

# SOL AIR

Newsletter of the Southern California Chapter: American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.  
May 2000 website: [www.ashrae-socal.org](http://www.ashrae-socal.org) Vol. 45, No. 9

## MAY MEETING INFORMATION

### May 2, 2000 Student Night

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

- 5:30 Tech Forum  
*A Chiller Overview*  
Speaker: Mr. John Clark
- 6:05 Social Hour (Fun Time!)
- 6:45 Dinner  
\$23 with reservation  
\$25 without reservation  
\$10 student member
- 7:45 Main Program  
*Centrifugal Chiller Starters/  
Frequency Drives and Short Circuit  
Ratings*  
Speaker: Mr. Andy Nordeen
- 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, May 1, 2000.

## MAY MAIN MEETING

### Centrifugal Chiller Starters/Frequency Drives and Short Circuit Ratings

by: Andy Nordeen

How often do you get involved in electrical discussions and wish you had a better understanding of the electricity? Many of us with mechanical backgrounds get placed in positions that require us to have a sound grasp of some of the key electrical components and associated industry issues. HVAC work requires mechanical designers to work with electrical designers, yet having a working knowledge of electrical

issues is valuable. This presentation is meant to speak to mechanical and electrical designers. It will cover important electrical topics relative to the HVAC industry in the area of centrifugal chiller starters. We will begin with background on starter types and frequency drives and compare them. Then we will discuss two important electrical application issues associated with centrifugal chiller starters that are often encountered today. The first deals with protecting the starter, and more importantly, the HVAC equipment room occupants from potential electrical hazards. The topic is the starter short circuit rating. This rating describes the ability of the starter to “withstand” a large short circuit from the utility without exploding and blowing the door off. This issue is not very well understood, and we will explain it using simple examples. The second issue in the forefront relates to the use of frequency drives on chillers. The impact of frequency drives on the power system harmonic levels will be discussed.

## MAY TECHNICAL SESSION

### A Chiller Overview by: John A. Clark

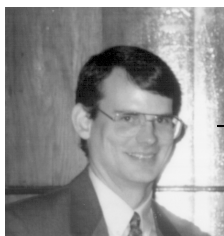
This presentation will give a broad overview of water chiller types and designs from 20 tons to 5000 tons.

Water chillers are comparable to the function of boilers in use and application except that they are providing cold water rather than hot water. Water chillers are the “heart” of distributed and large air conditioning systems as well as providing cold water for many industrial processes.

The purpose of this session is to discuss the different types of water chillers available. Why the different types exist and to help with decisions on the application of each type of water chiller.

Included in the session will be discussions on the various types of compressors used in water chillers, the reasons for their use and the refrigerant used, along with the current status of refrigerants.

If you are involved in the design or application of systems that include water chillers, you should not miss this session.



## Will's Testament

by: Will Clark

It's been a busy month for the Southern California Chapter of ASHRAE. We not only had great attendance at our April Meeting, but also at our Spring Golf Tournament and Spring Seminar.

Special thanks to Bob Donat and Robert Shafer for again doing an excellent job on the Golf Tournament.

If you weren't able to attend our Spring Seminar on Laboratory Issues, you missed a great one! The seminar featured four renowned speakers in their field who gave outstanding and insightful presentations on their areas of expertise. Special thanks go out to our Spring Seminar Committee, including Victor Neuman of GPR Planners, Glen Berry of HOK Architects, Kathy LaRue at DMG and George Orff our Seminar chairman. The Southern California Chapter also wants to thank Cal-Tech for all the support we received regarding the use of their facilities. In particular, we thank Art Seiden who made the use of the facilities possible. Due to all their efforts, attendance at the event was 134.

We have an outstanding program lined up for our May Meeting. DON'T MISS IT. I look forward to seeing you.



April Technical Forum

*Bob Jones from Parker Boiler Company talked about the new SCAQMD regulations, effective January 1, 2000 for boilers and water heaters. These rules regulate the NOX emissions from fuel-fired boilers and water heaters. Much information was given in this session. Thanks, Bob for your great presentation.*



April Main Program

*Pictured above is Ron Sweet from DMG Corporation and Robert Sousa from Air Monitor Corporation. Robert presented information about the use of an outside air monitoring devices to regulate the amount of fresh air entering a building. His talk was well presented and much was learned about ways of measuring the outside air.*

## REGION X CRC UPDATE

by: Sudhir Agrawal

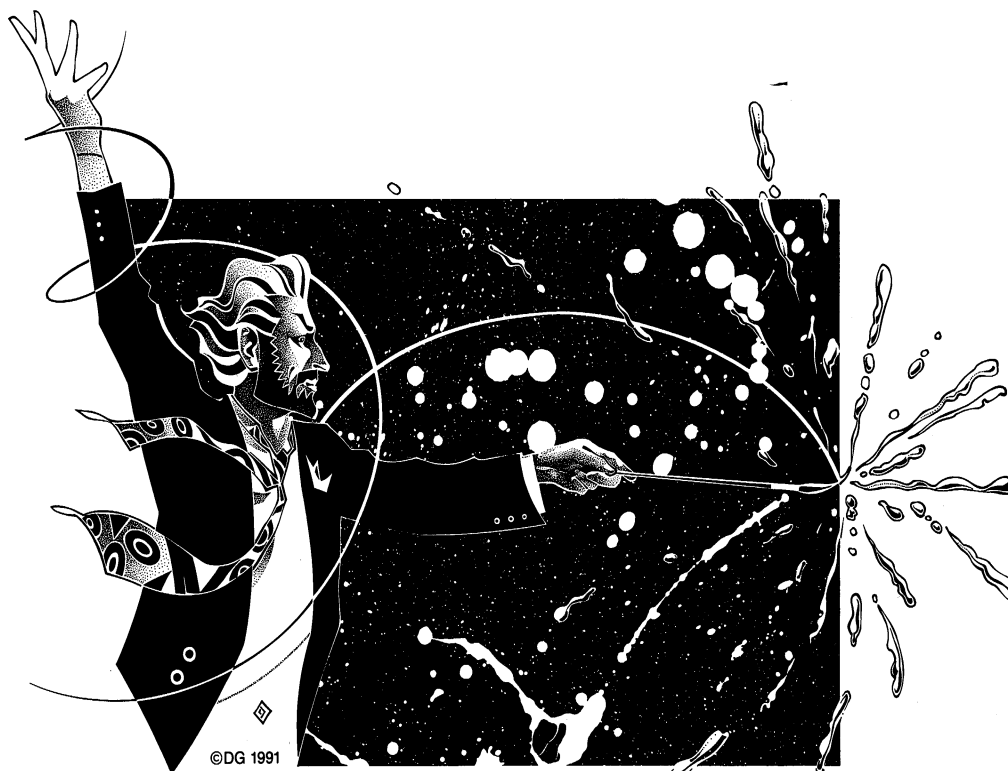
This year the Chapter's Regional Conference (CRC) will be held at Vancouver, Canada on May 11, 12 and 13th, 2000. Southern California Chapter Board desires maximum representation of the Chapter members at the CRC.

Membership, Programs, TEGA, Student Activities, Historian and Chapter Operations are some of the areas on which workshops will be conducted at CRC by respective Regional Vice Chairpersons (RVC). Other workshops i.e., Research Promotion and Refrigeration, will be conducted at a later date. Incoming Chairperson for the year 2000-2001 have been notified. As an encouragement to the Western Section, the incoming president has been advised to attend this CRC.

There are two positions open at RVC level starting in the year 2001. The Chapter plans to propose Cindy Callaway's name for Membership RVC, the other position will be for Student Activities. It will be nice to have representation at RVC level from our Chapter.

I will be representing our Chapter as Delegate with Bob Brennan as the Alternate. Please call me or Bob, if you are interested in RVC-Student Activities position.

(Continued on page5)



# 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

## INSTALLATION DINNER AND ANNUAL AWARD RESERVATION FORM

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

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**Checks Payable to:** ASHRAE, Southern California Chapter

**Mail to:** ASHRAE, Southern California Chapter  
c/o Sudhir Agrawal  
11208 Freer St., Arcadia, CA 91006

# go for it!

## Tri-County ASHRAE Golf Tournament

At the beautiful, private,  
**Spring Valley Lake Country Club**  
 Victorville, California

Directions: Only 20 minutes north of San Bernardino. Take I-15 north to Bear Valley Blvd. exit, turn right, go 5 miles to Spring Valley Lake Parkway on the left.

Monday, May 22, 2000  
 Putting Contest 9:00 a.m. - 10:00 a.m.  
 Check In: 9:00 a.m. / Start: 10:30 Shotgun  
 Format: Four person SCRAMBLE, GROSS & Net

Includes: Continental Breakfast, Putting Contest, Range Balls, Cart, Green Fees, Raffle Prizes and Awards Banquet

Proper golf attire, please... collared shirts (no jeans or short shorts).  
 Early "Birdie" Discounts received before May 1st: \$50/4-some of \$10/pp

**Team Name:** \_\_\_\_\_ **Contact:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

<b>Players</b>	<b>Index</b>	<b>No. Handicap</b>	<b>Amount</b>
1. _____	_____	_____ @ \$125.00	\$ _____
2. _____	_____	_____ @ \$125.00	\$ _____
3. _____	_____	_____ @ \$125.00	\$ _____
4. _____	_____	_____ @ \$125.00	\$ _____
<b>Dinner Only:</b> _____	_____	( ) _____ @ \$30.00	\$ _____
_____	_____	( ) <b>Hole Sponsors</b> @ \$150.00	\$ _____
_____	_____	<b>Early Birdie Discounts:</b> _____	< _____ >
_____	_____	<b>Total Amount Enclosed:</b> _____	\$ _____

**Make check payable to: Tri-County ASHRAE**  
**Chairman: Vicki Rolofson @ Air Treatment (909) 869-7975. fax (909) 595-6874**  
**807 South Lemon Avenue, Walnut, CA 91789**

**A portion of the proceeds will be used to support the ASHRAE Scholarship fund**

## **“REGION X CRC UPDATE” (CONTINUED FROM PAGE 2)**

I am sure that each one of us can think of at least one way to make the ASHRAE, the Society, serve the members better. Please put forward your ideas in writing and send to me. I will be happy to present your ideas at Region X CRC in the form of a MOTION. This idea will be brought to the attention of the Society by RegionX CRC. There are no limits to the Motions at CRC. Motions such as ‘providing the members the handbooks on CD; publishing a list of Researches being conducted by ASHRAE, etc. are a few good examples. Please send your motions by calling me at (213) 922-7233, faxing (213) 922-7536 or e-mail: “agrawals@mta.net”.

## **1999-2000 ASHRAE SOUTHERN CALIFORNIA CHAPTER AND WESTERN SECTION PROGRAMS**

### **SOUTHERN CALIFORNIA CHAPTER**

#### **MAY 2, 2000: STUDENT NIGHT**

Location: Les Freres TAIX  
Tech Forum: Chiller Fundamentals  
Speaker: Mr. John Clark  
Main Program: Chiller Starters; sizing  
Speaker: Mr. Andy Nordeen

### **JUNE 10, 2000: INSTALLATION DINNER/DANCE**

Location: Magic Castle  
7001 Franklin Avenue,  
Hollywood, CA  
(213) 851-3313  
Time: 6:00 p.m.  
Note: For detailed  
information see page3.

### **WESTERN SECTION PROGRAMS**

#### **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.

## **HELP WANTED COLUMN**

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

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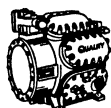
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