



# S.A.A.B.E. TIMES

A Publication of the San Antonio Association of Building Engineers

January, 1998

## Bits and Pieces...

Elections were held at the December 17, 1997 SAABE General Membership Meeting for the two open positions. Mike Halvorsen (of the Fountainhead Building and Transwestern Properties) was elected for the position of Secretary. As you know, Mike has been filling that position since Stacy Rumbo left last spring. Mike Lusk (Enviro-Tex), an old friend of SAABE was also elected as Education Director. I hope he stays friends after he sees what he got himself into! Anyway, turnabout is fair play. Swearing in will be at the January meeting. Swearing *at* will be from February on.

BOMA and IEC (Independent Electrical Contractors) are putting together a course titled, "Registered Electrical Maintenance Technician" in March. As you know, the City of San Antonio has recently adopted a revision to Chapter 10 of their electrical code. This requires that anyone who does any electrical work on a building be registered with the city. This 20-hour course will provide you with the electrical training component of the Maintenance Technician registration. Classes will be held on two Friday nights and two Saturdays. You must attend all four to qualify, but there will be no test. Prices are \$125.00 for BOMA members and \$145.00 for non-members. For more content info, call Gordon Dunkley (IEC) at 736-4567. To register, call Lynn Forester (BOMA) at 521-8838.

### Mark Your Calendar —

#### **Worth Hydrochem Sponsors Luncheon**

Craig Friesenhahn, Vice President of Worth Hydrochem Company in San Antonio, will lead an informative discussion on cooling towers, protective coatings and the Legionella disease at our next luncheon, January 21, 1998.

For over 12 years, Worth Hydrochem has provided technical chemicals and service for industrial and commercial heating and cooling systems in over 160 buildings in the San Antonio area. They are a full-service chemical company, selling water treatment programs and checking in once a week to ensure their chemical maintenance program remains at an optimal level. The company's complete waterside maintenance program prevents scale, corrosion and biological growth on condensers, chilled water loops, steam and hot water boiler systems.

For more information on services provided by Worth Hydrochem, please call (210) 650-0510.

Muchos congrats to Kim Speer, RPA, RBM, (Lincoln Property Company) on her election as the new president of SABOMA. I remember Kim from the old Orion Partners days...good to see another alumni join the ranks (along with Mel and Phil). I know you're going to do a good job!

The December newsletter - WHAT HAPPENED?! In a word, we blew it. We didn't make it to press, but we're glad to know you missed us! Hope this one gets here on time!

*Here's an excerpt from an article we picked up from the SABOMA newsletter. It's from Larry Niemann, Legal Counsel for Texas BOMA. We reprint text with no comment:*

**"The Use of Building Engineer Terminology.** There are specific provisions in the licensing statute and an AG Opinion upon which the staff of the Engineering Board bases its opinion that no one can use the phrase "building engineer" unless (1) they are licensed, or (2) the use is limited to internal use only. The Engineering Board staff takes the position that when a person's title is placed on a business card, building directory or stationary, or it is orally told to outsiders (such as tenants, vendors, rental prospects, real estate agents, etc.), then the use of the word "engineer" is prohibited unless the person being referred to is a licensed engineer. That has been in the engineering registration law for many, many years."

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# Above the Ceiling

By Paul Thompson

## A String of Pearls?

In the last month, we have witnessed a phenomenon in space that astronomers say will not be repeated for a hundred years. Low in the early Southern sky, the moon and all the planets in our solar system were lined up for all to see "...like pearls on a string." For the people who make a living watching the heavens, this was not unexpected. The wheeling of the moons around the planets, planets around stars and the stars around galaxies is as orderly and predictable as the ticking of a clock.

In 1993, Eugene and Carol Shoemaker and David Levy discovered the comet that would bear their name. Only two years later, the blink of an eye in astronomical terms, the fragments of comet Shoemaker-Levy 9 collided with the planet Jupiter with dramatic effect. Almost all earth and space-based telescopes were on this beautiful "string of pearls" as it impacted with deadly force on the slowly rotating planet. Like bullets shot from some cosmic machine gun, the comet fragments struck Jupiter with a power estimated to be equal to that of a million hydrogen bombs. Imagine what that would have done to Earth!

As I write this article, delegates from around the world are wrapping up the Kyoto Summit on Global Warming in Japan. The summit was called to address what scientists say is the unnaturally occurring world-wide temperature rise caused by the burning of fossil fuels. As in any meeting of this size, there were voices on all sides. The developing countries (which produce only a very small percentage of pollution) do not want limits placed on them that may impede their economic growth. The industrialized countries (led by the U.S., which is also the biggest offender) do not want to bear the burden of reducing pollution alone and counter that they would be put at a competitive disadvantage. China and India, with their huge populations, wait in the wings...right now, they produce only 10% (per person) the amount of pollution that we do. How much dirtier will this world be if they truly make an effort to catch us?

There are people who say the whole thing is hogwash, that temperature variations are normal and that human activity has no effect on this. Maybe they are right...but I also remember driving past Gary, Indiana, with its huge smokestacks belching fire and smoke and trying to hold your nose so you wouldn't have to smell it. Or the east side of Houston, where I can taste the air. And does anybody really want to breathe the smog in L.A.? I remember what Phil Archella (Brandt) said in one of the earlier CFC Seminars and I agree. He said words to the effect that he would rather do what's right right now than to have his grandchildren forced to wear space suits.

So, the delegates will go back to their countries and laws will be passed. Undoubtedly, energy efficiency will be stressed. Auto makers will explore new technologies; programs like "Energy Star" (promoting energy-efficient equipment) and the U.S. Green Building Council will become more prominent. And energy will become more expensive.

The 90s have been a decade of change; from CFCs to ADA to EPACT to IAG and now to Global Warming. Laws have been passed and we have been forced to change. If we keep our eyes on the horizon, and see it coming, we can live with change, watch the planets spread out "like pearls on a string." Or we can ignore it, hope that it won't come and be blind-sided - hammered like Jupiter was - by that same "string of pearls."

### Someone's Walkin' Out the Door...

Julia O'Haver resigned effective December 31, 1997 as General Manager of the Pyramid Building (Pyramid Property Management). Julia started back in 1990 (when it was still known as the SASA Building), through a bleak period of 30% occupancy, a new owner, and multi-million dollar renovations leading to virtually 100% occupancy.

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### Bits and Pieces

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**Dues!** Invoices have gone out. If you have not received yours yet, please call Paul Thompson at 524-9441 or fax info to 524-9470. Dues cover calendar year 1998 and are as follows:

Student:	\$40
One Regular or Associate Member:	\$130
Two Members (Same Organization):	\$100 ea.
Three or More (Same Organization):	\$90 ea.

### Make checks payable to:

**S.A.A.B.E.  
601 NW Loop 410, Ste 50  
San Antonio, TX 78216**

Thanks to Bob Reeder (Power Tech) for last month's great seminar on surge suppression of electrical transients in buildings. With all the sensitive electronics (computers, VFDs, etc.) and other "noise" generators now in use, it's good to know that there are products out there that can protect our equipment.

Lastly, hope all of you had a great Christmas and look forward to seeing you all in the New Year.

# Tech Talk

By The Charlie

## IAQ: Staying Ahead of the Game!



One of the more serious issues we are faced with today is Indoor Air Quality. Before you say to yourself, "another boring IAQ article," let me say this, "whatever you are doing is not going to be enough." The individuals that occupy your facility are more educated now than ever before.

Even new leases are addressing the Outside Air issues, as well as IAQ issues. Documentation and tracking of IAQ is at an all time high, even if you do not have any complaints or concerns, you should have the necessary documentation that actions and steps have been taken to ease the burden once they do arrive.

One of the first areas to go under examination is the temperature and humidity control. Hopefully, you will have nothing less than excellent control of this area or "Katy bar the doors." The second area will be the control of carbon dioxide (CO<sub>2</sub>), which is the most cost-effective means of determining insufficient air circulation. The third area will be the HVAC system. If you think this area is mastered, and an examination will be inconclusive, think again! Quarterly PM consisting of washing the coils with city water, and an Annual PM cleaning with coil cleaner will not be an effective means of PM for IAQ. Have you ever seen the shows (20/20, Dateline, etc.) where they took swab samples from shopping cart handles, bubble gum machines and the kiddy car rides in which we touch without any hesitation? Then later in the in the show they reveal all of the different kinds of bacteria found. Well, that will not be anything compared to the report you will read after those same swab samples are taken from various areas of the coil surface, the drain pan, the "P" trap and the floor drain. Furthermore, "Johnny get my gun" if you remove the cover on the air handler and there is any standing water in the pan. "Any" standing water anywhere will get you on the "S" list. When you receive this report (which has probably already been reviewed by your tenant and everyone else) it's all over but the crying. After reading the report, it would seem that to have this amount of contamination, the coils should have visual evidence of contamination.

To lessen the pain of a bad dream, let me share some measures with you that will be beneficial to you at a later date. Nothing less than excellent temperature and humidity control will be accepted, this should be an easy task. If you are starting and stopping the HVAC system or the outside air fan(s) as close to business hours as you can, forget it! This report will accurately reveal start up and shut down times.

Yes, that will mean around 25 extra hours of HVAC a week, but as always, to gain something you will always have to lose something.

The first piece of equipment utilized by an IAQ specialist will be the old CO<sub>2</sub> meter. Typically, this recorder will also chart temperature and humidity as well. Hopefully, you will already have records of the CO<sub>2</sub> levels in all areas of your building. If not, you can purchase a simple CO<sub>2</sub> meter starting around \$300.00, more expensive units that can record ppm are available for around \$1,000.00. Having the equipment, demonstrating the ability to calibrate and operate the unit, and proper documentation are extremely beneficial.

Traditionally, a large portion of the office buildings were built when 10% make-up of OA was the norm. As we all know, the current 20 cfm per person is far beyond the capabilities of most HVAC systems, especially if you block load using ASHRAE's suggestion of 150-200 sq. ft. per person. Additionally, the current trend of utilizing open floor space with modular furniture far exceeds design limits. OK, enough of this - basically, if you are exceeding 1,000 ppm of CO<sub>2</sub> in any occupied area, regardless of the situation or circumstances, you have insufficient air circulation and this will warrant additional air sampling (VOC, etc.). Again, extending the operating times to achieve around 350 ppm in the morning will help tremendously in riding the curve here.

If you are fortunate enough to have these areas covered, and believe it will be smooth sailing from here - "NOT!" (To be continued...)

*Wine is fine,  
Beer is better,  
Rum's more fun,  
See ya later!*

### Someone's Walkin' Out the Door

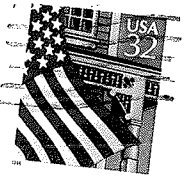
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Along the way, she oversaw construction that rebuilt every single suite in the building! Turns out that this was good training since her new full-time job will be working with her husband, Don, in their general contracting business (The O'Haver Company).

A long-time BOMA member and SAABE supporter, her management style was to lead by example; she was fair, hard working and tough when necessary. I think I can speak for everyone that knew and worked with her when I say that she will be sorely missed and we wish her all the best.



**San Antonio Association  
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**S.A.A.B.E. TIMES**  
**January Issue**

**1998 Dues Payments Due Now**

Invoices have been mailed.

Please call 524-9441 if you did not receive your invoice!

**1998 Board of Directors**

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**Membership Luncheon**  
**January 21, 1998**

**Time: 11:30 a.m.**

**Location: Tex's Restaurant in the Airport Hilton**

**Sponsored by: Worth Hydrochem**

**Speaker: Craig Friesenhahn**

**Next Luncheon: February 18, 1998**

**Contact Paul Thompson at 524-9441 for upcoming luncheon sponsorship information.**

**Wishing You  
a Prosperous 1998!**

