

SOL AIR

Newsletter of the Southern California Chapter: American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.
February 2000 website: www.ashrae-socal.org Vol. 45, No. 6

FEBRUARY MEETING INFO

February 1, 2000 Government Affairs Night

Les Freres TAIX
1911 Sunset Blvd., Los Angeles, California

- 5:30 Tech Forum
UVC for HVAC - An IAQ and Nosocomial Infection Control Strategy
Speaker: Mr. Robert Scheir, Ph.D.
- 6:05 Social Hour (Fun Time!)
- 6:45 Dinner
\$23 with reservation
\$25 without reservation
\$10 student member
- 7:45 Main Program
Microbiological Contamination of Mechanical Systems
Speaker: Mr. Simon Turner
- 9:00 Meeting Ends

Please specify beef or fish when making reservations. For reservations, please fax to Jennifer Farr, Fax (310) 671-1467 by Monday, January 31, 2000.

FEBRUARY MAIN MEETING

Microbiological Contamination of Mechanical Systems

Speaker: Mr. Simon Turner

Mr. Simon Turner is Director, Western Region for Healthy Buildings International with a British Higher National Diploma in Applied Biology from Nottingham City University. Mr. Turner has managed hundreds of indoor air quality inspections throughout the Americas. He has also been the IAQ manager of numerous design projects for new buildings, including the Southern California Gas Company Energy Resource Center in Downey, CA; the new Staples

Arena in Downtown Los Angeles, and the new six-building Global Administration Facility for Fluor Daniel, Inc. in Aliso Viejo, CA.

Mr. Turner will be speaking about the means by which micro-organisms flourish in buildings, and their relationships to the humans that occupy them. Research is ongoing on dose-response relationships, and the role of microbial by-products such as bacterial endotoxins and fungal glucans on symptomatology. Evaluations are currently underway on the use of volatile organic compound (VOC) sampling for specific VOCs produced by fungal growth. This technique may prove useful in tracking down mold hidden in walls, thereby eliminating the need for wholesale destructive testing. It may also be that "new" microbes emerge that prove to play a part in building related illnesses in the same way that *L. pneumophila* emerged. Discover how as building technologies change, new ways need to be found to trap micro-organisms as they adapt and thrive in new kinds of environments.

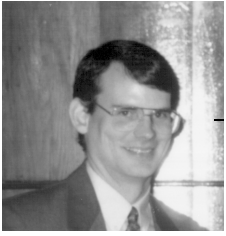
FEBRUARY TECH FORUM

UVC for HVAC - An IAQ and Nosocomial Infection Control Strategy

Speaker: Dr. Robert Scheir

Robert Scheir, Ph.D. is Steril-Aire's Senior Vice President, interim CFO and a board member. He earned his Doctorate in Medical Microbiology from UCLA. He has extensive experience in microbial air pollution, detection and remediation. He has more than 25 years experience in the field of infectious disease detection and control in hospitals, medical laboratories and industry at large. He was a Senior Scientist at McDonald-Douglas Corp. working in areas of microbial detection and control. He has served as a Quality Assurance Manager for Abbott Labs and as a Manufacturing/Quality Control Officer for Health Valley Foods. He was President and CEO of Cal Labs, a medical products manufacturing company and later served as President of the acquired subsidiary of Scott Labs (CalScott).

(Continued on page 2)



Will's Testament

by: Will Clark

THE FIFTH INNING STRETCH

Believe it or not, we are over halfway through the ASHRAE 1999/2000 year. We have nine meetings (including the December joint meeting), hence, we are in the fifth inning and nearing the home stretch. It's been a great year so far and I would like to extend thanks to:

- Paul Dedona - Doing an excellent job with programs
- John Clark - Updating and expanding our financial tracking for the chapter
- Ralph Panting - Bringing us an electronic and color *Sol*Air*
- David Kuo - For trenching forward on automating our many member databases
- Clay Lampman - Keeping us focused and informed on the status of the Western section
- Mike Burke - For his energy and enthusiasm and seemingly endless great ideas
- Ishtiaq Chisti - For promoting our chapter by sponsoring teachers in Los Angeles at the recent thermal energy workshops.

Thanks to each of the people listed above and to all the other officers and directors who do so much for our chapter. The above examples are just a few of the activities that these dedicated members offer to the entire membership.

Let's make these last four innings fun, innovative and rewarding for all. See you at the February meeting.

FEBRUARY TECH FORUM (continued from page 1)

Ultraviolet light in the "C" band (UVC) has long been known to be an excellent antimicrobial, but conventional UVC products fail to operate reliably in air handling systems. Now that one has been developed, control strategies have evolved to eliminate mold growing on the coils and drain pans of HVAC systems of all sizes. Such installations eliminate HVAC associated IAQ problems within 24-48 hours after installation.

The killing of mold and bacteria on coils and in drain pans eliminates the source of contamination that seeds the

duct and most anything downstream. As a result, HEPA filters last longer, and mold leaks around their seals are greatly reduced. IAQ allergy complaints such as sneezing, rhinitis, fatigue, asthma, etc. will cease. Airborne nosocomial microorganisms causing infections such as Tuberculosis, Staph, Strep and Virus diseases are reduced more than 90% with the basic installation and up to 99.9% with a specific installation.

Perhaps even more significant is the energy saving to be achieved as the static pressure across cooling coils drop as much as 40% and heat exchange efficiency increases significantly.

The presentation discusses specific strategies necessary to achieve the effects discussed above.



January Technical Forum

Speaker Mr. Greg Davis (right) from QuickPen Int'l presented a program on piping design and estimating with a new 3D software design tool. "Pipe Designer 3D" is a revolutionary new AutoCAD software package available for mechanical engineers and contractors. It's amazing what can be accomplished with this new tool.



January Main Program

Speaker Mr. Jim Reese (left) from York Int'l, Kansas City, spoke on "Underfloor Air Conditioning", a modular approach to air conditioning. Seen here with old friends Mr. Kenneth Simon from ACCO and Mr. Ed Schmidt from Comm Air/Preferred Mechanical Services. This was a good presentation that generated many comments.

SOUTHERN CALIFORNIA CHAPTER OF THE
 AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS
 PRESENTS

ANNUAL SPRING SEMINAR
CURRENT ISSUES IN LAB DESIGN

THURSDAY, APRIL 13, 2000
 8:00 A.M. TO 1:15 P.M.

CALIFORNIA INSTITUTE OF TECHNOLOGY, BAXTER HALL, PASADENA

Southern California Chapter of ASHRAE will present, with the support of Cal-Tech, what promises to be an interesting, exciting and timely topic: Current Issues in Lab Design.

The speakers will be the very best in their fields, known and respected in their respective disciplines for their experience, insight and knowledge.

The seminar will consist of four modern, highly relevant topics for the industrial hygiene community, mechanical engineers, owners, contractors and anyone interested in the intricacies of lab design.

Each presentation will be approximately 50 minutes with a 10 minutes break. A catered lunch will be served after the seminar and you should be on your way by approximately 1:15 p.m.

This half-day seminar located at the prestigious Cal-Tech campus includes lunch and is \$100/person. Additional persons from the same company can attend for \$85/person. Students get 50% off (must submit current student I.D.).

Your Spring Seminar Technical Committee has gone to a great deal of work to ensure your chapter the very best speakers to cover a timely topic. Ignorance of lab design techniques can cost you time, money and exposure to legal liability.

The areas of presentation are in architectural and mechanical aspects of lab design. These include:

- Architectural Aspects of Modern Lab Design presented by Glen Berry, Vice-President and Director of Science and Technology at HOK, Newport Beach, California. Mr. Berry will review the parameters of lab design with an eye to designing labs for future expansion and change, as well as present use. ASHRAE members need to be aware of these issues in working with architects and owners.
- Lab Hood Exhaust Systems, Design, Location and Placement of Rooftop Exhaust Fans and Other Equipment, The Code Related to Stack Height, Recirculation, and Fan Controls presented by Victor Neuman of GPR Planners in Irvine, CA. Victor is on the ANSI committee regarding lab design and was formerly with Earl Walls Associates. Victor is a recognized expert in these topics and has lectured extensively. GPR Planners is a large lab

planning consulting firm located in Irvine.

- Design, Performance and Testing of Laboratory Hoods presented by Tom Smith. Mr. Smith is an Industrial Hygiene Engineer who specializes in laboratory ventilation systems with an emphasis on hoods, hood testing, hood standards and commissioning. Mr. Smith has evaluated many laboratory hood systems and served on committees for development of the ANSI Z9.5 and ASHRAE 110 "Method of Testing Performance of Laboratory Fume Hoods" standard.
- Commissioning will be presented by Peter Ebbink, a commissioning specialist with the firm of AEI located in Walnut Creek, California. AEI does lab and research facilities for pharmaceutical companies, bio-tech companies, and major universities throughout the country. Mr. Ebbink has been involved in many practical commissioning issues and advise on commissioning specifications and procedures.

SPRING SEMINAR RESERVATION FORM

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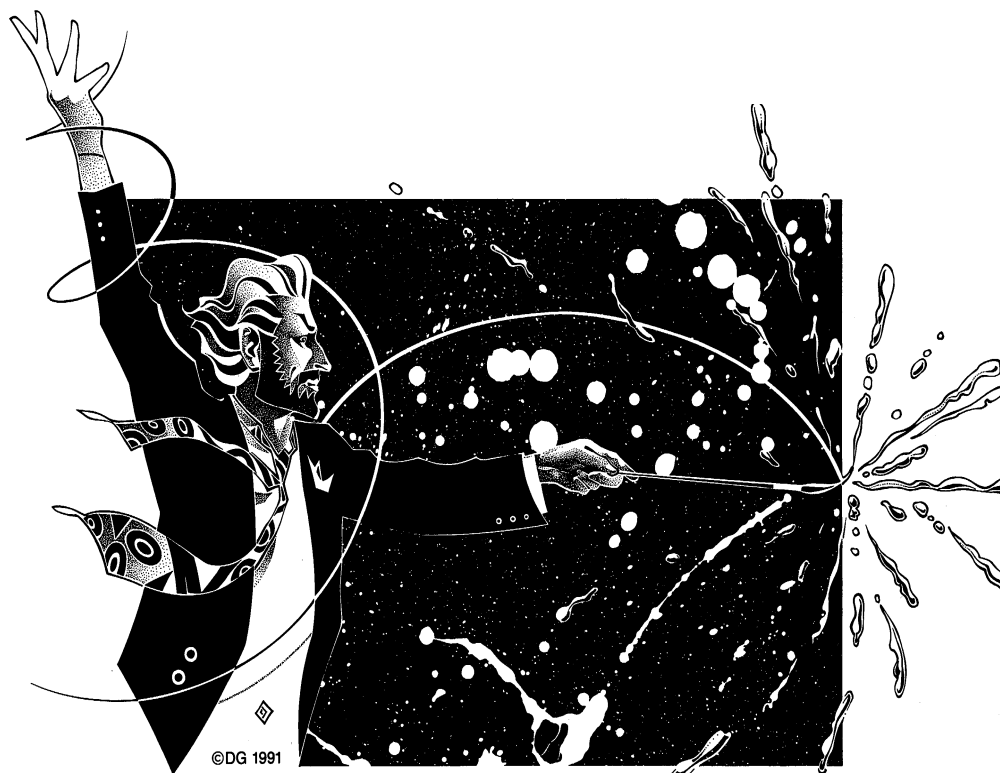
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Installation Dinner and Annual Award Ceremony

at the Magic Castle

June 10, 2000

6:00 p.m.

Address: 7001 Franklin Avenue, Hollywood, California 90028
(213) 851-3313

Cost: \$70 per person
(Dinner and magic show included)

Directions: From 101 northbound:
Exit Highland Ave., turn right under freeway, left on Highland Ave. and right on Franklin Ave.

From 101 south bound:
Exit Highland Ave./Hollywood Bowl, Highland Ave. and right on Franklin Ave.

Reservations: Sudhir Agrawal, (213) 922-7233
e-mail: agrawals@mta.net

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Mail to: ASHRAE, Southern California Chapter
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11208 Freer St., Arcadia, CA 91006

MARCH MAIN PROGRAM PREVIEW

Energy Efficiency Update

by: **David Kuo**

The March Main Program will be an exciting panel discussion on the status of energy efficiency programs in California. We are pleased to have two highly-qualified presenters speak at our meeting:

- **Gene Rodrigues**, Director of Energy Efficiency at Southern California Edison
- **Frank Spasaro**, Manager of DSM Transition at Southern California Gas Company

The speakers will provide us with an insight of the developments unraveling at the California Board for Energy Efficiency (CBEE), share with us the currently available energy efficiency programs, and discuss the practical and political aspects of these programs.

In order to take full advantage of the panel discussion, I would like to gather any questions or topics you want the speakers to address. *Please submit your questions to me in advance via e-mail to kuodm@sce.com or fax to (626) 633-7197.* I will correlate all the inquires and present them to the speakers. Thanks in advance.

Get into the swing!



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More information to follow
Contact: Vicki Rolofson
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1999-2000 ASHRAE SOUTHERN CALIFORNIA CHAPTER AND WESTERN SECTION PROGRAMS

SOUTHERN CALIFORNIA CHAPTER

MARCH 7, 2000:

Location: Les Freres TAIX
Tech Forum: Cooling Tower Fundamentals
Speaker: Mr. Jerry Conklin
Main Program: Energy Efficiency Update
Speakers: Panel Discussion (SCE and The Gas Co.)
Co-chairs: David Kuo and Ishtiaq Chisti

APRIL 4, 2000: RESEARCH NIGHT

Location: Les Freres TAIX
Tech Forum: SCAQMD Regulations for Boilers
Speaker: Mr. Bob Jones
Main Program: Meeting Code for Minimum OSA per person with VAV Systems
Speaker: Representative from Air Monitor
Chairperson: Ron Sweet

MAY 5, 2000: STUDENT NIGHT

Location: Les Freres TAIX
Tech Forum: Chiller Fundamentals
Speaker: Mr. John Clark
Main Program: TBA
Co-Chairs: Paul Dedona

JUNE 10, 2000: INSTALLATION DINNER/DANCE

Location: Magic Castle
7001 Franklin Avenue
Hollywood, CA
(213) 851-3313
Time: 6:00 p.m.

WESTERN SECTION PROGRAMS

FEBRUARY 8, 2000

Location: Santa Maria
Topic: Air Balance Requirements
Speaker: Neil Plat, The Plat Company

MARCH 14, 2000

Location: Ventura
Topic: Liability Issues
Speaker: Joan Calnon, Dealey, Renton & Assoc.

APRIL 11, 2000

Location: Santa Barbara
Topic: Fan Principals Demonstration
Speaker: Ed Langlo, Independent Contractor

MAY 9, 2000

Location: Santa Maria
 Topic: Pump and Chiller Applications
 Speaker: Jack Dawson, Dawson Company

JUNE 13, 2000

Location: Ventura
 Topic: To be announced.
 Speaker: To be announced.


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CSULB STUDENT CHAPTER

by: **Clay Lampman**

At the June Annual Society Meeting, the Board approved the Charter for a student chapter at California State University Long Beach (CSULB). This Chapter will be affiliated with our Chapter. The Chapter's advisor is Dr. Hamid Rahai, a Professor of Mechanical Engineering. Each school year they elect chapter officers. They meet during the campus wide "Club Hour" between 12 noon and 1 PM during each semester. During this hour, industry and educational speakers will speak on ASHRAE related subjects. Our Chapter will be called on from time to time to provide speakers.

The University has started a new certificate in HVAC Engineering this fall. They have about 12 students enrolled in the program. This certificate is designed for graduating students and graduated engineers. They offered ME 438/538 (HVAC and R) last semester and ME 490E, HVAC systems and equipment this semester. The class meets MW 5:30-6:45. The University will need speakers to present case studies to the class occasionally, so if you have a case study that will be of interest to these students let me know or contact Dr. Rahai directly. His Phone number is (562) 985-5132, Fax (562) 985-4408 and E-mail rahai@csulb.edu.

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