the future.

Sessions of interest include:

- Seminar 7, *ASHRAE Members' Survival Guide: Keeping Your Business Alive and Well During Difficult Economic Times*
- Seminar 8, *Case Studies of Moisture Management Issues in Litigation*
- Seminar 31, *Contracts?? (Ugh! Boring!) A Comparison of the AIA 2007 and AGC ConsensusDocs Contract Forms*
- Seminar 2, *Energy Use and Efficiency in Healthcare Facilities*
- Seminar 39, *Defining the Contribution of Fans in Achieving the Goals of ASHRAE Standard 90.1*
- Seminar 14, *Balancing Indoor Air Quality and Energy Conservation/Efficiency Objectives in Schools*
- Transactions 17, *Issues with Ventilation and Indoor Air Quality in ASHRAE Residential Standards*
- Seminar 28, *Real World BIM for the HVAC Engineer*
- Seminar 54, *Optimal Air Quality: Control of Ozone*
- Seminar 37, *Cost Impacts of ASHRAE's New IAQ Guide*
- Seminar 59, *Using Cx to Improve Sustainability and IAQ of Existing Buildings*

For more information on ASHRAE's 2009 Annual Conference, please visit www.ashrae.org/louisville. Conference registration is **\$670** (\$505 for members).



MONMOUTH COUNTY SPCA

The Additions & Alterations Project currently underway at the Monmouth County SPCA (MCSPCA) in Eatontown, NJ was broken into two phases to allow for the facility to continue operating during construction. This project provides expansion room for the facility which was running well over its intended capacity with vintage HVAC systems. The architecture portion of the project was completed by KGD Architects of Red Bank, NJ while the MEP engineering was performed by KSI Consulting Engineers from Farmingdale, NJ.

The overall project encompasses approximately 19,900 square feet. The first phase (which was recently completed) entailed the addition of new animal areas at the facility. Phase two of the project (which is currently in progress) consists of the alteration of the Administration and Visitors Center at the facility.

The Animal Areas will be the focus of this write up as the HVAC systems providing heating, cooling and ventilation to these areas received increased amounts of discussion during the schematic design stage of the project. Initially budgetary constraints indicated that dispersed, gas fired, packaged rooftop units would be the design to utilize. However, after much research and discussions with other animal shelters in the area and the nation, the construction committee for the MCSPCA felt strongly about providing an HVAC system that would last many years for the facility and also provide the optimal amount of conditioning for these animals, many of which are under increased stress after being abandoned.

To achieve the higher budgetary requirements of going to the next step in HVAC, the MCSPCA undertook additional fundraising efforts to ensure that the new facility would have the best for that was available. To this end, a design was agreed upon which provides 100% outdoor air to all of the animal areas.

As per the requirements of ASHRAE 90.1, since 100% outdoor air was to be utilized energy recovery devices were required to capture energy from the discharged exhaust air. A major concern among animal shelters is cross contamination of disease by the HVAC system. A majority of this concern is removed by utilizing 100% outdoor air, but should the shelter decide to reduce their outdoor air percentages in the future, MERV 15 filters are included on the supply side along with MERV 15 in the return air path. In a further step to reduce chances of cross contamination, fixed plate heat exchangers were utilized in the equipment. While this does limit the effectiveness of the heat exchangers (compared to a heat wheel) the effectiveness varies between 63% effectiveness in summer mode and 75% in winter mode and it removes any possibility of cross contamination and also reduces the amount of maintenance that is required.

The above design requirements were incorporated into HVAC units designed by Annexair. By working in conjunction with the design team and the engineering team at Annexair, semi-custom units were designed to meet the MCSPCA's budgetary and engineering requirements. There are a total of four (4) Annexair units on the project. One unit is dedicated to the Doggy Digs, another is dedicated to the Cat Condos, the third is dedicated to the Stray Area while the fourth serves the Visitors Area. The three units serving the animal areas provide over a total of over 19,000 CFM to these areas which operate 24/7/365. To reduce maintenance requirements, cooling is provided by DX coils and gas fired heating sections.

The individual Doggy Digs and Cat Condos are self contained, glassed in areas where the animals are kept. To prevent any air from blowing directly onto the animals, all air is supplied to the areas around the enclosures and then returned through the enclosures via smell holes for the animals and undercuts on the doors. This method of air delivery also permits and odors which may be in the enclosure to be removed directly out of the facility via the exhaust ductwork, and then out to the atmosphere rather than traveling out into the corridors which are used by the shelter workers, volunteers or public.

The animals and staff have occupied the Phase I areas of the facility since February of 2009 and are enjoying the welcome change of their new facility.

James Sarno, PE, LEED AP



ASHRAE Funds Research into Keeping Kitchen Staff Cool and Comfortable

As the old saying goes, “if you can’t stand the heat, get out of the kitchen.” But for the 12.2 million people in the United States employed in the restaurant industry, getting out of the kitchen is not an option.

Seeking to provide a cool and comfortable working environment for those kitchen workers, ASHRAE is funding research in thermal comfort in commercial kitchens.

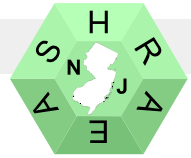
A 2005 report by the Restaurant Opportunities Center of New York and the New York City Restaurant Industry Coalition found that “nearly half of the 530 workers surveyed reported that it gets unsafely hot in the kitchen where they work.”

“Understanding thermal comfort in commercial kitchens is paramount to understanding and providing a controlled and comfortable environment for kitchen workers,” said Greg Duchane, a member of ASHRAE’s technical committee 5.10 on kitchen ventilation that is overseeing the project and manager of retail market sales, Trane Commercial Systems. “This research can be used by engineers and kitchen consultants in designing HVAC systems and in the operation of restaurants. It will give us more accurate understanding of employee comfort and how employees are impacted by heat loads.”

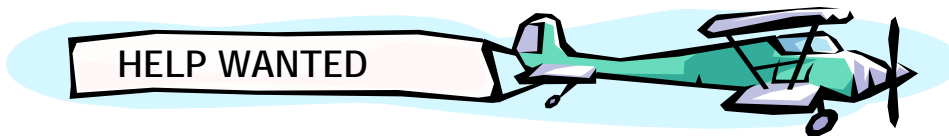
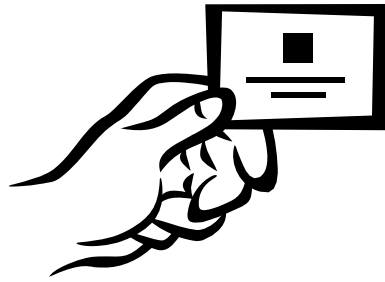
The research will include walk-in surveys and on-site data collections of operational commercial kitchens in selected cities across the United States

ASHRAE is accepting proposals on this and 16 other proposed research projects. Submissions are due May 18, 2009. For more information, visit www.ashrae.org/research. The projects are scheduled to begin Sept. 1, 2009. Projects are:

- 1339-RFP, *Selection of Desiccant Equipment at Altitude*, sponsoring technical committee: TC 8.12, Desiccant Dehumidification Equipment and Components
- 1369-TRP, *Design Guidelines to Prevent Snow Causing Shutdown of HVAC Systems*, TC 5.2, Duct Design
- 1385-TRP, *Development of Design Tools for Surface Water Heat Pump Systems (SWHP)*, TC 6.8, Geothermal Energy Utilization
- 1404-TRP, *Measurement, Modeling, Analysis and Reporting Protocols for Short-term M&V of Whole Building Energy Performance*, TC 4.7, Energy Calculations
- 1409-TRP, *Stability of Candidate Lubricants for CO₂ Refrigeration*, TC 3.2, System Chemistry
- 1413-TRP, *Developing Standard Procedures for Filling Climatic Data Gaps for Use in Building Performance Monitoring and Analysis*, TC 4.2, Climatic Information
- 1415-TRP, *Thermal and Lighting Performance Metrics of Tubular Daylighting Devices*, TC 4.5, Fenestration
- 1420-TRP, *Inlet and Discharge Installation Effects on Airfoil (AF) Centrifugal PLENUM/PLUG Fans for Air and Sound Performance*, TC 5.1, Fans
- 1448-TRP, *Ventilation Requirements for Refrigerating Machinery Rooms*, TC 4.3 - Ventilation Requirements & Infiltration
- 1467-TRP, *Balancing Latent Heat Load Between Display Cases and Store Comfort Cooling*, TC 10.7, Commercial Food Display and Storage Equipment
- 1469-TRP, *Thermal Comfort in Commercial Kitchens*, TC 5.10, Kitchen Ventilation
- 1478-TRP, *Measuring Air-tightness of Mid- and High-Rise Non-residential Buildings*, TC 4.3, Ventilation Requirements and Infiltration
- 1507-TRP, *Binary Refrigerant Flame Boundary Concentrations*, TC 3.1, Refrigerants and Secondary Coolants
- 1512-TRP, *CFD Resource Decisions in Particle Transport Modeling*, TC 4.10, Indoor Environmental Modeling
- 1515-TRP, *Thermal and Air Quality Acceptability in Buildings that Reduce Energy by Reducing Minimum Airflow from Overhead Diffusers*, TC 2.1, Physiology and Human Comfort
- 1522-TRP, *Establishment of Design Procedures to Predict Room Airflow Requirements in Partially Mixed Room Air Distribution Systems*, TC 5.3, Room Air Distribution



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