

The Central New Yorker

ASHRAE Newsletter

The CNY Chapter of the American Society of
Heating, Refrigerating and Air Conditioning Engineers

Chapter Officers

President – Chris Martin

Ph: 299-3111

Email: chris.martin@carrier.utc.com

President Elect – Jim Walker

Ph: 463-4526

Email: jwalker@rfpeck.com

Vice President – Rae Butler

Ph: 492-2445

Email: rbutler3@twcny.rr.com

Secretary –

Ph:

Email:

Treasurer – Steven Sill

Ph: 754-8001 x: 3950

Email: csill@buweiser.com

Historian – Paul Britton

Ph: 446-4587

Email: pbritton51@verizon.net

Public Relations and

Past President – Mark Rabbia

Ph: 432-6029

Email: mark.r.rabbia@carrier.utc.com

Resource Promotion – Paul Conte

Ph: 437-0225

Email: paulc@guckianenergy.com

Membership Promotion – John Mix

Ph: 432-6889

Email: john.mix@carrier.utc.com

Webmaster – Tom Buswell

Ph: 432-6510

Email: tom.buswell@carrier.utc.com

Student Activities – Mike Kingsley

Ph: 437-1869

Email: kingsleym@saic.com

TEGA – Bill Walter

Ph: 432-6267

Email: william.f.walter@carrier.utc.com

Hospitality –

Ph:

Email:

THE PRESIDENT'S Message

What did you think of last month's speaker? I hear that Ray Hickey did a wonderful job speaking about the technology improvements for oil-less bearings for centrifugal compressors. Due to circumstances beyond my control, I was out of town on business and missed the presentation. Not this month though. I promise to make all the remaining meetings. Believe it or not – there's only three left in my term.

From our turnout numbers, it seems like I wasn't the only one to miss last month's meeting. A lot of other members were out of town that night on business too! So tell me -- what's it going to take to "stimulate" (play on the stimulus package) you to come to our chapter meetings. As I put it to you in my last President's Message "the Chapter meeting is still a bargain – at only \$25 – and it's a great place to network. And if you have been practicing some belt tightening yourself, we promise you dinner and a show for a great low price. Ray Butler and Bill Walters have done a great job this year setting up speakers that people are interested in."

March is history month – So, our program will be about the history of compressors. Our speaker will take us into the past, and give a glimpse at how compressors have evolved over the years. Plus, we'll see where we are now and where the industry is headed. Our speaker is Bart Powelson, Director of Commercial Air Conditioning Marketing for Emerson Climate Technologies, Inc. See Rae Butler's article for more details.

As always, the meeting will be at the Doubletree at Carrier Circle with the cash bar opening at 5:30 p.m., followed by dinner at 6:00 p.m. and presentation at 6:45 p.m. Dinner charge is \$25. We're still working hard to increase attendance; so, if you know someone who would benefit from our program or would like to join ASHRAE please bring them along. **register today**, but at least by Monday, March 9th, using the link below.

And mark your calendars for our April meeting. You won't want to miss our dairy tour. Our April meeting will begin with a tour of the 110,000 square foot Ultra Dairy processing facility at 6750 Benedict Road in East Syracuse (off of Fly Road). The facility ultra-pasteurizes milk to 285 degrees and packages extended shelf life (ESL) dairy and non-dairy products. We will meet at Ultra Dairy at 5:00 pm for the tour and then move to the Double Tree for dinner at 7:00.

Chris Martin
CNY Chapter President

<http://centralnewyork.ashraechapters.org/Reserv.htm>

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

in *Memoriam*

Central New York Chapter member George Burke, 77, passed away on February 10, 2009. Born in Philadelphia, he lived in Glenside, PA and Memphis, TN until moving to Camillus, NY in 1976. He was a U.S. Navy veteran of the Korean conflict. George attended the Drexel Institute of Technology, was employed by Carrier Corp. in Syracuse as a product manager for large building air conditioning systems and retired in 1992 after 30 years. He joined ASHRAE in 1970 and became a Life Member in 1999.

We extend our sympathy to Patricia, his wife of 55 years, and to their family.

— **Paul Britton, Chapter Historian**

Public Debut of Comfort Air Conditioning - 1904

In 1803, U.S. President Thomas Jefferson doubled the size of the United States by purchasing the Louisiana Territory from France. To commemorate the centennial of that purchase, a World's Fair, officially titled The Louisiana Purchase Exposition, was held in St. Louis in 1904. It was held on a 1240 acre site with 1500 buildings connected by some 75 miles of road and walkways, and featured exhibits staged by 62 foreign countries, the U.S. Government and 43 of the then 45 U.S. states.

Think for a moment about the world of 1904. The population of the U.S. was only 80 million (We're 300 million now). The Wright Brothers' famous flight at Kitty Hawk occurred the previous year. Gasoline-powered automobiles, motion pictures and the "wonder drug" aspirin were introduced to the public only 10 years before. Electric lighting and telephones were less than 25 years old, and still a novelty only read about by most Americans. Food was stored in ice boxes and the hose-drawn ice wagon was a familiar sight.

From Opening Day - April 30, 1904 - to the closing ceremonies on December 1st of that same year, the St. Louis World's Fair played host to nearly 20 million visitors who witnessed the public debut of air conditioning, were able to ice skate throughout the entire summer and spoke by wireless telegraph to cities 1500 miles away.

When planning for the Fair commenced, there was a proposal to cool many public buildings and food concessions. However, this was thought too ambitious by the Fair's managers, and the cooling plan was scaled back to only the State of Missouri building. It contained a rotunda and a 1000 seat auditorium which was cooled during the summer by 35,000 cfm of partially recirculated air, cooled by direct expansion, delivered through mid-height wall registers. Although some comfort air conditioning installations had been engineered prior to 1904, this was really the first place where the general public experienced the benefits of mechanical cooling en-masse.

No doubt this installation impressed Fair visitors, many of whom experienced comfort cooling for the first time. But it really caused a stir among refrigeration engineers, causing the magazine *Ice and Refrigeration* to run an extended length article on the installation. The editors concluded: "The practical application of mechanical refrigeration to air cooling for the purpose of personal comfort, no doubt has a field ... and the day is at hand, or soon will be, when the modern office building, factory, church, theater and even residences will be incomplete without a mechanical cooling plant." Imagine that!!

— **Paul Britton, Chapter Historian**



Historically
Speaking

Congratulations to the most recent new member who joined the Central New York ASHRAE chapter in January 2009. Please join me in extending a warm ASHRAE welcome to Mr Santanam.

If you or anyone that you know is interested in joining ASHRAE, please have them sign-up at www.ashrae.org. Or, if they would like to sign-up in person, the local chapter website (<http://centralnewyork.ashraechapters.org>) is a great place to find meeting times and locations.

John Mix
ASHRAE New Membership Chair

NEW MEMBERS

Name	Membership Start Date	Type
Mr. Suresh Santanam	1/23/2009	Member



Advertise Here

The CNY Chapter is now accepting business card advertising in this monthly newsletter. Send us your business card (or text for a line card) and we'll scan it in and for \$50 your card will run in the newsletter for the year. Send your ad and payment to:

**ASHRAE Newsletter,
Advertising, P.O. Box 2396
Syracuse, NY 13220**

If you have a digital card (or questions), email it to us at westbror@upstate.edu.

2009 CNY ASHRAE Programs

In the new year the programs will focus on energy efficiency, the latest developments in products and opportunities for improved operating efficiency.

March	History Night
April April 22	April will be Field Trip month with a tour of a dairy processing plant Satellite Broadcast Indoor Air Quality – Location to be determined
May	Enthalpy Heat Recovery – A program about air heat exchangers, the newest technologies and potential savings. This is a good follow up to the Satellite Broadcast. Jim Connell for AirXchange will be this month's presenter.
June	Clambake

Monthly Program Details

***Wednesday, March 11th, 5:30 at the Doubletree on Carrier Circle
Dinner and Cash Bar starting at 5:30 and program at 6:15 - \$25.***

March's Program

Programs are the second Wednesday of the month.

March – History Night – This program will take a look at how compressors have evolved over the years, where we are now and where the industry is headed. He will be covering: how scroll compressors work, the advantages of scroll technology, available refrigerants and capacity modulation technology.

The presenter, Bart Powelson is Director of Commercial Air Conditioning Marketing for Emerson Climate Technologies, Inc. Bart is responsible for launching new compressor products and technologies, monitoring key air conditioning market trends and providing commercial marketing support to manufacturers and contractors. He led numerous launches of commercial compressor and electronic products including new refrigerants, capacity modulation, expanded displacement offerings and compressor diagnostics. Bart holds a Bachelor of Science degree and an M.B.A. in marketing from Purdue University.

April will be Field Trip Month – We will have a tour of the 110,000 square foot Ultra Dairy processing facility at 6750 Benedict Road in East Syracuse (off of Fly Road visible from 481). The facility ultra-pasteurizes milk to 285 degrees and packages extended shelf life (ESL) dairy and non-dairy products. We will meet at the Ultra Dairy at 5:00 pm for the tour and then move to the Double Tree for dinner at 7:00 p.m..

April 22nd 1- 4pm the Annual Live Satellite Broadcast this year's topic is Indoor Air Quality and integration into sustainable design.

May – Enthalpy Heat Recovery – A program about air heat exchangers, the newest technologies and potential savings. This is a good follow up to the Satellite Broadcast. Jim Connell for AirXchange will be this month's presenter.

June Clambake

If anyone has specific topics or speakers they would like to see included in the CNY ASHRAE Programs, please email me at RButler3@twcny.rr.com.

— Rae H. Butler

Stimulus Package to Impact the Building Community

On February 17, 2009 President Obama signed the American Recovery and Reinvestment Act (commonly referred to as the stimulus bill). The bill focuses on two primary means for stimulating the economy — tax credits for the private sector and spending for the public sector (with a resulting impact on the private sector). Both areas focus heavily on infrastructure and buildings related opportunities.

Private Sector Provisions

For the private sector, the stimulus includes significant incentives for utilization of renewable energy and energy efficient technologies. Tax credits for the production of renewable energy (e.g., utilities) would be extended until at least 2012 along with an expansion of qualified energy conservation bonds and renewable energy loan guarantees. Incentives for non-business energy property (i.e., residential) would see an increase in amount (up to \$1,500) and an extension through 2010. Research expenses associated with renewables, conservation, and carbon capture and sequestration could result in higher tax credits in 2009 and 2010. Investment tax credits at 30% would be available for facilities that manufacture advanced energy property. The Department of Energy also is authorized to provide grants (in some cases up to 30% of the cost) to assist in installation of energy equipment including fuel cells, solar, small wind, geothermal heat pumps, and combined heat and power systems.

Bond authority also has been increased to encourage investment in energy related projects and infrastructure. The bill authorizes an additional \$2.4 billion of qualified energy conservation bonds to finance State, municipal and tribal government programs and initiatives designed to reduce greenhouse gas emissions. The bill creates Qualified School Construction Bonds for the construction, rehabilitation, or repair of public school facilities or for the acquisition of land on which a public school facility will be constructed (with a limit set at \$22 billion for state and local governments and a \$400 million for Indian tribal governments).

Also of interest to the engineering and construction fields, the bill would delay until 2012 a provision set to begin in 2011 that would require federal, state and local governments to withhold three percent of all payments for goods and services to assure proper taxes are paid.

Finally, the bill extended through 2009 provisions allowing a business' capital expenditures to depreciate faster by permitting the immediate write-off of fifty percent of the cost of depreciable property (e.g., equipment, tractors, wind turbines, solar panels, and computers).

Government Spending

Regarding spending in the public sector, funds are targeted at the federal, state and local levels. While the funds are initially targeted to improve government owned infrastructure and buildings, the private sector will need to provide the labor, technical, and manufacturing base for implementation. For federal agencies, considerable funds would be provided to retrofit and upgrade existing facilities to meet energy and water use requirements placed on federal agencies and alleviate maintenance backlogs. A quick rundown of the agencies and the amount of buildings related funding provided appears below.

- ◆ Department of Agriculture (\$850 million some of which goes toward buildings)
- ◆ Department of Commerce
- ◆ National Institute of Standards and Technology (\$360 million for research facility construction)
- ◆ National Oceanic and Atmospheric Administration (\$830 million for procurement, acquisitions and construction)
- ◆ National Science Foundation (\$600 million for modernization and construction of research facilities)
- ◆ Department of Defense (\$6.2 billion)
- ◆ General Services Administration (\$5.5 billion with not less than \$4.5 billion to convert GSA facilities to High-Performance Green Buildings, also include \$3 million for training and apprenticeship programs)
- ◆ Department of Homeland Security (\$620 million)
- ◆ Department of the Interior (\$1.5 billion some of which would go to buildings)
- ◆ Department of Health and Human Services (\$2.4 billion)
- ◆ Smithsonian Institution (\$25 million)
- ◆ Department of Education (\$53.6 billion of which approximately \$10 billion can be used for school and higher education modernization and repair)
- ◆ Department of Veterans Affairs (\$1.15 billion)
- ◆ Department of Housing and Urban Development (\$1.76 billion for public and HUD assisted housing improvements)

Other federal programs of interest include:

- ◆ Department of Energy
- ◆ Energy Efficiency and Renewable Energy (\$16.8 billion for research, weatherization assistance, grants, and other programs)
- ◆ Electricity Delivery and Energy Reliability (\$4.5 billion to modernize the electric grid including smart meters and demand responsive equipment)
- ◆ Advanced Research Projects Agency — Energy (ARPA-E) (\$400 million)
- ◆ Department of Labor (\$750 million for job training with significant focus on emerging industry sectors including energy efficiency and renewable energy)

Additionally, the Department of Energy, Energy Efficiency and Renewable Energy, may provide additional funds (above current base allocations) to states under the State Energy Grants if the governor certifies that states will work towards adoption of building energy codes at least as stringent as ANSI/ASHRAE/IESNA 90.1-2007 for commercial buildings and develop a plan for achieving 90 percent compliance with the code including training and enforcement programs. This provision could help speed state adoption of Standard 90.1-2007 and pave the way for future adoptions of 90.1-2010 which is expected to require 20 to 25 percent less energy use than the 2007 version.

DOE and ASHRAE Establish Washington Fellowship

ASHRAE is sponsoring a 12 to 18 month fellowship program with placement at the Department of Energy in the Office of Building Technologies, Building Energy Codes Program. This fellowship will enable a selected ASHRAE member to assist DOE in one of the following code deployment activities:

1. Code Compliance
2. Residential Duct Test Training
3. Assessment of the Impact of Updating State Energy Code
4. Advanced Energy Code Training

The Department will consider candidates for 12 to 18 months for work in these areas, commensurate with the experience of the applicant. A stipend of \$50,000/year will be provided. Applications are now being accepted for this open position.

Federal Government Fellowships provide a valuable public service to the nation while at the same time providing engineers and scientists with a unique opportunity to participate directly in the policy making process. This is an exciting, rewarding, and educational period in their professional careers. This enriching experience enables Fellows to bring back to their employers an insider's perspective on government decision making that can contribute significantly to the mission and vision of the organization.

ASHRAE members interested in applying for the Fellowship should contact Doug Read, ASHRAE Program Director of Government Affairs, (202) 833-1830 dread@ashrae.org.

About the ASHRAE Government Affairs Update

ASHRAE's Government Affairs Update features information on government affairs related activities of interest to ASHRAE members and others interested in the built environment. Archives of previous updates are available from the government affairs webpage (<http://www.ashrae.org/advocacy>).

If you have any recommendations regarding content, or have questions about or would like to participate in Washington Office activities, please contact ASHRAE Government Affairs staff at (202) 833-1830 or washdc@ashrae.org.

— William Walter

7TH ANNUAL GREEN BUILDING CONFERENCE

Thursday, March 19, 2009
&
Friday, March 20, 2009

Oncenter Complex
Syracuse, New York



**REGISTER EARLY
FOR EARLY BIRD RATES
RECEIVED BY FEBRUARY 26, 2009**

Complete program on the web:
<http://www.esf.edu/greenbuilding/>

CONFERENCE MISSION:

To promote, educate and support green building design, construction and processes.



PLENARY SPEAKER:

Jason F. McLennan
Developer of the Living
Building Challenge,
CEO of the USGBC
Cascadia Chapter

Jason is a thought leader in sustainability and a national leader in the green architecture movement. He is also the President and CEO of Ecotone Publishing.



KEYNOTE SPEAKER:

Susan S. Szenasy
Editor In Chief
METROPOLIS Magazine

Susan's presentation will show the many different things that are being done today, some prototypes, some working projects, some emphasize social sustainability even as they push for environmental sustainability. It will be a lively overview of today's far-reaching green activities.



State University of New York
College of Environmental Science and Forestry



New York
Upstate Chapter
greenupstateny.org

GREEN BUILDING IS THE SOLUTION...

SUNY College of Environmental Science and Forestry
ESF Outreach
221 Marshall Hall • 1 Forestry Drive • Syracuse, NY 13210

GREEN BUILDING IS THE SOLUTION...

7th Annual Green Building Conference BE PART OF THE SOLUTION

The SUNY College of Environmental Science and Forestry partners with the U.S. Green Building Council New York Upstate Chapter to host the Annual Green Building conference on **Thursday, March 19** and **Friday, March 20, 2009** at the Oncenter Complex.

Thursday, March 19

- LEED 2009: Credit Categories and Intents (**New!** This 200 level course is designed for a better understanding of the specific LEED credit categories)
- Stormwater Management Workshop: *Fundamentals of Erosion and Sediment Control* by Donald W. Lake, NYS-DEC approved for "Junior Qualified Inspector"
- Meet the presenters and exhibitors at an Oncenter Reception 5:00 – 6:30 PM

Friday, March 20

- Green Keynotes: Jason McLennan and Susan Szenasy
- Hear experts in three program tracks: **Green Housing, Building Science and Energy tracks**
- Find out **who** will be named 2009 Green Building Advocate of the Year
- Visit the extraordinary exhibits and featured displays