



CLEVELAND *ASHRAE Newsletter*

April , 2006

APRIL MEETING Selecting Valves for Variable Flow Hydronic Systems April 17, 2006



Board Meeting	4:30-5:30 PM
Sign In & Happy Hour:	5:30-6:15 PM
Dinner:	6:15-7:15 PM
Presentation:	7:15-8:15 PM

Speaker:	Gil Avery P.E.
Bio:	Bottom of pg 3
Location:	Harry Steakhouse
	* \$25 for Non-members

R.S.V.P. at (216)-373-0315 by 5:00 pm Friday April 14th for Reservations

APRIL MEETING OVERVIEW:

BY: ROB LANEVE

Our April 17th meeting returns to Harry's Steakhouse as a dinner meeting. We are very excited to have Mr. Gil Avery, P.E. join us to discuss: **"SELECTING VALVES FOR VARIABLE FLOW HYDRONIC SYSTEMS"** and **"Controlling Chillers In Primary Only Chilled Water Plants."** Mr. Avery will discuss the pros and cons of globe, ball, plug and butterfly valves with and without pressure independent actuators, and identify the valves that will withstand high valve differential pressures and still provide good flow control.. (Continued on page 3)

This Month's Sponsor:

*If you are interested in sponsoring the news letter,
please contact Matt Nelson at 440-243-3535.*



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2005-2006

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Special Events (December Social)	Mike Denk
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The President's Corner by Brian Chambers

The March meeting was the most successful breakfast meeting we have had yet. There were 46 people in attendance. It appears that this is a good format and will again continue in the future. In the future an effort will be made to avoid having breakfast meetings on Monday. There are many offices that have standing meetings so some people were unable to attend. If there is any additional feedback please contact Rob Laneve or myself. See the meeting summary for more detail about the refrigerate phase out.

The satellite broadcast is scheduled for April 19th at WKYC Channel 3 News. The Topic is "Sustainability and the Building Environment"; visit the Cleveland Chapter Web site www.clevelandashrae.org for more information or information on past satellite broadcasts. Call or email Matt Nelson (440-243-3535 or mnelson@brewer-garrett.com) to make your reservations.

The April meeting we will be fortunate enough to have another Distinguished Lecturer and ASHRAE Fellow Gil Avery. Mr. Avery will be presenting Controlling Chillers in Primary only Chilled Water Systems and Selecting Valves for Variable Flow Systems. We thank Mr. Avery for coming to the Cleveland Chapter and Presenting.

I want to thank everyone who has donated to ASHRAE Research this year. To date we are at 43% of our goal of \$16,000 with only 28 contributors. Please remember that donations are tax deductible, so dig deep so you don't have to pay the tax man.

See you at the April Meeting and the Satellite Broadcast!!!



LAST CALL FOR 2006 SATELLITE BROADCAST

The satellite broadcast for this year has been set into motion and we are returning to our favorite TV station, WYKC TV3, for a third consecutive year. This year's topic is "Sustainability and the Building Environment" and will be broadcast on April 19, 2006 at 1:00-4:00 P.M. EDT. Lunch will be served, similar to years past, and will start around 12:45 P.M. I will be taking reservations from our membership right away, just contact me, Matt Nelson, at 440-243-3535 or e-mail me at mnelson@brewer-garrett.com to reserve your seat. If you know of anyone that may be interested in attending please let me know to make sure that we have seating availability. As an exciting twist this year we will be watching the broadcast from the station's second studio, so don't wait! Mark your calendar and call now!

A NEW LOOK FOR ClevelandASHRAE.org

I have made some new changes in the look and feel of our website that we hopefully appeal to the membership. Additional features to the website include a photo gallery and the product directory in a pdf format available to download. As always, your suggestions are welcome and can be emailed to webmaster@clevelandashrae.org. If anyone would like to become a sponsor of our website please contact me as well. Also, if any member would like to submit photos, news or get involved with helping out with the website let me know as well, help can always be used.

APRIL MEETING OVERVIEW CONTINUED:

BY: ROB LANEVE

He will also discuss why the control of the chillers in a Primary only system is less complicated than on Primary/Secondary systems and why Primary only systems cost 10-20% less to operate than Primary/Secondary systems. Gil is an ASHRAE Fellow and an ASHRAE Distinguished Lecturer. He is the Past President of the Memphis, TN ASHRAE Chapter and has served ASHRAE Society as chairman of a project committee, a member of other project committees and as an author for numerous ASHRAE Journal articles. He has been granted seven HVAC Industry patents and has been named "Engineer of the Year" twice. We hope to see everyone in attendance and bring a co-worker as a new member!

March Meeting Recap By: Rob Laneve

Our March 2006 Breakfast meeting was well attended; we had 46 people attend the Refrigerant Update presentation given by Mr. Tony Digmanese, Director of Industry Relations for YORK, A Johnson Controls Company. Tony presented a very informative update regarding refrigerants and the two primary environmental challenges created by refrigerants: Stratospheric Ozone Depletion and Global Climate Change. In 1987, the Montreal Protocol addressed ozone depletion and in 1997, the Kyoto Protocol addressed Global Climate Change. Both events focused on reducing the amount of chlorine and bromine contributed to the environment by refrigerants. Refrigerants are typically classified as: Chlorofluorocarbon (CFC), Hydrochlorofluorocarbon (HCFC) and Hydrofluorocarbon (HFC). When classifying, researching and phasing-out refrigerants the properties of energy efficiency, environmental impact, safety (non-flammable, low toxicity) and application are reviewed. The phase out of refrigerants is currently scheduled as follows: CFC's (R-11, R-12) have been phased out; no new production. HCFC's (R-22, R-123) are transitional refrigerants, being phased out, with no new production by 2010 for R-22 in the R-22, and 2020 for R-123 HFC's : HFC's (R-134a, 407C, 410A) are the most popular zero ozone depletion refrigerants, 407C is often considered a "drop-in" replacement for R-22, while R-134a is used with centrifugals and screw compressors, and R-410a will likely be used on smaller scroll compressor for light commercial and residential.

The industry of large chillers is currently using refrigerants R-22, 123, and 134A. While 245FA is available, it is not currently being used by chiller manufactures. In the United States, water cooled centrifugal chillers are generally more popular than water cooled screw chillers, but outside the U.S., screw chillers are more popular. As additional refrigerant research is completed, and developed countries institute environmental mandates, the HVAC market will be ready to adept to these changing environmental demands. The Cleveland Chapter is very grateful to Tony for his informative update.

HOW ABOUT PUTTING IN THE FOLLOWING AS A TECHNICAL UPDATE SECTIION ???

Here are some "cool" definitions....for your files...and not the circular one!

Chlorofluorocarbons (CFCs)

A family of organic chemicals composed of chlorine, fluorine and carbon atoms, usually characterized by high stability contributing to a high ODP. These fully halogenated substances are commonly used in refrigeration, foam blowing, aerosols, sterilants, solvent cleaning and a variety of other applications. CFCs have the potential to destroy ozone in the stratosphere.

Hydrochlorofluorocarbons (HCFCs)

A family of chemicals related to CFCs which contains hydrogen, chlorine, fluorine and carbon atoms. HCFCs are partly halogenated and have much lower ODP than the CFCs. Examples of HCFC refrigerants are HCFC-22 (CHClF₂) and HCFC-123 (CHCl₂CF₃).

Hydrofluorocarbons (HFCs)

A family of chemicals related to CFCs which contains one or more carbon atoms surrounded by fluorine and hydrogen atoms. Since no chlorine or bromine is present, HFCs do not deplete the ozone layer. HFCs are widely used as refrigerants. Examples of HFC refrigerants are HFC-134a (CF₃CH₂F) and HFC-152a (CHF₂CH₃). (ODP = ozone depletion potential)

March 31, 2006

CLEVELAND ASHRAE CHAPTER CONTRIBUTIONS DETAIL REPORT

Mr. Jerald K. Cohen	\$100.00
Mr. Kanti G. Patel	\$50.00
Mr. Frank Mastroianni	\$150.00
Mr. Robert M. Case	\$50.00
Mr. Richard B. Long	\$100.00
Mr. Richard A. Zbin	\$100.00
Mr. George H. Lautanen	\$50.00
Mr. Kenneth W. Wissner	\$100.00
Cleveland ASHRAE Chapter	\$3000.00
Mr. Paul Voinovich	\$100.00
Mr. Brian Chambers	\$100.00
Mr. Don Russell	\$25.00
Mr. Ken Borah	\$100.00
Mr. Matt Nelson	\$100.00
Mr. Robert Laneve	\$100.00
Mr. Frank Eisenhower	\$100.00
Mr. Terry Kretch	\$100.00
Mr. Geoff Andres	\$100.00
Mr. Bob Greene	\$100.00
Mussun Sales	\$600.00
Fred Holman	\$100.00
Mr. Ron Weese	\$100.00
Wayne Salamon	\$100.00
George Lautanen	\$100.00
ASHRAE Outing	\$933.36
Wadsworth Slawson	\$200.00
Craun-Liebing	\$100.00
Direct Air Systems	\$100.00

Total amount contributed \$6958.36

Total number of contributors 28

Great Month. We still have a long way to go! Please keep it coming!

Our goal is over \$16,000 and we have only collected .43% of that amount to date. We would appreciate more contributions from people and companies that have chosen this profession.

If there are any mistakes in the above information we are sorry. Please let us know so it can be corrected.

Terry Kretch



**CLEVELAND
ASHRAE IMPACT**

Please be sure to
Visit Cleveland's
ASHRAE Website

www.clevelandashrae.org
to access our
Transfer library

Chapter Calendar:

May 15, 2006 Technology Game Night

Location: Harry's Steak House

June 13th, 2006 Golf Outing

Location: Tanglewood Country Club

August ? 2006 Golf Outing

Location: TBA

A LOSS TO THE CITY

The Cleveland ASHRAE Chapter wishes to advise the membership to the passing of Jeanette Eckman Tuve at age 91. Jeanette had married Donald P. Eckman who authored the book "Principals of Industrial Process Control" which was the Textbook of selection for Case Institute of Technology's HVAC Course on Temperature Control - a fond memory for many of our Members. After a tragic automobile accident killing Mr. Eckman, Jeanette married George L. Tuve, who was his mentor. Mr. Tuve was ASHVE Society President in 1948, a 50 year ASHRAE Member and recipient of the Distinguished Service Award. Mr. Tuve was also Department Head at Case when the HVAC Course was offered. Contributions can be made to Cleveland State University, Jeanette E. Tuve Scholarship Fund, Development Office, 2121 Euclid Ave., Cleveland 44115.