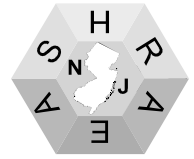




THERMOGRAM



The New Jersey Chapter of ASHRAE Newsletter

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JANUARY 2008

REPLY@NJASHRAE.COM

CHAPTER OFFICERS

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PETER FRANGISKOU P.E.
201-945-9999

PRESIDENT - ELECT

MARK RICHTER P.E.
212-354-5656

VICE-PRESIDENT

JANET SHIPTON
732-839-4916

TREASURER

JANET SHIPTON
732-839-4916

SECRETARY

CHRIS PHELAN
973-777-6700

BD. OF GOVERNORS

LINDA CAROLAN
908-663-2180

JORI FAHRENFELD
609-520-1600

ROBERT DALY P.E.
212-566-5764

HANK VITALE
908-753-1777

RUSS GRAHAM
908-663-2180

ROGER SHULTZ
973-396-4152

COMMITTEES

MEMBERSHIP

RUSS GRAHAM
908-663-2180

RESEARCH PROMOTION

CHRIS PHELAN
973-777-6700

STUDENT ACTIVITIES

PETER FRANGISKOU P.E.
201-945-9999

REFRIGERATION

JOHN TELLEFSON

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February 7th, 2008

Membership and History Night

Woodbridge Sheraton
Route 1, Gill Lane, Iselin, NJ

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

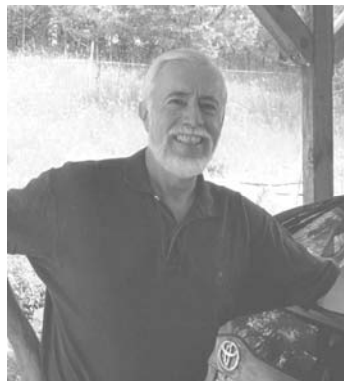
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NO LATER THAN FEBRUARY 6th, 2008

SCHEDULE: 5:30 Guest Registration /Cocktail Hour
6:30 Chapter Announcements
7:15 Dinner and Presentation

“What are our Realistic Energy Alternatives to Control Climate Change?”

PRESENTED BY: Dr. William J. Makofske /Professor Emeritus of Physics

Ramapo College of New Jersey



An overview of alternative energy sources and other energy strategies that reduce greenhouse gas emissions. Technology decisions must be based on their economics and environmental, social and political impacts. The emphasis will be on improving energy efficiency, and incorporating a full range of renewable energy sources into our society at all levels. These include technologies for solar heating, solar hot water, solar electricity, small- and large-scale wind power, hydroelectricity, geothermal, biofuels, and tidal and ocean power. The potential for hydrogen and nuclear power will also be considered.

**COMMITTEES
(CONTINUED)**

CTTC – TEGA
MARK RICHTER P.E.
212-354-5656

NEWSLETTER ADS
OPEN

NEWSLETTER EDITOR
MARK RICHTER P.E.
212-354-5656

NOMINATING
JORI FAHRENFELD
609-520-1600

PROGRAM
MARK RICHTER P.E.
212-354-5656

SEMINARS
MARK RICHTER P.E.
212-354-5656

TECHNICAL SESSIONS
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212-354-5656

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SPECIAL EVENTS/GOLF OUTING
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973-777-6700

AUDIT
RUSS GRAHAM
908-663-2189

BUDGET
JANET SHIPTON
732-839-4916

HISTORIAN
BOB DALY
212-566-5764

ATTENDANCE/RECEPTION
CHRIS PHELAN
973-777-6700

HONORS & AWARDS
JEFFREY GRANT
908-272-6755

WEB PAGE DESIGN
LINDA CAROLAN
908-663-2189

CHAPTER BYLAWS
LINDA CAROLAN
908-663-2180

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ASHRAE ATLANTA
TOLL FREE NUMBER
1-(800)-527-4723

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FEBRUARY SPEAKER BIOGRAPHY

**Dr. William J. Makofske, Professor Emeritus
Ramapo College of New Jersey**

A lifelong college professor and researcher, Bill taught physics, environmental science and environmental studies for 33 years at Ramapo College, chaired each of those departments for a time, and directed the Institute for Environmental Studies at the college for over 6 years. His teaching focus included courses on energy and environment, computer systems modeling, and green building design.

Bill is an expert in the renewable energy field. As an early pioneer in the 1970's, he designed and constructed small scale passive solar buildings and wind generators at the college, and developed a complete renewable energy curriculum. Several years ago, as a Fulbright Fellow, he studied renewable energy and environmental problems in Germany. On sabbatical as a research scientist, he worked on building efficiency and renewable energy at the Building Research Establishment (British Department of Energy) in England. As a visiting research scientist at Argonne National Laboratory, he published studies on tropospheric ozone pollution, and on climate change.

He co-authored and edited a number of books, including Radon and the Environment, Noyes Publications, Radon's Deadly Daughters: Science, Environmental Policy and the Politics of Risk, Roman & Littlefield, Technology and Global Environmental Issues, HarperCollins, and has published numerous research articles. Earlier research work at Rutgers University, University of Minnesota, and Columbia University includes many articles in experimental nuclear physics. He also developed course materials and provided workshop training for measuring and mitigating radon as a consultant to the New York State Energy Office.

In recent years, he served on two New Jersey State Task Forces; one on grid-connected renewable energy, and the other on renewable energy policy. He is currently working on a NJ Board of Public Utilities grant through Ramapo College to train students and develop energy auditing procedures for houses of worship, libraries, and small commercial buildings. His solar house in Warwick, NY, is near Zero Net Energy, and has been on the National Solar Tour for the past four years. He is a member of the American Solar Energy Society, and Northeast Sustainable Energy Association. Bill is currently writing a book on green building design, consulting, and lecturing.

January Dinner Presentation Re-cap

Business Case for Sustainability / Mr. Jerry Yudelson/Yudelson Associates

Mr. Yudelson presented on the overall business case for Sustainability, addressing upfront capital costs, building energy savings, and reduced employee health to overall bottom line. With the emergence of multiple Sustainable case studies throughout the nation, covering all building types, the results signify that a sustainable building can be achieved at lower to slightly higher than traditional building construction costs.

Mark Richter
Programs Chair

ASHRAE Satellite Broadcast/Webcast

On April 16, 2008, ASHRAE's Chapter Technology Transfer Committee (CTTC) will present a satellite broadcast and simultaneous webcast on "Integrated Building Design: Bringing the Pieces Together to Unleash the Power of Teamwork."

Online registration for site coordinators and webcast viewers begins March 1 at www.ashrae.org/idbbroadcast. Registration for satellite viewers begins March 15. Information about the program and speakers is available at www.ashrae.org/idbbroadcast.

Three PDH credits will be granted to those who view the program and then complete the Participant Reaction Form on our webpage following the broadcast.

An added benefit of a \$50 discount will be taken off a one-year membership to anyone who joins ASHRAE as a new member in conjunction with the broadcast. Check out our website for more details.

Please see the enclosed brochure and share this information with your chapter members. Also be sure to keep watch for more information, as updates are sure to follow.

If you have questions, call (678) 539-1139 or email ashrae-SatelliteBroadcast@ashrae.org.

ASHRAE Seeks Papers on Sustainable Urban Design

ATLANTA – ASHRAE is seeking papers focused on sustainable urban design for its 2009 Winter Meeting, Jan. 24-28, Chicago.

Papers and programs should present the latest developments in sustainability as applied to systems and equipment, application of their use in different types of buildings and, especially, the impact on urban settings. Topics include energy conservation, indoor environmental quality, application of ASHRAE guidance to achieve high-performing sustainable results, and international sustainability efforts.

The deadline for paper submittal is April 4. Submit papers online at mc.manuscriptcentral.com/ashrae or contact Mary McGee, meeting program administrator, at mmcgee@ashrae.org for more information. The deadline for other technical program submissions is Aug. 8.

Calendar of Upcoming Events

- March 6th** ***N.J. ASHRAE DINNER MEETING***
WOODBIDGE SHERATON
“VARIABLE FREQUENCY DRIVES” PRESENTED BY CUTLER HAMMER
- March 27th** ***ANHEUSER–BUSCH FACTORY TOUR***
NEWARK, N.J.
“NEW GLYCOL DESICCANT COOLING SYSTEM”
- April 3rd** ***NJ ASHRAE STUDENT NIGHT***
WOODBIDGE SHERATON
TBD
- May 1st** ***N.J. ASHRAE DINNER MEETING***
Scholarship Award Night / Installation of Officers

WOODBIDGE SHERATON
“MECHANICAL DESIGN FOR GREEN BUILDING AND STANDARD 189”
Tom Lawrence, Ph.D., P.E., LEED^{ap} / UNIVERSITY OF GEORGIA
ASHRAE DISTINGUISHED LECTURER
- June 5th** ***N.J. ASHRAE DINNER MEETING***
Spouses Night
Location To Be Determined

ASHRAE
*Engineering
for
Sustainability*

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	0	0	330	0	0	310	640

HELP WANTED

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

Requirements:

10 or more yrs experience in the design, documentation and specification of commercial/light industrial automatic control systems related to HVAC systems, including boilers and chilled water plants. Competency in the design of control systems associated with cGXP areas, clean rooms and sterile suites, as well as BSL-2 and BSL-3 laboratories. Experience in pharmaceutical, research facilities, government, institutional research, academic, corporate and/or emerging technology. B.S. degree in related field, P.E. license, strong communication skills. (LEED accreditation preferred). Selected candidate will perform inter-discipline coordination, estimate project budgets, construct instrumentation & control diagrams, and also run projects independently. CUH2A employees enjoy competitive salaries, comprehensive benefits, stimulating projects & a great work environment with high employee retention. To apply, pls. send your resume to recruiting@cuh2a.com with "NJ-ASHRAE Ad" on subject line.

T&M Associates is an award-winning, multi-discipline Consulting Engineering firm in business over 40 years. Join our 300 employees in Central Jersey and be a part of our continuing growth.

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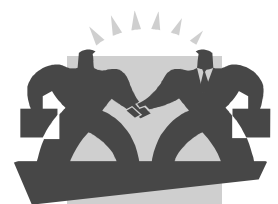
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Design projects for educational, municipal, industrial, pharmaceutical and commercial facilities. Minimum 5 years mechanical design experience, including HVAC design, required. AutoCad experience preferred. BSME required. EIT preferred.

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EEO/AA Employer



SOCIETY NEWS.....

HUD, USDA Required to Reference Standard 90.1 under New Energy Bill

WASHINGTON, D.C. – The U.S. Departments of Housing and Urban Development (HUD) and Agriculture (USDA) would be required to meet energy efficiency requirements in ASHRAE/IESNA Standard 90.1 under the federal energy bill signed into law by President Bush on Wednesday.

Under existing law, HUD and the USDA are required to write energy-efficient standards for public and assisted housing and housing with federally insured mortgages. Such standards have to be at least as stringent as ANSI/ASHRAE/IESNA Standard 90.1-1989, *Energy Standard for Existing Buildings Except Residential*, and Council of American Building Officials (CABO)-1992. When either 90.1 or CABO is updated, the agencies have a year to revise their standards, but this has rarely taken place.

Under the new law, HUD and USDA will be required to implement standards at least as stringent as Standard 90.1-2004 or the 2006 International Energy Conservation Code (IECC) for all new construction and rehabilitation of public and assisted housing and housing with federally insured mortgages. Upon revision of 90.1 or IECC, HUD and the USDA have one year to update their standard to meet or exceed the revised requirements. If they do not do so within a year, all new and rehabilitation of housing covered by the federal standard will need to meet the revised IECC or 90.1, following a positive determination by the U.S. Department of Energy and HUD/USDA determination that it would not negatively impact availability or affordability of housing.

“This provides additional validation of the importance of energy savings in Standard 90.1 and also provides a baseline for all public and assisted housing and federally insured mortgage property in all states,” Doug Read, ASHRAE director of government affairs, said.

ASHRAE Provides Technical Guidance on Proposed Depreciation Bill

WASHINGTON, D.C. – ASHRAE has provided technical guidance for proposed legislation that would shorten the depreciation of certain HVAC&R systems.

Reps. Melissa Bean (Ill.) and Pete Hoekstra (Mich.) recently introduced HR4574, which would amend the Internal Revenue Code of 1986 to provide a shorter recovery period for the depreciation of certain systems installed in nonresidential real property or residential rental property.

ASHRAE, at the request of Bean, provided language on the depreciation of HVAC&R equipment. The existing depreciation period is 39 years. The proposed legislation would reduce the period to 20 or 25 years, encouraging replacement of equipment sooner that would result in more modern/efficient equipment being installed.

“ASHRAE contributed language that would encourage building owners to replace older, less-efficient HVAC&R equipment with newer, more efficient systems,” Doug Read, ASHRAE’s director of government affairs, said. “Owners also would receive additional incentive to go beyond the minimum efficiencies required in ASHRAE/IESNA Standard 90.1. Replacing this equipment will result in significant energy savings, reduced greenhouse gas emissions, and would encourage the retirement of older chillers that require the use of CFCs.”

ASHRAE Continues Building Community of HVAC&R

ATLANTA – Eighty-five years after creating its first chapter outside the United States, ASHRAE has chartered its 170th chapter, based in Indonesia.

“ASHRAE recognizes that technology developed outside North America enhances our knowledge base,” Kent Peterson, ASHRAE president, said. “One way we can share that knowledge is by bringing members together via chapters, which allows them to work together, share ideas, and advance the standards of practice to improve the built environment. We see our chapter program as a way to build the community of HVAC&R.”

ASHRAE’s continued growth is part of its overall strategic plan, which calls for the Society to be a global leader in the HVAC&R community. In addition to chapters in the United States, Puerto Rico, Canada and Mexico, ASHRAE has chapters in Brazil, Argentina, Singapore, Hong Kong, Malaysia, Taiwan, Philippines, Thailand, India, Saudi Arabia, Egypt, Lebanon, Kuwait, Greece, Sri Lanka, Pakistan, the United Arab Emirates, Portugal, Romania, Poland, Bahrain, Spain and Indonesia.

ASHRAE formed its first non-U.S. chapter in Toronto in 1922. The first chapter outside North America was formed in Singapore in 1984.

SOCIETY NEWS.....

ASHRAE Publishes User's Manual for Standard 62.1

ATLANTA – A manual to help users navigate the changes in ASHRAE's 2007 ventilation standard is now available.

The Standard 62.1-2007 User's Manual provides users with a better understanding of the design, installation and operation requirements in ANSI/ASHRAE Standard 62.1-2007, *Ventilation for Acceptable Indoor Air Quality*.

The standard, published last year, contains new requirements for separation of environmental tobacco smoke (ETS) spaces from ETS-free spaces, clarification of humidity control design requirements, and the inclusion of new rates for high-rise residential occupancies. "The manual provides guidance for designers and contractors to clarify the requirements, explains why the requirements are included (in some cases), and how to comply," Roger Hedrick, vice chair of the 62.1 committee, said.

The cost of the user's manual is \$69 (\$55, ASHRAE members). To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit at www.ashrae.org/bookstore.

ASHRAE Publishes Book on Hot, Humid Climate Building Design Guidance

ATLANTA – Building operators and designers around the world face common issues related to thermal comfort, ventilation and energy.

But these measures take on greater concern for buildings in hot and humid climates. In addition, areas with these climates, such as South Asia, are experiencing rapid construction growth.

Design guidance on critical issues for achieving excellence and long-term sustainability in these climates is contained in a new book from ASHRAE. *The ASHRAE Guide for Buildings in Hot and Humid Climates* identifies and explains key issues for owners, architects, HVAC designers, contractors and building owners as they plan, build and operate air-conditioned buildings – in a sustainable way – in hot and humid climates.

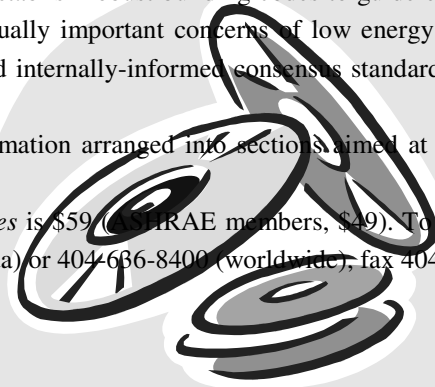
"All countries want to achieve high standards of energy efficiency," author Lew Harriman said. "But recent history warns that mold and mildew problems in hot and humid climates can overshadow any gains made through energy reduction. On the other hand, the practical experience of ASHRAE's members shows that by focusing on several critical building enclosure design details and by keeping the indoor air dry, owners and designers can avoid mold problems and have high indoor air quality, while their buildings use much less energy than outdated designs."

Topics covered in the book include improving thermal comfort, managing ventilation air, reducing energy consumption and avoiding bugs, mold and rot. The book explains ASHRAE's standards in these areas. It also highlights common problems seen in hot and humid climates, along with practical alternatives for avoiding such problems.

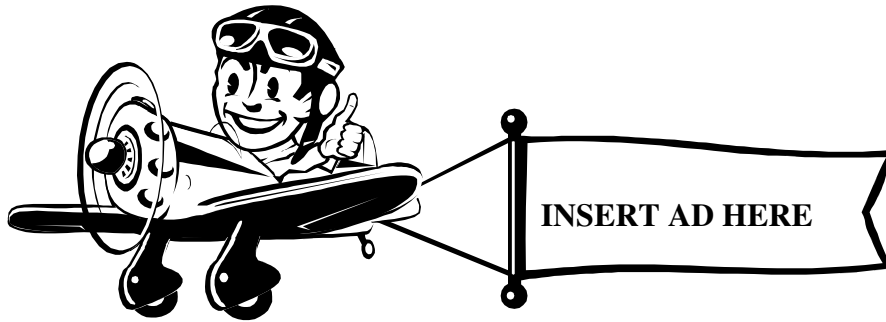
"The guide was created in part because of requests from designers and owners in North America, but also because of requests from government agencies in developing countries that are working to establish robust building codes to guide energy use and indoor environmental quality," Harriman said. "When balancing the equally important concerns of low energy consumption, high thermal comfort and healthy indoor air, ASHRAE's experience and internally-informed consensus standards can be very helpful."

A second edition is planned for January 2009 that will add more information arranged into sections aimed at each different member of the construction and delivery team.

The cost of the *ASHRAE Guide for Buildings in Hot and Humid Climates* is \$59 (ASHRAE members, \$49). To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit at www.ashrae.org/bookstore.



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