

PYRAMID PRESS

ASHRAE – Memphis Chapter
<http://www.ashraememphis.org/>

November, 2006

LUNCH MEETING 11:30 TUESDAY,
November 14, 2006

Meeting Location:

Fogelman Executive Center

Dining Room

330 Innovation Drive, Memphis, TN

Parking is available in the garage south of the building, see:
<http://map.memphis.edu/campusmap.pdf>

Topic - **SELECTING VALVES FOR VARIABLE FLOW HYDRONIC SYSTEMS**

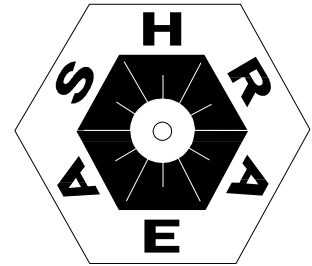
By Speaker: **Gil Avery, P.E.**
Kele & Associates

The valve requirements for primary-only variable flow systems are more severe than those for primary-secondary systems because the pump head on primary-only systems is often 20% to 100% greater than the head of a pump in a primary-secondary system. Common globe, butterfly and ball valves that were satisfactory for constant flow or variable flow primary-secondary systems, generally are not satisfactory for primary-only variable flow systems because of the high valve operating differential pressures. The speaker discusses the pros and cons of globe, ball, plug and butterfly valves with and without pressure independent actuators, and identifies the valves that will stand these pressures and still provide good flow control.

Earn PDHs/CEUs by attending.

Visitors are welcome.

Guest: Ms. Burkley Allen
Regional Student Activities (RVC).



Memphis Chapter Contacts

PRESIDENT:

James Copeland: 224-6805
Cell: 508-4899
Fax: 224-4331

PRESIDENT ELECT:

John Colmer: 761-0885
Fax: 761-2943

VICE PRESIDENT & PROGRAMS/CTTC:

Brent Wiseman: 327-8261

SECRETARY:

David Branham: 937-1720

TREASURER:

Brad Grammar: 685-2371

MEMBERSHIP:

James Fleck 384-8400

NEWSLETTER:

David Kirshner: 433-1900

WEBMASTERS:

Brian Schaffler: 345-6100
Kevin Crosby: 345-6100



Pyramid Press

THE PRESIDENT'S CORNER

We are seeking a volunteers to serve as:
Awards Committee Chairman
At-Large Board Member.

Brian Schaffler asked that all the companies send updates for their info [shown at <http://www.ashraememphis.org/page8.html>]. Let us know any changes to their companies info we will make the changes. They can email any changes to kcrosby@gorhamschaffler.com .

There will be a special presentation to Charles Schaffler as a LIFE MEMBER.

I am looking forward to seeing everyone Tuesday!

James Copeland
Chapter President

Membership: The following is my understanding of the changes in Membership.

	July '06	August '06	08/31/06	
New Members	1	1	2	
Re-instated with Application	1		1	
Member Cancellation	-11	-3	-14	
Student Cancellation	-5	-2	-7	
Transfer In	1	3	4	
Transfer Out	-2	0	-2	
=====				
IN's	+3	+4	+7	
OUT's	-13	-3	-16	
Net Change	-10	+1	-9	
PA0E Area Assigned Members	07/01/06	08/01/06	08/31/06	10/13/06
	223	213	214	228



Programs Topics 2006-2007

Date:	DECEMBER , TBD '06 EVENING CHRISTMAS PARTY
Program Topic:	Christmas Party
Speaker:	None, Recognize Past Presidents.
Meeting Manager:	James Fleck w/Gala Engineering
Location:	Kemmons Wilson Center Holiday Inn 3700 Central Ave.

Date:	JANUARY , 01/09/07 LUNCH MEETING 11:30 TUESDAY
Program Topic:	TOUR: Smith & Nephew
Speaker:	
Meeting Manager:	Brent Wiseman w/Power Equipment
Location:	Kemmons Wilson Center Holiday Inn 3700 Central Ave.

Date:	FEBRUARY , 02/13/07 LUNCH MEETING 11:30 TUESDAY
Program Topic:	Dry Air + Engineers Week
Speaker:	Munters
Meeting Manager:	Chip Bilbrey w/Tom Barrow
Location:	Kemmons Wilson Center Holiday Inn 3700 Central Ave.

PDH SEMINAR

Date:	MARCH , 03/13/07 MORNING MEETING
Program Topic:	Cooling Towers & Legionella
Speaker:	[not confirmed] Sharon Berk, 931-372-3451, Fax: (931) 372-6346, sberk@tntech.edu, Professor, Center for the Management, Utilization and Protection of Water Resources, Tennessee Technological University. https://www2.tntech.edu/evs/faculty/Berk.htm http://www.tntech.edu/wrc/SBerk.htm Dr. Berk's Research Specialty Areas - Legionella-protozoa interactions.
Meeting Manager:	James Copeland w/FedEx

Date:	MARCH , 03/13/07 LUNCH MEETING 11:30 TUESDAY
Program Topic:	Cooling Towers & Legionella
Speaker(s):	Russell Brown 901-274-9011, 901-848-7745 cell, 901-725-0871 Fax, T.J. O'Brien - CRBWN@BellSouth.net
Meeting Manager:	James Copeland w/FedEx
Location:	Kemmons Wilson Center Holiday Inn 3700 Central Ave.

Date:	APRIL , 04/10/07 LUNCH MEETING 11:30 TUESDAY
Program Topic:	
Speaker:	
Meeting Manager:	



Programs Topics 2006-2007

PDH SEMINAR

Date:	APRIL , 04/19/07
Program Topic:	Indoor Air Quality
Speaker:	Chapter Technology Transfer Committee free Satellite Broadcast/Webcast
Meeting Manager:	Brent Wiseman w/Power Equipment

Date:	MAY , 05/08/07 LUNCH MEETING 11:30 TUESDAY
Program Topic:	Building Inspectors Panel
Speakers:	Memphis Shelby County + Collierville
Meeting Manager:	Brent Wiseman w/Power Equipment
Location:	Fogelman Executive Center-Dining Room.

Programs - Alternative & Back Up Topics	ASHRAE Standard 62 Ventilation for Acceptable Indoor Air Quality
Programs - Alternative & Back Up Topics	Center for Disease Control Informational speaker
Programs - Alternative & Back Up Topics	Mold in the Building Environment by Mark Nunnely, PE of Atlanta, GA



THE HISTORIAN

Memphis Seismic Zone: Why We Design Building Systems With Seismic Restraints.

Below is an article about the early activity on the New Madrid fault. This area has had some of the strongest earthquakes in modern history of the United States. Most of us are familiar with Reelfoot Lake and how, when it was formed, the Mississippi River was said to have reversed flow for a brief period of time.

The zone saw four of the largest North American earthquakes in recorded history, with magnitude estimates greater than 7.0 on the Richter scale, all occurring in a 3 month period. Many of the published accounts describe the cumulative effects of all the earthquakes, known as the New Madrid Sequence, thus finding the individual effects of each quake can be difficult.

First earthquake of December 16, 1811, (2:15 a.m.); 7.7 magnitude; epicenter in northeast Arkansas; Mercalli XI. It caused only slight damage to man-made structures, mainly because of the sparse population in the epicentral area. However, landslides and geological changes occurred along the Mississippi River, and large localized waves occurred due to fissures opening and closing below the Earth's surface.

Second earthquake of December 16, 1811, (8:15 a.m.); 7.0 magnitude; epicenter in northeast Arkansas; Mercalli X-XI. This shock followed the first earthquake by six hours.

Earthquake of January 23, 1812, (9 a.m.); 7.6 magnitude; epicenter in Missouri Bootheel. The meizoseismal area was characterized by general ground warping, ejections, fissuring, severe landslides, and caving of stream banks.

Earthquake of February 7, 1812 (the New Madrid Earthquake), (4:45 a.m.); 7.9 magnitude; epicenter near New Madrid, Missouri. New Madrid was destroyed. At St. Louis, many houses were damaged severely and their chimneys were thrown down. The meizoseismal area was characterized by general ground warping, ejections, fissuring, severe landslides, and caving of stream banks.

THE HISTORIAN CONT'D

These catastrophic earthquakes occurred during a three-month period in December 1811 and early 1812. They caused permanent changes in the course of the Mississippi River, which flowed backwards temporarily, and were felt as far away as New York City and Boston, Massachusetts where church bells rang. Large areas sank into the earth, fissures opened, lakes permanently drained, new lakes were formed, and forests were destroyed over an area of 150,000 acres. Many houses at New Madrid were thrown down. "Houses, gardens, and fields were swallowed up" one source notes. But fatalities and damage were low, because the area was sparsely settled. Hundreds of aftershocks followed over a period of several years. All three major quakes are generally believed to have exceeded 8.0 on the Richter Scale, and some seismologists believe the largest was 9.0 or larger.

From what is known about the present seismicity of the area, it can be inferred that their focal depths were probably between 5 and 20 kilometers. The fault plane—or planes—on which the Earth rupture occurred are inferred to have had a NNE–SSW strike direction, more or less parallel to the Mississippi River.

Aftershocks strong enough to be felt occurred until the year 1817. The largest earthquakes to have occurred since then were on January 4, 1843 and October 31, 1895 with magnitude estimates of 6.0 and 6.2 respectively. In addition to these events, seven events of magnitude ≥ 5.0 have occurred in the area. From the early years of the Nineteenth Century until well after the American Civil War, the citizens of Union City, Tennessee would gather every February 7 for an all-night "vigil and fish fry" on the site currently occupied by the Cumberland Presbyterian Church, praying, singing and beseeching the Almighty to "spare the land over" for another year.

Instruments were installed in and around this area in 1974 to closely monitor seismic activity. Since then, more than 4,000 earthquakes have been located, most of which are too small to be felt. On average one earthquake per year will be large enough to be felt in the area.

Submitted for your information by Jerry Gatlin, ASHRAE Memphis Chapter Historian.



MEMBER NOTICES

ASHRAE STUDENT GROWTH

November 14 Meeting designated as "Student Appreciation Day". Please invite any and all students. The chapter will pick up the tab for their meal. Ms. Burkley Allen, Region 7 Regional Vice Chair for Student Activities, will be a special guest at the meeting. She'd like to meet as many students as possible during her visit.

Thanks!

Russ Fletcher
Student Activities Coordinator
ASHRAE Memphis

STUDENT OPPORTUNITIES

Know of an internship or co-op position in your organization that would be suitable for a local college/university student? Then please contact **Russ Fletcher**, the ASHRAE Memphis Student Activities Coordinator.

Russ Fletcher
russ@computerenvironment.com

MEMBER NOTICES

ASHRAE MEMBERSHIP GROWTH

Please inform colleagues interested in becoming members of ASHRAE to log on to <http://www.ashrae.org> to fill out an electronic application. Once at the site click on "Join ASHRAE" on the left side of the page then scroll down to the appropriate application for the desired membership grade (This link will take you directly to the membership application selection page - <http://www.ashrae.org/template/AboutLinkLanding/category/1872;jsessionid=aaaglpErs1BeQ>). Also, have each interested colleague go to the Memphis Chapter Internet site (<http://www.angelfire.com/tn/ashrae/page2.html>) and fill out a local chapter application. If the prospective members do not have internet access just have them contact me directly and give me their mailing address for me to send hard copies.

Total dues are \$150 National and \$85 local. Local dues are only \$15 if they will not attend the lunch meetings.

Please feel free to call or write with any questions.

James Fleck, P.E.
(ASHRAE Membership Promotion Chairman)
Gala Engineering
Phone: (901) 384-8400
Fax: (901) 373-2255



OFFICERS & CHAIRS

Continued from Page 1

Research/Promotion	Chris Ewing 901-843-4870
At-Large BOG	Bill Dudley 901-495-3959
At-Large BOG	Rodney Lum 901-682-7727
At-Large BOG	--- OPEN ---
Student Activities	Russ Fletcher 901-761-0885
Chapter Memorials	Ken Jack 901-324-6610
Awards	--- OPEN ---
Nominations	David George 901-373-5100
Refrigeration	Cyrus Booker 901-433-1920
Historian	Jerry Gatlin 901-452-2500
Christmas Party	Jimmy Fleck 901-384-8400
Golf Tournament	David George / Stan Wilson 901-373-5100
CRC 2008 Memphis	Evans Jack 901-324-6610

NOTICES

• **MLGW Lighting Workshop**

Energy Efficient Commercial and Industrial Lighting by Mr. Dan Mull, PE, CEM, Carolina Consulting Company, Inc., of Garner, North Carolina.

November 20th, 2006 8:00 am to 5:00 pm
Memphis Light Gas & Water Training Center
4949 Raleigh-LeGrange Road, Memphis, TN
The registration cost is \$20/person.

• **ASHRAE Endorsed Events**

<http://www.ashrae.org/template/MeetingsLanding;jsessionid=baa-w4yEnwqxNb>

Homeland Security Webcast - 11/14/06 12:00 pm to 3:00 pm CST.

<http://www.ashrae.org/education/page/557>

ASHRAE Winter Dallas Jan 27-31, 2007
AHR Expo 2007. Dallas, TX Jan 29-31, 2007
ASHRAE Annual Long Beach, CA Jun 23-27, 2007

2007 Region VII Chapters Regional Conference in Huntsville, Alabama. August 2-4, 2007

• **Update your Membership Information**

Please update your email, phone #s, and contact information by logging in at www.ashrae.org

<http://www.ashrae.org/template/MemberLinkLanding/category/1570>

Manage Your Membership
Manage Personal Information
Address Changes

ENERGY EFFICIENT COMMERCIAL & INDUSTRIAL LIGHTING

November 20th, 2006
8:00 am to 5:00 pm
Memphis Light Gas & Water Training Center
4949 Raleigh-LeGrange Road
Memphis, TN

This workshop, Energy Efficient Commercial and Industrial Lighting, will be taught by Mr. Dan Mull, PE, CEM, founder of Carolina Consulting Company, Inc., Consulting Engineers of Garner, North Carolina. Mr. Mull has over 17 years of engineering experience related to the design, installation and operation of lighting and mechanical systems in industrial and heavy commercial settings. Mr. Mull has been involved with over 400 energy management assessments for major industrial clients across the globe. Dan has over 35 years of HVAC design experience and has taught HVAC design to contractors for many years. Mr. Mull has published energy management articles in various professional journals, and has been a frequent speaker at the Association of Energy Engineers World Energy Engineering Congress. Currently, Dan is the Director of the North Carolina State University Energy Management Diploma Program.

This one-day workshop that will teach facility plant engineers, plant operators and maintenance staff the fundamentals of energy efficient lighting and power factor correction, covering the following topics:

- Understanding lighting terminology;
- Discussing lighting sources and applications, including their advantages and disadvantages;
- Approaches to controlling lighting systems;
- Strategies for optimizing lighting system performance; i.e. what works and does not work in reducing lighting costs;
- Understand electrical power factor and methods for power factor correction.

Who Should Attend?

This workshop is designed for facility engineers and maintenance supervisors at commercial and industrial facilities. Equipment distributors and engineering consultants will also benefit from this program. After completing the program, you will have the knowledge and confidence to make positive changes in your company's lighting systems that will help control costs, improve productivity, and increase efficiency. Professional development hour certificates will be awarded at the conclusion of the day.

The workshop will be held Monday, November 20th at the Memphis Light Gas & Water Training Center, 4949 Raleigh-LaGrange Road, Memphis, TN. The workshop will be from 8:00 am until 5:00 pm. The registration cost is \$20/person, which includes workshop materials and a box lunch. Please complete and return the registration form or you can register by phone or email. The registration fee can be paid at the door.

Registration Form

Company Name: _____

Name: _____ Phone: _____

Address: _____

Email: _____

Special Dietary Needs: _____

Payment Enclosed: _____

Please make checks payable to: Tenn Tech University. We can not accept credit cards.

Sponsored by: TN 3-Star Industrial Assessment Center, the U.S. Department of Energy, and the Energy Division of the Tennessee Department of Economic and Community Development..

Please return the registration information to: Glenn T. Cunningham, Mechanical Engineering Department, Tennessee Tech University, Cookeville, 38505, Phone: 931-372-3826, Email: gcunningham@tntech.edu