



# The PENNANT

Newsletter of the  
ASHRAE® Central Pennsylvania Chapter  
[www.ashraecennpenn.org](http://www.ashraecennpenn.org)

Volume 3, Number 1, September 2004

## President's Message....



The children are heading back to school and another year of great ASHRAE programs are just around the corner. Our successes of the past year were highlighted at the Chapter Regional Conference for Region III, which took place at Penn's Landing in Philadelphia August 12 – 14. Our chapter received recognition in a number of areas. Dr. Bahnfleth and Matt Tressler were both recognized for their hard work in supporting the Penn State University student chapter at University Park. Central PA ASHRAE also received kudos for our successful research and promotion efforts resulting in the goal buster award being given to Central PA ASHRAE. This award is based on the Central PA ASHRAE contribution of \$ 9056.00 to society for Research & Promotion. I would like to thank Dan Wyrick for all his dedication to Research & Promotion over the past year. Central PA ASHRAE received additional accolades in the areas of history, thanks to the efforts of Carl Courtney and Gary Berlin, and membership promotion, which was a result of excellent efforts on the part of Glenn DiEsposti.

The annual ASHRAE golf event took place on July 30<sup>th</sup> at Heritage Hills. It was a chance to play a great course and hangout with old friends. As the organizer of this event, I was grateful my archival co-operated to make the event a success. In this case, my archival was the weather of course.

All of the successes, which have been mentioned, are a direct result of members participating. We are all customers of ASHRAE and expect value in return for our time and resources. I firmly believe that our chapter has made great strides in offering additional value to the membership. Examples of this value include the manufacturer directory, which is a result of Bob Miller's efforts. Another example is the Professional Enrichment Seminars organized by Bill Blace and his education committee last year. In order, to build on our successes please continue to forward your valuable feedback to the board or myself.

I look forward to serving you in the coming year and hope you will join us for our coming program in September.

Respectfully,

Myron Ramage  
President  
Central PA ASHRAE

### Inside this Issue

[September 2004 Meeting Agenda](#)  
[Schedule of Upcoming Events](#)  
[Bulletin Board](#)  
[Member Announcements](#)

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## Meeting Agenda

Wednesday, September 8, 2004

- 5:00 – 6:00     **Social Hour**  
6:00 – 6:45     **Indoor Air Quality**                     **by W. Edward Montz, Jr., Ph.D., CIAQP**  
6:45 – 7:15     **Dinner – Catered Buffet**  
7:15 – 8:15     **Indoor Air Quality cont.**

Two topics dominate most of today's indoor air quality investigations: Mold and Legionella. Mold is an issue that has been around for as long as buildings have been constructed (references of mold even exist in the Old Testament), but a surge in concern over this issue began in approximately 1995, when a number of infants died in Cleveland, OH from exposure to "toxic molds". This presentation will focus on the basics of mold: (1) the biological requirements for mold to develop (including strategies for prevention); (2) a review of the health symptoms experienced by building occupants who are exposed to mold; and (3) systematic methods and means of conducting investigations to identify the nature and extent of mold contamination in buildings. Attendees should come away with a clear knowledge of factors which give rise to mold and how mold contamination may be prevented. Attendees should also have a clear idea for an investigation strategy should building occupants raise concerns about mold growth in buildings.

A seasonal problem that surfaces every year is the presence of Legionella in water reservoirs. This presentation will focus on an actual Legionella outbreak in a mid-sized hospital in the Mid-Atlantic region. The author was personally involved with diagnosing and pinpointing the origin of Legionella, oversight of the cleanup, and a forensic investigation to determine why Legionella colonized in cooling towers. This will be a start-to-finish presentation of a major Legionella outbreak in 1994, in which no individuals died. A review of the case study will provide participants a number of checklist items which can be used for prevention of Legionella in air handling systems. Many of the principles are also applicable to potable water systems.

Indoor Air Quality Issues: Mold and Legionella

- |                               |   |
|-------------------------------|---|
| I.     Mold                   | II.    Legionella Case Study in Hospital        |
| A.    Biological Requirements | A.    Diagnosis of Problem                      |
| B.    Health Symptoms         | B.    Cooling Tower Cleanup                     |
| C.    Problem Diagnosis       | C.    Forensic Investigation – What Went Wrong? |

**W. Edward Montz, Jr., Ph.D., CIAQP** is President of Indoor Air Solutions, Inc. and has been actively involved in the IAQ field for 15 years. He began as Program Administrator for the Indoor Air Quality program in the State Health Department in Delaware. He later served as Vice President of the IAQ Division of ENV Services, King of Prussia, PA, a national environmental firm. In 1993, Dr. Montz founded Indoor Air Solutions, Inc., an IAQ testing, consulting, and microbiological remediation firm. Throughout his career, Dr. Montz has been involved in over 1,000 building investigations and has served as an expert witness in numerous legal cases. He is an author of approximately 40 publications, 2 book chapters and is a national and international speaker. Dr. Montz is a Certified Indoor Air Quality Professional (CIAQP) by the Association of Energy Engineers and is a member of numerous professional societies and associations, including the American Biological Safety Association, Campus Safety Association, American Society for Testing and Materials, Business Council for Indoor Air, American Society of Heating, Air Conditioning and Refrigeration Engineers, National Coalition on Indoor Air Quality, Clean Air Council of Delaware Valley, American Industrial Hygiene Association, American Association of Bioanalysts, and International Society for Pharmaceutical Engineering.

**Holiday Inn Hotel and Convention Center  
Interstate 83 & PA Turnpike  
New Cumberland, PA  
Phone # 717-774-2721**

**Reservations:**

**Deadline: Tuesday September 7th at 1:00 p.m. PLEASE!**

Program Cost: **\$ 30.00** Retired/Students: **\$ 5.00**  
<mailto:reservations@ashraecenpenn.org>

**Please provide:**

Your Name: Company: Phone: Sessions: ASHRAE Member or Student Member

**Note to all Chapter Officers and Committee Chairs:** Chapter Officers, Board Members and Committee Chairs have standing reservations. If you do not RSVP by the deadline, you will be billed for the fun time you missed.

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**Directions:**

**From Harrisburg:**

83 South to Limekiln Road Exit

**From Lancaster:**

283 West to Pa Turnpike  
Pa Turnpike West one exit (HBG east)  
North 83 to Limekiln Road Exit

**From York:**

83 North Limekiln Road Exit

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## ASHRAE of Central Pennsylvania Schedule of Events

DATE	EVENT	TOPIC/DESCRIPTION
September 8, 2004	BOG Meeting / Program	<b>Indoor Air Quality</b> By W. Edward Montz, Jr., Ph.D., CIAQP
October 4, 2004	BOG Meeting / Program	<b>Hydronics</b> By Dan Holohan
November 3, 2004	Professional Development Seminar	<b>Professional Energy Code Seminar</b> <b>ANSI/ASHRAE/IESNA Standard 90.1-2001</b> By Larry Spielvogel, PE
November 10, 2004	BOG Meeting / Program	<b>Research Promotion Night</b>
December 8, 2004	BOG Meeting / Program	<b>Past Presidents Night</b>
January 12, 2005	Professional Development Seminar	TBD
January 12, 2005	BOG Meeting / Program	TBD
February 9, 2005	BOG Meeting / Program	TBD
March 9, 2005	BOG Meeting / Program	TBD
April 20, 2005	BOG Meeting / Program	<b>Student Activities Night</b>
May 12, 2005	BOG Meeting / Baseball Game!!	Senator's Outing <b>Family Night</b>
TBD	Golf Outing	<b>Membership Promotion Day</b>

# **Bulletin Board**

## **Planning on taking the Fundamentals of Engineering or Professional Engineering Exam in April 2005?**

Penn State Harrisburg is offering the Fundamentals of Engineering and the Civil/Sanitary/Structural, Environmental and Electrical Professional Engineering Review **courses starting in the fall 2004.**

They are taught by engineering faculty as well as professional engineers working in the field and prepare you to take the exam by practicing problem solutions, minimizing test anxiety and establishing built-in study time.

According to the National Council of Examiners for Engineering and Surveying, licensure is a sign of commitment to your profession. Obtaining a professional license  enhances your potential for salary increases and promotions, leads to a wider range of career opportunities, and a higher level of respect and credibility among your engineering peers.

For additional information contact:

Brenda L. Firestone  
Penn State Harrisburg  
717-948-6538, [blf3@psu.edu](mailto:blf3@psu.edu)  
or visit the website <http://www.hbg.psu.edu/ce/noncredit/profengrev.shtml>



### **Central PA Chapter CRC AWARDS:**

#### **PAOE**

History & RP ribbons for level 3 performance (PAR)

#### **Resource Promotion**

Full Circle  
Silver level contribution award  
Goalbuster performance

## Congratulations to our students - Nick, Jason and Dave!!



# ASHRAE

ASHLEY M. PRUETT

Manager of Student Activities

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## MEMORANDUM

**TO:** The Pennsylvania State University  
Nick Maffeo, III  
Jason Kramer  
Dave Peterson

**FROM:** Dave Evers, Chair  
Student Activities Committee

**DATE:** July 30, 2004

**RE:** 2004 ASHRAE Student Design Project Competition

*Congratulations!* It is indeed a pleasure to inform you that your entry in ASHRAE's 2004 Student Design Project Competition HVAC System Selection Category has been selected the **first place winner**.

On behalf of the Society and the HVAC&R industry, I want to thank you for your interest and the extra effort required for your participation in this competition. I hope that the experience gained through completing your project will be a stepping stone to your continued success.

Your award includes \$1500 plus a trip for one team representative to ASHRAE's Winter Meeting in Orlando, Florida in February 2005. The award will be presented during the meeting's Plenary Session on the afternoon of February 5. The representative is encouraged to participate in a poster session Sunday, February 6 at the Student Breakfast. Please notify Ashley Pruet, Manager of Student Activities at ASHRAE Headquarters, as to who will represent your team at the Orlando Meeting and whether or not that individual will participate in the poster session. **Ashley needs this information by August 23, 2005, in order to make your travel arrangements. Further details about the meeting will be sent to you in mid-September.**

Again, congratulations on your excellent work. I wish you continued success.

*American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.*

A N I N T E R N A T I O N A L O R G A N I Z A T I O N

**If you have any announcements that would be of interest to the local membership, please submit request to [mtome@ashraecenpenn.org](mailto:mtome@ashraecenpenn.org) for posting on the bulletin board. The chapter retains the right to reject any request.**



**HVAC Distributors, Inc.**  
 Distributor and Manufacturers Representative  
 Two Old Market Street P.O. Box 160 Mt. Joy, PA 17552-0160  
 Phone: 717-653-6674 OR 1-800-228-4822 Fax: 717-653-6494  
 Website: www.hvacdist.com Email: sales@hvacdist.com

**Rare Opportunity!**

A full-day seminar that takes the mystery out of hot water heating  
 October 5, 2004  
 8 a.m. to 3:00 p.m. (Doors open at 7:30 a.m.)  
 Located at the Four Points Sheraton in Harrisburg, PA

**Who is Dan Holohan?**

Dan Holohan is a well-known columnist and lecturer in the hydronic industry. He has a unique style of entertaining with humor while teaching. His books make enjoyable reading and compliment his lectures well. Don't miss out on this rare opportunity. Sign up today!

**What will I learn?**

Gravity hot water heat, diverter tees, loop systems, multiple boilers, primary-secondary, radiant heat, and of course, "Pumping Away." A bit of history, a lot of fascinating stories, a day filled with laughter and learning. If you've never seen Dan Holohan's treatment of "classic" hydronics, this is your chance.

**Classic Points!**

- Discover quick ways to check your work (and troubleshoot systems) by using classic rules of thumb that manufacturers have depended on for years.
- Find out how properly sized systems can give you a real competitive edge. It's easy!
- Many "air problems" aren't really air problems. Find out how to tell the phantom ones from the real ones.
- How big should a circulator be? What happens if it's too big, or too small?
- Learn how proper location of the circulator can free you from bleeding radiators once and for all.
- Find out how to simplify your systems (and save money!) through primary/secondary pumping techniques.
- Learn how to use multiple-boiler systems to cut installation and operating costs.
- Warm-water heating is very different from hot water heating. Find out the reasons right here!
- Effective troubleshooters have a certain way of looking at the world of hydronics. By the end of the day, you'll understand what makes them so successful.

**Cost of the seminar is \$125, which includes breakfast, lunch, and snacks. Fax this form back to Kristi at 717-653-6494. Please include your method of payment. Directions will be faxed to you a week before the seminar. Thank You!**

Company \_\_\_\_\_  
 Attendees \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_  
 Phone # \_\_\_\_\_ Fax # \_\_\_\_\_  
 Total Calculated Cost based on \$125/ person: \_\_\_\_\_  
 Method of Payment (Circle One): Credit Card      Check      Bill Account  
 Credit Card # \_\_\_\_\_ Exp Date \_\_\_\_\_

**NOTE: This event is not affiliated with the Central Penn Chapter of ASHRAE.**

# **PROFESSIONAL ENERGY CODE SEMINAR**

## **ANSI/ASHRAE/IESNA STANDARD 90.1-2001**

### **ENERGY STANDARD FOR BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS**

#### **ONE DAY SEMINAR SPONSORED BY THE CENTRAL PENN CHAPTER OF ASHRAE**

**November 3, 2004**

**Location: TBD**

#### **OBJECTIVE**

As states and local governments adopt ANSI/ASHRAE/IESNA Standard 90.1, and Owners require compliance, ASHRAE is responding to requests to provide training on the Standard. New Jersey requires compliance with the Standard. Pennsylvania has just adopted the International Energy Conservation Code which became effective this year, and which includes a requirement for compliance with the Standard.

The Standard sets the minimum requirements for energy use in buildings except low-rise residential buildings and the methodology to attain these goals. The Standard differs from past Standards as it addresses not only new construction but also renovations and additions to existing facilities. This Standard is the mandatory energy benchmark for the US Green Building Council Leadership in Energy and Environmental Design (LEED) program.

#### **WHO SHOULD ATTEND**

Architects, Engineers, Building Owners, Code Officials, Building Managers, Contractors, Students, and other parties involved with construction, renovation, and operation of facilities.

#### **SEMINAR SCHEDULE**

REGISTRATION - 8:30 AM

MORNING SESSION - 9:00 AM

*Introduction of presenters  
Overview/Organization of ASHRAE 90.1-2001  
Building Envelope compliance*

LUNCH - 12:00PM

1<sup>ST</sup> AFTERNOON SESSION - 12:45 PM

*HVAC compliance  
Service Water Heating compliance  
Power compliance*

BREAK

2<sup>ND</sup> AFTERNOON SESSION - 2:45 PM

*Lighting compliance  
Users Manual and ASHRAE Services  
Concluding remarks*

FINISH - 4:30 PM



## **SPEAKERS**

### **Lawrence G. Spielvogel, PE**

Currently an ASHRAE Fellow and Director at Large, Mr. Spielvogel previously chaired the ANSI/ASHRAE/IESNA Standard 90.1 Project Committee, ASHRAE Standard 105 on Building Energy Performance, the Standard 90 Panel on HVAC Systems, and ASHRAE technical committees on energy utilization, computer applications, and service water heating. A registered engineer in 49 states and many foreign countries, his consulting practice specializes in energy management and problem solving in buildings. He is also a Fellow of CIBSE (Chartered Institution of Building Services Engineers)(England), a Fellow of SLL (Society of Light and Lighting)(England), a member of the ACEC (American Council of Engineering Companies), and many other technical societies.

### **Valerie Block**

With over twenty year's experience in the architectural glass industry, Ms. Block serves on ASHRAE's Standard 90.1 Building Envelope Committee, as well as on numerous industry codes and standards organizations, including the Glazing Industry Code Committee, the National Fenestration Rating Council, and the American Society for Testing Materials. Ms. Block is currently a Senior Marketing Representative with DuPont's Glass Laminating Solutions.

### **Larry Kouma**

Mr. Kouma is a Sr. Product Manager at York International and has been working in the HVAC industry for more than 13 years. He has experience with hydronic system design including product and application support for steam and chilled water systems. He currently leads a team responsible for R&D direction, product planning and engineering, application support, and system integration for large chilled water equipment. He is a current voting member of the SSPC 90.1 Committee, including active membership on the Mechanical Subcommittee. He has a BS in Mechanical Engineering and an MBA in Finance.

### **Carl M. Watson, PE, LC**

A member of IESNA for over 25 years and a registered engineer, he is an award winning lighting designer, author, and electrical engineer. He has BS in EE and an MBA from Drexel University. He is also a member of IEEE and NSPE and is Lighting Certified by the National Council on Qualifications for the Lighting Professions. He specializes in developing and implementing very effective energy management solutions that optimize aesthetics, efficiency, and maintainability. Past projects have included lighting design, power quality and energy studies for office buildings, health care facilities, banks, schools, churches, multi-family residential, parking, and municipal facilities.

# Announcements

## **Promotions**

The subject of the 2005 ASHRAE Student design competition is Brewery Blocks – a multi-use, five building campus in Portland Oregon. Interested students should visit the [ASHRAE Student Zone Webpage](#).

## **New Employees**

Barton Associates Inc. is pleased to announce the addition of Brendan Light and Gary Taylor to their HVAC staff.

## **New Members**

## **Weddings/Births/Deaths**

Congratulations to Matt Tressler. Matt will marry Heather Brunner, a Registered Dietician with M.S. Hershey Medical Center, on August 28<sup>th</sup>.

## **Atomic Bomb Engineer Dies**

### **J. Hilbert Anderson of Spring Garden Twp. had worked on the Manhattan Project.**

By MICHELE CANTY  
*Daily Record/Sunday News*  
Tuesday, July 27, 2004

J. Hilbert Anderson was a humble man. Although he designed the high-pressure compressor used for the world's first atomic bomb, and other engineers have studied his work, he wasn't looking for credit. He was the kind of man who asked others how they did things. Anderson would give them credit when people asked how he did it. His friends called him Andy or Hilbert. No one called him by his first name, James. "He was the silent type, but when he talked, we listened," said his wife, Emily Anderson.

Each morning, he and Emily walked a mile and a half together near their Spring Garden Township home. On Sundays before church, Anderson hiked the area around Lake Williams with his family, admiring the birds around them and making an annual list of ones they encountered. Until June, Anderson still went to the office during the week and sometimes on weekends.

On Saturday, the Lewisburg-farmboy-turned-engineer died. He was 95.

His son, James H. Anderson Jr., treasured the walks with his dad. Some days, they'd hack away at the poison ivy snaking up healthy trees. Others, his father whittled away a double-trunked tree, so one side would grow healthy and strong. "Those were good, one-on-one times," James Anderson said. On Sunday, his son walked the familiar paths he used to take with his dad. He thought about his father's life and what it was like to grow up in the shadow of a great man.

He calls his dad's career prolific. When James was an infant, his father was a young engineer working for Ingersoll-Rand.

In 1941, Anderson and scientists from General Electric, Columbia University and other businesses went to a secret meeting in New York. At the meeting, those in charge wanted to know if anyone could build a compressor fast enough to separate uranium. "Oh, so you want to make an atomic bomb," Anderson piped up from the back of the room. The

engineers around him didn't think it could be done. No one had ever built anything like it. It could be done, and Anderson told them he was the man to do it.

As he said he would, Anderson designed a main component of what would become the world's first atomic bomb. His work was part of the Manhattan Project, a melding of minds that gave birth to a new and powerful weapon during World War II.

But Anderson was just getting started. During the 1950s, his family moved to York County. He got a job with York Corporation, now York International, and designed more centrifugal compressors, which although modified, the company still builds today. He quit his job at the Spring Garden Township company, and decided to try consulting work, as well as open his own companies.

By the 1960s, his son was an engineer, too, joining his father in his lifework. James Anderson's son would follow suit.

During this time, Anderson embarked on what his son hopes will be his greatest legacy — sea solar power. On the project's Web site, he's listed as the power source's founder. His son knows Anderson didn't invent the concept, but that his father believed using sun-warmed surface water and colder water below in a process to create energy is the country's future. And Anderson kept going. For the next four decades he built and created. With the help of his son and his grandson, he tested his theories. He had more than 130 domestic and foreign patents.

James Anderson marvels at Anderson's achievements, but also knew of the struggles, setbacks and disappointments his dad encountered along the way. Behind it all, Anderson's family kept him grounded. Thanks to his roommate, he met the woman who would become his wife many, many years ago. The blind date that brought them together, "didn't take at first," his wife said with a laugh. But later, it did. The two married and brought two children, Gretchen and James Jr., into the world.

For more than 60 years, they spent their lives together. The couple watched their children grow up, marry and have their own children. Six weeks ago, the family welcomed their first great-grandchild, a girl.

In June, Anderson fell down in front of the couple's home. His injury flared up other illnesses he was dealing with, including prostate cancer and a heart problem. "He was so very weak," Emily Anderson said. "He was just worn out." Anderson spent 10 days in the hospital, and two weeks in another facility before he died over the weekend. Emily Anderson knew it was his time, but like most people who love someone, "we don't ever want to let someone go," she said. She misses her quiet, busy and intelligent husband already. "I loved him. He was a wonderful man," she said.

## ***Anniversaries***

## ***Misc.***

**Congratulations to Jim Davis and Philip Henning.** Jim recently retired from the Trane Company after 37 years of service and Philip retired from the Pennsylvania College of Technology after 26 years of service.

Thomas Ask will take the position of Student Advisor for the PA College of Technology student branch.

Thank you to Gary Debs for serving as the Refrigeration Committee Chairmen. [gdebs@ashraecenpenn.org](mailto:gdebs@ashraecenpenn.org)

***Put it in the Pennant -- Send your announcements to  
[mtome@ashraecenpenn.org](mailto:mtome@ashraecenpenn.org)***