



ASHRAE ACTION

ROANOKE CHAPTER NEWSLETTER

(WWW.ASHRAEROANOKE.ORG)

FEBRUARY 2009

FEBRUARY MEETING

**PLEASE JOIN US FOR A GREAT TOUR OF VT'S
CHILLER AND POWER PLANTS**

Tuesday, February 10th at 6:30 pm
"The Museum Room" at Virginia Tech

SPEAKERS:

Keith Boyd & Byron Nichols, VT

AGENDA:

Pizza and Brief Overview of the Power and Chiller
Plants will begin at 6:30 in "The Museum Room"
The Tour Will Follow

THIS EVENT IS FREE!

**RESERVATIONS MUST BE MADE BEFORE NOON
on Feb. 9th TO Patrick Murdock:**

E-mail: pmurdock@trane.com

Phone: 540-563-2828

*Tip: Make your reservation online at our Web Site,
see link below:*

<http://ashraeroanoke.org/Meetings/registration-form1.htm>

**THERE IS MORE INFO ABOUT THE TOUR
BELOW!**

A MESSAGE FROM THE PRESIDENT ELECT

Hello everyone,

We've got a great tour set up for this month, as we'll be headed down to Virginia Tech to tour the power and chiller plants. This will be an exciting tour for everyone, but more importantly it will be an opportunity for us all to reach out to the future engineers who may be considering the hvac industry. The hvac industry is one that many students are not fully aware of when in school and opportunities like this tour are a great way for us to show them the rewarding career that is available in our industry. I'd like to encourage you all to attend the tour if possible, and to open up to the students by trying to answer questions or explain how specific components of an hvac system come together to provide a comfortable environment inside our buildings. We will be providing free food and drink in hopes of reaching out to the students, and I hope you can do your part to contribute to the students as well.

We've chosen a date for the annual Lew Evans golf tournament this year. We'll be holding the golf tournament at Hanging Rock Golf Course as usual. We'll be in need of volunteers, sponsors, and door prize donations to make it as successful as it has been in past years. If you are interested in helping out in any way, please contact me. We'll be having the tournament earlier in the year again this year to beat the heat and hopefully avoid vacationing families.

Looking towards next year, the Roanoke chapter will be in need of some new officers and committee chairs. We've had a couple members move out of the area or pursue other engineering fields, and we'll have several positions available. If you or anyone you know would be interested in getting more involved, please contact me. You can spend as much or as little time as you can afford to contribute, and its always appreciated by our chapter members.

Thank you and I wish you all a great 2009!

-Jeff Consroe

MARK YOUR CALENDERS:



March Meeting --- March 10th for LUNCH
Topic: Sound Control and Duct Design

April Meeting --- April 14th for DINNER
Topic: Electronic Air Cleaners

May Meeting --- May 19th for LUNCH
Topic: AC Drives and LEED

BOARD OF GOVERNORS MEETING @ HSMM
WEDNESDAY JANUARY 7TH - 5:00 BEFORE THE MEETING

The 11th Annual Lew Evans Scholarship Golf Tournament & Bar-B-Que is Coming!

The tournament will be held on FRIDAY, MAY 22nd this year. As always volunteers, sponsors, and door prize donations will be needed to make this a continued success.

This event makes possible the scholarships that not only allows us to give back to the community as a chapter, but also lets others know that ASHRAE exists.

Please contact Jeff Consroe if you are willing to help in any way. His contact information may be found in the list of Officers and Governors on page 4.

**Attention All: Engineering, Architecture,
and Building Construction Students**

Join the Roanoke Chapter of ASHRAE for...



**Pizza and
Plant Tour Night**

Get an insider's look at the Virginia Tech power plant and main chiller plant. See first hand the technology that provides power, heat, and cooling to the Tech Campus. For your safety closed toe shoes are required!

**Tuesday February 10th
6:30 PM**

**The Museum Room,
Lower Level of Torgersen Hall**

**FREE Pizza and Drinks provided by
Roanoke Chapter ASHRAE**



Tours provided by Virginia Tech Facilities

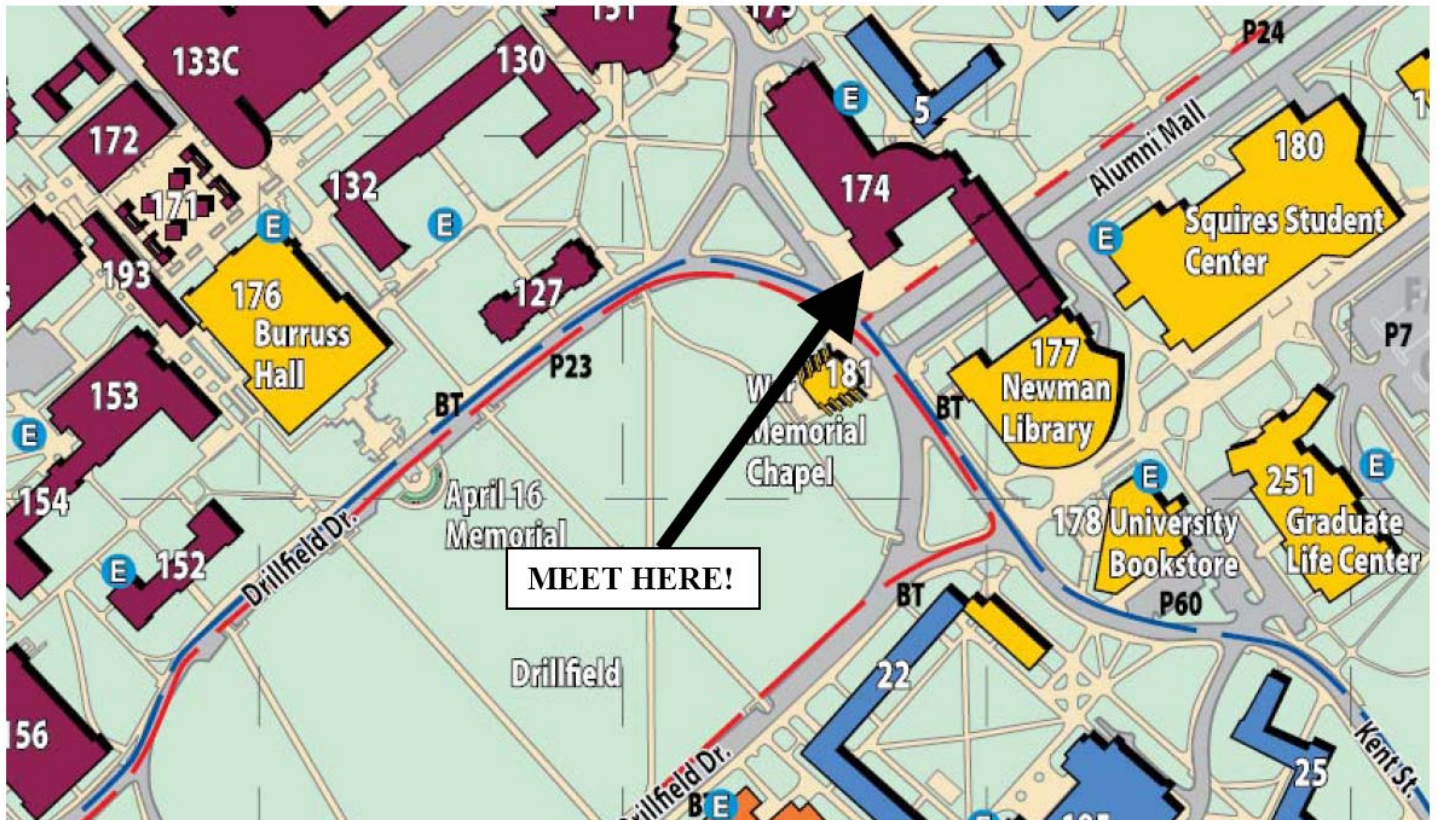
**VirginiaTech**
Invent the Future

Facilities

ASHRAE is a professional organization committed to advance the arts and sciences of heating, ventilating, air-conditioning and refrigerating to serve humanity and promote a sustainable world. Visit www.ashrae.org for more info.

**THE TOUR WILL BEGIN IN
“THE MUSEUM ROOM”
IN THE LOWER LEVEL OF TORGERSON HALL**

**WE WILL EAT AND HAVE A SHORT PRESENTATION
IN THE MUSEUM ROOM, THEN WE’LL PROCEED
TO THE POWER AND CHILLER PLANTS FOR THE TOUR.**



HOPE TO SEE YOU THERE!

**IF YOU GET LOST, FEEL FREE TO CALL
JEFF CONSROE AT 540-797-7899**

ASHRAE NEWS!

ASHRAE 2008 BACNET PUBLISHED

ATLANTA – GUIDANCE TO REDUCE A BUILDING'S ENERGY CONSUMPTION ON DEMAND IS CONTAINED IN ASHRAE'S NEWLY PUBLISHED BACNET STANDARD.

ANSI/ASHRAE STANDARD 135-2008, *BACNET® -- A DATA COMMUNICATION PROTOCOL FOR BUILDING AUTOMATION AND CONTROL NETWORKS*, ALLOWS BUILDING EQUIPMENT AND SYSTEMS MANUFACTURED BY DIFFERENT COMPANIES TO WORK TOGETHER. IT IS THE ONLY OPEN, CONSENSUS-DEVELOPED STANDARD IN THE BUILDING CONTROLS INDUSTRY. THE NEW STANDARD CONTAINS SEVEN ADDENDA APPROVED SINCE THE 2004 STANDARD WAS PUBLISHED.

"THE 2008 VERSION OF THE STANDARD INCORPORATES MANY YEARS OF WORK BY THE BACNET COMMITTEE," SAID IMMEDIATE PAST CHAIR BILL SWAN. "THIS INCLUDES MATERIAL FIRST PUBLISHED A COUPLE OF MONTHS AGO. IT REPLACES THE 2004 VERSION AS THE STANDARD FOR BACNET TECHNICAL AND SPECIFICATION EFFORTS."

THE STANDARD CONTAINS NEW GUIDANCE RELATED TO THE LOAD CONTROL OBJECT, AN EXTENSION TO REDUCE A BUILDING'S ENERGY CONSUMPTION ON DEMAND - A KEY ELEMENT OF THE INTEGRATION OF ENERGY UTILITIES AND BUILDINGS TO REDUCE OR ELIMINATE BROWNOUTS AND BLACKOUTS FROM ENERGY GRID OVERLOAD.

IT ALSO COVERS: THE ACCESS DOOR OBJECT, THE FIRST OF THE EXTENSIONS TO FULLY SUPPORT PHYSICAL ACCESS CONTROL IMPROVEMENTS IN REQUIREMENTS ON BACNET DEVICES NEW CAPABILITIES SUCH AS BACNET WEB SERVICES WHICH, AMONG OTHER THINGS, ARE BEING CONSIDERED FOR ENERGY UTILITY-BUILDING COMMUNICATIONS A STANDARDIZED AND INTEROPERABLE MEANS TO RECORD ALARMS

THE COST OF ANSI/ASHRAE STANDARD 135-2008, *BACNET® -- A DATA COMMUNICATION PROTOCOL FOR BUILDING AUTOMATION AND CONTROL NETWORKS*, IS \$119 (\$99 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.

NATURAL VENTILATION IN NURSING FACILITIES

BY MATTHEW YOUNGER, P.E., ASSOCIATE MEMBER ASHRAE

THIS ARTICLE PRESENTS A CASE STUDY OF THE ADDITION OF A 259-BED FACILITY TO THE WASHINGTON STATE DEPARTMENT OF VETERANS AFFAIRS ASSISTED-LIVING CAMPUS. THE FACILITY WAS MANDATED TO MEET STRICT COMFORT GUIDELINES. NATURAL VENTILATION WAS SUCCESSFUL IN MEETING THE REQUIREMENTS, PROVIDING A "HOMEY" ATMOSPHERE FOR THE OCCUPANTS, AND REDUCING OVERALL UTILITY COSTS BY 45%. THE PROJECT'S DESIGN WON A FIRST PLACE 2007 ASHRAE TECHNOLOGY AWARD.

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IF YOU HAVE ANY PROBLEMS DOWNLOADING THIS ARTICLE, CONTACT JEFF CONSROE FOR A COPY

OTHER HVAC NEWS!

PRICES FOR ROOFTOP SOLAR SYSTEMS FALL AS SUPPLY GROWS

BY [PAUL DAVIDSON](#), USA TODAY

HERE'S A BRIGHT SPOT IN AN OVERCAST ECONOMY: SOLAR PANEL PRICES ARE TUMBLING.

PRICES FOR ROOFTOP SOLAR SYSTEMS, INCLUDING INSTALLATION, ALREADY HAVE FALLEN 8% TO 10% SINCE OCTOBER AND ARE EXPECTED TO DROP ANOTHER 15% TO 20% THIS YEAR. FUELING THE TREND ARE AN OVERSUPPLY OF WORLDWIDE MANUFACTURING CAPACITY AND LOWER DEMAND, ESPECIALLY IN SPAIN AND GERMANY, WHICH HAVE BEEN GROWTH ENGINES FOR THE INDUSTRY. FOR U.S. HOMEOWNERS, EFFECTIVE PRICES ARE LIKELY TO PLUNGE BY MORE THAN 50% AFTER FIGURING IN A BIGGER FEDERAL TAX CREDIT THAT TOOK EFFECT JAN. 1.

"THE ERA OF EXTREMELY EXPENSIVE (SOLAR) MODULES IS OVER," SAYS ANALYST NATHANIEL BULLARD OF RESEARCH FIRM NEW ENERGY FINANCE.

SINCE 2004, SOLAR PRICES HAVE BEEN PROPPED UP BY A SHORTAGE OF CAPACITY TO MAKE BOTH SILICON — THE RAW MATERIAL FOR SOLAR-POWER SYSTEMS — AND FINISHED PANELS. MEANTIME, THE SPANISH AND GERMAN GOVERNMENTS HAVE PAID SYSTEM OWNERS HEFTY SUBSIDIES TO GENERATE SOLAR POWER, TURBOCHARGING SALES IN THOSE COUNTRIES.

MANUFACTURERS RESPONDED BY BUILDING A WAVE OF FACTORIES. THEN SPAIN AND GERMANY SLASHED THIS YEAR'S INCENTIVES. IN THE U.S., THE BIGGEST SOLAR INVESTORS WERE BANKS SUCH AS MORGAN STANLEY THAT CAN NO LONGER BENEFIT FROM TAX CREDITS BECAUSE OF INSUFFICIENT PROFITS.

NEW ENERGY PROJECTS AN OVERSUPPLY OF NEARLY 4 GIGAWATTS OF SOLAR MODULES IN 2009, OR ENOUGH ELECTRICITY TO SUPPLY 2.6 MILLION HOMES.

THE GLUT IS ALREADY DRAGGING DOWN PRICES. BARRY CINAMMON, CEO OF AKEENA SOLAR, ONE OF THE NATION'S LARGEST INSTALLERS, SAYS WHOLESALE PRICES HAVE FALLEN ABOUT 15% SINCE OCTOBER. SINCE INSTALLATION ACCOUNTS FOR ABOUT HALF THE COST OF A SYSTEM, TOTAL COSTS ARE DOWN ABOUT 8%. SUNPOWER, ONE OF THE LARGEST MANUFACTURERS, EXPECTS RETAIL PRICES FOR ITS SOLAR MODULES TO DIP AS MUCH AS 20% THIS YEAR.

"NOW, ALL OF A SUDDEN, WE HAVE MODULE MANUFACTURERS CALLING US," SAYS PETER RIVE, CHIEF OPERATING OFFICER OF SOLAR CITY, THE NO. 1 INSTALLER.

CONSUMERS CAN REAP EVEN BIGGER GAINS IF THEY CAN BUY IN A RECESSION. UNTIL THIS YEAR, HOMEOWNERS WHO BOUGHT SOLAR SYSTEMS WERE ELIGIBLE FOR A TAX CREDIT THAT SHAVED SYSTEM PRICES 30%, BUT THE CREDIT WAS CAPPED AT \$2,000. LAST FALL, CONGRESS RENEWED THE 30% CREDIT AND REMOVED THE CAP, LOPPING THOUSANDS MORE DOLLARS OFF SOLAR PRICE TAGS.

IN CALIFORNIA, WHICH ACCOUNTS FOR NEARLY 70% OF THE U.S. SOLAR MARKET, A TYPICAL 4-KILOWATT, \$32,000 SOLAR ENERGY SYSTEM COST A HOMEOWNER ABOUT \$23,000 LAST YEAR AFTER STATE AND FEDERAL INCENTIVES. THIS YEAR, IF PRICES SINK AS EXPECTED, THAT SYSTEM IS LIKELY TO COST \$10,000 TO \$12,000.

[HTTP://WWW.USATODAY.COM/MONEY/INDUSTRIES/ENERGY/ENVIRONMENT/2009-01-12-SOLAR-PANELS-GLUT_N.HTM](http://www.usatoday.com/money/industries/energy/environment/2009-01-12-solar-panels-glut_n.htm)

ELECTRONIC NEWSLETTER

Any member with material to submit for inclusion in the monthly newsletter may send the information to:

Jeff Consroe
11 Dalewood Ave.
Salem, VA 24153

E-mail: jeff@breeden-collier.com
Phone: 540.797.7899
Fax: 540.526.9460

This is your newsletter. We welcome your contributions and commentary.

Material can include letters to the editor, member news, upcoming events, comments on chapter programs or issues, etc.

ROANOKE CHAPTER ASHRAE

2008– 2009 OFFICERS AND GOVERNORS

		<u>Phone:</u>	<u>Email:</u>
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Governor	Roger Jones	540-890-7114	rjones5632@aol.com

2008 – 2009 COMMITTEE CHAIRS

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