

# SOL AIR

Newsletter of the Southern California Chapter: American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.  
September 2000 website: [www.ashrae-socal.org](http://www.ashrae-socal.org) Vol. 46, No.1

## SEPTEMBER MEETING INFO

**September 12, 2000**

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

- 5:30 Tech Forum  
*Expansion Tank-Type, Sizing, Selection and Location*  
Speaker: Mr. Mike Taylor
- 6:05 Social Hour (Fun Time!)
- 6:45 Dinner  
\$23 with reservation  
\$25 without reservation  
\$10 student member
- 7:45 Main Program  
*School Air Conditioning*  
Speaker: Mr. William J. Yang, P.E.
- 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, September 11, 2000.

## SEPTEMBER MAIN MEETING

### School Air Conditioning

**Speaker: William J. Yang, P.E.**

William J. Yang is the Principal and Founder of William J. Yang & Associates, a 33-year old consulting engineering firm located in Burbank, California.

Mr. Yang is a Fellow of the Institute for the Advancement of Engineering, Honorary Member of the Chinese American Construction Professionals, life member of the general Alumni Association of University of Southern Cali-

fornia and life member of the general Alumni Association of University of Southern California and life member of the Society of American Military Engineers.

He has been and continues to be actively involved in our community. He was founding member and past president of the Asian American Architects and Engineers' Association (AAAE), as well as the past president of Mechanical Engineer's Association of California, Asian Business Association (ABA) and Chinese American Construction Professionals.

As a professional engineer registered in the State of California, he has been involved in many construction projects for different agencies such as the Los Angeles Unified School District, the County of Los Angeles, the City of Los Angeles and many state and private projects in the State of California.

Mr. Yang will be speaking about the following key items in the design and construction of a school HVAC system.

- Pros and Cons of Various Air Conditioning Systems: Central Systems vs. Unitary System
- Coordination Issue in Design and in Construction
- Construction Issues: Schedule and Safety
- Typical Design/Construction Problems

## SEPTEMBER TECHNICAL SESSION

### Expansion Tank-Type, Sizing, Selection and Location

**by: Mr. Mike Taylor**

Mr. Mike Taylor is the President of Dawson Company, a manufacturer's representative, serving Southern California, Nevada and Hawaii. He has been with the company for 16 years. He completed his bachelor's degree from UC San Diego in 1982 and is a full member of ASHRAE.

Mr. Taylor will discuss Expansion Tank-type, sizing, selection and location.



## President's Message

by Sudhir Agrawal

On behalf of the Southern California Chapter, I would like to welcome you as we kick off the year 2000-01. We have great team of Directors and Chairpersons. We are here to represent you at the Society and to reinforce your continued interest in ASHRAE. We want to take your message to the Society.

Our vision is to make Southern California the best Chapter in Region X for each category in the next five years. This year our mission is have great programs; increase membership by 5%; meet our Research Promotion goals; submit two projects for potential TEGA awards; focus on student activities by providing scholarship and employment to quality students; send at least two students to the Winter Meeting; implement a mentoring program to students; have information available on our website; keep members informed of code updates; have two field visits to see great works in the field of ASHRAE and to have at least one spring seminar. For fun we will have golf tournaments.

You may know there is a shortage of people in the HVAC industry projected for the next 10 years. Our job is to plan now to encourage, and prepare students to come into our HVAC industry with great interest and enthusiasm.

Please take a look at the official ASHRAE web site: <http://www.ashrae.org>. You will be amazed at the resources available for you there.

I am confident we will have an outstanding year and I am looking forward to your continued support and involvement in this new ASHRAE season.

Please update your Roster with my home address and phone numbers: 11208 Freer St., Arcadia, CA 91006 (626) 579-9649 and my pager is (213) 812-3021. Feel free to send any mail to my home since sending it to the office takes several days (or never) before it gets to me.

## FROM THE EDITOR'S DESK

Welcome to the 1st Chapter Meeting of the year 2000-2001! We will constantly improve the newsletter to benefit all members as an effective tool in disseminating information. Several sections that we are adding and developing are:

- Technical Forum
- History

If you have any ideas, work and project related experiences, please mail them to me. Let's get involved!

## REPORT ON HISTORY WORKSHOP CHAPTERS

Regional Conference, May 10-13, 2000  
Vancouver, British Columbia, Canada

by: Ishtiaq A Chisti, P.E.

I attended the CRC History workshop on Saturday, May 13, 2000, conducted by the outgoing Region XI Historian, Neil Childs from the Manitoba Chapter. The co-instructor of the workshop was outgoing Region X Historian, Bruce Johnson. Lincoln Scafe is the incoming Region X Historian. It was a very informative workshop where the attendees had the opportunity to listen to several representatives from Society, including James Wolf, ASHRAE President-elect.

*History*, on the surface, appears to be diametrically opposite to the *science* of HVACR but on close examination it is not so. We cannot escape history even if our profession is always looking forward and always focused on improving our lives through the advancement of the sciences related to raising the comfort level of our living spaces. By properly documenting the past and learning from it we can be much more efficient as we design for the future. Remember the old adage, *those who forget history are condemned to repeat it!*

The workshop brought to the forefront two essential elements of building a successful historical record of a Chapter. One is simply the recording of what the Chapter does year after year. It includes documenting such facts as the names of the officers that serve the Chapter, the programs, and the activities (golf, research funds, seminar, tours, etc.). The second element of Chapter history writing is more pro-active. It calls for selecting an individual, a company, and an HVAC&R system that has made a significant contribution or impact on ASHRAE. In Southern California we have plenty of examples of individuals and companies that could be interviewed to obtain the rich history that they bring to our Chapter. There are also many HVAC&R systems installed in our territory that could potentially be documented and shared with the membership.

Society demands that every Chapter update its history every five years. The workshop suggested we do it every year to make the job easier while the information is still fresh and dynamic. Updating the history ever year also has the added advantage of earning PAOE points and the **Gold Ribbon Award**. Details of how best to rack them up was also discussed at the workshop. At a minimum, the Chapter needs to index and maintain its archives (recording of the facts described above). Recalling the history of a member, company, or system on top of that will earn Southern California Chapter the Gold Ribbon Award.

## STUDENT SECTION

### 2000 ASHRAE Student Design Project Competition

by: **Clay Lampman, P.E.**

Cal Poly San Luis Obispo wins second place in the ASHRAE's 2000 Student Design Competition under HVAC System Design Category. The winners, Zachary Russi and Zacharie Webber will join our chapter's representatives to the ASHRAE's Winter Meeting in Atlanta, Georgia in January 2001.

## TECHNICAL FORUM SECTION

### Service Lessons in Engineering Design

by: **Mike Gallagher, P.E.**

Closed loop water piping... what needs to be present for those who will live with it in the future?

The first thing to remember about closed hot water and chilled water loops is that they will need to be drained at some point. It is beneficial to have a reasonably sized drain valve near the low point of the system (and not with just a 1/2" hose bib attached.) The water will have to be drained somewhere, and ideally to a spot that will accept water at a greater rate than a break room sink or small floor drain. If a boiler, pump, strainer, and drain valve are in an indoor equipment room, be sure that there is an ample floor drain. Each of these components will require good drainage at some point. Ball valves are a good valve choice, and tend to outlast gate valves in closed loop applications. After the loop has been drained, it will need to be refilled. Some sort of quick fill valve arrangement is useful at the pressure reducing valve. The most time consuming aspect of refilling the loop (and therefore the most prone to not be done properly) is getting all of the air out. One or two automatic air vents is generally not adequate for refilling even a moderately sized hot water VAV reheat loop. Don't be sparing with automatic air vents; this is almost always a situation where more is better. The idea that "most of the air" can be purged by running the pump for an hour or two while manually bleeding air, then relying on the automatic air vent to do the rest, is overly optimistic. There are a lot of optimistic people in our industry, however, and many closed loops with lots of air. Once the air is purged, it will be time to add closed loop chemical treatment. This means a pot feeder with appropriate valves and a drain (again, use ball valves instead of gate valves).

Chilled water coils, in particular, benefit from having some dedicated means of measuring water pressure on the inlet and outlet. Pete's plugs are not a first choice for this

function.

You can never have too many isolation options. I recommend isolation valving at every takeoff from a vertical riser and at every device, such as a hot water coil. Depending upon line size, every line should have either a coupling or a flange at coils or other devices.

Finally, I marvel at the resiliency of copper closed loop piping after 40 to 50 years of irregular water treatment and other abuse, when steel pipe (especially screwed piping) has long since become an expensive leak problem and challenge for add-on or repair work. Hopefully, we've all learned from this.

Your feedback is welcome. Respond to [mgallagher@westernallied.com](mailto:mgallagher@westernallied.com) or call at (562) 944-6341.

## PLUMBING SYSTEMS DESIGN

For more information call (310) 825-0328.

These courses serve as an introduction to plumbing systems design for commercial and industrial structures. Each course is assigned 3.6 Continuing Education Units (CEUs).

Students are awarded a Certificate of Completion upon successfully taking the following courses:

- 806 \* Plumbing Systems Design: Part I
- 806.1 Plumbing Systems Design: Part II
- 806.2 Plumbing Systems Design: Part III
- 806.3 Plumbing Systems Design: Part IV

\*This course is offered this quarter.

### Plumbing Systems Design: Part I

CEU Noncredit Program  
Engineering 8063.6 CEU\$425

This course reviews codes and basic engineering principles and graphic presentations related to plumbing systems design, including load calculations; piping methods; sizing of pipes; and equipment selection for soil, waste, and vent systems. Fixtures and materials also are studied.

Prerequisite: Minimum of one-year employment in an architectural/engineering office or related firm, or city, county, or state building code authority.

Reg #K3526G  
12 Wednesdays, 6:30-9:30 p.m.  
September 27-December 13  
UCLA 5273 Boelter Hall

Fady M. Mattar, MSME, Building Official,  
City of Long Beach

## 2000-2001 ASHRAE SOUTHERN CALIFORNIA CHAPTER & WESTERN SECTION OFFICERS

President .....	Sudhir Agrawal
President-Elect .....	Bob Brennan
Secretary .....	Ralph Panting
Treasurer .....	Bob Woods
Past President .....	Will Clark
Director .....	Mike Burke
Membership Promotion	
Membership Service	
Student Activities	
Student Placement	
PAOE Point Coordinator	
Attendance, Reception & Raffle	
Director .....	Jerry Conklin
E-Week	
Sol*Air	
Fax Committee	
Chapter Homepage	
Programs (Including Joint Meeting)	
Director .....	Mike Gallagher
Research Promotion	
Refrigeration	
Chapter Historian	
Public Relations	
Director .....	Chad Herrick
Code & Advisory	
Golf Tournament	
Technical, Energy & Government Affairs (TEGA)	
Chapter Technical Committee (CTC)	

### CHAPTER COMMITTEES

Attendance & Reception .....	Jennifer Farr
Audit .....	Ed Schmidt
Budget & Finance .....	Phil Trafton
Chapter Technical Committees .....	Zeilik Uber
	Doug Haines
Climate Data Manual .....	Mark Tsukimoto
Code & Advisory .....	Fady Mattar
CRC Action Member .....	Will Clark
Delegate .....	Bob Brennan
Alternate Delegate .....	Ralph Panting
Engineers' Week .....	Ishtiaq Chisti
Golf Tournaments .....	TBD
Historian .....	Ishtiaq Chisti
Honors & Awards .....	Will Clark
Installation & Awards Dinner/Dance .....	Bob Brennan
Job Placement for Students .....	Mark Mosley

Membership Promotion Chair .....	Conrad Chen
	Brook Bambrick
Membership Services .....	Ted Hanft
PAOE Points Status .....	Cindy Callaway
Programs .....	Sam Sampat
Public Relations/Society Liaison .....	Clay Lampman
Raffle .....	Jennifer Farr
Refrigeration .....	Gwinn Henry
Research Promotion Chair .....	Amar Amarnani
Roster Product Directory .....	Vicki Paris/Ralph Panting
Roster Publication .....	Ralph Panting
Scholarship Committee .....	Ron Sweet
	Clay Lampman
Scholarship Investment Committee .....	Phillip M. Trafton
<i>Sol*Air</i> Editor .....	Joe Ablay
Spring Technical Seminar .....	Kathy Larue
	Amar Amarnani
Student Activities .....	Clay Lampman
Technical Energy & Governmental Affairs (TEGA) .....	Ed Santa Cruz
Fax Committee .....	Victor Petring
Chapter Home Page .....	Craig Hofferber

### WESTERN SECTION OFFICERS

President .....	Paul Tziouvaras
	(805) 957-4632 / (805) 653-7260 Fax
	paul@meceng.com
Vice President, Program .....	John Zumwalt
	(805) 375-3971 / (805) 375-3972
	jazumwalt@trane.com
Treasurer .....	Hugh McTernan
	(805) 653-1722 / (805) 653-7260 Fax
	aec@comunicas.com
Co-Director, Membership .....	Ed Langlo
	(805) 683-1566 / (805) 683-5813 Fax
	e.c.langlo@home.com
Co-Director, Membership .....	Robert Muhr
	(805) 893-2661, Ext. 2207 / (805) 893-4493
	robert.muhr@pf.ucsb.edu
Director, Student Activities .....	Mike Nichols
	(805) 544-4269 / (805) 544-4335
	bmaslo@callamenca.net
Director, Newsletter ( <i>Fresh Air</i> ) .....	Mike Schwan
	(559) 485-9873 / (552) 485-7046
	fsu1dog@aol.com



## 2000-2001 ASHRAE SOUTHERN CALIFORNIA CHAPTER PROGRAMS

The following topics will be the Technical and Main Programs for the year 2000-2001. We will publish the actual dates and speakers on the next *Sol\*Air* issues.

### Main Programs

- School HVAC Design: Consulting Engineer's (Principal) presentations.
- Legal pitfalls: Construction documentation and change orders. Contractors/Consultants presentation
- Hospital HVAC Design: Consulting Engineer's (Principal) presentations.
- Multistory Non-residential HVAC Design: Consulting Engineer's (Principal) presentations
- Codes new UBC and California Building Standard Codes: Consultant from Orange Empire chapter.
- Electrical Utility: Price war and consumer advantages: Representatives from utility companies
- "Cold Air" System that uses 48 degree supply air and fan powered VAV units to provide warmer air into the rooms. Trane Company John Clark.
- Air Handling Units: Design features and noise concerns.
- VAV: Variable Air Volume Systems.
- Controls: Central controls vis-à-vis individual zone controls.
- Chillers: Design concepts and new features.
- A panel discussion on appropriate system selection for an application.
- A case study night.

### Technical Programs:

- Expansion Tank-Type, Sizing, Selection and Location
- Title 24 1998 Improvement Rebate Program S. C. Edison.
- Title 24 1998 Improvement Rebate Program D.W.P.
- Refrigeration: General concepts and food industry applications.
- CFC: latest developments.
- Five Common Psychometric Mistakes.
- Real World Field Capacity Measurements (and how to interpret them).
- Practical Field Considerations That Don't Show on the As-Builds (avoid the retrofit blues).
- Specialized Application Cooling Load Applications (could be tied into Handbook).
- Review of "bite – size" piece of the ASHRAE Handbook (for the technical forum).

*Be our guest...*

*Attend this live, satellite broadcast brought to you by The Trane Company*

## In Conjunction with U.S. DOE

ASHRAE/IESNA 90.1-1999, Energy Standard for Buildings Except Low-Rise Residential Buildings

*when*

Tuesday, September 12, 2000

11:00 a.m.

*where*

The Trane Company  
17760 Rowland Street  
City of Industry, CA 91745

Lunch will be served

*Why should you attend this live satellite forum?*

- Gain an understanding of the impact of the new commercial building energy standard
- Comprehend the Building Envelope, Mechanical (HVAC) and Lighting sections of the standard
- Realize the standard's affect on additions and alterations of existing buildings

*What can you expect to learn from this broadcast?*

- A high level of understanding of ASHRAE/IESNA 90.1-1999
- Differences between the 1989 standard and the new standard
- Interaction between ASHRAE/IESNA 90.-1999 and the Energy Policy Act of 1992

*How do you register for this event?*

Contact Shirley Cole at (626) 435-1990.

## WESTERN SECTION PROGRAMS

### SEPTEMBER 12, 2000

Location: Josie's Four Winds  
3425 State Street  
Santa Barbara

Speaker: Mr. Simon Turner  
Healthy Buildings  
International

Topic: Microbiological  
Contaminants in A/C  
Systems

### OCTOBER 10, 2000

Location: Barefoot Bistro  
545 Thompson Blvd.  
Ventura

Speaker: Dan Robinson  
MW Sausse

Topic: Isolation Applications

### NOVEMBER 14, 2000

Location: Mariann's Italian Villa  
800 S. Broadway  
Santa Maria

Speaker: Jim Reece or  
representative  
York International

Topic: Underfloor A/C  
Distribution  
Systems

Note: To be confirmed.

### DECEMBER 12, 2000

Location: Josie's Four Winds  
3425 State Street  
Santa Barbara

Speaker: Robert Scheir  
Sterile Air  
Products

Topic: UV Lights and  
Applications in Air  
Handling Systems

### JANUARY 9, 2001

Location: Barefoot Bistro  
545 Thompson Blvd.  
Ventura

Speaker: John Clark  
The Trane Company

Topic: Chillers

### FEBRUARY 13, 2001

Location: Mariann's Italian Villa  
800 S. Broadway  
Santa Maria

Speaker: Bill Dohn,  
Dohn and Associates

Topic: Design of Studios,  
Concert Halls,  
Auditoriums and Other  
Difficult Acoustic Jobs

### MARCH 13, 2001

Location: To be announced.

Speaker: Mike Erfuth  
Baltimore Air Coil

Topic: Cooling Tower  
Fundamentals

### APRIL 10, 2001

Location: Barefoot Bistro  
545 Thompson Blvd.  
Ventura

Speaker: Steve Alschuler  
Air Treatment Corp.

Topic: ASHRAE 62-99 IAQ  
Code and Air Flow  
Measurement Products

### MAY 8, 2001

Location: Mariann's Italian Villa  
800 S. Broadway  
Santa Maria

Topic: To be announced.

### JUNE 12, 2001

Location: Josie's Four Winds  
3425 State Street  
Santa Barbara

Speaker: Ken Radtkey  
Blackbird Architects

Topic: Green Buildings

Dinner Reservations:  
Hugh McEternan,  
(805) 957-4932  
Fax (805) 653-7200





## INSTALLATION DINNER SPEECH BY SUDHIR AGRAWAL, INCOMING PRESIDENT ON JUNE 10, 2000

Fellow ASHRAE members and Friends,

I am very honored that you have given me this opportunity to represent the strongest and the largest Chapter of the Society. This chapter has been in existence for the last 71 years and is still going strong. The chapter has performed outstanding work, compared to none (there is nothing to compare with) in the area of creating new chapters, in the area of student activities, in the area of proving substantial scholarships to attract student to HVAC & R field, energy project, field trips, spring seminars and other activities.

Our chapter provided several Vice Chairmen (RVC), to

represent the region. Out of six RVCs, we normally have two from this chapter.

I am thrilled with the type of support I have been getting from you all, even prior to my taking the Chapter President assignment. The current Board has been very powerful and has done an excellent job under the leadership of Will Clark. I will try my best to meet your expectations. With your continued support, we will be able to carry forward your wishes to the Society.

There are few areas, I will like to focus this year:

**Recognition:** We need to recognize the hard work performed by various people more frequently. I can assure you that if we start looking closely, we can easily find at least 20 people in this group alone who deserve either a fellowship or a regional award of merit or even a distinguished service award. We need to take time to fill out the appropriate forms to receive society level recognition. Having recently gone through this process, I can provide help. Please ask.

### **Student Involvement:**

Even though we are strong in this field, we can do better. I will request that the Board increase the budget for **student employment workshops** for 20 students, sending at least two students to the **winter conference** and provide continued **mentorship**. This work will be continued under the leadership of Clay Lampman. There is a **shortage of people in the HVAC industry**. In the next 10 years it will be hard to find HVAC people. In order to serve the industry better, we need to act now to attract more young people. The **scholarship funds** have grown substantially under the investment portfolio management of Phil Trafton. It is time to use it. I want to request that the Board authorize an extra \$20,000 allocated for the students, then increasing it from \$30,000 up to \$50,000. Obviously this will depend on the growth of the scholarship funds through donations and through investment growth.



**Programs** is another area we need to focus on. We have a new and very enthusiastic program chairperson Sam Sampat who is planning some great programs for next year.

**Attendance and membership** are areas of great concern that can be improved. Retention of older members while recruiting newer members will be a focus of attention.

A four hour **strategic planning** session is being planned for July, 2000 in order to accomplish the above and seek your input. Everyone is welcome to participate.

**Mr. James Wolf**, our Society President has agreed to speak to us on December 19<sup>th</sup>, 2000. Details to follow. This is our joint chapter meeting and we are the sponsoring Chapter this year. Look forward to this meeting at the Industry Hills Sheraton Hotel.

I have also requested the **code planning and advisory** Director from Sacramento to come and talk to us about specific code changes. This will be done in addition to Fady Matter's annual code preview/update session.

I would also like to see that at least two **TEGA** projects are presented from the chapter to Society.

We also need to create a detailed **history** of our chapter, year by year.

Our chapter **Website** is alive and active. Check it out and make use of it. This activity is led by Craig Hofferber. Our **FAX Committee** is already set up and running under the leadership of Victor Petring.

We will work towards **realistic** data and schedule. In the past some unrealistic commitments were forced upon us and

we struggled to meet them. We will set realistic goals for **Research Promotion** and meet them this year.

I want to schedule a **field trip** to Staples Center this year. I will request that last year's chair George Orff arrange another **Spring Technical Seminar** like last year. It was the best and most attended seminar we have had in a long time.

This year, our Society President has approved a different approach for accumulating **PAOE points**. He will provide a special code to the president and the president will be entering the information on line. This year it will be based on the Chapter paid membership and not the Chapter assigned members.

I have been associated with ASHRAE since 1972. My senior project and first technical paper in 1972 was on HVAC work. My MSME paper, my work in HVAC industry in Water & Wastewater treatment plants, commercial, industrial building design, nuclear and transportation areas, application of my MBA work in ASHRAE and a few of my technical papers in smoke management and business management has always kept me busy in the HVAC field. Ed Schmidt brought me into the Southern California Chapter as a research Promotion Chairman. I was thrilled to help out and enjoyed the duty very much. My commitment has become deeper and deeper ever since.

I have always enjoyed every part of ASHRAE and will continue in the HVAC field. The continued support and guidance from the experienced past presidents and others will keep me on the right track this year.

I am looking forward to the upcoming year. We have great Board this year again and we will do great things.

If we can do anything to take your wishes to Society,

please feel free to contact us. Your input is very important. Any of the Board members will be happy to receive and act on your input and requests as well.

Thank you.





## ENERGY DESIGN SEMINAR

HVAC Design Seminar put on by Constructive Technologies Group (CTG Energetics) and sponsored by City of Santa Monica will be held in Santa Monica starting on Tuesday, October 10 from 8:30 a.m. to 10:30 a.m. at a location to be announced later. The complete seminar consists of five sessions, each will be repeated once allowing you to pick up any topic you missed earlier. (Total of 10 sessions) There is a nominal fee to cover breakfast and small expenses.

For more information, please contact Treasa Sweek, e-mail [tsweek@ctg-net.com](mailto:tsweek@ctg-net.com) or visit their website at [www.ctg-net.com](http://www.ctg-net.com).

### ASHRAE'S Professional Development Seminars

Increase Your Professional Knowledge ·  
Earn CEU or PDH Credit

#### October 2, 2000

Building Retrofit for Energy Efficiency

#### October 3, 2000

Determining Energy Savings from Performance Contracting Projects - Measurement and Verification

#### October 4, 2000

System Selection and Report

#### in San Jose

For complete program and registration information visit the ASHRAE web site [www.ashrae.org](http://www.ashrae.org) or contact ASHRAE Customer Service (800) 527-4723 Fax (404) 321-5478

## HELP WANTED COLUMN

Anybody wishing to place an ad in this column for an engineering or other position please submit your request to:

JOE C. ABLAY, P.E.  
10775 Business Center Drive  
Cypress, CA 90630  
(714) 816-1434/(714) 826-9592 fax

Please make a donation of \$50 per ad made payable to: ASHRAE Southern California Chapter

People looking for a job may place an ad without donating.

### HVAC/ELEC/PLBG ENGINEERS

40 yr. S.F. Valley engineering firm in seek of qualified Designers/Engineers/Project Managers, that are proficient in AUTOCAD 14. Excellent salary & Benefits, Medical, 401K.

E-mail resumes to:  
[hwilliams@dfda1.com](mailto:hwilliams@dfda1.com)

### SENIOR PLANT, ENERGY AND UTILITIES ENGINEER

The California State University, Office of the Chancellor, is seeking a *Senior Plant, Energy and Utilities Engineer* to provide leadership in the planning, design, construction, operation and maintenance of CSU facilities. Please see full job description at <http://www.calstate.edu/tier3/Personnel/jobs.html>.

### PLANT, ENERGY AND UTILITIES ENGINEER

The California State University, Office of the Chancellor, is seeking a *Plant, Energy and Utilities Engineer* to provide technical leadership in the planning, design, construction, operation and maintenance of CSU facilities. Please see full job description at <http://www.calstate.edu/tier3/Personnel/jobs.html>

Peter H. Narbonne, P.E.  
Chief Engineer/Vice President



**air conditioning company, inc.**  
Established 1934  
6265 San Fernando Road  
Glendale, California 91201-2214  
Telephone: 818-244-6571 Ext. 2403  
Fax: 818-247-6533

Mechanical Contractor License #120696

### AIR CONDITIONING SPECIALTIES COMPANY



#### RALPH PANTING

(562) 694-8543 E-mail: [acspco1@earthlink.net](mailto:acspco1@earthlink.net)  
(714) 738-7711 FAX (562) 697-6296  
850 East La Habra Blvd. • La Habra, California 90631

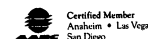


**American Air Balance Company**  
Air • Sound • Hydronic

Bob Conboy

Tel: 714/693-3700  
Fax: 714/693-9509

4887 East La Palma Avenue  
Suite 708  
Anaheim, CA 92807  
E-Mail: [aabc@deltanet.com](mailto:aabc@deltanet.com)



Manufacturer of:  
**Compact - Lightweight Military Air Conditioners**

Kenneth C. Keck  
Executive Vice President

28020 Avenue Stanford (661) 257-0090  
Valencia, CA 91355-1105 FAX (661) 257-3770  
E-Mail: [appliedcomp@earthlink.net](mailto:appliedcomp@earthlink.net)



**Beverly Ayn Bender**  
President

1815 W. 205th St., Suite 206  
Torrance, California 90501  
Phone: (310) 783-4546  
Fax: (310) 783-4718


CONTRACTOR'S LIC. #735346



**Mike Poyer, Sales Engineer**  
 (818) 550-0377 • Fax (818) 550-0379  
 Phone (800) 937-7222 • (800) YES-SCACD  
 Pager (213) 240-5616 • Phone (626) 854-4616


**Southern California  
 Air Conditioning Distributors**  
 16900 CHESTNUT STREET  
 CITY OF INDUSTRY, CALIFORNIA 91748-1012

*World's Largest Air Conditioning Equipment Distributor*



**LOS ANGELES  
 AIR BALANCE CO., INC.**  
 AIR SOUND HYDRONIC PROFESSIONALS

**Eddie Alejandre, P.E.**  
 President



2125 Wright Ave. Suite C5  
 La Verne, CA 91750  
 Email: LAAirBal@aol.com  
 Website: <http://www.airbalance.org>

Tel: 909-593-0906  
 Fax: 909-593-2328  
 Pgr: 909-603-6502  
 800-429-6880

**QUALITY COMPRESSOR**  
 Air Conditioning & Refrigeration Compressors



**REMANUFACTURERS, SALES & PARTS**

- Trane
- Carrier
- Copeland
- Worthington
- Dunham-Bush
- York, etc.

**QUALITY COMPRESSOR, INC.**  
 7500 S. GARFIELD AVENUE  
 BELL GARDENS, CA 90201

**available from stock:**  
[www.QualityCompressor.com](http://www.QualityCompressor.com)  
 (562) 806-5185 FAX: (562) 806-5191



**DAWSON CO.**  
 FOUNDED 1948


**FRANK E. DUNN**  
 VICE PRESIDENT  
 GENERAL SALES MANAGER  
 PHONE: 626-797-9710

MAIN OFFICE & WAREHOUSE - ALTADENA, CA 91001-5901  
 2124 LINCOLN AVE. P.O. BOX 10001  
 FAX: 626-798-4659 Fdunn@Dawsonco.com

**LENNOX INDUSTRIES INC.**

**JERRY PASCO**  
 Commercial Territory Manager

12775 Reservoir Street  
 China, California 91710  
 phone 909.627.7647  
 fax 909.627.6370  
 voice mail 800.323.3356 box 0593  
 pager 310.936.3164



**Valley  
 Mechanical  
 Services**  
 AIR CONDITIONING • ENERGY MANAGEMENT

21600 Oxnard Street  
 Suite 2100  
 Woodland Hills, CA  
 91367  
 TEL: (818) 716-2654  
 FAX: (818) 716-2605

**Carlos Villarreal**  
 General Manager


State Contractors License No. 748505

**Phillip M. Trafton, C.I.P.E.**  
 EXECUTIVE VICE PRESIDENT

**donald f. dickerson associates**  
 — consulting engineers

LOS ANGELES HEADQUARTERS (818) 385-3600  
 5900 SEPULVEDA BOULEVARD (310) 277-1865  
 SUITE 101 e-mail dfda@aol.com  
 VAN NUYS, CA 91411 FAX (818) 990-1669

**PACO**  
 Pumps




**PAUL M. GOUDSMIT**  
 SALES REPRESENTATIVE  
 PUMPS, PARTS & SERVICE

3215 Producer Way  
 Pomona, CA 91768

Phone: (909) 594-9959, Ext. 338  
 Fax: (909) 594-1335  
 e-mail: [pacola@flow-products.com](mailto:pacola@flow-products.com)

**K.H. WATTS COMPANY**  
 INCORPORATED  
 REPRESENTING

BALTIMORE AIRCOOL COMPANY, INC. • GERMAN COOLING TOWER COMPANY  
 ALFORDA PUMPS • GREENGLD • HCl TERMINATOR VALVES  
 HTACH-4 VFD'S • PUMPFLOX CORPORATION • UNIDROCONTROL



1615 WEST 200TH STREET • SUITE 108 • TORRANCE, CA 90501  
 TELEPHONE: (310) 783-4710 • FAX: (310) 783-4718  
 VOICE MAIL EXTENSION # 118  
 E-MAIL: [jcohen@watts.com](mailto:jcohen@watts.com)  
 FIELD OFFICE PH: (805) 453-5550 • FIELD OFFICE FAX (805) 241-7929

**Eberhard SMC**

Mechanical Architectural Sheet Metal  
 General

**Charlie Ioimo**


15228 Raymer Street, Van Nuys, CA 91405  
 (818) 373-7584 Fax (818) 782-5099  
 License #689956

**Phoenix Controls  
 Corporation**

Providing precision airflow controls for critical room environments, including:

- laboratories
- hospital isolation rooms
- vivariums
- clean rooms
- pharmaceutical process areas

[www.phoenixcontrols.com](http://www.phoenixcontrols.com)  
 Represented locally by:  
 George Yardley Company, Inc.  
 (714) 241-7700



**weil aquatronics**  
 Engineered Pumps and Hydronic Equipment


**Bob Brennan**

Toll Free 1-800-74-PUMPS

Tel: (818) 244-5582 Fax: (818) 247-0083  
 e-mail: [weilaqua@aol.com](mailto:weilaqua@aol.com)

115 E. Palmer Ave. • Glendale, CA 91205-3122

**ENGINEERED  
 COMFORT  
 SYSTEMS**



**Henry Chu**  
 Sales Engineer


10700 Norwalk Boulevard  
 Santa Fe Springs, CA 90670  
 (562) 944-3236  
 FAX (562) 941-5523

**John A Clark**  
 District Manager  
 Worldwide Applied Systems Group



**Los Angeles Sales District**  
 The Trane Company  
 17760 Rowland Street  
 City of Industry CA 91748  
 TEL/FAX 626 435 1188  
[johnaclark@trane.com](mailto:johnaclark@trane.com)

An American Standard Company



**SIMON S. WONG & ASSOCIATES, INC.**  
 Building Systems Consultants

Simon S. Wong, P.E.

3415 S. Sepulveda Blvd. Los Angeles, CA 90034  
 tel 310.313.0030 fax 310.313.0050  
[sswong@earthlink.net](mailto:sswong@earthlink.net)

sponsored by the Orange Empire ASHRAE Chapter

# 2000 ASHRAE Fall Golf Tournament



Monday, September 11, 2000

Alta Vista Country Club  
777 E. Alta Vista, Placentia, California

**Sign in at 10:30 a.m.**

**Shotgun start at 12 noon**

**Banquet to follow**

**\$100 per player / \$30 dinner only**

**Limited to the first 144 golfers!**

**Two Divisions - Regular and Senior (senior over 55)**

**Calloway & Handicap Scoring - both divisions**

**Door Prizes \* Gift Certificates**

**on course refreshments included**

Golfer's Name	Company	Phone #	SCGA Index	Div. ("R" or "S")
1.				
2.				
3.				
4.				
Golfers @ \$100 each			s	
New Corporate Hole Sponsor @ \$125			s	
Former Corporate Hole Sponsor @ \$100			s	
Total			s	

Make checks payable to: Orange ASHRAE  
To make reservations contact: Rozanne Henry  
Questions or information contact: Jim Henry  
Jhenry@socal.rr.com or cell (626) 562-2499

Mail or fax application to:  
ASHRAE Golf  
166 S. Violet Lane  
Orange, CA 92869  
(714) 639-3938 / fax (714) 639-5499



# CALIFORNIA ENGINEER RECEIVES ASHRAE DISTINGUISHED MEMBER AWARD

Albert Hellman, P.E. has received a Distinguished 50-Year Member Award from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

The award was presented at the Society's Annual Meeting held here June 24-28. The award is given to individuals who have been a member of the Society for a minimum of 50 years, and are a past Society president, Fellow ASHRAE, Distinguished Service Award recipient or have performed outstanding service to ASHRAE or its predecessor societies.

Hellman, Fellow ASHRAE, Life Member, is retired and residing in Pacific Palisades, California. He designed one of the first hospital cogeneration systems in Southern California.

He was elevated to the grade of Fellow in 1986.

Published by the Southern California Chapter of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Los Angeles. Statements made herein are not expressions of the Society or of the Chapter. Republication of material printed herein is expressly forbidden without Chapter authorization.

## Southern California Chapter 2000-2001 Board of Directors

President ..... Sudhir Agrawal, P.E.  
President-Elect..... Bob Brennan  
Secretary ..... Ralph Panting  
Treasurer..... Bob Woods  
Directors ..... Mike Burke  
Jerry Conklin  
Mike Gallagher, P.E.  
Chad Herrick, P.E.  
Editor: ..... Joe C. Ablay, P.E.

Editorial Office:  
10775 Business Center Drive, Cypress, CA 90630  
(714) 816-1434 / Fax: (714) 826-9592  
joe.ablay@sbt.siemens.com

<http://www.ashrae-socal.org>

---

## Newsletter of the Southern California Chapter American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

Mail Change of Address to:

Southern California Chapter of the American Society of Heating,  
Refrigerating and Air Conditioning Engineers, Inc.

JODY RUSLING, Executive Secretary  
1942 Endicott Road, San Marino, California 91108  
Fax: (626) 285-9568

---