

S.A.A.B.E. TIMES

A Publication of the San Antonio Association of Building Engineers

June, 1998

Mark Your Calendar —

CPS on Electrical and Natural Gas Safety

June's General Membership Meeting will include a presentation by City Public Service designed to inform and educate customers on the importance of following proper safety procedures around gas and electric facilities. Areas to be covered include:

Electrical

- Transmission lines
- Substations (transformers)
- Distribution lines
- Free services (tree trimming and line locator)
- Underground facilities

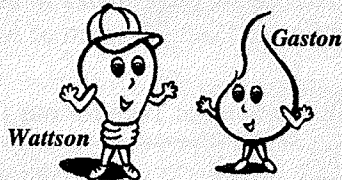
Natural Gas

- Combustion chamber
- Carbon monoxide
- Heating safety (central furnaces, space heaters, wall heaters)
- Natural gas leaks
- Digging dangers

The program will demonstrate the need to develop a healthy respect for natural gas and electricity and to answer questions.

Speakers for the meeting will be Victor Robledo (Public Safety Awareness Representative, 15 years with CPS), Arthur Gray (Gas Operations Supervisor, 39 years with CPS), and David Spahn (Gas Troublemaker, 25 years with CPS). SAABE will sponsor the lunch.

Watson and Gaston remind you to play it safe around electricity and natural gas.



Education Corner

By Mike Lusk

Thanks to all of you who took the time and effort to return the questionnaires to me. The response was not in large numbers (12 to be exact, to date), but large enough to formulate some direction. Also, for those of you who have not responded, but would like to, go for it. Input and ideas are always welcome.

I tried to come up with a rating scheme to rank-order the subjects because of various manners in which the surveys were marked. I have been out of school for quite some time, so that was a real chore. (Never mind that when I was in college we used slide rules. I am sure many of you have never heard of one, let alone ever seen one).

The Codes and Standards drew the largest amount of interest. Paul Thompson is still trying to coordinate something in the way of a course from TEEEX on that one. Second was Life Safety Issues, third was Mechanical Systems in Buildings, and fourth was Liability Exposure. Lynn Forester is looking into her legal connections on the liability issues. Of the listed subjects on the survey, parking lots (14th) and signage (15th) came in with the lowest amount of interest. In order of highest to lowest, ranking was:

- | | |
|------------------------------------|--------------------------------|
| 1. Codes and Standards | 9. Hazardous Materials |
| 2. Life Safety | 10. Waterproofing |
| 3. Mechanical Systems in buildings | 11. DDC |
| 4. Liability Exposure | 12. Underground Storage Tanks |
| 5. Electricity | 13. Pnuematics and Compressors |
| 6. Plumbing | 14. Parking Lots |
| 7. Elevators | 15. Signage |
| 8. Building Envelopes | |

Other subjects requested were Disaster Preparedness, Roofing, ADA restroom variance signage, and any new/pending City/State/Federal laws that needed coverage.

Of course, the whole purpose of the survey was to determine your interests, which might drive any educational courses and efforts of SAABE. Many of these subjects have been covered over recent months in varying degrees. Some need revisiting. Bottom line is we will be working to set up courses to cover some of these issues, and others may be covered as luncheon topics as appropriate. Over time we will probably cover most of them in one way or another. Thanks.

Still Hazy

It's still hazy...is it the smoke from the fires in Mexico? Or staying up late watching the Utah/Chicago game? Or the pressure of a deadline?

I was listening to old Father Paul talking to graduating seniors a couple of weeks back and he made a couple of good points:

1. All jobs are temps.
2. Don't stop studying.

My Dad worked at the same place from as far back as I can remember until a few years ago when he retired. There are a lot of people out there who worked the same way — at the factory, in the mills, in the shop, the yards — a lifetime working in the same place. It was something that you could count on...security.

Ten years ago, if you asked people at SASA or Kelly where they'd be working in 1998, the answer would be easy — the same place they'd been working for years...are you nuts? This job will be here forever! Yeah, right. SASA is gone, Kelly is closing down. Closures, downsizing, mergers, buyouts...the ground starts to crumble. It's no longer safe to assume you'll be at the same place when you retire ten or twenty years from now. Welcome to the world of the temp.

If the ground shifted beneath your feet, would you be ready? Are your skills up to date for the current job market? Point number two: *don't stop studying!*

Education was one of the reasons that SAABE was formed and remains one of our principal areas of focus. If you've been regularly attending the general membership meetings for the last couple of years you have:

- Learned Texas State requirements on elevator maintenance and inspections from the National Elevator Inspection Service and state elevator inspectors.
- Been exposed to the basics of roof construction, maintenance, inspection and repair from Cram Roofing.
- Been given the ABCs of DDC HVAC controls by MMT/Ward Systems.
- Been told the specifics of the City's electrical code revision courtesy of City Electrical Inspectors.
- Heard from the San Antonio Fire Department on high-rise fire safety.

- Kept up on electrical advances such as surge suppression (Power Tech), electrical system maintenance (TEGG Service, Nathan Alterman) and injury and equipment damage avoidance (Arc Guard - ABB/ Five Star Electric).
- Touched on mechanical systems: Chillers (York, McQuay), pumps (Paco Pumps), cooling towers (EnviroTex), etc.

...And more and more! SAABE presentations are a great way to help keep "in the know." And what about the alphabet soup you see after our board members' names — you know: CBE, SMA and FMA — what's with that? These credentials indicate that these people have an interest in furthering their careers through ongoing education.

- SMA — Systems Maintenance Administrator, taught through BOMI
- FMA — Facilities Maintenance Administrator, also taught through BOMI
- CBE — SAABE's own Certified Building Engineer designation

Mike Lusk and his Education Corner bring you updates on training seminars, classes at local schools and possible classes customized to our members needs. Check it out!

Don't forget Charlie Mikolajczyk's (it's pronounced the same way it looks) ongoing Tech Talk series. Just scratch the surface for diamonds you can cash immediately!

Someone once said that ignorance is the haze that hides the mountains of truth from our view. And part of our search for that truth is the stripping away of the layers of haze to see more clearly. Our profession requires clarity — how can you fix what's broken if you can't see the root of the problem?

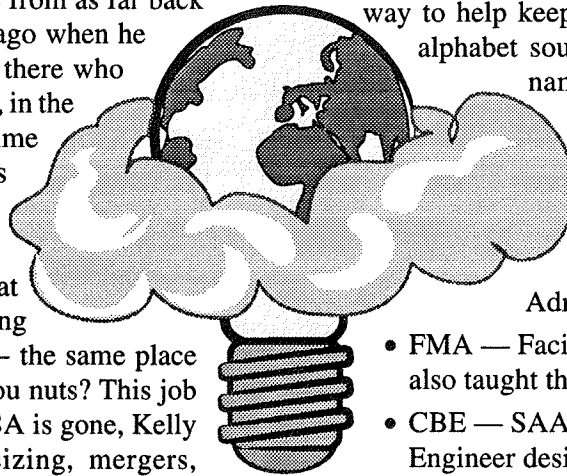
On my way to work this morning, the sun was just a bright smudge in the overcast sky. Don't worship the haze. As Bill would say, "Just keep marching toward that light."

Bits & Pieces

A tip of the Kleins to Elena for running the May meeting — you done good! And thanks to Steve Williams of Five Star Electric and Danny Burnett of ABB for the info on Arc Guard!

Thank you Service Tech for our first (but not last) ad in years!

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Tech Talk #13

By The Charlie

WATER TREATMENT MANAGEMENT (PART 4 of 4) —

Anode(r) day at the beach!

Anodes are basically described as sacrificial metal. Kind of like taking that \$100.00 each week out of your check as play money. If you spend it, no big deal! If you don't, you still take another hundred next week because it is sacrificial. Alright, now that we all understand sacrificial, why do we sacrifice magnesium (the composition of an anode)? Magnesium is of the least noble metals as compared to the copper and soft steel which are the two main elements of your system. Least noble simply means that corrosion will occur here first.

Think of it this way. A river in which you like to fish is full of piranhas. There is no way to eradicate the piranha. In order to keep the piranha from eating all of the fish you like to catch, you simply keep feeding the piranha something it is more attracted to and it will leave the fish you like alone! You are sacrificing what you are feeding (magnesium anode) the piranha (corrosion), in order to save the fish you like (soft steel and copper).

OK, back to the real world. It does not take a rocket scientist to do all of the things we have covered over the past few months. Look at me — even I learned! If you need help in finding out where to get anodes (stick or donut), try Industrial Systems Inc. on West Bitters at 493-4200. They also have the LMI pumps in stock and a lot of other neat stuff as well.

As for the chemicals, green cooling towers went out with the dinosaurs and scale should have gone out with avocado green appliances. Talk to your vendor for the best biocide program, a proper program should contain using both non-oxidizing (glutaraldehyde), and oxidizing (bromine/chlorine), applications. This essentially will allow you to: (a) kill by poison and; (b) burn by fire. Please be careful when using any of these substances for they are some of the most toxic chemicals in our environment. Also, bromine or chlorine are very corrosive to copper; the amount of free chlorine must be tested regularly when applying these oxidizers. I have further found that the city water in the Northwest portion of the city is more difficult to control the calcium carbonate fallout on the areas of the heat exchanger (scale on the tubes), as opposed to other areas of the city. Usually, the common corrosion and scale inhibitors alone, are not able to control this area. Systems which are limited to low cycles due to high hardness content can be greatly improved with additional inhibitors, dispersants and/or surfactants. Generally speaking, water treatment management does not mean what works for Joe's place will work for John's place. Each plant is unique and different from another. Consult your vendor, if they will not work with you, "go figure."

Points to Ponder:


Once corrosion has started on your tubes, it can only be retarded, not stopped. On systems with automatic valves on the condensers, you must flow water through these condensers (minimum of every other day), to prevent extended stagnant conditions leading towards corrosion. The causative agent for this corrosion is carbonic acid from the bicarbonate alkalinity of the raw water, complexed by, sulfate from acid, oxygen, chloride and ammonia probably caused from localized decomposition of the biocides. DO NOT let those condensers sit without flow for extended periods.

"THE CHARLIE"



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- Dust Masks

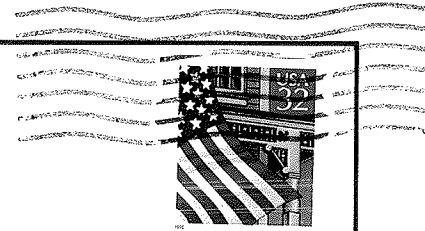


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Membership Luncheon June 17, 1998

Time: 11:30 a.m.

Location: Tex's Restaurant
in the Airport Hilton

Topic: CPS Presents Electrical and
Natural Gas Safety

Sponsored by: SAABE

Upcoming Luncheons:

July 15: Philips Lighting
August 19: Stanco Plumbing

The SAABE Times is produced monthly for the San Antonio
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210-340-5454
email: inkspot@onr.com

Bits and Pieces

continued from page 2

Lynn Forester, our association coordinator, is starting "Heard It Through the Grapevine" with this issue — new members, people changes, etc. Alright, Lynn!

By the time you read this, Building Engineer of the Year, Membership and Trade Show Committees will all have met and got down to business. Thank you everyone.

Membership certificates and cards have been printed, signed and are on the way to you as we speak!

Don't forget, there is an October, 1998 deadline on relaxed Maintenance Electrician eligibility!

And anniversaries, of sorts, for me. Twenty-five years since graduating Electrician's Mate "A" School and ten years since joining SAABE and keeping a daily log at work. Maybe out there somewhere is a new, young member who will be president of SAABE ten years from now to keep John Boldt's baby growing.

Help Wanted

Experienced Building Engineer needed for 80,000 square foot multi-tenant building and 101,000 square foot warehouse. Please fax resume to 590-0710 before June 19, 1998.

BOMA Offers Resume Service

The San Antonio Building Owners and Managers Association often receives calls from building managers looking to hire engineers or maintenance employees. Resumes are faxed to the managers upon their request. BOMA serves as the "middle man," so any contact about an open position comes from the company doing the hiring, not BOMA. If you are interested in participating, please send a copy of your resume to the BOMA office at 4801 NW Loop 410, Suite 540, San Antonio, Texas, 78229 or fax to 520-1337. All resumes are handled confidentially.

Looking for a Few Good Sponsors

Sponsors for SAABE luncheon meetings are needed. In exchange for picking up the lunch tab, sponsors are given the opportunity to address SAABE's membership on the topic of their expertise. The presentation must be general and informational in nature and not a "sales pitch." Literature may be provided at the registration table in the rear of the room, but not passed out individually or placed at each seat. To reserve a meeting for your company, call Paul Thompson at 524-9285.

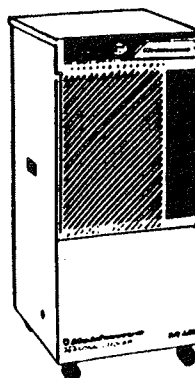
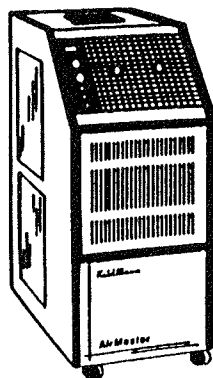
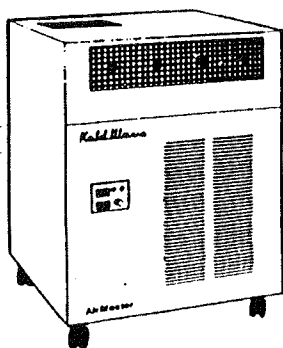
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Heard It Through the Grapevine



- Diversy Water Technologies is now known as Nalco Chemical Company.

Has your company changed ownership or gained a new employee? If you have news to share with your fellow SAABE members, please contact Ink, Spot, Ink at 340-5454, and we will include it in the next newsletter!

Continuing Education for Electricians

All electricians with a license (maintenance electricians, journeymen electricians and master electricians) are required by the City of San Antonio to have 24 hours continuing education credit in order to renew their license. Independent Electrical Contractors (IEC) have courses approved by the City for this continuing education. Courses are taught in 8-hour blocks and cost is \$40 per block. Three of these courses would be necessary to satisfy the 24-hour requirement. For more information, call Melinda Richey at IEC at 736-4567.

For engineers needing to register with the City of San Antonio as Electrical Maintenance Technicians, BOMA and IEC have another 20-hour course scheduled for July. It is taught over two consecutive weekends. For a registration form and information on price and schedule, call Lynn Forester at BOMA at 521-8838 and give her your fax number. The course is limited to the first 30 registrants and is expected to fill up in the next couple of weeks.

To Comp or Not to Comp?

Since the Electrical Maintenance Technician Courses are taught over the weekend, there have been some questions about the correct procedures to handle the overtime hours that attendance of the course causes. The following information comes from the Fair Labor Standards Act (FLSA) and is for general information purposes only; if there are questions about your particular situation, please contact the Texas Employment Commission or a labor attorney.

The FLSA provides that non-exempt employees (but not independent contractors) are entitled to one-and-a-half times their regular rates for time worked in excess of 40 hours per workweek. A workweek consists of 168 hours, or seven consecutive 24-hour periods. When an employer requires its employee(s) to attend the course as mandatory training for their job, then overtime pay must be given. Private employers do not have the option of awarding "comp time"; this is allowed only with public employers, such as school districts, etc. All hours above 40 per week must be paid at one-and-a-half times the regular pay rate.