Exchanger

Ashrae Bistate Chapter

Volume XXIV, Issue 9 | Serving the Hudson Valley and Western Connecticut | May 2011

Meeting Wednesday May 11, 2011

2 PDH Credits Approved

Presentation: HVAC Noise and Vibration Control

In the main presentation, Bruce Majer of BRD Noise and Vibration Control, Inc. will be discussing a basic understanding of acoustics and relevant terminology, acceptance criteria, noise control engineering techniques, spec strategies for compliance, cost considerations, and HVAC noise suppression methods.

Tech Session: Variable Refrigerant Volume Systems

In the tech session, Ray Schmitt of Daikin AC (Americas) Inc. will present the basics of VRV systems. This presentation reviews VRF/VRV System design parameters/ concerns and practical application information as well as the various types of equipment and accessories that are available.

Place: Casa Rina, 886 Commerce Street, Thornwood, NY 10592

Program:
5:30 - 6:00 PM Attitude Adjustment Time
6:00 Dinner
6:30 - 7:00 PM Tech Session
7:00 - 7:15 PM Coffee
7:15 - 9:00 PM Presentation

Directions to Casa Rina

From Saw Mill Parkway - North or South
Exit at Marble Avenue - Exit # 27
Make right - continue to second traffic light
Make right onto Commerce Street
Casa Rina is the second house on your left.

Please make reservations by contacting either:

Nicholas Salomone — nsalomone@olace.com 914-919-3140
Enzo Carlesimo — ecarlesimo@collado-eng.com 914-332-7658

Upcoming Events

- ***June 8th*** - *Golf Outing*

Inside this issue:

President's Message

By Enzo A. Carlesimo

On behalf of the entire Chapter, I would like to extend our gratitude to Rob Brown of Price Industries and Dan Int-Hout of Krueger Air Distribution for their insightful presentations last month. Judging by the strong turnout, the two topics that they presented grabbed our members' interests, and I am certain they were not disappointed. Our final chapter meeting for the 2010-2011 year will take place on May 11th at Casa Rina Restaurant, and it has all the makings for yet another interesting and informative evening. James Moran and Ray Schmitt of Daikin Industries will be presenting the Tech Session on variable refrigerant flow (VRF) systems. These systems have been around for almost three decades, and are widely popular in Asia, Europe and South America. However, they are relatively new to the HVAC market in the U.S., and thus engineers have been hesitant and even reluctant to specify them on their projects. Hopefully, James and Ray will be able to prove that a VRF system's increased energy efficiency and improved design flexibility, over standard DX cooling systems, make them a viable option on many projects. Bruce Majer, Vice President of BRD Noise and Vibration Control Inc., will be giving the Main Presentation on "HVAC Acoustics for Applied Equipment." Acoustics and vibration isolation has always been a gray area for HVAC design engineers; we typically leave it up to the acoustical consultant and just follow their recommendations on projects. I am certain we are in store for an insightful presentation that will teach us how to sound attenuate everything from ductwork, chillers to condensing units. I hope to see you all on the 11th!

Enzo A. Carlesimo
Bi-State Chapter President

Historical Notes — Bob Roston, Bistate Historian

"With the opening of the superb new building of the New York Stock Exchange, at Broad, Wall and New Streets, last month, what might almost be called a new era in refrigeration began. It marks the practical beginning of a branch of the business that has been almost entirely neglected, the cooling of buildings purely for the physical comfort of the occupants; in other words, refrigeration as a luxury—it might well be added as a necessity, in this case, when the truly strenuous lives of the brokers are considered. Undoubtedly the lives of many of them have been shortened by the excessive heat on the floor of the Exchange on the hot days of summer. But now they may look forward with equanimity to the time they used to dread, for from the ceiling of the lofty board room will descend cooling air waves, keeping the temperature of the room and their tempers even."

— From *Cold Storage*, May 1903

Student Activities — Carmen B. Yellen, Chairman

Three College Engineering Students have been selected to receive the ASHRAE Bi-State Local Chapter Scholarships. The awards will be presented at this year's Golf Outing. Please join us in congratulating these rising engineers, and our future colleagues.

Membership Promotion — Erica L. Ross, Chairman

As we look to the end of the Bi-State Chapter year for the 2010/2011 season, we need to keep in mind the ASHRAE goal. During the hazy, hot, and humid summer days in New York City, it is our mission as HVACR owners, operators, and engineers, to keep people comfortable. Where would we all be without ASHRAE and the standards to which we design every day? As we approach our final meeting, keep this in mind, to try to encourage young members of society to stand up and become part of the ASHRAE organization. We are not only looking for members, but also for future BOG members and Officers! Wishing everyone an enjoyable and restful summer. See you in September! Remember to find us on facebook at http://www.facebook.com/BISTATE.

EPA Backs Green Infrastructure Strategy

The U.S. Environmental Protection Agency (EPA) is launching a new strategy to promote the use of green infrastructure to reduce storm water runoff that pollutes streams, creeks, rivers, lakes and coastal waters. Green infrastructure has been shown to decrease pollution by treating rain where it falls and keeping polluted storm water from entering sewer systems.

Green infrastructure captures and filters pollutants by passing storm water through soils and retaining it. There are a variety of green infrastructure tools available today, including green roofs, permeable materials, alternative designs for streets and buildings, trees, rain gardens and rain harvesting systems. Green roofs have been shown to reduce a building's energy costs by 10-15%. Urban tree canopy can provide 5-10% savings from shading and wind blocking.

Research Promotion Contribution Form

PLEASE COMPLETE THE INFORMATION BELOW AND RETURN WITH YOUR CONTRIBUTION TO:

Terry Connor
Johnson Controls
8 Skyline Drive
Hawthorne, NY 10532
Phone: 914-593-5223 Fax: 914-593-5201

Please accept my research investment in the amount of $_____

Make checks out to **ASHRAE Research**.

Name_____Member #_____

Company_____Chapter_Bi-State_____

Address_____

City_____State_____Zip_____

Please check one: ( ) Personal contribution
( ) Company contribution

Charge my gift to: ( ) Visa ( ) Master Card ( ) American Express

Credit Card #_____Expiration Date_____

Signature_____

Donors are recognized for their contributions as follows:

Honor Roll contributors are listed in the October ASRHAE Journal and receive the commemorative coin recognizing Giants in HVAC&R invention or innovation.

Individual Honor Roll beginning at $100
Corporate Honor Roll beginning at $150

Investors with contributions of $250 or more receive a wall plaque that can display six commemorative coins.

Contributions in any amount are gratefully received and 100% of the contribution goes directly to research. All contributions are tax deductible.

ASHRAE Learning Institute
Spring 2011 Online Course Series

2 WAYS TO REGISTER

Internet: www.ashrae.org/onlinecourses
Phone: Call toll-free at 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)
Note: You may register up to 24 hours prior to an online seminar. Courses are in US Eastern Standard Time.

CEU/PDH Credits Available!

Using Standard 90.1 to Meet LEED Requirements
Monday, March 28, 2011 – 1:00 p.m. to 4:00 p.m.

Fundamental Requirements of ASHRAE Standard 62.1-2010
Wednesday, March 30, 2011 – 1:00 p.m. to 4:00 p.m.

Application of ASHRAE Standard 62.1-2010
Wednesday, April 6, 2011 – 1:00 p.m. to 4:00 p.m.

The Commissioning Process & Guideline 0
Monday, April 11, 2011 – 1:00 p.m. to 4:00 p.m.

Avoiding IAQ Problems Using ASHRAE's New IAQ Guide
Wednesday, April 13, 2011 – 1:00 p.m. to 4:00 p.m.

Understanding Standard 189.1 for High Performance Buildings
Monday, April 18, 2011 – 1:00 p.m. to 4:00 p.m.

District Cooling & Heating Systems: Central Plants
Wednesday, April 20, 2011 – 1:00 p.m. to 4:00 p.m.

Understanding Air-to-Air Energy Recovery Technologies & Applications
Monday, April 25, 2011 – 1:00 p.m. to 4:00 p.m.

Basics of High Performance Building Design NEW
Wednesday, April 27, 2011 – 1:00 p.m. to 4:00 p.m.

Complying with Standard 90.1-2010 HVAC/Mechanical
Monday, May 2, 2011 – 1:00 p.m. to 4:00 p.m.

Advanced High Performance Building Design NEW
Wednesday, May 4, 2011 – 1:00 p.m. to 4:00 p.m.

Complying with Standard 90.1-2010 Envelope/Lighting
Wednesday, May 11, 2011 – 1:00 p.m. to 4:00 p.m.

ASHRAE LEARNING INSTITUTE

ASHRAE HVAC Design Essential Workshop

May 18-20 • ASHRAE Foundation Learning Center • Atlanta, GA

In three days, you will

- Participate in in-depth, practice-focused training
- Improve overall building performance
- Effectively collaborate on an integrated design team
- Learn from industry leaders selected by ASHRAE
- Gain real-world experience to make immediate contribution to design projects

ASHRAE created the HVAC Design Essentials to provide intensive, practical education for HVAC designers and others involved in delivery of HVAC services. Developed by industry-leading professionals, this workshop provides attendees with the fundamental and technical aspects of HVAC design in commercial buildings.

In three days, you will gain practical skills and knowledge to design, install and maintain HVAC systems that can be put to immediate use. The workshop provides real-world examples of HVAC systems including calculation of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

Who Should Attend

Professionals at:

- Mechanical design firms
- Architectural firms
- Mechanical consulting firms
- Facility management departments
- Sales engineering firms
- Utility companies

Visit www.ashrae.org/hvacdesign to register

ASHRAE Certification Programs

- Building Energy Assessment Professional (BEAP) NEW
- Building Energy Modeling Professional (BEMP)
- Commissioning Process Management Professional (CPMP)
- Healthcare Facility Design Professional (HFDP)
- High-Performance Building Design Professional (HBDP)
- Operations & Performance Management Professional (OPMP)

For more info, visit www.ashrae.org/certification

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Golf	Steven	Abbattista	sabbattista@olace.com	(914) 747-2800	(914) 747-0453

Why Be Involved in a Local Chapter?

- Learn about the latest technologies presented in the program sessions
- Attain continuing education credits
- Meet industry associates and discuss local concerns
- Network amongst designers, installers, vendors, educators, in your local area to help improve business for all
- Share experiences with others
- Enjoy a social hour
- Carry out ASHRAE's mission on a local level

"To advance the arts and sciences of heating, ventilating, air conditioning and refrigerating to serve humanity and promote a sustainable world."

ASHRAE Region I Roster

2010-11 Executive Committee

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Employment Opportunities

Mechanical Engineers

AltieriSeborWieberLLC is a consulting engineering firm in Norwalk, CT which provides mechanical, electrical, plumbing and fire protection design services to a premier list of national and international clients. We specialize in large institutional projects with specific and often challenging requirements for building types including: museums, performing arts centers, aquariums and education. Sustainability is an element in all of our designs. Each of our projects is different and unique. Motivated candidates are able to take on new responsibilities.

We are seeking experienced Mechanical Engineers with 3-5+ years of experience. Responsibilities include: heating and cooling load calculations, field survey, equipment selection and scheduling, central plant design, confirming energy code compliance, duct and pipe distribution, document development and production.

We are also seeking experienced Mechanical Engineers with 7-10+ years of experience. These candidates will have the above responsibilities as well as concept design, development of flow/controls diagrams and control sequences, comparing multiple design concepts based on energy-use benefits, project management, coordination with all trades and outside consultants, construction administration and client interface.

Experience using AutoCAD is a prerequisite. Experience with eQuest and Revit and candidates with EIT, PE, LEED, BEMP and/or HBDP certifications will be rewarded.

AltieriSeborWieberLLC offers excellent benefits including 401k, health & dental insurance, flexible workday schedule, summer hours and a casual, but motivated working environment.

Find out more at: www.altieriseborwieber.com. Please contact Ken Wieber, Jr. in confidence at info@altierisw.com

M/E ENGINEERING, P.C.

Mechanical/Electrical Engineering Consultants

M/E Engineering P.C. , with offices in Buffalo, Rochester, Syracuse and the Capital District is seeking an Energy Engineer with a minimum of 7 to 10 years experience, and a 4 year Engineering degree preferred. Responsibilities include conducting comprehensive energy conservation studies, energy modeling utilizing eQUEST simulation software and other programs, involvement in NYSERDA sponsored New Construction and Flex Tech Programs, and LEED consulting services. HVAC and Control System knowledge required. Experience with LEED rating systems preferred, and LEED AP designation desired. Competitive salary and benefits package. EOE. M/F/D/V. Interested candidates should forward resumes and salary history in confidence to:

Human Resources
M/E Engineering P.C.
60 Lakefront Boulevard, Suite 320
Buffalo, NY 14202
716-845-5092

Employment ads may be submitted for inclusion in **The Exchanger** as follows:

1. $100.000 from companies placing ad for one (1) month.
2. $150.00 from companies placing ad for two (2) months.
3. No charge for members looking for employment.

Researchers Develop Cost-Saving Microchannel Manufacturing Technique

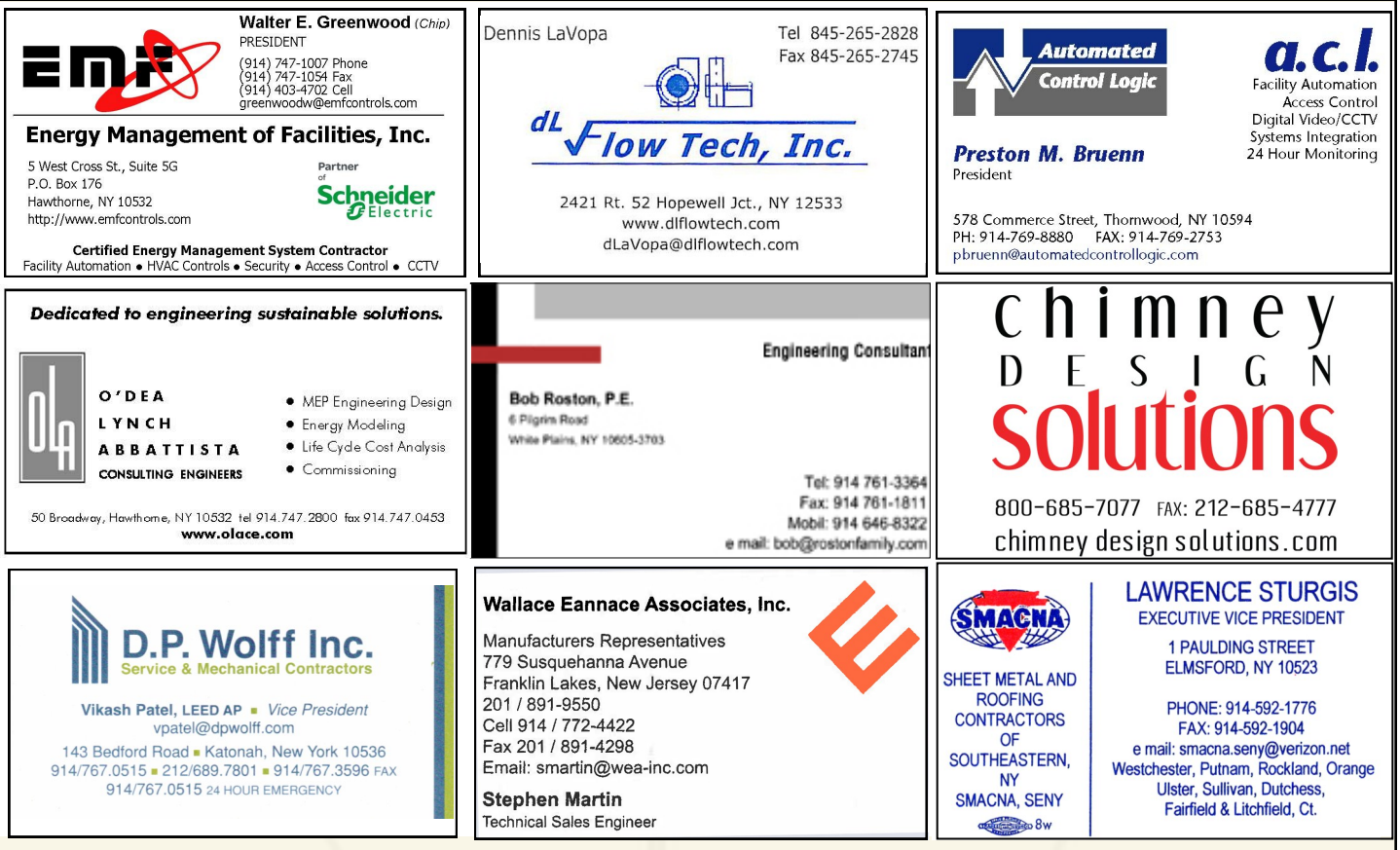
Engineers at Oregon State University have invented a new way to use surface-mount adhesives in the production of low-temperature, microchannel heat exchangers. The very thin pieces of patterned metal can be bonded one on top of another to increase the number of microchannels in a heat exchanger, and the amount of fluid that can be processed. The researchers say this could make the technology much less expensive for many commercial applications, such as automobile cooling systems, fuel processors, miniature heat pumps, computers, and consumer electronics. “We have demonstrated the use of surface-mount adhesives to create microchannels on a wide variety of metals, including aluminum, which is very cheap,” said the lead author of the recent study.

Notice to business card advertisers:

We are currently accepting business card advertisements for this year's newsletters. The cost of a business card ad is $125.00. The newsletter is published monthly, September through June (ten issues). That means for $125.00 ($12.50 an issue), your business card ad will circulate to approximately 300 recipients a month or an advertising cost of approximately 4 cents/recipient.

If you are interested in placing an ad, please forward a business card and check (payable to ASHRAE Bi-State) to:

ASHRAE Bi-State Chapter
DL Flow Tech
2421 Route 52
Hopewell Junction, NY 12533



Report: Storage for Spent Nuclear Fuel More Crucial Than Ever

The United States and other countries around the world looking to nuclear power for their energy needs must consider how spent fuel will be handled as they construct new plants and examine existing ones, especially in light of the recent crisis in Japan, according to a comprehensive study from MIT.

The ongoing problems at Japan's Fukushima Daiichi power plant — caused by the March 11 earthquake and tsunami — have been significantly exacerbated by the presence of used fuel housed in the reactor buildings, and demonstrate the urgency needed in dealing with such waste, the report's authors say. It specifically underscores the importance of finding a way to deal with the growing amount of spent nuclear fuel housed at existing U.S. nuclear plants.

The report strongly recommends that an interim solution be developed to remove spent fuel from storage facilities at reactor sites, and move it to regional, medium-term repositories where the fuel can be monitored and protected as it decays over time. Spent fuel loses much of its radioactivity with every passing decade, as the most dangerous radioactive isotopes decay and lose much of their potency during the first 50 years, thus diminishing the problem of long-term storage.

Planning for the ultimate handling of spent nuclear fuel "has frankly been an afterthought in U.S. fuel-cycle policy," said Ernest J. Moniz, director of the MIT Energy Initiative (MITEI) and co-chairman of the new report. "It can't be that," he said. Instead, "it should be integrated" into the overall planning for the nation's energy policies and "the U.S. should move toward centralized spent nuclear fuel storage."

The American Society of Heating, Refrigerating and Air-Conditioning Engineers advances the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world. Membership is open to any person associated with the field including indoor air quality, building design and operation, and environmental control for food processing and industry.

ASHRAE will be the global leader, the foremost source of technical and educational information, and the primary provider of opportunity for professional growth in the arts and sciences of heating, ventilating, air conditioning and refrigerating.

Upcoming Meetings

Month	Date	Promotion	Main Presentation	Tech Session
May	5/11/2011	Student Activities	HVAC Noise and Vibration Control	Variable Refrigerant Flow Fundamentals
June	6/8/2011	Membership Promotion	Golf Outing	

ASHRAE Seeks Public Comment on Standard for Existing Buildings

To ensure a sustainable future, the greatest opportunity lies in modifying existing buildings. Only 2 percent of construction projects are for new buildings, while 86 percent of construction dollars go into renovation of our existing building stock. ASHRAE and the Illuminating Engineering Society (IES) are revising ANSI/ASHRAE/IESNA Standard 100-2006, Energy Conservation in Existing Buildings, to provide greater guidance and a more comprehensive approach to the retrofit of existing buildings for increased energy efficiency. The standard was first published in 1981, and the need for its requirements has grown as more attention is paid to improving energy in our current building stock.

The standard is open for an advisory public review until May 25, 2011. Visit www.ashrae.org/publicreviews for more information. ASHRAE's advisory public review process is designed to seek suggestions for new, unusual or potentially controversial elements of a proposed standard that the committee feels would benefit from increased public scrutiny. Unlike ASHRAE's formal call for public comments process, comments received under advisory public reviews are supportive and do not need to be resolved.

Of the 94.6 quadrillion btu of energy consumed in the United States in 2009, 42 percent was used by commercial and residential buildings. Over the next 24 years, national electric consumption is expected to grow by over 22 percent and natural gas consumption by 16 percent. In the same period, the amount of commercial and residential floor space in the marketplace is expected to increase by 37 percent and 17 percent respectively.

" In order to offset the growing amount of floor space and subsequent increased energy demands, existing buildings must improve their efficiency, even if every new square foot were built and operated at net zero energy," Rick Hermans, chair of the Standard 100 committee, said. "ASHRAE and IES are working to make Standard 100 the best source of practical, accurate and cost effective design guidance for existing buildings."

"Achieving improvements in energy efficiency in existing buildings provides significant rewards in operating savings, conservation of resources and improvements in the environment," Rita Harrold, IES director of technology, said. "The standard addresses the necessary guidance for a variety of users to develop action plans for their specific needs. Making the standard available for an advisory public review is an important opportunity for contributory comments that will add value to the final document."

The revised standard provides comprehensive and detailed descriptions of the processes and procedures for the energy efficiency improvements of existing residential and commercial buildings in order to achieve greater energy efficiency.

ASHRAE Bi–State Chapter
Annual Golf Outing

Wednesday, June 8, 2011
The Links at Union Vale

Schedule:
- 11:30 am: check-in/lunch
- 1:00 pm: shotgun start
- 6:00 pm: dinner/awards

Costs:
- $200 per player
- $750 per foursome
- $65 for dinner only

Return this form with payment by June 3, 2011

Note: *If payment is not received prior to the golf outing, your reservation may not be accepted.*

Name: _____ Phone: _____

Company Name: _____

Company Address: _____

Email: _____

- ❑ Individual for lunch/golf/dinner.....$200
- ❑ Individual for dinner only.....$65
- ❑ Foursome for lunch/golf/dinner.....$750
- ❑ Tee Sponsor.....$200
- ❑ Beverage Cart Sponsor.....$1000
- ❑ Lunch Sponsor $1500

Please check off participation level above and make checks payable to: *ASHRAE Bi-State Chapter.*

List names of golfers below. *(If less than four, the golf committee will complete pairings.)*

1. _____ 3. _____

2. _____ 4. _____

Mail completed reservation form and check to:
ASHRAE Bi-State Golf c/o OLA Consulting Engineers, 50 Broadway, Hawthorne, NY 10532

ASHRAE Bi–State Chapter
Annual Golf Outing

Directions to The Links at Union Vale

153 North Parliman Road, Union Vale, NY 12540 (845)223-1002

www.thelinksatunionvale.com

From New York City and South:

- Take the Taconic State Parkway north to Route 82 North.
- Travel 4-1/2 miles and make a right onto County Route 89
- Take the first right onto North Parliman Road (1 mile).
- Golf Course is 1/2 mile on right.

From East or West:

- Take Interstate 84 (east or west) to the Taconic State Parkway north (6-3/4 miles) to Route 82 North.
- Travel 4-1/2 miles and make a right onto County Route 89.
- Take the first right onto North Parliman Road (1 mile).
- Golf course is 1/2 mile on right.

From the North:

- Take the Taconic State Parkway south to Route 55 east towards Pawling.
- Take a left at the first light (Route 82 north).
- Make a right onto County Route 89
- Take the first right onto North Parliman Road (1 mile).
- Golf Course is 1/2 mile on right.