



# THE RAZORBACK REPORT

Arkansas Chapter Newsletter for the  
American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

www.arkansasashrae.org

Volume XIV, Issue VI, February 2003

## The President's Message

By Randy Moore, P.E.

Our new year has been busy as expected. Many of our members attended the initial meeting of the Arkansas Organizing Chapter of the United States Green Building Council (USGBC) while others braved the cold winter weather of Chicago to attend the Society Winter Meeting and Product Show. Also, our TEGA committee has two more educational seminars scheduled for later this year. Soon, we will be planning for our Past President's night and State of Region Address from our Region VIII RVC - Mr. Hugh McMillan. In the meantime, we are all waiting on news from the 84<sup>th</sup> General Assembly of the Arkansas Legislature and how they will tackle the complex issues of funding and education in Arkansas. I have been added to the contact list for the Arkansas Construction Industry Council (ACIC) to be one of two representatives for the Arkansas Chapter of ASHRAE at the Council. The ACIC is a liaison group comprised of design and construction organizations throughout Arkansas. The purpose of this council is to foster goodwill and understating among its own members while serving as a unified voice to inform the general public concerning construction in our state. While each of the member organizations may be small, combined we represent one of the largest job segments in the Arkansas economy, and as such, can wield political power not held by the individual groups. However, any action taken by the council must be the result of a unanimous vote of members present at a given meeting. Not only does ACIC respond to issues and events affecting our construction industry, but it can also provide a forum for political candidates to discuss and debate their views. AIA Arkansas was one of the lead groups in the founding of ACIC and in the development of its bylaws. The following member organization of the ACIC are represented at regular meeting by two delegates from each group. These members include: American Institute of Architects, American Institute of Constructors, ASHRAE, American Society of Interior Designers, American Society of Landscape Architects, American Subcontractors Association, Arkansas Consulting Engineers Council, Arkansas Good Roads Transportation Council, Arkansas Ready-Mixed Concrete Association, Arkansas Society of Professional Estimators, Associated Builders and Contractors, Associated Equipment Dealers of Arkansas, Associated General Contractors, Home Builders Association of Greater Little Rock, Mason Contractors Association, Mechanical Contractors Association, Na-

## February Meetings

### Central Arkansas

Date: Wednesday, Feb 5<sup>th</sup>  
Location: Little Rock Club  
Regions Bank Building  
Cost: \$18.00 / person  
Schedule:  
10:30 AM Board Meeting  
11:15 AM Tech Session - ASHRAE 90.1  
11:45 AM Lunch Buffet  
12:15 - Program - ASHRAE/IESNA 90.1 - 2001  
1:00 PM By Mr. Mick Schwedler, PE

Meeting Sponsor: *The Trane Company*

### Northwest Arkansas

Date: Thursday, Feb 6<sup>th</sup>  
Location: Goodson's Restaurant  
Fort Smith, AR  
Schedule:  
5:30 PM Social  
6:00 PM ASHRAE Business / Dinner  
6:30 PM Program - ASHRAE/IESNA 90.1 - 2001  
By Mr. Mick Schwedler, PE

Meeting Sponsor: *The Trane Company*

tional Electrical Contractors Association, National Association of Women in Construction, and the National Association of Minority Contractors. The ACIC will monitor the legislative session and call a meeting to discuss political action as required. I will contact our membership as soon as any issue develops to make sure we are represented at the ACIC. Please call or email me should you have interest in participation on ACIC.

Finally, there are additional developments regarding the ad hoc committee to organize a panel discussion on the standard of care for indoor air quality in public schools within Arkansas. Mr. Bill Goodman, PE is interested in participating in the ad hoc committee along with me and Mr. Marshall Moody. Please contact any one of us if you have any interest in meeting to organize the panel discussion. Hopefully, we can plan a meeting in the near future to begin the process of organizing a panel discussion.

## January Board of Governors, Officers & Committee Chairmen Meeting Minutes

By John Carter, Chapter Secretary

**Call to Order:** President Randy Moore called to board meeting to order at 4:46 PM. Attendees included: Randy Moore, Rick Sellers, John Carter, Chance Hollingsworth, Tracy Hayes, Mike McClellan, Tom Hanlon, Russell Black, John Hodoway, James McKinnie, Wade Wetzler, Brett Bolan.

**Old Business:** Secretary Carter presented the December meeting minutes and the board accepted the minutes as written. Secretary Carter then reviewed last month's action item list. Research Promotion Chair, John Hodoway, at Cromwell Firm announced that the chapter would receive credit for the extended circle research award this year. The bylaw Ad-hoc committee reviewed and provided recommendations for changes of the chapter bylaws for this meeting. Committee members were again encouraged to report PAOE routinely on website. TEGA chair Tom Hanlon confirmed the date of the upcoming ASHRAE 90.1 seminar to be April 17, 2003. Grass Root Committee chairs were encouraged to verify specific PAOE reporting requirements as it relates to their committee.

**New Business:** President Randy Moore will submit this year's nominating committee for recommendation for approval in tonight's meeting. Secretary John Carter did not have any new business. Treasurer Chance Hollingsworth presented the monthly treasurer's report with no changes noted. TEGA chair, Tom Hanlon, made the motion for the chapter to pay VICA \$200 and Ron Spencer \$115 for fees associated with the recent "System Effect" Seminar. Secretary Carter seconded, and the board approved the transaction. Mr. Hanlon provided information on the upcoming DOE and lab seminars. Newsletter Chair, Wade Wetzler, announced that this month's newsletter deadline in January 20. John Hodoway announced that the Research Promotion Committee will begin contacting potential donors this week.

### Action Items:

- 1) President Moore will resubmit chapter award nominee for reconsideration.
- 2) President Moore will distribute the 98'-99' research promotion awards just received by chapter.
- 3) President Moore to edit changes to Bylaws for presentation in February Chapter meeting. The chapter will vote on the recommended changes in the March Chapter meeting.
- 4) Secretary John Carter will email meeting notes prior to next meeting to the board members in addition to printing in newsletter.
- 5) James Dyer will update the Arkansas chapter roster, convert to electronic format, and forward it to members by February meeting.
- 6) Website Chair, Brett Bolan, will modify website to include advertising for upcoming TEGA events.

**Adjourned:** The board meeting was adjourned at 5:39 PM.

## January Arkansas ASHRAE Chapter Meeting Minutes

By John Carter, Chapter Secretary

**Call to Order:** CSI President Billy Mathis called the joint chapter meeting to order at 6:40 PM with 53 ASHRAE members, 3 ASHRAE guests and 45 CSI members in attendance. CSI President Billy Mathis opened the meeting by welcoming chapter members and guests. CSI then presented their committee reports, which included upcoming spring seminars. ASHRAE President Moore then introduced Vice President of Program, Rick Sellers who stated that the next meeting is February 5, 2003 at Little Rock Country Club the with the topic of ASHRAE 90.1. TEGA chair, Tom Hanlon then updated the chapter on the upcoming TEGA activities including ASHRAE 90.1 seminar and the TAB seminar. Refer to the upcoming newsletter for details. President Moore then announced this year's nominating committee to include: Paul Briscoe, Hank Wade, Jim Monk, Sam Cumminings and Mike McClellan. President Moore then stated that an amendment to the Chapter Bylaws would be presented in February meeting. President Moore then introduced Bill Jones, P.E. as today's speaker to present a presentation on the Prevention of Mold/Mildew

**Program:** After a dinner break, Bill Jones presented the "Prevention of Mold in Buildings". Mr. Jones first discussed why liability insurance exclusions have caused a growing concern in the industry. He then discussed the components and growth cycle of mold, specifically "Toxic Black Mold". Some have adverse health effects from mold exposure, and more and more local authorities/states are adopting legislation to reduce mold exposures. Mr. Jones then presented several case studies of mold growth and how to reduce mold growth. By eliminating/reducing the moisture source. There are many ways this can be accomplished; maintaining positive pressure in buildings, property selection, building materials, site layout, proper installation of HVAC systems and building operation are among a few.

**Adjournment:** The meeting was adjourned at 8:30 PM.

## January Northwest Arkansas Section ASHRAE Meeting Minutes

By Marshall Moody

The January, 2002 Northwest Arkansas Section of ASHRAE was held at the AQ Chicken House in Springdale. This was a joint meeting with Arkansas AIA. Mr. Marshall Moody called the meeting to order at 5:50 p.m. There were 17 members and 11 guests in attendance.

Following dinner, Mr. Moody announced that the next Northwest Section meeting will be Thursday, February 6, 2003 at Goodson's in Fort Smith. The presentation is on ASHRAE Standard 90.1 and will be sponsored by Trane. Mr. Moody introduced Mr. Dennis Wells, an architect with Johnson Controls who gave a presentation entitled "Buildings for a Livable Future." Mr. Wells' presentation centered around the new Leadership in Energy and Environmental Design - "LEED" program that is being promoted by the United States Green

Building Council. This will be the standard rating system for "Green" buildings. Mr. Wells went through the rating criteria on the following categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation and design process.

The meeting was adjourned at 8:05 p.m.

## December Board of Governors, Officers & Committee Chairmen Meeting Minutes

By John Carter, Chapter Secretary

**Call to Order:** President Randy Moore called to board meeting to order at 10:32 AM. Attendees included: Randy Moore, Rick Sellers, John Carter, Chance Hollingsworth, Eddie Finley, Steve Titus, Tracy Hayes, Mike McClellan, Russell Black, Chris Ahne, Chris Sutton, John Hodoway, James McKinnie, Wade Wetzler, Brett Bolan, Chris Call, Tim Parker and James Dayer.

**Old Business:** Secretary Carter presented the December meeting minutes and the board accepted the minutes as written. Secretary Carter then reviewed last month's action item list. President Moore then announced that the Arkansas chapter has 189 paid members and 276 total members with 10 of those members being students. President Moore solicited volunteers from the Board to serve as committee members to help update the Chapter bylaws and submit those comments by the February Board Meeting. President Moore then announced that the all chapter reporting documentation for the Region VIII 2003 CRC in Fort Worth would be in electronic format. President Moore also confirmed that Craighead County (thus Arkansas State University) is within the territory of the Memphis Chapter. President Moore also distributed an up to date status of PAOE points with the Arkansas Chapter having a total of 606 points to date. Vice President Sellers then announced that next month's meeting is a joint meeting with CSI and that today's presenter will be Alan Hope, in lieu of Ed Tinsley. Vice President Sellers also requested suggestions on topics for a 4-hour educational session for CEU in February. For any suggestions, please contact him. Then Vice President Sellers made a motion to accept the budget with an amendment to delete the revenue and expenses associated with a chapter roster this year. Mike McClellan seconded the motion and the motion was approved. Treasurer Hollingsworth presented the monthly budget report.

**New Business:** TEGA chair, Tom Hanlon, announced that that a DOE 90.1 seminar will be held on either 4/10 or 4/17. That date will be confirmed in upcoming meetings. Newsletter chair, Wade Wetzler, announced that the deadline to submit articles for the newsletter is Sunday, December 22. In research, President Moore recently received the 98-99' research promotion awards for the first time. Research Promotion chair, John Hodoway, announced that he has not received all of the extended circle ASHRAE research contributions. Chris Ahne then announced that ATU had been approved as a new Student Chapter making

(minutes continued)

the total number of student chapters at three (University of Arkansas-Fayetteville, University of Arkansas – Little Rock, and now Arkansas Tech University).

**Action Items:**

- 1) President Moore will resubmit chapter award nominee for reconsideration.
- 2) President Moore will distribute the 98'-99' research promotion awards just received by chapter.
- 3) All board members are encouraged to submit a minimum contribution of \$100 made payable to "ASHRAE Research" by 12/20/02 to John Hodoway at Cromwell Firm so the chapter can receive credit for the extended circle research award.
- 4) Bylaw Ad-hoc committee will review and comment on bylaws to the Board by February meeting.
- 5) Committee members are encouraged to report PAOE routinely on website.
- 6) TEGA chair Tom Hanlon to confirm ASHRAE90.1 seminar date.
- 7) Secretary John Carter will email meeting notes prior to next meeting to the board members in addition to printing minutes in newsletter.
- 8) Grass Root Committee chair needs to verify specific PAOE reporting requirements as it relates to their committee.

**Adjourned:** The board meeting was adjourned at 11:10 AM.

## December Arkansas ASHRAE Chapter Meeting Minutes

By John Carter, Chapter Secretary

**Technical Session:** The technical session began at 11:19 AM with 42 people in attendance. President Randy Moore introduced John Oliver and Andy Lyons as today's speakers. Mr. Oliver presented information on a new compressor available to most/any manufacturers

that is oil free, centrifugal, direct drive, hermetic, water-cooled or air-cooled, 2-stage, and includes a variable frequency drive. The compressor operates between 10,000-44,000 rpm on a frictionless shaft. This compressor could result in 3% - 5% full load savings and 15% - 30% part load savings over today's compressor technology. The current capacity range varies up to 80 tons.

**Call to Order:** President Randy Moore called the chapter meeting to order at 11:45 AM. President Moore opened the meeting by welcoming chapter members. President Moore then introduced Tom Hanlon, TEGA Chair, who presented a summary of TEGA activity that included an educational outreach seminar in Springdale, Wednesday, 12/11/02. Chris Ahne, student activities chair, then announced that Arkansas Tech University (ATU) is the Arkansas ASHRAE chapter's newest student chapter. Bret Bolan, the Chapter Webmaster, then announced that website advertisements were available to all Chapter members and to contact him for details about advertising on our website. Randy Moore then acknowledged Alan Hope as today's speaker who presented Chill Water Systems for the 21<sup>st</sup> Century.

**Program:** Alan Hope first introduced the history of chiller efficiency and how chiller technology has improved chiller efficiencies since the 70's. He then stressed the first step of considering energy costs of central plants is to accurately consider fuel and electricity charges while applying those charges to the actual load profile of the chiller. Mr. Hope then discussed the advantages and disadvantages of traditional primary/secondary systems vs. variable/primary systems in using low flow and high chilled water (CHW) temperature differences. There are several items that impact the CHW temperature differences with the primary impact being wild coils. Once converted to a high temperature differences with low flows, available system capacity can increase 100%. Mr. Hope then reviewed the advantages of district cooling systems. Mr. Hope then concluded by emphasizing the importance of reviewing and considering all of the options of a system when looking at optimal system performance.

**Adjournment:** Randy Moore reminded the attendees of next meeting. The meeting was adjourned at 1:00 PM.

## TEGA News

By Tom Hanlon

Seminar and educational opportunity updates.

Confirming that Bill Howard MS and Richard Green MS with the Center for Disease Control (CDC) will be conducting our four-hour continuing education seminar on Biological Lab Design and Operation on March 5<sup>th</sup>. Session will start just after our noon meeting and last the four hours. We're expecting a large turnout of Professionals from the Health, Science and Bio Safety fields. Will be a great time for us all to network. Sign up sheet and flyer is on the web site and included in this month's newsletter.

ASHRAE 90.1 Seminar. Steve Titus has lined up some great co-sponsors for the seminar. April 17<sup>th</sup> @ the Holiday Inn Select. Cost is \$175.00 per person with a limit of 50 attendees. Will be instructed by Jeff Ross w/ Southface Energy. Preliminary flyer is on the web site. This event should be huge, so sign up early.

Following our great response to the "System Effects" seminar in Springdale, Terry Granderson is planning the same for Little Rock in May. Will have further details as it evolves.

We're not overwhelmed with technology awards applications and times getting away. Scout out your completed projects and let's make award winners out of them.

## This Month in Arkansas ASHRAE History

By James McKinnie

**21 Feb 1967** - The board conducted its monthly meeting at the Sam Peck hotel, with discussions including the upcoming regional meeting in Tyler, Texas on 13-15 April. After the social hour and dinner, the ASHRAE regional director, Jack Thompson, presented an overview of the national ASHRAE activities, with focus on research projects and other expenses.

**19 Feb 1974** - ASHRAE conducted a special dinner meeting at the Camelot with other state professional engineering societies in honor of National Engineer's Week. Representatives from several state and local government agencies were present, including the governor's office. Several students from area high schools were honored as "Engineers for a Day" - these students had one local science fairs, and their exhibits were on display at the Mall Shopping Center. The guest speaker was Milton Windler, a Flight Director at Johnson Space Center, who presented information on Skylab experiments and operations.

**25 Feb 1977** - The ASHRAE general meeting was held in conjunction with the Arkansas National Engineers Week Banquet. Guests of the Arkansas Chapter were National President Bill Chapman, National President-Elect Bruno Morabito, and National Past President Bill Collins. Approximately 1,250 people attended the banquet, which was keynoted by former California Governor Ronald Reagan.

## Research Promotion

By John Hodoway

This month marks the beginning of our Spring Campaign for ASHRAE Research. All of our officers and I contributed at or above Honor Roll level before December 31<sup>st</sup> to qualify the chapter for the Full Circle Award.

A member of the Research Promotion Committee will be contacting you soon. Please be as generous as you can. ASHRAE Research fund the only dedicated basic research in the HVAC industry.

An individual Honor Roll contribution of \$100 pays big dividends in many ways. A company Honor Roll contribution of \$150 helps as well. Either qualifies you for the 2002-2003 commemorative coin to be awarded this fall.

Many thanks to those who have already contributed and especially to Sam Cummings and Pettit & Pettit Engineers for their very generous contributions in memory of Kent Pettit and Tom Anderton.

Our chapter goal for 2002-2003 is \$31,422. Please respond generously when contacted for your support.

## 2002-2003 Chapter Officers

<u>President</u>	Randy Moore	501-280-0404	fax: 280-9200
<u>Vice-Pres.</u>	Rick Sellers	501-374-3731	fax: 374-1802
<u>Secretary</u>	John Carter	501-666-6776	fax: 663-8888
<u>Treasurer</u>	Chance Hollingsworth	501-374-5420	fax: 370-9298

## Board of Governors

Eddie Finley	501-374-5420
Doug Bown	501-227-8181
Steve Titus	501-375-1181
Mike McClellan (Delegate)	501-661-0621
Tracy Hayes (Alternate)	501-280-0404

## Committee Chairs

Directory	Russell Black	501-327-2409
Membership	Chris Shaw	501-280-0404
Student Activities	Chris Ahne	501-661-0621
Programs	Rick Sellers	501-374-3731
Historian	James McKinnie	501-987-7666
Research	John Hodoway	501-372-2900
Honors & Awards	Alan Hope	501-666-6776
TEGA	Tom Hanlon	501-661-0621
Newsletter	Wade Wetzler	501-753-6652
NW Section	Marshall Moody	479-582-8239
Social	Chris Call	501-663-8886
Reception	James Dayer	501-663-8886
Webmaster	Brett Bolan	501-661-0621

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Arkansas Chapter of ASHRAE

P.O. Box 180

Little Rock, AR 72203





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

## Arkansas Chapter Meeting RSVP Form

Company Name: \_\_\_\_\_

Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Signed: \_\_\_\_\_

For reservations to the Central Arkansas Chapter meeting fax this form by **Friday, January 31<sup>st</sup>** to 501-374-1802 **Attn: Rick Sellers**

For reservations to the Northwest Arkansas Chapter meeting fax this form by **Monday, February 3<sup>rd</sup>** to 479-582-4747 **Attn: Marshall Moody**

### ROUTING


MEMBER NAME (PLEASE PRINT)	CENTRAL Feb 5 <sup>th</sup>	NW ARK Feb 6 <sup>th</sup>	EATING (Y or N)

NOTES: Please fax this form to the name and fax number as referenced above  
The meal is no cost to student members, however an RSVP is necessary.  
All "no shows" will be responsible for the cost of their meal.  
**In order to provide you with the best service for your Chapter's money, it is necessary to RSVP for each meeting.**

### November Program Summary by: Rick Sellers, 2002-2003 Vice President/Program Chairman

#### ASHRAE/IESNA Standard 90.1-2001

By Mr. Mick Schwedler, PE

This month's Program will be on ASHRAE/IESNA Standard 90.1-2001, Energy Standard for Buildings Except Low-Rise Residential Buildings. The U.S. Department of Energy (DOE) has recognized the Standard, referencing it in its Energy Policy Act. The Energy Policy Act mandates that the commercial building code of all states shall meet or exceed the requirements set forth in the Standard. These provisions require commercial buildings to employ energy efficient technologies in four areas: lighting, building envelope, HVAC (heating, ventilation, and air-conditioning), and service water heating. This month's Program will focus primarily on the HVAC portion of the Standard. The International Code Council (ICC) has also recognized the Standard and makes a reference to it in its International Energy Conservation Code.

#### **Mr. Mick Schwedler, PE**

Sr. Principal Applications Engineer - The Trane Company

Mick has been involved in the development and support of HVAC systems for Trane since 1982. As senior principal applications engineer his areas of expertise include system optimization (in which he holds a patent) and chilled water system design. His primary activities include assisting designers in proper application of Trane products and systems in buildings, and writing system application manuals and newsletters. In addition, he has presented technical seminars throughout North America, and in the Far East, and published a number of papers within the industry. Prior to his work with Trane, Mick received his MSME from the University of Wisconsin Solar Energy Laboratory and BSME from Northwestern University.

An active ASHRAE member, Mick is past chair of TC 1.5—"Computer Applications." He was a voting member on SSPC 90.1 "Energy Standard for Buildings Except Low-Rise Residential Buildings" from 1996 to 2000. He has also served on a presidential committee for the "ASHRAE Learning Institute" and is presently on an ASHRAE committee that is responsible for defining the electronic ASHRAE Handbook of the future and assisting with the ASHRAE Green Building Guide.

# **ASHRAE**

## ***Continuing Education Seminar***

**Subject:** Biological Safety Labs – Design, Commissioning & Operation

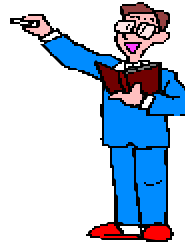
**When:** March 5, 2003 1:00 – 5:00 P.M.

**Where:** Little Rock Club (Regions Bank Building)

**Sponsored by:** Arkansas Chapter of American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE) and the Arkansas Department of Health Division of Public Labs.

Seminar Outline:

1. Biological Lab design considerations. Safety levels versus materials evaluated. Biological Safety Level (BSL) explained. BSL2, 3, 3+ and 4.
2. BSL Commissioning. Who does it. Why it's important.
3. BSL operations. Insuring primary and secondary containment.



Participants will receive certificates and (4) P.D.H.s upon completion.

**Presenters:** Mr. William Howard MS and Mr. Richard Green MS Center for Disease Control (CDC) - Atlanta, Ga.

**Fee:** \$45.00 per person. Class size is limited. Please contact Rick Sellers at (501) 374-3731 or [rsellers@pettitinc.com](mailto:rsellers@pettitinc.com). Make checks payable to Arkansas ASHRAE.

**Fax Registration information to Rick Sellers at (501) 374-1802 or email to [rsellers@pettitinc.com](mailto:rsellers@pettitinc.com) (pay at the door) or mail to Rick's attention @ Pettit & Pettit, 201 East Markham, Suite 400, Little Rock, AR 72201. Registration must be received by February 21<sup>st</sup>**

.....**Registration Information**.....

Yes, I will attend the "Biological Safety Lab" seminar on March 5<sup>th</sup>.

Name \_\_\_\_\_

Company & Phone # \_\_\_\_\_

# **ASHRAE/IESNA**

## ***Standard 90.1-99 Energy Code Seminar***

**When:** April 17, 2003 8:00 – 5:00 P.M.

**Where:** Holiday Inn Select (West Little Rock)

**Sponsored by:** Arkansas Department of Economic Development Energy Unit, Arkansas Chapter of American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE), American Council of Engineering Companies of Arkansas, Arkansas Chapter – The American Institute of Architects, and the Arkansas Department of Health HVACR Section.

Seminar Outline:

1. The ASHRAE/IESNA 90.1-1999 requirements for commercial buildings on the envelope, lighting and mechanical systems.
2. How to comply with the code by understanding what the code requires and how to demonstrate compliance.
3. How to use the U.S. Department of Energy's compliance tool, COMcheck-EZ™, which can be used throughout the design process to ensure compliance.

Workshop attendees will receive a copy of the Standard, the User's Guide, and a CD of the standard forms. Attendees will also receive a copy of the DOE compliance software. Certificates of completion and (8) P.D.H.s will be provided to attendees.

Attendees will need a laptop computer and power cord to actively participate in the training.



**Presenters:** Mr. Jeff Ross-Bain

**Fee:** \$175.00 per person for ASHRAE, AIA or ACEC members. Non-member registration fee is \$225.00 per person. Class size is limited to 50 people. Please contact Steve Titus at (501) 375-1181 or [scititus@aristotle.net](mailto:scititus@aristotle.net) for registration information. Online registration will be available beginning 1/31/03 at [www.pdsiarkansas.com](http://www.pdsiarkansas.com). A minimal charge will be added for online credit card registration. Registrations must be paid by February 26<sup>th</sup>.