



THERMOGRAM



The New Jersey Chapter of ASHRAE Newsletter

www.njashrae.com

December 2010

reply@njashrae.com

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ASHRAE
*Modeling a Sustainable
World*

NJ Chapter of ASHRAE Meeting

Joint Meeting with MCA & ASPE

Wednesday, January 12, 2011

Woodbridge Hilton Hotel

120 Wood Avenue South

Iselin, New Jersey

“Failure Analysis of Piping Systems”

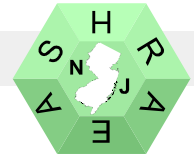
Speaker: Joseph Crosson, PE

**Cost: Members \$65.00
Non-members \$65.00
YEA members \$35.00
Students \$5.00**

Time: 5:30 pm

**RSVP: REPLY@NJASHRAE.COM or
Call 732-218-7463**





COMMITTEES
(continued)

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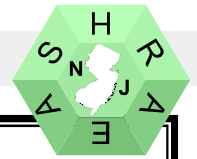
ASHRAE Society
Toll Free Number
1-800-527-4723

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Calendar of Upcoming Meetings

- **February 8, 2011** Dave Halko - Emerson
Student & YEA Night *Refrigeration*
 - March 1, 2011 Scott Casado
Research & Promotion Night *Vibration Isolation - High Wind Areas*
 - April 5, 2011 Dennis Stanke - Trane
Standard 62.1
 - May 3, 2011 Jerry Sipes - Price HVAC Installation of New Officers
Displacement Ventilation
 - June 2011 Spouse’s Night— Date and activity TBA
- ** Please note date change****



President's Message

Dear Chapter Members,

This year is winding down but it appears to be going out with a bang. The recent snowfall has made all of us a little sore from shoveling all that snow. We have had an excellent year and our attendance at our monthly meetings has increased. I want to thank you all for taking the time to attending our monthly meetings. We know that it can be difficult in these challenging times to leave your office early to attend our meetings. We have tried to have speakers and topics that will provide all of our members a greater knowledge of ASHRAE related items and hopefully they will be beneficial to your growth in our industry.

Last month, our meeting was Membership night and the topic of our meeting was DDC Control System Interoperability. Instead of just one speaker, we had the privilege of four speakers. They were as follows: Chris Lambert (New Jersey Sales Manager - Johnson Controls), Jay Sudhakaran (Account Executive - Johnson Controls), Larry Uebele (New York Sales Manager - Siemens) and Rich Nowak (New Jersey Sales Manger - Siemens). The program was separated into four sections and each of our speakers was assigned one of the sections. They did a fantastic job and the cooperation of both companies should be highly commended. We look forward to having similar meetings in the future and Siemens and Johnson Controls will be looked to as a guide to a successful meeting.

Next month's meeting will be held on Wednesday January 12, 2011 at the Woodbridge Hilton. This is our annual meeting with the Mechanical Contractors Association (MCA) and the American Society of Plumbing Engineers (ASPE). The topic for this meeting is Failure Analysis of Piping Systems. The speaker will be Joseph Crosson, PE.

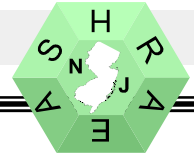
See you on Wednesday, January 12th.

Sincerely,

Chris Phelan, Chapter President

2010-2011 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.	731	200	425	155	525	200	665	2170



Condensed Meeting Minutes from the NJ ASHRAE BOG Meeting for November 2, 2010 By Scott Smith, P.E.

The meeting of the New Jersey Chapter of ASHRAE Board of Governors was called to order at 4:44 PM

The 10/5/2010 meeting minutes were reviewed and accepted.

The Treasurer's report was not discussed. October and November Treasurer's reports to be reviewed at the December meeting.

Procedures for storing and archiving old documents are being reviewed.

The December Chapter meeting will be a DDC roundtable. Roger will be the moderator, and there will be panel members from Johnson and Siemens. Written questions will be accepted from the audience.

The January meeting will be a joint meeting with MCA/ASPE, and the topic will be pipe corrosion.

The February meeting will be on refrigeration, offered by Dave Halko.

Scott was contacted by a representative for Lockheed Martin who is responsible for administering the Clean Energy program for ConEd. There were a series of seminars describing the program, and a request was made to share the program flyer with the NJ membership. The Board decided this was OK, and Scott subsequently sent a broadcast email to all NJ members.

There will be a tour of the Restaurant Depot refrigeration systems in Union, NJ. There will also be a seminar on Refrigeration to be offered in the spring.

Survey Shows Value of Sustainability Initiatives

Green building initiatives are a key influencer when tenants decide to sign a commercial real estate lease, according to a survey by GE Capital Real Estate.

The survey, conducted over the past year, included more than 2,220 office tenants in the U.S., Canada, France, Germany, Sweden, the UK, Spain and Japan. An average of 50% of those polled say green building initiatives are a high priority.

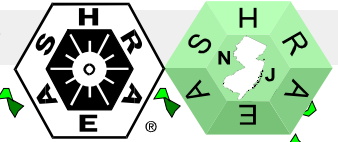


Japan (59%), Canada (52%) and Sweden (52%) placed the greatest importance on green building practices, compared with only 43% in the U.S., the lowest of the countries surveyed.

Green building practices include energy efficiency measures (lighting upgrades, energy audits), recycling and waste reduction programs, water conservation practices, rebate sharing information (tax credits, utility credits) and indoor environmental quality controls, including efficient building ventilation.

The survey also covered energy certifications. In the survey, only 40% of U.S. tenants rated energy certifications "valuable". However, in Sweden (51%), the UK (46%) and Spain (46%) tenants see energy certifications like LEED and BREEAM as valuable factors in their building choice. Surprisingly, only 29% of Canadian tenants and 30% of Japanese tenants thought these types of certifications were valuable.

Energy efficiency, the survey said, remains the No. 1 priority for tenants in most countries, followed by waste reduction programs. In some markets, indoor air quality is also extremely important.



Green ASHRAE News: User's Manual Key to Meeting Requirements of the Green Standard

Knowing what to do is not the same as knowing how. A new User's Manual educates industry professionals on how to meet the requirements of a green building standard published by three leading industry organizations.

Standard 189.1-2009, *Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings*, was published earlier this year by ASHRAE in conjunction with the Illuminating Engineering Society of North America (IES) and the U.S. Green Building Council (USGBC). The standard provides a long-needed green building foundation for those who strive to design, build and operate green buildings.

A newly published User's Manual is now available.

"Because of the breadth of the key topic areas covered in the standard - site sustainability, water use efficiency, energy efficiency, indoor environmental quality and the building's impact on the atmosphere, materials and resources - it is important for users to have a thorough understanding of how they come together to create a sustainable building," Kent Peterson, former chair of the Standard 189.1 committee, said. "The User's Manual aids architects and engineers in applying the standard to design; general and specialty contractors in constructing buildings that are in compliance; and plan examiners and field inspectors in enforcing the standard where adopted into code."

The new User's Manual provides explanations of the standard's requirements and examples of its application. It contains sample calculations, forms to demonstrate compliance and references to helpful resources and websites. This User's Manual can also be suitable for use in educational programs.

For complete information on the standard, including a readable copy, visit www.ashrae.org/greenstandard.

Standard 189.1 also serves as jurisdictional compliance option to the International Green Construction Code authored by the International Code Council, ASTM International and the American Institute of Architects.

To order, contact ASHRAE Customer Service at 1-800-527-4723, fax 404-321-5478, or visit www.ashrae.org/bookstore. The cost of the Standard 189.1 User's Manual is \$93 (\$79, ASHRAE members)



User's Manual Key to Meeting Green Standard Requirements

User's Manual Key to Meeting Green Standard Requirements

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NJ ASHRAE CHAPTER - SCHOLARSHIP REQUIREMENTS

By: Jim Sarno, PE

If you work with or know of a student who is enrolled in an HVAC program and is interested in applying for a scholarship, have them review the information below and apply if they meet the requirements.

High School Seniors:

High School seniors that have been accepted into a Mechanical Engineering Degree Program at a college, university or technical school.

Students Enrolled In Two-Year Program:

- They must be full or part-time students who have completed a minimum of 25% of the required curriculum.
- They must be students in a curriculum that grants an AAS degree, [preferably in HVAC&R technology, that includes at least two (2) courses in this discipline.]
- They must have a Quality Point Index higher than 3.0. They shall direct the School to forward a certified copy of their academic transcript directly to the committee. They must sign a release form that permits the Selection Committee to examine their academic transcript.
- The Chair of their department or their Academic Advisor must provide a letter of recommendation for the award.

They must complete and submit a minimum 500-word essay describing their educational goals and objectives, and how they expect their career to evolve.

Students Enrolled In Four-Year Programs:

They must be full or part-time students who have completed a minimum of 25% of the required curriculum. They must have successfully completed either:

- 25% of a curriculum that grants a Bachelor's degree in which the student has successfully completed at least
- Two (2) courses in HVAC&R fundamentals and exhibits a sincere interest in pursuing an HVAC&R related career.

They must have a Quality Point Index higher than 3.0. They shall direct the school to forward a certified copy of their academic transcript directly to the committee. They must sign a release form, which permits the selection Committee to examine their academic transcript.

The Chair of their Department or their Academic Advisor must provide a letter of recommendation for the award.

They must complete and submit a minimum 500-word essay describing their educational goals and objectives, and how they expect their career to evolve.

Graduate Students:

- They must be a full-time student enrolled in a HVAC&R related program.
- They must have a Quality Point Index higher than 3.0. They shall direct the School to forward a certified copy of their academic transcript directly to the committee. They must sign a release form that permits the Selection Committee to examine their academic transcript.
- The Chair of their department or their Academic Advisor must provide a letter of recommendation for the award.

They must complete and submit a minimum 500-word essay describing their educational goals and objectives, and how they expect their career to evolve.

General Requirements:

Applicant shall live and/or be matriculating at a school in the NJ ASHRAE region.

Relatives of ASHRAE members shall be eligible to apply for and be considered for scholarships.

For additional information contact Jim Sarno jsarno@ksi-pe.com or call 732-938-2666 ext:112



ASHRAE Student Activities at the 2011 Las Vegas Winter Conference

Saturday, January 29, 2011

Student Welcome and Orientation Noon to 2:45pm at the designated Student Hotel, The Riviera Hotel and Casino

Technical Plenary 3pm to 5 pm at the Meeting Hotel: Las Vegas Hilton

Student/YEA Mixer: 5pm to 6:30pm, location TBD

Welcome Party: 6:30pm to 8pm at the Meeting Hotel: Las Vegas Hilton

Tickets must be purchased and are available online or onsite at conference registration



Sunday, January 30, 2011

ASHRAE Student Program at the Meeting Hotel: Las Vegas Hilton 8am to 2pm New this year: *Free Lunch Provided*

Departure for Student Technical Tour: City Center Complex 2:30pm and 4:30 pm Tickets \$15 per student

Monday, January 31, 2011

Student Technical Session: “The Mechanical Engineers Role in Green Building” at the Meeting Hotel: Las Vegas Hilton 8am to 9:30 am

ASHRAE Student Congress at Las Vegas Hilton from 10am to 11:45am

President’s Luncheon noon to 2pm at Las Vegas Hilton. Tickets must be purchased and are available online or onsite at conference registration

Student Send-off 2:15pm to 3pm at Las Vegas Hilton Games, prizes and snacks and a brief AHR Expo orientation

Students attend AHR Expo 3pm to 5pm at Las Vegas Convention Center

**For additional information, visit the ASHRAE website.

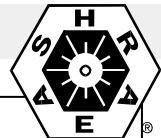
Zero ENERGY DESIGN

A S A F E B E T

Las Vegas, Nevada



January 29-February 2



ASHRAE Holds the Sustainability Cards

Join ASHRAE at the 2011 Winter Conference, Jan. 29-Feb. 2, Las Vegas, Nevada



A full-house of professional and personal development activities are offered!

Technical Program—focused on the efficient use of energy, the greening of the industrial base, the real cost of zero-energy design



Virtual Conference—if you can't make it to Las Vegas, don't miss out on the knowledge shared in the technical program with the Virtual Conference

AHR Expo—the ASHRAE co-sponsored AHR Expo takes place Jan. 31-Feb. 2 at the Las Vegas Convention Center. www.ahrexpo.com

ASHRAE Certification—launch of a sixth certification program, targeting building energy assessors. Five existing certification programs also offered

ASHRAE Learning Institute—offers six Professional Development Seminars and 14 Short Courses – includes a new course on building energy modeling and updates to courses covering Standards 62.1 and 90.1

Register before
November 5 and SAVE!
The early bird fee is \$505
(\$685 non-members)

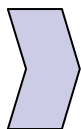


www.ashrae.org/lasvegas

ASHRAE Brings Hot Topics to AHR Expo Attendees

Guidance on industry hot topics is being provided from ASHRAE through two free sessions at the AHR Expo® in Las Vegas, Nev.

**P
D
H**



A Practical Guide for Reducing Air Leakage in HVAC Air Systems takes place Monday, Jan. 31, 2:15-3:45 p.m., while an update on Standard 90.1 - 2010 Update: How It Affects You takes place on Tuesday, Feb. 1, 2:15-3:45 p.m. The two sessions offer Show attendees 1.5 PDHs each for a total of 3.

Monday's session focuses on the fact that excessive air leakage in HVAC systems is known to be a significant source of energy waste. This session identifies the current standards, guidelines and project specification that influence air leakage and highlights the roles and responsibilities of the engineer, contractor and manufacturer to assure they meet our common goal of reducing air leakage in HVAC systems.

The Tuesday session provides an update on ANSI/ASHRAE/IESNA Standard 90.1-2010, Energy Standard for Buildings Except Low-Rise Residential Buildings. With well over 100 addenda incorporated since the 2007 edition, this session highlights some of the major changes in 2010 standard.

Both sessions are held in Room N256 of the Las Vegas Convention Center. No ticket or badge is required for admittance.

The 2011 ASHRAE Winter Conference is held in conjunction with the Expo and runs Jan. 29-Feb. 2 at the Las Vegas Hilton. Additional courses and sessions are offered through the Conference's Technical Program and the ASHRAE Learning Institute. More information can be found at www.ashrae.org/lasvegas.



New ASHRAE GreenGuide Features Guidance on Sustainable Planning, Carbon, Water Efficiency and Existing Buildings

The newly published third edition of the *ASHRAE GreenGuide: The Design, Construction and Operation of Sustainable Buildings* is an updated version of this easy-to-use reference that covers the need-to-know information on what to do, where to turn, what to suggest and how to interact with other members of the design team in a productive way.

The book features new information on guidelines on sustainable energy master planning; updates on teaming strategies; information on how issues related to carbon emissions affect building design and operational decisions; building information modeling (BIM); strategies for greening existing buildings; updates on newly developed green building rating systems and standards; and compliance strategies for key ASHRAE standards. Also, the GreenTips found throughout this edition highlight techniques, processes, measures, or special systems in a concise format.

“The ASHRAE GreenGuide is a living document meant to be used by proactive design engineers working on green building design projects as part of a team that provides *ideas and guidance* of what to do, where to turn, what to advise and how to interact with other team members in a productive way,” John Swift, co-author and co-editor of the GreenGuide, said.

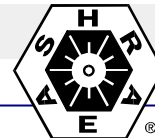
A new chapter covers architectural design and planning impacts, including sustainable master planning. Such planning addresses resource use, landscape concerns and environmental, economic and social concerns. A major part of such planning is energy and water use.

“As a smart building services engineer, one must be familiar with the flows of energy from generation through transmissions to consumption,” Tom Lawrence, co-author and chair of ASHRAE’s technical committee on building environmental impacts, said. “Understanding these flows is critical to being able to provide solutions that increase overall system efficiencies and facilitate energy reductions at all levels.”

The cost of the ASHRAE GreenGuide is \$98 (\$83, ASHRAE members). To order, contact ASHRAE Customer Service at 1-800-527-4723, fax 404-321-5478, or visit www.ashrae.org/bookstore.



ASHRAE Green Guide



Newest Version of Thermal Comfort Standard Provides New Provisions on Elevated Air Speeds

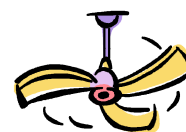
New requirements regarding air speeds, analysis and documentation are included in the newly published ASHRAE thermal comfort standard, ANSI/ASHRAE Standard 55-2010, *Thermal Environmental Conditions for Human Occupancy*.

“The standard continues to focus on defining the range of indoor thermal environmental conditions acceptable to a majority of occupants, while also accommodating an ever increasing variety of design solutions intended to provide comfort and to respect today’s imperative for sustainable buildings,” Stephen Turner, of the Standard 55 Committee, said.

The standard specifies the combinations of indoor thermal environmental factors and personal factors that will produce thermal environmental conditions acceptable to a majority of the occupants within the space.

Standard 55 incorporates recent research innovations such as the use of elevated air speeds to widen the acceptable range of thermal conditions. The standard previously allowed modest increases in operative temperature beyond the Predicted Mean Vote/Percentage of Persons Dissatisfied (PMV/PPD) limits as a function of air speed and turbulence intensity.

The 2010 standard also includes a new method for determining the cooling effect of air movement above 0.15 m/s (30 fpm). This allows ceiling fans, or other means to elevate airspeed, to provide comfort at higher summer temperatures than were previously permissible. New provisions based on field study research allow elevated air speed to broadly offset the need to cool the air in warm conditions, replacing requirements that originated primarily from climate chamber studies.



Another revision makes clearer the mandatory minimum requirements for analysis and documentation of a design to show that it meets the standard’s requirements. In addition, a compliance form for documentation of design is included in an informative appendix. This compliance template mirrors the United States Green Building Council’s LEED® template for the thermal comfort design credit in LEED New Construction-2009, simplifying the LEED credit template for the designer during a project.

The 2010 version of the standard also includes improved and expanded graphics that better guide users of the standard in simple applications. Improvements to the SI and IP versions of the traditional “comfort zone” chart include enlargement, clarification and notes to aid users of the standard.

Standard 55 combines Standard 55-2004 and the 10 approved and published addenda to the 2004 edition into one easy-to-use, consolidated standard.

The cost of Standard 55 is \$69 (\$59, ASHRAE members). To order, contact ASHRAE Customer Service at 1-800-527-4723, fax 404-321-5478, or visit www.ashrae.org/bookstore.

New





ASHRAE Applauds Signing of Federal Buildings Personnel Training Law of 2010

Federal legislation signed into law this week will provide training for federal building personnel in the areas of building operations and maintenance, energy management, safety and design functions.

On Tuesday, Dec. 14, 2010 President Obama signed the Federal Buildings Personnel Training Act. The Act was introduced in April by Reps. Russ Carnahan (D-Mo.) and Judy Biggert (R-Ill.) and Sen. Tom Carper (D-De.) and Susan Collins (R-Me.). It was supported by more than 33 leading organizations involved in the design, construction, operation and maintenance of buildings, including ASHRAE.

The legislation will help provide federal workers with the necessary training to construct and maintain environmentally sound buildings. Federal workers will be able to be trained in a series of core competencies relating to building operations, maintenance, energy management, and safety and future performance. Workers can take courses and be able to obtain licenses and certification for their efforts.

“This law is a significant advancement for the design, construction, operation and maintenance of our nation’s federal buildings,” Lynn G. Bellenger, ASHRAE president, said. “ASHRAE applauds the federal government for demonstrating what can be accomplished in building and maintaining energy efficient buildings with excellent indoor environmental quality.”



Do you want to become more involved with NJ ASHRAE ?

There are many ways you can participate in NJ ASHRAE in addition to attending the monthly meetings. Visit the NJ ASHRAE website for more information about what each committee does.



Look at the left hand margins of pages 1 and 2 which list chapter officers, committees, and committee chairs. Contact any officer or committee chair for additional information.

ASHRAE Learning Institute

Seminars & Courses at ASHRAE's Winter Conference in Las Vegas, NV

2 WAYS TO REGISTER

Internet: www.ashrae.org/lasvegascourses

Phone: Call 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)



ASHRAE
LEARNING INSTITUTE

Full Day Professional Development Seminar

\$485/\$395 ASHRAE Member -- Earn 6 PDH/6 CEU or 6 AIA LU credits

The Commissioning Process in New & Existing Buildings
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

Implementing Energy Management in New and Existing Buildings: A Sustainable Activity
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

Healthcare Facilities: Best Practice Design and Application
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

Integrated Building Design
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.

Complying with ASHRAE/IES Standard 90.1-2010
Saturday, Jan 29 – 8:00 a.m. to 3:00 p.m.



Energy Modeling Best Practices and Applications: HVAC/Thermal
Tuesday, Feb 1 – 9:00 a.m. - Noon, 2:00 p.m. - 5:00 p.m.

Half Day Short Courses

\$159/\$119 ASHRAE Member -- Earn 3 PDH/3 CEU or 3 AIA LU credits

Fundamental Requirements of ASHRAE Standard 62.1-2010
Saturday, Jan 29 – 8:00 a.m. to 11:00 a.m.



Application of Standard 62.1-2010: Multiple Spaces Equations & Spreadsheet Calculation
Saturday, Jan 29 – Noon to 3:00 p.m.



Understanding Air-to-Air Energy Recovery Technologies and Applications
Sunday, Jan 30 – 2:00 p.m. to 5:00 p.m.

Chilled Beam Technology for Excellent Indoor Climate in an Energy Efficient Manner
Sunday, Jan 30 – 2:00 p.m. to 5:00 p.m.

Using Standard 90.1 to Meet LEED Requirements
Sunday, Jan 30 – 2:00 p.m. to 5:00 p.m.

The Commissioning Process & Guideline 0
Monday, Jan 31 – 2:30 p.m. to 5:30 p.m.

Determining Energy Savings from Performance Contracting and LEED Projects: M&V
Monday, Jan 31 – 2:30 p.m. to 5:30 p.m.

Understanding Standard 189.1-2009 for High-Performance Green Buildings
Monday, Jan 31 – 2:30 p.m. to 5:30 p.m.

Understanding & Designing Dedicated Outdoor Air Systems (DOAS)
Tuesday, Feb 1 – 9:00 a.m. to Noon

Low Temperature Radiant Heating & High Temperature Radiant Cooling Systems
Tuesday, Feb 1 – 9:00 a.m. to Noon

Successful Solar Applications for Commercial & Industrial Facilities
Tuesday, Feb 1 – 9:00 a.m. to Noon

Avoiding IAQ Problems: Using ASHRAE's New IAQ Guide
Tuesday, Feb 1 – 2:00 p.m. to 5:00 p.m.

District Cooling & Heating Systems: Central Plants
Tuesday, Feb 1 – 2:00 p.m. to 5:00 p.m.

Designing Toward Net Zero Energy Commercial Buildings
Tuesday, Feb 1 – 2:00 p.m. to 5:00 p.m.



Get web-based training you can trust, anytime, anywhere, and earn PDHs/CEUs in the process.

- Energy Efficiency
- High-Performance Green Buildings
- Data Centers
- HVAC&R

Train around your schedule.

Save time and travel expenses.

Visit www.ashrae-elearning.com

ASHRAE Certification Programs

Take advantage of ASHRAE's special pencil & paper administration of our certification examinations on Wednesday Feb. 2, 2011, in conjunction with the 2011 ASHRAE Winter Conference.

- Building Energy Assessment Professional (BEAP)
- 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/lasvegas/certification

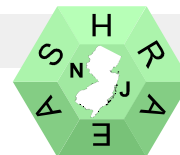
New Publications from ASHRAE

- Standard 189.1-2009: Standard for the Design of High-Performance Green Buildings (A Jurisdictional Compliance Option of the IGCC)*
- Standard 189.1-2009 User's Manual (A Jurisdictional Compliance Option of the IGCC)*
- ASHRAE GreenGuide 3rd Edition – The Design Construction, and Operations of Sustainable Buildings*
- ASHRAE Standard 90.1-2010: Energy Standard for Buildings Except Low-Rise Residential Buildings*
- ANSI/ASHRAE 55-2010 – Thermal Environmental Conditions for Human Occupancy*
- ANSI/ASHRAE 62.2-2010 – Ventilation for Acceptable Indoor Air Quality in Low-Rise Residential Buildings*
- ANSI/ASHRAE 62.1-2010 – Ventilation for Acceptable Indoor Air Quality*

Package:

- ANSI/ASHRAE 15-2010 – Safety Standard for Refrigeration Systems*
- ANSI/ASHRAE 34-2010 – Designation and Classification of Refrigerants*

Visit www.ashrae.org/bookstore to order



Advertise with NJ ASHRAE

www.njashrae.com

Advertising Rates

Newsletter Ad Includes:

- ◆ Business Card ad in 9 Newsletters (next newsletter is February, will be published the end of the month)

COST: \$90

Website Ad Includes:

- ◆ Business card ad on website for 1 year (starts month payment and business card are received)
- ◆ Link to your website

COST: \$300

Newsletter and Website Includes:

- ◆ Business card ad in newsletters through June 2011
- ◆ Business card ad on website for 1 year
- ◆ Link to your website

COST: \$350

