



SAABE TIMES

A publication of the San Antonio Association of Building Engineers

January 2006

Mark Your Calendar—

JOIN US FOR OUR JANUARY LUNCHEON

The next General Membership Meeting of the San Antonio Association of Building Engineers is set for 11:30 am on Wednesday, January 18 at the Alamo Cafe on 281 (just north of Bitters), sponsored by SA Armature Works. This month, the topic for discussion is "Power Electronic Equipment That Improves Power Quality and Provides Cost Savings for your Building Requirements." San Antonio Armature Works, a fourth-generation family-owned and operated Electrical Apparatus Service and Repair facility in San Antonio since 1922, continues to provide San Antonio, Austin, and South Texas with its services and products.

The meeting will be held in the first floor Travis/Bowie rooms, to the right of the entrance. There is plenty of parking at the back of the restaurant. **Please make sure to check in at the front desk when you arrive.** Please do not leave valuables in your vehicle, as members have reported attempted break-ins in the restaurant parking lot.

Please RSVP to (210) 408-1699 by Tuesday, January 17. PLEASE RSVP so we can be sure to have enough meals on hand!

We hope to see you there! ❖

Nominations Extended for 2005 Building Engineer of the Year

The San Antonio Association of Building Engineers invites you to nominate your/a Building Engineer for the 2005 SAABE BEOTY Award. This prestigious award exemplifies an engineer's achievements and dedication during the past 12-to-16-month period as related to the building industry.

To nominate a Building Engineer, simply send a letter with your name and contact information, the candidate's name and contact information, and what contributions he/she has made during the past 12-to-16 months that makes this candidate deserving of the award. You can also include information such as training or award certificates, tenant letters, or other materials to support the nomination. The individual must be a member in good standing with SAABE. We encourage you to nominate outstanding assistant engineers for this award, also. Some of the evaluation criteria include:

- Participation in SAABE events and meetings
- Recent continuing education
- Major projects in the past 12-16 months
- Employee training
- Tenant & owner/manager evaluation letters
- Safety record
- Community participation

Send nominations to SAABE (address on page 10). Please call the SAABE office if you have any questions.

**DEADLINE FOR NOMINATIONS
EXTENDED TO
WEDNESDAY, JANUARY 18, 2006 ❖**

CELEBRATING
20 YEARS
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A Message from the President

by Bob Beal

Well, another year gone by and SAABE has been able to stay on course. Better training, better speakers at our luncheons, and SAABE sponsored events are just a few things we can all look forward to in 2006. SAABE will be able to better serve its members due to the hard work of our devoted board and dedicated members. Keep up the good work.

Paul Thompson

I first met Paul Thompson at a SAABE meeting. At the time he was the president of SAABE (1997–2000). I was instantly impressed with his calm demeanor and reassuring tone. It seemed to naturally captivate the membership. I was new with SAABE, and he made me feel glad I was in the “club.” I was also impressed with his knowledge. Paul has been a good ear and provided me with a great deal of knowledge on how SAABE was operating at the time. He helped me with a vision and confidence when I became president. Paul has been in the business for 30 years and is a card carrying Journeyman electrician. Some of his SAABE accomplishments include: 2001 SAABE Building Engineer of the Year and Vice President 1995–1997. Paul’s career has continued to grow, and he is now working for the NEISD. I think I speak for the membership by thanking him for his dedication to SAABE and his trade. The engineering trade in San Antonio is better because of Paul Thompson. Find out more about Paul in our “Engineer Spotlight” on page 7.

It’s a Girl!

It turns out that Bobby Beal is going to be father of a little girl. I guess the Lord is paying me back for all my single years (just kidding). I am so happy that my first child is going to be a girl. My mother had all boys with no girls in sight. I think my mother is probably the happiest that there is going to be a little girl running round the Beal house. Shannon is due late March or early April. My birthday is March 31, and I think that will be the day.

Resolutions

1. Be more thankful to the people and family that have made my life a better one.
2. Get my son Trevor signed up for some kind of sport. (hopefully football).
3. Give Shannon some much needed attention after she has our child.
4. Embrace my new job and educate my self to better serve my new members and manager.
5. Spend time with my dear mother and father.
6. Learn how to change diapers. ❖



Rhondo Jauer, Joe Mugia, Jock Tilghman, and Charlie Mikolajczyk at the Holiday Social.

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Tech Talk #101: Refrigeration/Air Conditioning—The Basics

Part 4 of 4

by The Charlie

Pressure-Temperature Relationships of Gases

These relationships are best known as the gas laws, which determine just how variations in any one the factors (pressure, temperature, and volume) will affect the remaining two factors. Gases which behave exactly according to these laws are called perfect gases. Oxygen and nitrogen as they exist in the atmosphere are considered to be perfect gases, and for practical purposes, air is also considered. It has been noted earlier in this series that in normal use, a refrigerant does not become sufficiently heated enough above its boiling point to become a true gas, but when it is in its gaseous state, it is called vapor. Therefore, refrigerants do not exactly follow the gas laws. Nevertheless, these laws can be usefully applied to refrigerants for approximately determining the effect upon the other two factors of a change in pressure, temperature, or volume.

Specific Volume

Specific volume is the number of cubic feet occupied by one pound of a substance. For gases, specific volume varies with temperature and pressure according to the gas laws above. The volume of liquids vary with temperature, but there volume is not considered to vary with pressure because pressures necessary to compress liquids far exceed any which could be encountered in a refrigeration system.

Density

Density is the weight of a given volume of a substance usually expressed in pounds per cubic foot. Density and specific volume are directly related, one being the reciprocal of the other. For example, if the specific volume of a refrigerant at a specified condition is 1.24 cubic feet per pound, its density is one divided by 1.24 or approximately 0.81 pounds per cubic foot ($1 \div 1.24 = 0.81$).

Pressure-Temperature Relationships of Liquids

These are very important to refrigeration because they relate to the boiling points of liquids, and the temperature at which a liquid boils depends on the pressure, which is exerted on the liquid. Boiling is a violent/accelerated form of evapo-

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ration. Everyone knows that water boils at approximately 212°F in our geographical area. However, the boiling point of water at 5,000 feet elevation is 203°F.


There is a definite relationship between the pressure and the temperature at which a liquid boils, although this varies from one substance to another. Boiling is usually considered, as representing a high level of heat, as in boiling water. However, there are many substances that will boil at temperatures considered to be cold. Liquids which have suitably low boiling points can be used as refrigerants.

Using a compressor to govern the pressure within the system, and to regulate the boiling point of the refrigerant, are the uses of the pressure-temperature relationship to obtain refrigeration. When a liquid has been sufficiently heated so that its boiling point is reached, the bubbles of vapor which are formed within the liquid rise and pass off from the liquid. In order for the bubbles of vapor to form, heat equal to the latent heat of vaporization must be added; this heat is absorbed as the liquid turns to vapor. As the vapor passes off from the remaining liquid, it carries the heat off with it. The fact that the latent heat of vaporization is carried off in the vapor provides a basis for removing heat with a refrigeration system

Next Month: Refrigeration

CHARLIE'S LAW: If you want the rainbow...you got to put up with the rain!

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Communications Check-Up

by Laura Bray

Email Tips

Email has become a double-edged sword—it's very easy to stay in touch with folks, but people get so much email these days that your message can easily be lost or ignored. Here are some tips to get your message noticed.

Clear Subject Line: Make sure your subject line is clear and specific. Give the recipient a reason to want to spend time with your message. After an email thread has been through several "replies" or "forwards," the subject line may no longer be relevant. Update it before sending the message out again. Avoid using more than one exclamation point (if any) in the subject line, as many email filters send messages with multiple exclamation points directly into the "spam" file.

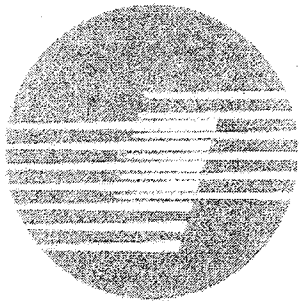
Don't Write Anything You Wouldn't Say: An email message is only one "forward" away from causing you trouble, so don't write anything you don't want the whole world to see. Even with smiley faces, sarcasm or humor can be misinterpreted, so use it with care. Remember—once you hit "send," it's gone, so take a breath and re-read your message to make sure you're saying what you really want to say.

Do You Really Need to "Reply All"? If your reply is relevant only to the sender or someone else on the list, send it only to that person. Avoid cluttering up everyone else's email boxes with a reply they don't need to see.

Sorry, but Spelling Counts: Correct spelling always presents a professional image, whether it's on a resume, in a business letter, or in an email. Most email programs have spell checkers, so make sure you turn them on and use them before sending. And it's always a good idea to proofread your message before sending, to catch any errors that spell-check may miss ("two" instead of "to," for example).

Keep It Relatively Short: Most people quickly scan their email messages, so keep your message short; no more than three-four paragraphs at most. Send anything longer than this as an attachment.

(Continued on page 6)



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December Meeting Summary

by Kendal Langenberg

If you missed the December luncheon, you really missed out! Ending the year with a bang, we were treated to some great food at the Alamo Café (fajitas!), enjoyed great camaraderie amongst the group (as always), and much good information was shared in regard to the growth of SAABE during the next year. We even had a surprise "guest" show up...past president Paul Thompson!

One main agenda item for the December luncheon was to vote on three Board positions that were up for election. We would like to congratulate Mike Halvorsen, Kendal Langenberg, and Jock Tilghman, who were all re-elected to their respective Board positions of Second Vice President, Secretary, and Education Director. If you have a desire to serve on the Board in the future, please do not hesitate to let Laura or any of the current Board members know. They would be overjoyed to hear of your desire in this regard and would be glad to answer any questions you may have.

Speaking of opportunities to serve or help in the SAABE organization, we spent a lot of time at the luncheon going through all the areas where help is needed. If you were not there, please see Laura or any of the Board members for a

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sign-up sheet. Although we had a good response from those that were at the lunch, there is still plenty of room for more help with almost every committee. As President Bob Beal encouraged everyone at the lunch, please consider at least one area that you can become involved in.

If there is someone who has done his fair share (and far beyond that) of contributing to the good of SAABE, you have to think of Charlie Mikolajczyk. At the lunch, Charlie was honored with a plaque and a little cash for writing over eight years worth of *Tech Talk* articles, with his milestone 100th article appearing in last month's newsletter. Thank you, Charlie, for all your hard work and for all of your support of our wonderful organization!

Be sure to start the new year off right by planning to be at this month's luncheon on January 18 at the Alamo Café. Our speaker/sponsor will be San Antonio Armature Works. See all y'all there! ❖



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Communications Check-Up

(Continued from page 4)

Include Your Contact Information: Make sure you include information on who you are and how the recipient can reach you. A signature block (provided by most email programs) is an easy way to do this.

Avoid the "Forward to All Your Friends" Temptation: You know how much email you receive every day. Avoid adding to everyone else's email load by forwarding jokes or "chain letter" requests. If you receive such a message and want to check its accuracy (very rarely, these chain email requests are "for real"), visit www.snopes.com, an online database of hoaxes and rumors.

Sometimes, It Works Better to Pick Up the Phone: It's easy to fall into the trap of going back and forth with someone, trying to work out an issue. Sometimes, though, just picking up the phone and talking to him works much faster.

Next month: Words that Confuse. ❖

Welcome New Members

Ernesto Lopez

Magi Real Estate/Mockingbird Plaza
5430 Fredericksburg Rd, Ste 106
San Antonio, TX 78229
(210) 545-1174
hlopez@magirealestate.com

Mike Copp

Parthenon Realty
4538 Centerview Dr, Ste 150
San Antonio, TX 78228
(210) 736-2494
mcopp@parthenonrealty.com

Jesse Vargas

Magi Real Estate/The Atrium
85 NE Loop 410
San Antonio, TX 78216
(210) 545-2181
jvargas@magirealestate.com

Rick Cooley

Trammell Crow/Crossroads Mall
4522 Fredericksburg Rd, Ste
San Antonio, TX 78201
(210) 735-9137
rcooley@trammellcrow.com

If you know someone who'd like to join SAABE, have them visit our web site at www.saabe.org to obtain a membership application. ❖

Engineer Spotlight

by Jeff Turov

Paul Thompson

Warranty Inspector
North East Independent School District
8961 Tesoro Drive, #310
San Antonio, TX 78217
Phone: 210-804-7270
Fax: 210-804-7272
Cell: 210-367-4490

- **How long have you been in the building engineer trade?**

21 years; since 1985

- **Awards, recognition, or special training**

SMA certification through BOMI; Journeyman Electrician; holds a maintenance electrician license through the State of Texas. Received the Building Engineer of the Year award while at the Pyramid Building in April of 2004. Various training classes throughout the years.

- **What do you enjoy during off-hours?**

Paul enjoys karate and has been involved in it for approximately ten years. He is currently a red belt and will test for his black belt soon. Canoeing is another hobby that Paul enjoys and he tries to get out on local area lakes as often as he can.

- **Family/children?**

Paul is married and has two children. His stepdaughter is 32 and is a Federal Agent in Washington State. He also has a 17-year-old son who is looking forward to graduating this spring.

- **What do you enjoy about the building engineer trade?**

Paul enjoys the variety of building systems that an engineer works on and the challenge that these systems can provide. The sense of ownership that a building engineer feels toward his property and the pride and sense of accomplishment realized in a job done well is an area he also appreciates. It is his opinion that being a building engineer is a very important job as many people depend on you to make sure that their working environment is kept safe and that all is code compliant.

- **Advice you would share with those just entering or considering the trade?**

The position is very challenging and one should be prepared to learn and keep up with educational requirements through training and self-study. Once you become responsible for a building, Paul says there are three things he works towards accomplishing:



1. Do everything you can to get the building systems working properly.

2. Satisfy the customer.

3. Save energy.

He said that you should always look for ways to improve your facility.

- **Any interesting stories from your years in the business?**

Paul was president of SAABE from 1996 to 2000. During his initial term, membership had fallen way off, and Paul realized that something needed to be done to re-energize interest in the SAABE organization. Paul made a personal goal to get SAABE back on solid ground during his tenure. With membership at approximately 36 and little to no capital, Paul called in the troops. With the help of Mike Halvorsen, Elena Castillo, and Charles Mikolajczyk, they began to recover and reorganize past records, set the requirement for monthly board meetings, hire administrative help, and get the monthly newsletter distributed consistently. Paul is proud that his goal became a reality and that the SAABE organization is stronger today because of his efforts. ❖



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San Antonio Armature Works, a fourth-generation family owned and operated Electrical Apparatus Service and Repair facility (EASA) in San Antonio since 1922, continues to provide San Antonio, Austin, and South Texas with its services and products. We embrace this opportunity of hosting the January 18th luncheon and would like to thank the SAABE Organization for its support. The topic for discussion is Power Electronic Equipment That Improves Power Quality and Provides Cost Savings for your Building Requirements.

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SAABE TIMES January Issue

Final Thought:

“You can have everything in life that you want if you just give enough other people what they want.” - Zig Ziglar

2006 Board of Directors

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| Laura Bray Association Manager (laurabray@braycommunications.com) | 408-1699 |

Membership Luncheon January 18, 2006

Time: 11:30 a.m.

Location: Alamo Cafe on 281

Sponsored by SA Armature Works

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 Power Quality and Provides Cost Savings for
 your Building Requirements”

Upcoming Program:

Wednesday, February 15

Program to be Announced

The *SAABE Times* is edited by Laura Bray and printed monthly for the San Antonio Association of Building Engineers by:



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