

SAABE TIMES

A publication of the San Antonio Association of Building Engineers

August 2009

Mark Your Calendar-

JOIN US FOR OUR AUGUST MEETING!

The next General Membership Meeting of the San Antonio Association of Building Engineers is set for 11:30 am on Wednesday, August 19, at the Embassy Suites Hotel (7750 Briaridge Drive; northeast corner of IH-10 and Loop 410). The presenter is CPS Energy, who will be speaking about the proposed nuclear plant expansion and new opportunities in South Texas for power sources.

Please RSVP no later than Monday, August 17, at noon. Late RSVPs and walk-ins will be placed on a standby list, and we will ask you to wait in the lobby until we determine the number of no-shows.

PLEASE NOTE: If you RSVP and do not attend, you will receive a no-show invoice. If you must cancel your attendance, please call Melodie Goff at 408-8135 BY MONDAY, AUGUST 17, AT NOON so we can cancel your meal. Cancellations received after this time will still be invoiced.

Please make sure to check in at the front desk when you arrive.

RSVPs are REQUIRED, so we can be sure to have enough meals on hand! *

CELEBRATING YEARS OF EXCELLENCE IN BUILDING ENGINERING

Engineer Spotlight

by Jeff Turov



Brent Miller

Reata Property Management, Inc. 219 E. Houston, Suite 250 SA, TX 78205 bmiller@reatares.com

Are you originally from San Antonio?

No, I was born and raised in Los Angeles, California and actually started my building engineering career in Los Angeles. I have now lived in San Antonio for about three years and have been with Reata for three months.

• What differences have you found in regards to the building engineering trade between California and Texas?

One of the biggest differences is that Texas is much more relaxed in regards to codes and how they are enforced. In California, everything needs to be set up to meet seismic requirements which are strictly enforced even on tenant finish-out projects. The weather here in Texas is also much more extreme—it is either hotter or colder or drier.

· Any awards, recognition, or special training?

Over the years, I have taken various training classes from all of the big HVAC manufacturers—Trane, Carrier, JCI, and Honeywell. These classes have given me a good overview of how each manufacturer's equipment operates and also gave me insight into any special technical expertise.

What are your hobbies?

I enjoy water skiing, basketball, RVing to NASCAR events (I try to go to three a year) and listening to live music.

• Family/children?

I am married and have a ten-year-old daughter.

Being from Los Angeles, what famous people have you shaken hands with?

In LA, one of my best friends works for Capitol Records and has introduced me to Garth Brooks, George Strait, Tammy Wynette, and George Jones. ❖



A Message from the President

by Charles Mikolajczyk, Jr., CBE-M

Is it hot or dry enough yet? Saw a turtle crossing a gravel road the other day, and it was creating a dust storm...don't know if he was heading to high ground or not, but I like to think so! Don't know if you keep tabs or not, but we're averaging 11 man-hours/day hand-watering seven days/week. Oh how I miss having a building downtown with nothing more than a sidewalk and a few planters for landscaping! If anyone knows of someone with a state license for recycled water and a water truck with a side spray, please-please have him or her contact me at cm@satx.rr.com.

Thanks to all those SAABE members/engineers who have helped recently with "A SAABE Member Asks." It sure cuts the work down for those in need by providing your information. The SAABE network is a powerful machine, and it is with your help that this is possible... Thanks!

The catch phrase lately is "drought management," as this is the hottest topic around. Thanks to SAWS and Preferred Landscape and Lighting for their recent contributions towards educating us on this subject. Also, thanks to Will Fawcett/Joe Fly Co. for providing the Last-Thursday Training in July.

Did anyone else notice there weren't any June bugs in June? Didn't see any in July either! Another anomaly is the reduction of items and participants at the different tournaments this year. I've attended two large ones recently, and the participation is greatly noticeable as compared to last year.

Thanks to Mike Halvorsen for presenting the July SAABE luncheon while I was fortunate enough to participate in a fundraiser. Also, thanks to everyone on the SAABE Board for taking care of business while I was on vacation. Check this out...no PDA, no laptop, no PC-just a cell phone! What a great time!

Good luck and best wishes to everyone on their landscapes during this drought, but, fear not, if history repeats itself, dove season is right around the corner...there is always a turd-floater right before dove season!

Till next time...FISH ON! ❖



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Left to right: Pan American Life, New Orleans; Greenway Plaza, Houston; JP Morgan Chase Tower, Houston; Wells Fargo Plaza, Houston; San Felipe Plaza, Houston; Seagram Building, New York City; The Statue of Liberty, Liberty Island; Wachovia Financial Center, Miami; One Brickell Square, Miami; 1400 Smith Street, Houston; 1100 Louisiana, Houston; Five Post Oak Park, Houston; One Sheel Square, New Orleans

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July Lunch Summary by Curtis Thompson

Good day everyone! What a great July luncheon! Great food and great fellowship is such a wonderful combination.

This month's lunch seminar was given by Dave Harding with PaveCon. Dave discussed how to identify the different types of cracks that can happen to parking lots and streets (alligator cracks, stress cracks. etc.). He also discussed the proper way to repair any problem areas that might occur over time.

Dave stressed that water is the number one factor in creating these issues, and a proper sealing would extend the life of parking lots and roads. Overall, this seminar was very helpful. Thank you Dave!!!

If you have any questions about your property, please contact Dave with Pavecon at (210) 798-1111 or davidh@pavecon.com.

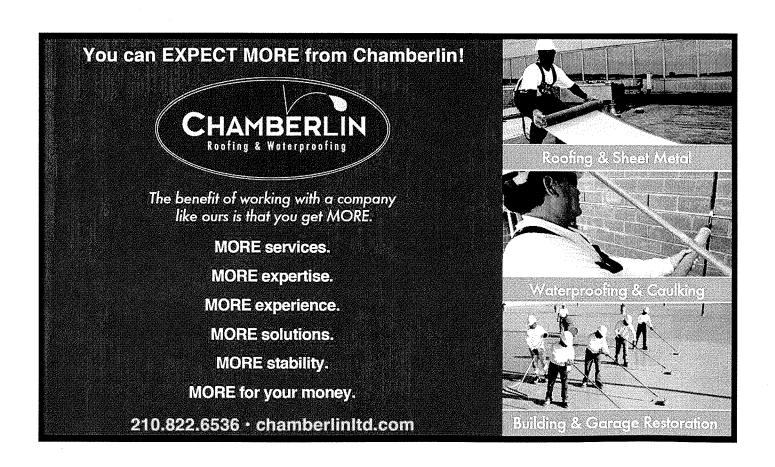
Also, I would like to tell our President that we missed him and look forward to seeing him at the next SAABE luncheon. ❖

Local Contractor Wins Four Awards at the ABC National Excellence in Construction Awards

Congratulations to SAABE member Chamberlin Roofing & Waterproofing for receiving four awards at the Associated Builders and Contractors 19th Annual National Excellence in Construction Awards ceremony.

Chamberlin won two Excellence Awards, one Pyramid Award and a National Safety Excellence Award (NSEA). Excellence Awards were received in the categories of "Specialty Construction Under \$1 Million" and "Exteriors—Masonry, Precast or Stone." The Pyramid, or runner-up award, was also received in the "Exteriors—Masonry" category.

In addition to the construction awards, Chamberlin was honored with a National Safety Excellence Award (NSEA). NSEA recognizes ABC firms whose safety performance and programs are judged to be exemplary and exhibit a lasting commitment to jobsite safety. •





SAABE Last-Thursday Training Seminars Are Back!

The SAABE Last-Thursday Training Seminars are back! The presenter for this month's seminar is John Leifester from Preferred Landscape and Lighting, and the topic is "Sustainable Sites: Your Landscape of the Future." The sponsor is Preferred Landscape and Lighting.

Where: CPS Energy's Northside Service Center (7000 San Pedro, north of Oblate)

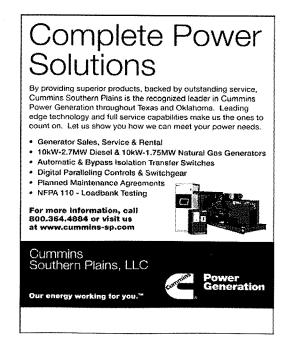
When: Thursday, August 27, 11:30 a.m. - 1:00 p.m. (Lunch provided.)

Preferred Landscape and Lighting has been an innovative service provider in the landscape industry since 1995.

Preferred is known for their expert designs including: fire pits, outdoor kitchens, fire places, decks, and water gardens. For more information, contact John Leifester at jleifester@preferredlandscapetx.com or (210) 771-7081. Or, visit their website at www.preferredlandscapetx.com.

The seminar is open to **SAABE Engineers and their assistants only**, and there is no cost to attend. There is a limit of 25 attendees.

If you are coming, please email mgoff@braycommunications.com. Please RSVP by Wednesday, August 26, so we know how many lunches to order. If you RSVP and cannot attend, please call Melodie Goff (408-8135) so she can move someone off the waiting list. ❖







Education Corner

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- August 27-28, Embassy Suites Hotel Northwest, S.A.
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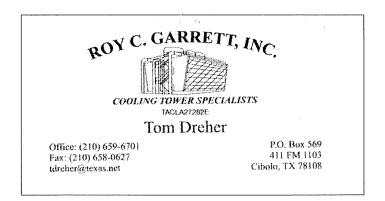


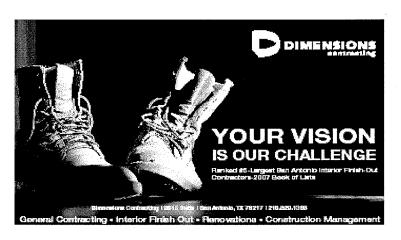
Vendor Representative Report by Allen Mangrum

How can you go wrong with a crowd such as ours? The 2009 Picnic was again a semi success. Even though there were tripledigit temperatures and quite a few broken shoes, our attendance was lower than expected.

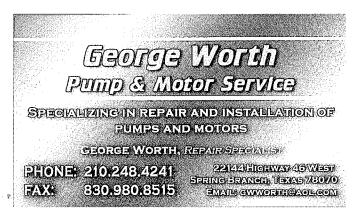
I would like to pose a question to the membership, "What can we, as your Board Of Directors, do to get you to attend our additional activities?" We see the same supporting vendors as well as a consistent handful of engineers (and I thank you for your support) but nowhere as many as we typically find at the luncheons. The Board would like to ask for any and all suggestions for our future outings and what venues you may want us to explore. Please let any one of us know either by email, snail mail, phone calls and even written suggestions given to Laura. It is a pleasure to serve on this Board, and it is our desire to continue heading in a direction that we all would like to go.

On a lighter note, we have crossed the proverbial line in the sand—that equinox of a year half-over or half a year to go. I









prefer the latter of the two and look forward to closing the chapter on one of the hottest and driest summers on record.

I would like to remind all of our faithful vendors that the reservations for 2010 luncheon sponsors are now being taken. As information for our new members and a reminder for our current members, the cost is \$200 and will be billed to you after your luncheon. You will also be allotted approximately 30 minutes for your presentation/education. We do require that you refrain from the "SALES PITCH" and bring to the attendees an educational synopsis approach that has come from your years of involvement in your trade. Many of us vendors overlap others in our organization with products and services, so we hope to avoid the "Pitch" to our colleagues. That having been said, we encourage you to inform us of the changes in your field that affect the engineering/maintenance realm in San Antonio.

For reservations for 2009, you can contact me directly at (210) 601-4248, or you may contact any of the board members who will then forward it to me. As many of you know, we sold out rather quickly in 2008 for 2009, so I ask you to let us know as soon as possible to ensure your place.

Thank you again for the opportunity to serve you. ❖





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Batteries in Your Water

Submitted by Paul Dockery, Chemsearch

While doing some research for a client, I recently had one of those "slap your forehead, EUREKA!" moments. It finally clicked, sadly to say, after over ten years of water treatment experience. There is a reason why it is important to know what the copper and iron levels are in all of the systems you are treating.

That "Eureka!" moment came to me early one morning while doing research for a client. The project that I was working on was an audit of the client's current water treatment program. I was not the vendor doing the water treatment, but the client likes to engage outside sources from time to time to verify that his systems are being taken care of properly. This allows him to have an opinion from someone other than the person who is doing the daily testing.

I had taken some samples of various systems; cooling towers, closed loops and steam boilers. I was writing a report for the client and had sent it to one of our engineers for verification of my findings. Most of the closed loops that I had sampled were low on nitrite treatment. I also noticed that they had elevated levels of iron and copper. In my own water treatment business, I run iron and copper tests to verify that my program is doing what I need it to do—protecting my customer's equipment. But until that morning, I never fully understood why those tests, or, more significantly, the results of those tests were so important. The long and short of it is "batteries."

Every one of us has seen corrosion on batteries. The corrosion that you are seeing is the end result of a complex chemical reaction

Passing of Wilbur C. Justice, Jr.

Retired Building Engineer, Wilber C. Justice, Jr., passed away in July. He was the Building Engineer at Energy Plaza for many years. At the July meeting, generous SAABE members donated \$231, which was donated to a local hospice and to the family. SAABE recently received a note of thanks from the family. *



that was a mystery to me until that morning. The engineer that I had sent my report to for verification told me that I may want to mention that low nitrite levels in a closed loop can actually accelerate corrosion in the closed loop. Huh? I thought that nitrite prevented corrosion in a closed loop. Well, it does, within certain parameters. Without getting too technical, what nitrite does is form a protective barrier on the anodic sites of steel piping.

What is an anodic site? It is the negative (-) terminal on your battery. Steel piping is not pure iron; it has all kinds of other metals in it from nickel to carbon. Some of these ingredients are anodes (negative - terminals) and some are cathodes (positive + terminals). Electrons flow from the anode to the cathode through the metal and back from the cathode to the anode through the water. If this circuit is completed, then the metal dissolves at the anode and the result is corrosion. The way that nitrite works is it covers or insulates the anodic material in the steel so that it blocks that electrochemical flow, thus preventing corrosion. In doing this, it creates a magnetite barrier.

So, what is magnetite? It is magnetic black rust that actually coats a mild steel surface and protects it from further corrosion. The problem with magnetite is that it can be removed when the chemistry of the water is upset (i.e., the nitrite level drops). When that magnetite layer is disturbed, a chain reaction can take place that can lead to severe damage to a system.

When nitrite levels drop below 500ppm, the anodic sites in the piping become exposed but not as much as the cathode sites are exposed. When this occurs, there is an imbalance and the electrochemical current goes crazy causing corrosion. But wait, it gets better! As the electrochemical current flows out of the cathode and into the water, it can degrade the nitrite and create ammonia. Ammonia corrodes copper found in chiller tubes and air handler coils. The copper ions then plate out on the steel

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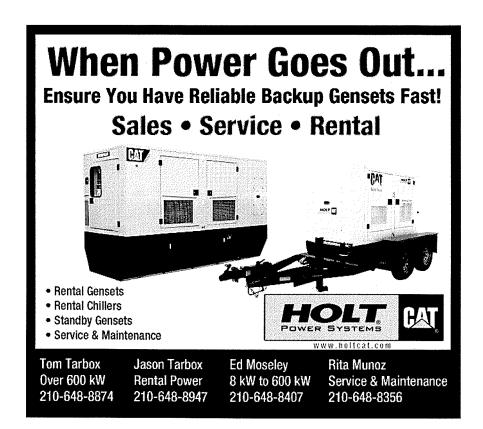
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SAABETIMES

SAABE "LEED ME... TO THE MONEY" SEMINAR SERIES

The SAABE Going Green Forum presented the first of a series of seminars on Energy Star and LEED-Existing Building O&M programs on August 4. This seminar, "High Performance Building Operations," was led by Billy Padgett, RPA, Concord Properties; Matt Haecker, CPS Energy; and Lanny Sinkin, Solar San Antonio.

To register for the seminars, contact Tom Lasater at (210) 771-5824 or Paul Dockery at (210) 723-8990.

The seminars will be held every month and will build upon each other, covering such LEED projects as Sustainable Sites, Energy and Atmosphere, Green Cleaning, etc. The seminars are designed for both engineers and their managers with budget, contractor and time considerations included.

The SAABE Going Green Forum/Group meets the fourth Tuesday of each month and is open to both SAABE and BOMA SA members. The group is composed of engineers and vendors from SAABE. ❖

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(continued from page 8)

creating a galvanic corrosion site—a battery—anode and cathode. When this happens, the more inert copper metal becomes a "permanent" cathode on the metal surface. What happens then is instead of having general corrosion over the entire steel surface, the copper acts like a drill bit and severe pitting corrosion will happen at localized spots. All the while the nitrite level is dropping because the electromagnetic current is flowing out of the cathode creating more ammonia, and before you know it, you have a snowball effect of corrosion and closed loop water that looks like coffee.

Not only will the water look bad, but it can do all sorts of bad things like rob your system of energy efficiency. Nasty closed loops are a very "un-green" thing to have around, because the corrosion product (rust) can restrict small orifices in your air handlers and therefore reduce the heat transfer capability of the unit. For those of you who may not know what that means...it means the room won't get cool as easily, and it will cost a lot more money to make it cool. Then there are all those little rust particles flowing through your closed loop at high speed. Think of it as wet sand blasting. It can wear away at pipe bends and valve bodies, coils and pump impellers. This is called "erosion corrosion." You've seen it before—just look at a picture of the Grand Canyon.

So, how do nitrite levels drop? There are several ways that nitrite can be reduced in closed loops. Water losses through leaks in air handlers and coils, pump seals, or even pinhole leaks in pipes or valves are all suspects. Repairs to coils and air handlers cause losses. Whenever water leaves the loop, fresh

water takes its place. Not only is nitrite leaving with the leak, but the fresh water entering the loop is bringing oxygen with it. Oxygen converts nitrite (NO2) into nitrate (NO3) which you may recognize as fertilizer. Nitrate is not able to protect your system from corrosion, but it is an excellent food source for bacteria that may be lurking in the fresh water makeup line. Once the bacteria enters the loop and they find that food source, it's "Katie bar the door." That loop is going down hill in a hurry. I know; I've seen it happen.

You may be saying to yourself, "But it's a closed loop—there are no water losses from the system." All I can say is that in 12 years of water treatment I have yet to meet a closed loop that was 100% leak-proof. New or old, they all have losses, and this is why it is so important to check your loops regularly. The things that need to be tested are Conductivity, pH, Nitrite, Iron and Copper. The readings should be as follows:

Conductivity: <3500

pH: 9.0-9.5

Nitrite: 750ppm – 1000ppm for chilled water; 1000ppm-

2000ppm for hot water

Iron: < 0.1 Copper: < 0.1

Ideally, copper and iron should as close to zero as possible. If you start seeing iron and copper levels above those thresholds, you may want to adjust your program, or get ready for problems because you may be making batteries in your water. *

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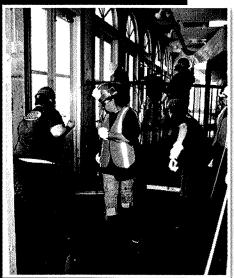
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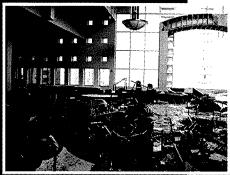
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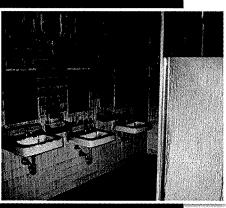
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Welcome New Members!

Welcome to the following new SAABE members! Please make sure to add their information to your 2008 SAABE Membership Directory.

Jeff Hodges	Update Contact Info:	Update Contact Info:
MRCO Inc.	Tommy Mireles (replaced Allen	Chris Barth (replaced Tim Young)
322D Breesport	Mangrum)	Munters
SA,TX 78216 • (210) 479-6726	Lashley South Texas	(210) 651-6168
jhodges@mrco.us	(210) 349-3251	chris.barth@munters.com �
	tommy@lashleysouthtexas.com	

Meeting RSVPs

The staff at Embassy Suites has been very accommodating to our growing group over the last few months. Unlike Alamo Café (our previous location), SAABE must call in a meal count on the Monday prior to the meeting. That's why we've been stressing the importance of RSVPs and timely cancellations. We MUST receive your RSVP no later than the Monday prior to the meeting at noon. Late RSVPs and walk-ins will be placed on a standby list, and we will ask you to wait in the lobby until we determine the number of no-shows.

If you RSVP and do not attend, you will receive a no-show invoice. If you must cancel your attendance, please call Laura Bray at 408-1699 by the **Monday prior to the meeting at noon** so we can cancel your meal. Cancellations received after this time will still be invoiced.

While we appreciate your call on Wednesday morning that you cannot attend, you will still be billed for the meal, since Embassy Suites has already prepared it for you.

If you have any questions, please feel free to call Laura Bray (408-1699) or any board member. ❖

Lunch Policy for Vendor Members

A few reminders about SAABE's policies for lunches for vendor members:

- Lunch cost for SAABE vendor (associate) members is \$20. (Guests are \$25.)
- You may bring an additional person from your company to 2 SAABE meetings as a guest. After that, the additional representative must purchase a SAABE membership to continue to attend. SAABE memberships are by individual, not by company.
- You may substitute an attendee if your primary representative cannot attend.

SAABE values the support and contributions of its vendor members, and we have several vendors who support SAABE with multiple memberships and frequent participation.

Please contact Laura Bray, SAABE Association Coordinator, if you have any questions about SAABE's policies and procedures. *



SAABE PO Box 780785 San Antonio, TX 78278





Charles Mikolajczyk Jr **Endeavor Real Estate Group** 8000 IH 10 W, Suite 250 San Antonio TX 78230

SAABE TIMES August Issue

Final Thought:

"We make a living by what we get, we make a life by what we give." — Sir Winston Churchill (1874 - 1965)

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Laura Bray	408-1699	

Association Manager

(laurabray@braycommunications.com)

Next Meeting:

Wednesday, August 19 **Presented by CPS Energy** Nuclear plant expansion and new opportunities in South Texas for power sources

> **Upcoming Program:** Wednesday, September 16 **Program TBD Sponsored by Gerloff**

The SAABE Times is edited by Bray Communications.