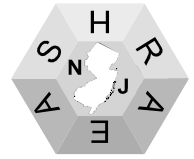




# THERMOGRAM



The New Jersey Chapter of ASHRAE Newsletter

WWW.NJASHRAE.COM

APRIL 2008

REPLY@NJASHRAE.COM

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973-777-6700

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### REFRIGERATION

JOHN TELLEFSON

### ROSTER/DIRECTORY

OPEN

## May 1st, 2008 SCHOLARSHIP AWARD NIGHT

Woodbridge Sheraton  
Route 1, Gill Lane, Iselin, NJ

Cost: \$50.00 Members  
\$55.00 Guests  
\$ 5.00 Student

RSVP: [REPLY@NJASHRAE.COM](mailto:REPLY@NJASHRAE.COM)  
NO LATER THAN April 30th, 2008

SCHEDULE: 4:30 Board of Governors Meeting  
5:30 Guest Registration /Cocktail Hour  
6:30 Chapter Announcements  
7:15 Dinner and Presentation

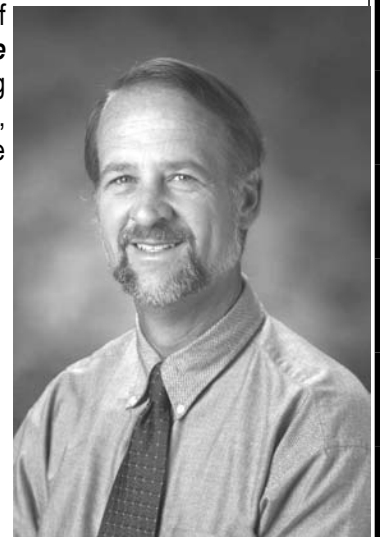
DINNER SESSION: **“Mechanical Design for Green Building  
and overview of Standard 189”**

PRESENTED BY: Mr. Tom Lawrence, Ph.D, P.E. LEED<sup>AP</sup>  
University of Georgia  
ASHRAE Distinguished Lecturer

The dinner session will provide in-depth review of current **ASHRAE Standard 189 “High Performance Green Buildings”** and some strategies for achieving green buildings. Currently in Public review draft, Standard 189 will directly impact our industry as we strive for zero net energy buildings.

WHAT IS YOUR CARBON FOOTPRINT?

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Sustainability



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(CONTINUED)

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**TECHNICAL SESSIONS**  
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**DINNER SPEAKER BIOGRAPHY**



**Dr. Tom Lawrence, P.E. LEED<sup>AP</sup>**  
**ASHRAE Distinguished Lecturer**

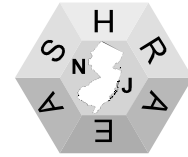
Dr. Lawrence is a Public Service Associate with the University of Georgia, and has over 25 years of professional experience in engineering and environmentally related fields. Before going back for his Ph.D. in Mechanical Engineering at Purdue, he spent approximately 20 of those years in progressively more responsible engineering and management positions in industry and consulting. Currently, he is vice-chair of ASHRAE Technical Committee 2.8, “Building Environmental Impact and Sustainability”, and is a member of the committee writing an ASHRAE standard on high-performance green buildings (Standard 189.1). Dr. Lawrence has presented papers on building energy usage and indoor air quality at conferences in the U.S. and Europe, and has published papers on sustainable design and energy usage in buildings in journals such as *ASHRAE Journal*, *Solar Today*, and *Buildings and Environment*. As an ASHRAE Distinguished Lecturer, he has given presentations and workshops on green building design at venues around the world. At the University of Georgia, Dr. Lawrence teaches or has taught courses in Building Environmental Control, Green Building Design, Industrial Ventilation, Residential Building Design, Heat Transfer and Thermodynamics, and in these courses he works to bring in sustainable design concepts practices. As part of the Engineering Outreach program, he is helping to coordinate building energy reduction activities within the state university system. Dr. Lawrence is also a consultant to Commissioning and Green Building Solutions in the Atlanta, Georgia area. He is an active volunteer with Habitat for Humanity, serving as Vice-President of the board of directors for the Athens, Georgia chapter while working to introduce sustainable design practices in the houses built there.

Dr. Lawrence has a B.S. with Highest Distinction honors in Environmental Science from Purdue University (1978), a M.S. in Mechanical Engineering from Oregon State University (1982) and a second M.S. degree in Engineering Management from Washington University earned in 1989. He received a Ph.D. in Mechanical Engineering from Purdue University in the spring of 2004 researching the impacts of demand-controlled ventilation on energy consumption and indoor air quality in smaller commercial buildings. Dr. Lawrence is a member of the American Society of Heating, Refrigeration and Air Conditioning Engineers; the American Society for Engineering Education and is a Phi Beta Kappa.

## Calendar of Upcoming Events



### NJ ASHRAE 2008 – 2009 OFFICER & BOARD OF GOVERNORS NOMINEES SLATE



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*AT THE MAY 1ST BOARD OF GOVERNORS MEETING, ADDITIONAL NOMINATIONS OF MEMBERS IN GOOD STANDING, WHO CONSENT ORALLY OR IN WRITING TO BE CANDIDATES, MAYBE MADE FROM THE FLOOR FOR THOSE INTERESTED IN RUNNING. THE BOARD MEETING WILL START AT 4:30 PM*

### 2007-2008 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.	762	200	1115	470	770	175	555	3285

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## MEET OUR CHAPTER MEMBERS.....

### Gene Koski

Many of us have known Gene Koski for our entire careers. I met him in the early 1970's. I enjoyed working with him on a variety of projects throughout my career. I always considered him knowledgeable and fun to chat with, but few of us are familiar with Gene's background. He grew up in Mount Vernon, New York. During his senior year at Davis High School, he won two gold medals in track at the Annual Westchester County Track Meet. He attended MIT on a scholarship and was part of the class of 1943. He took accelerated classes in engineering and graduated six months early. His dual degrees are in Aeronautical and Mechanical Engineering. He began his career at Douglas Aircraft in Santa Monica, California. He was a charter member of the Santa Monica ski club. Gene managed to take off from his position three times to work as an extra in films in Hollywood. It was a thrill for him. He was docked pay at his \$1.10 per hour position as a junior engineer. The women on the assembly line were making three times his pay, so they often paid their share on dates. He joined the US Army and served in Europe. He was an excellent athlete and served in a unit that assisted in the physical rehabilitation of injured soldiers as well as physical enhancements for front line troops.



When he returned from Europe, he felt that a technical career was not financially rewarding. He had a natural personality for technical sales with his gift for gab. After he left the Army, his first position was with Eugene J. Brandt. He sold HVAC systems in New York City. He continued his education at NYU. He received a master's degree in mechanical engineering and an MBA from that school.

He moved on to the air filter business with Connor – No Draft. They had a line of carbon filters. He was promoted to a supervisory position with Associated Thermo-products. He became familiar with Cambridge filters and Barnaby Cheney carbon filters. His tremendous knowledge of products and applications has been a resource to many active engineers in North Jersey. His big break came when they split the territory for the firm and he became owner and president of Associated Air Products in New Jersey.

On a personal basis, Gene has been married for 57 years to the same woman. She handles the inside portion of the business. Gene still makes sales calls and assists designers. The couple comes to work every day and enjoy their time. They have two sons that are graduate engineers, but have left the area. Gene expects to have his first grandchild arrive next month. He took up skiing in 1942. He has won numerous gold medals in ski association races held at ski resorts. He remained an active skier until two years ago. His favorite spots are Jackson Hole, Wyoming and Snowbird in Utah. These places are for the committed skier and not for snow bunnies. He ventured to Europe many times. He has had many falls, cuts and bruises. He remembers them with a laugh. "If you didn't get banged up, you never really enjoyed skiing". He also enjoys a trip to Las Vegas every once in awhile. His favorite hotel is the Venetian. Gene always enjoys a cold glass of beer, lively conversation and a funny joke.

He has been an ASHRAE member for over fifty years. When asked about changes in ASHRAE, he said he misses the dances. They were major events and often there was a party after the party. It was a committed group of members that were able to mix business with pleasure. He has seen mergers and acquisitions in the filter industry that confuse all of us. Basically, there are now very few manufacturers. He has watched as the "use of filters changed from protecting coils to protecting people." Gene is something special and many of us have benefited from working with him for a long time. Thanks again Gene for your continued active membership in ASHRAE.

Bob Daly  
*Chapter Historian*

## HELP WANTED

CUH2A ([www.cuh2a.com](http://www.cuh2a.com)) is a leader in the Science & Technology arena. We are currently seeking a **Sr. Instrumentation & Controls Engineer** for our Princeton office.

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Experience in pharmaceutical, research facilities, government, institutional research, academic, corporate and/or emerging technology.

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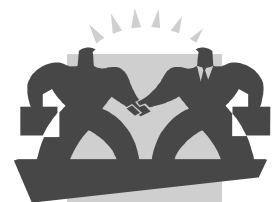
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## IN MEMORY OF .....

IT IS WITH DEEPEST REGRET TO INFORM OUR CHAPTER MEMBERS THAT MR. MICHAEL SISTI, OWNER OF SISTI ENGINEERING, ASHRAE FELLOW LIFE MEMBER, AND PAST PRESIDENT OF NORTH JERSEY ASHRAE CHAPTER HAS PASSED AWAY.

ON BEHALF OF THE CHAPTER, WE WOULD LIKE TO EXTEND OUR DEEPEST CONDOLENCES AND SYMPATHY TO THE SISTI FAMILY.



Officers and Board of Governors  
N.J. Chapter of ASHRAE



## SOCIETY NEWS.....

### Lessons from ASHRAE Roundtable on High-Performing Buildings Shared in Video

ATLANTA – Early involvement by all members of the building team is crucial to the success of high-performing buildings, according to panelists in a new video from ASHRAE.

“You can’t operate efficiently if the building hasn’t been designed with that in mind,” said Don Winston, P.E., director of technical services, The Durst Organization, Inc. “The operators will always win in the end. If you don’t design it in a way that it can be operated in accordance with its performance goals, it won’t be....it really goes back to the design process and a level of cooperation. Everyone has to be in on it, including the operations team, from day zero.”

Lessons learned in sustainable design can now be seen via a free online video at [www.ashrae.org/roundtable](http://www.ashrae.org/roundtable). The video is a recording of a special roundtable, *High-Performance Buildings: Lessons from the Leaders*, originally presented at ASHRAE’s 2008 Winter Meeting.

The panelists discuss owner motivations, technical challenges, design choices and trade-offs, costs for these projects, and share perspectives about whether the expectations set early in the design process have been met once the buildings are occupied.

The panelists include representatives of New York’s best-known owner/developer firms, along with the engineering designers who bring their projects to reality. Their projects include some of the most sustainable buildings in New York City, such as 4 Times Square, the Chrysler Center, One Bryant Park and the New York Times Headquarters.

“What does high performance mean?,” questions panelist Tom Scarola, director of engineering, Tishman Speyer. “Up until even a few years ago, buildings were designed very prescriptively based on meeting codes, not challenging whether they could perform better. What we do today is called high performance but it is just good and efficient design. It is reasonable to believe that the issue is no longer if it is a high-performance building, the question is how high. Building a high-performance building means never having to say you’re sorry.”

The panelists agree that it is essential that planning for the design, operation and maintenance of high performing buildings start early and involve all members of the building team. They also agree that designers and engineers should strive to incorporate new technologies and design methods.

“Put behind you what’ve done for the last 20 jobs,” suggests panelist Scott Frank, P.E., partner, Jaros Baum & Bolles. “Get in the habit of saying ‘how can we do this differently,’ ask ‘why not’ at every turn, worship the god of common sense, and be sure every decision and recommendation you make is backed up by rigorous engineering.”

Dan Nall P.E., senior vice president/director-advanced technologies, Flack + Kurtz addresses sustainability outside the U.S. market. “Perhaps the most informative experience I have had is working on projects in the Middle East, where the entire support infrastructure is being built at the same time as the buildings. This provides an opportunity to investigate the relations of multiple buildings to their support infrastructure and the opportunities that exist to create a complex cascading utilization of resources. The answer doesn’t lie in making individual green buildings – it lies in making green cities.”

## SOCIETY NEWS.....

### Vermont Approves Wide-Ranging Clean Energy Bill

Vermont Governor Jim Douglas approved a bill that will promote energy efficiency and renewable energy throughout the state. Called the Energy Efficiency and Affordability Act of 2008, the new legislation creates a new \$4 million fuel efficiency fund that will be financed from existing revenues and from the sale of emission credits under the Regional Greenhouse Gas Initiative. The fund will provide energy efficiency services to the state's consumers of heating and process fuels. The state will use a competitive process to award the funds to service providers under performance-based contracts. The new legislation also assures that the state's residential and commercial building energy standards are upgraded to keep pace with changes to the International Energy Conservation Code, and it doubles the spending cap for weatherization projects in homes of low-income families.

Regarding renewable and distributed energy use, the bill expands net metering to include renewable energy systems up to 250 kilowatts in capacity, up from only 15 kilowatts, and allows for combined heat and power systems up to 20 kilowatts in capacity. Net-metered systems earn credit for power fed back into the utility grid. The bill also doubles the cap on net-metered systems to 2% of the peak demand as of 1996. It allows farms to have all their electric meters consolidated on paper into one net-metered system, and it also takes the innovative step of allowing groups of buildings, such as all the municipal buildings in one town, or all the schools in a district, to be consolidated on paper into one net-metered system. Individuals, such as residents of an apartment building or a subdivision, can apply to be treated as a group, with all their electric meters consolidated on paper into one net-metered system. Such group net metering could encourage people to band together to install a large renewable energy system that will serve them all.

For customers that don't want to own their own renewable energy systems, the bill requires all utilities to offer a voluntary green power program. It also establishes an alternate education property tax of 0.3 cents per kilowatt-hour for wind energy facilities that are at least 5 megawatts in capacity, and allows businesses to earn solar energy tax credits. And it encourages the state to use more biodiesel in its vehicles and buildings. See the governor's press release (<http://governor.vermont.gov/tools/index.php?topic=GovPressReleases&id=2863&v=Article>) and the full text of the bill, S 209 (<http://www.leg.state.vt.us/docs/2008/bills/passed/S-209.HTM>).

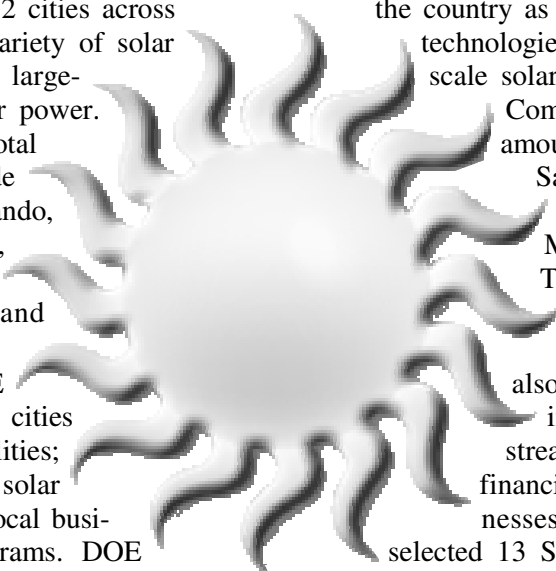
### **DOE Selects 12 Solar America Cities to Receive up to \$2.4 Million**

DOE announced its selection of 12 cities across the country to receive \$200,000 to integrate a variety of solar photovoltaic electric systems, and large-scale also known as concentrating solar power. Combined with industry cost sharing and funding from each city, the total amount invested will be approximately \$12.1 million. The 12 cities include Sacramento, San Jose, and Santa Rosa, California; Denver, Colorado; Orlando, Florida; the combined "twin cities" of Minnesota; Philadelphia, Pennsylvania; Knoxville, Tennessee; Houston and San Antonio, Texas; Seattle, Washington; and Milwaukee, Wisconsin.

Each city will receive technologies, such as solar water heating, solar scale solar thermal electric systems, which are Combined with industry cost sharing and amount invested will be approximately \$12.1 million. The 12 cities include Sacramento, San Jose, and Santa Rosa, California; Denver, Colorado; Orlando, Florida; the combined "twin cities" of Minnesota; Philadelphia, Pennsylvania; Knoxville, Tennessee; Houston and San Antonio, Texas; Seattle, Washington; and Milwaukee, Wisconsin.

In addition to the funding, DOE from technical experts to help cities energy planning, zoning, and facilities; that affect solar adoption; provide solar technology among residents and local busi- development, and incentive programs. DOE selected 13 Solar America Cities in 2007, so the latest selection brings the total number of Solar America Cities to 25. See the DOE press release (<http://www.energy.gov/news/6099.htm>) and the Solar America Cities Web site (<http://www.solaramericacities.energy.gov/>).

also will provide hands-on assistance integrate solar technologies into their streamline local regulations and practices financing options; and promote solar nesses through outreach, curriculum selected 13 Solar America Cities in 2007, so the latest selection brings the total number of Solar America Cities to 25. See the DOE press release (<http://www.energy.gov/news/6099.htm>) and the Solar America Cities Web site (<http://www.solaramericacities.energy.gov/>).



## SOCIETY NEWS.....

### Report: Buildings Easiest Source for Reduced CO<sub>2</sub>

Promoting the green design, construction, renovation and operation of buildings could cut North American greenhouse gas emissions more deeply, quickly and cheaply than any other available measure, according to a new report, *Green Building in North America: Opportunities and Challenges*, issued by the International Commission for Environmental Cooperation (CEC). The report says rapid market uptake of currently available and emerging advanced energy-saving technologies could result in over 1,700 fewer megatons of CO<sub>2</sub> emissions in 2030, compared to projected emissions that year following a business-as-usual approach. A cut of that size would nearly equal the CO<sub>2</sub> emitted by the entire US transportation sector in 2000.

Even with rapid growth projected in the green building market across all three countries, the report says public and private sectors must embrace substantial changes to the planning, development and financing of commercial and residential buildings to overcome what it says are significant barriers to the widespread adoption of high-performance buildings throughout North America.

Report authors describe a number of disincentives to green building to be overcome. For example, how to encourage developers to incur the marginal cost of green building features when the long-term energy-saving benefits will be passed on to the new owners or tenants.

They recommend ways to accelerate the market uptake of green building and make it the standard practice for all new construction and renovation of existing buildings in North America. Among its recommendations, the report calls upon North American government, industry and nongovernmental leaders to:

- \* Create national, multi-stakeholder task forces charged with achieving a vision for green building in North America;
- \* Support the creation of a North American set of principles and planning tools for green building;
- \* Set clear targets to achieve the most rapid possible adoption of green building in North America, including aggressive targets for carbon-neutral or net zero-energy buildings, together with performance monitoring to track progress towards these targets;
- \* Enhance ongoing or new support for green building, including efforts to promote private sector investment and proper valuation methods; and
- \* Increase knowledge of green building through research and development, capacity building, and the use of labels and disclosures on green building performance.

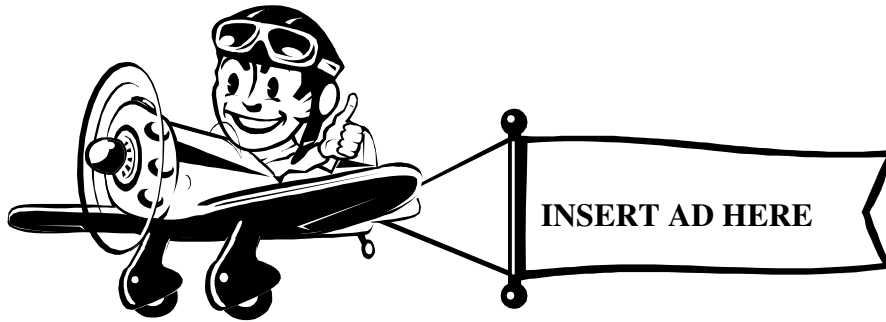
The recommendations complement ongoing efforts by federal, state/provincial and local governments as well as industry and trade associations and nongovernmental organizations.

The CEC study notes several government and industry initiatives that promote aggressive energy performance improvements in the building sector. One study completed for the report signals the potential of green building to yield tremendous energy improvements and greenhouse gas emissions reductions in the building sector by 2030, and suggests a path toward zero net-energy and carbon-neutral buildings.

The report and associated background reports, along with a portfolio of selected green buildings in Canada, Mexico and the United States is available at <http://www.cec.org/greenbuilding/>.



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If you would like to submit project or technical articles in the Thermogram, please contact Mark Richter @ 212-354-5656 or via email [mrichter@AKF-eng.com](mailto:mrichter@AKF-eng.com) for further details.

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