



S.A.A.B.E. TIMES

A Publication of the San Antonio Association of Building Engineers

May, 1999

Mark Your Calendar —

City Public Service Year 2000 Readiness Project

City Public Service (CPS) understands that as a supplier of energy services it is important that they strive to safely and reliably provide their products and services on an uninterrupted basis into the year 2000 and beyond. To meet this objective, CPS began addressing Year 2000 issues in 1996, and established a goal of completing all work and being Year 2000 Ready by July 31, 1999.

On May 19, 1999, Mr. Ken Kurburski, Year 2000 Readiness Project Manager for CPS will provide SAABE an update on the status of their Year 2000 efforts. Ken has worked for CPS for almost 20 years after graduating from Southwest Texas State University with a BBA in Accounting in 1979. Ken started his career at CPS as an Internal Auditor, working on audits of construction of the South Texas Nuclear Project, Cordero Mine Coal Supply contract, and Valero Gas Supply contract during his first nine years. Ken became a supervisor in Internal Audit and then supervised the EDP and General Ledger Section of Financial Services before accepting a management position. Prior to accepting the Year 2000 Readiness Project Manager position, Ken's line function was Director of Information Processing Services.

Each of you may have different concerns about the status of electric and gas service delivery throughout the Year 2000 transitions. You are encouraged to prepare for this event by writing down specific questions about Y2K issues affecting the utility industry.

Education Corner

by Mike Lusk

First off, some upcoming NTT seminars (1-800-922-2820). Remember, many times these courses are taught in Austin, Dallas or Houston the week before or after they are in San Antonio. If you see something of interest and want more info, call the above number or call me. I have a copy of the brochures and would be more than happy to share with you.

Troubleshooting Electrical Control Circuits — San Antonio, August 24-26, 1999 \$985.00.

Centrifugal Pumps — San Antonio, August 5-6, 1999, \$695.00.

A.C. and D.C. Variable Speed Drive Technology — San Antonio, June 22-24, 1999, \$1,195.00

Building Electrical Inspection — San Antonio, June 28-29, 1999, \$695.00.

Industrial Electricity — San Antonio, May 25-27, 1999, \$985.00.

Boilers — San Antonio, August 24-26, 1999, \$985.00.

Hydraulics Training — San Antonio, July 27-29, 1999, \$985.00.

The Environmental Support Solutions 1999 RCT/IAQ Training schedule is out. EPA Refrigerant Compliance Management Training Seminars and Indoor Quality Management Seminars are being offered in various locations across the country throughout the rest of the year. The nearest location and time is Dallas, October 5-6, 1999; \$395.00 per class or \$690.00 for both. Dates are subject to change. Call 1-800-289-6116, Ext. 8 for more details. I also have an application blank.

A TEEEX Electronics training program consisting of three courses is being taught throughout Texas through the rest of the year. The courses are Electric Motor Control, Computer Control in Industry, and Principles of Troubleshooting and Electrical Safety Awareness. Costs vary by course, but for all three it's \$1,785.00. Call me if you need the schedule or more details. You can also call Patty Vychopen at 1-800-541-7149 to enroll or to get more info.

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Above the Ceiling

by Paul Thompson

Bits and Pieces

Still growing strong! SAABE's total paid membership is now at 110; this is up from 100 in December, 1998.

In December, 1997, we had topped out at 65 which was an increase from 1996. Four years of steady growth — nothing to sneeze at! My continued thanks to everyone who's taken turns stoking our boilers: board members; committee members; sponsors; advertisers; Ink, Spot, Ink (newsletter publisher); our friends at SABOMA and especially all our Regular and Associate members! Keep the fire going! If there is anyone out there who has not paid their invoice, please do so now. For more applications, call Lynn at 521-8838.

The results are in on the first SAABE Salary Survey. Response was very good so the numbers should be pretty accurate. Check it out!

Since we didn't meet the current required quorum during our last General Membership meeting, we were not able to vote on the new bylaws. Ballots were mailed out and you should all have them by now. Please take a minute and vote — this is very important to the future of the Association! We must get responses back from over half of our current membership to make this vote legal.

Well, we may be able to keep all the systems in a building running, but record keeping is not necessarily our strongest talent. In fact, until we had the foresight to hire Lynn Forester, it was downright poor. But just to show you that anyone can change — *we have!* In fact, we're getting

downright streamlined — what with invoicing, the newsletter, mail-outs, certificates and such — but we need your help. If you have received a SAABE Certified Building Engineer (CBE) certification, please contact Lynn so that you may be put in our database. Thanks.

Did anyone else make the Greater Austin Plant Maintenance and Engineering Show that Association for Facilities Engineering (AFE) put on in April? They had some great seminars...I especially liked the one on Building Commissioning. In my mind, this should be the keystone to building construction. Congrats, AFE, for a job well done!

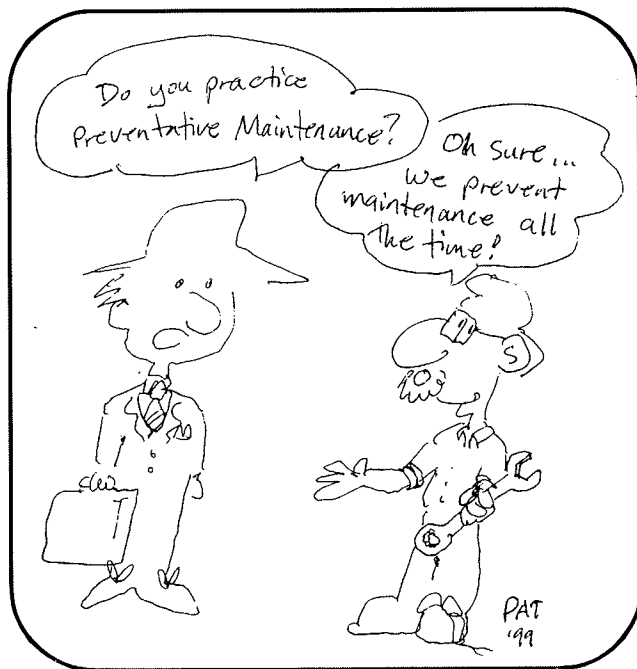
Thanks to Gerald Reiff (Citicorp) for his great presentation on Y2K in April. BOMA's book, *Meeting the Year 2000 Challenge: A Guide for Property Professionals*, is still available through SAABE for \$20.00. The clock is still ticking.

What about them SPURS!!! Great season, so far. Hope for the best in the playoffs. With Mike gone (and Chicago in the gutter) someone else has to step up. Things have rarely looked better for a Spurs run to the ring...

And lastly, our thoughts and prayers go out to the survivors, family and friends of the Colorado shootings and Midwest tornadoes. I've lived up north and have seen the devastation that tornadoes can do — roofs ripped off, trees split in two, tall steel power distribution towers mangled and strewn about the land. Fires, floods, hurricanes and earthquakes can all cause terrible damage and loss of life, but there is no meanness involved. It's nature, an act of God...we were not singled out for punishment. Pick up the pieces and move on.

But a school should not be a place for death, although far too often now it is, with the violence seemingly ratcheted up higher with each event. The question always hangs in the air...“Why?” Is it the guns? Lack of parental supervision? Violent games/ TV/music? The Internet? The taunting of someone who's not cool? And the people say these things just don't happen *here*, not in *this community*, this is a *nice school*.

Sometimes I wonder if that is part of the problem...that we accept violence, gangs, and drive-by shootings in certain parts of town as natural. We accept that this country has the highest murder rate (20 times higher than number two) in the industrialized world. And we accept it as long as it doesn't happen *HERE*...but sometimes it does.



Education Corner

continued from page 1

The American Concrete Institute is having a seminar on Practical Concrete Materials in San Antonio on May 27, 1999. Call (248) 848-3815 to get signed up. The cost is \$354.00 for non-members of ACI.

Last, but not least — effective July 1, 1999, two new required courses will be introduced into the BOMI SMT/SMA curriculum: Administration (12121) and Energy Management and Controls (12101). In addition, two courses, Building Control Systems and Energy Management, will be retired. I have a sheet which explains your options if you are in the middle of the process. I will bring copies to the May lunch meeting and, of course, you can also call myself or Lynn Forester. You may also want to contact a career advisor at 1-800-0235-2664 with questions. The details are too extensive to cover here.

Heard It Through the Grapevine



- Nalco Chemical Company is now known as Nalco Diversified Technologies. **Keith Armstrong** remains the representative.
- **Gilbert Saldana** is now at One Riverwalk.

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Ask Tio SAABE

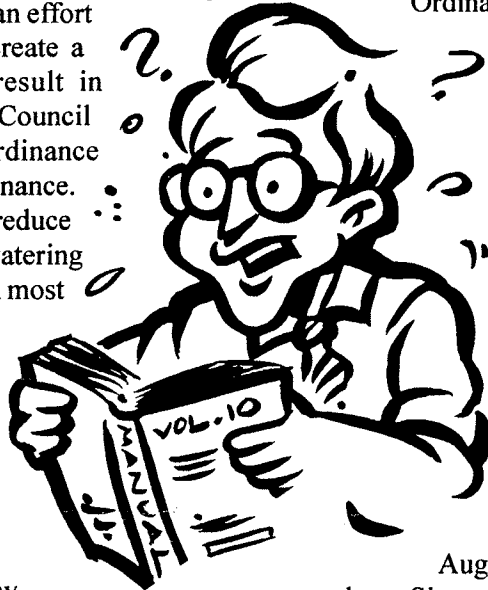
Q. What are the requirements or specifications for sprinkler systems at buildings or hotels?

A. The city ordinance is summarized by the San Antonio Water System as follows:

Landscape watering in the City of San Antonio during the summer months can amount to 40% to 50% of the water used for residential purposes. In an effort to decrease water consumption and create a conservation program that would result in efficient irrigation practices, the City Council on December 20, 1990, adopted Ordinance #72834, the Landscape Watering Ordinance. The purpose of the ordinance is to reduce water usage by prohibiting landscape watering during the hottest hours of the day when most of the water is lost to evaporation.

Some of the specific requirements of the ordinance include:

- prohibiting landscape watering at any time with a sprinkler or sprinkler system between the hours of 10:00 a.m. and 8:00 p.m.;
- permitting landscape watering at any time when using one of the following methods —
 - 1) watering with a hand-held hose
 - 2) watering with a bucket of a 5-gallon capacity or less, or
 - 3) watering with a drip irrigation system;
- permitting landscape watering at any time on newly planted landscapes until they are established (investigators allow a two-week grace period from the planting date);



- permitting commercial nurseries and businesses that grow and sell landscape plants to water at any time of the day in a prudent and conservative manner; and
- fining violations of this ordinance up to \$200 per violation.

Water waste, which includes allowing water to run off into a street, gutter, ditch, or drain or failing to repair a controllable leak, is also a violation of a City Ordinance. One of the most common sources of water waste is a sprinkler system with a broken or misaligned sprinkler head, timer malfunction, or a timer set too long per station. Frequent inspection of the lines and sprinkler heads can locate these problems early.

For additional information from SAWS "Watersaving Tips" call 704-7283 or 704-7297, or visit their webpage at www.saws.org. Page 18 of this booklet explains the "RHA Test". Empty tuna cans placed over the landscape area serve as gauges for the amount of time to water. St.

Augustine grass requires 1-²/₃ inch every 5-7 days. Since much of our soil contains clay, it may be necessary to water more often for less time to stop runoff.

Weekly maintenance for broken heads, misalignment, etc. will keep properties in compliance with the city ordinance for water runoff. A copy of the code pages 2450-2462.10 is available at the central library on the sixth floor Texana section and contains the "trigger levels" and restrictions for stages one through four, page 2458. The City also has information available through this water hotline: 299-7886 "landscape watering".

Climb With Safety

- On straight ladders, stand at least four rungs down from the top. On step ladders, stand at least two steps down.
- Avoid climbing with tools. Use a rope or pulley to lift them and a scaffold or platform to hold them.
- When using stairs or ladders, hold the rail or rungs.
- Use fall protection equipment if applicable.

Dress For Safety Success

- Wear personal-protective equipment appropriate for the activity and keep it in good condition.
- Protect your hearing. Use ear plugs in noisy environments.
- Wear safety glasses or other eye protection as needed.
- Wear safety shoes or boots when working around heavy equipment.

Tech Talk #24

by The Charlie

(Part two of two)

ON THE INSIDE, LOOKING OUT!

In other instances, exposure to the costs associated with bringing a building out of the ground will enlighten you. Some applications do bring understanding once the picture has fully developed.

For instance, would you give up your chillers for a less desirable system with the knowledge that all of the other areas can not withhold any additional reductions and the project would be mothballed? Maybe! FYI: A central plant typically adds \$1.00/sf to hard costs! Would you approve copper clad buss bars with aluminum wiring as opposed to solid copper buss bars and wire? Not a chance! There is not a great variable between the two, however, there is a substantial breaking point in the use of solid copper buss bars in the main switchgear.

Does anyone know the cost/sf difference between a diesel driven fire pump as opposed to an electrically driven fire pump? It's tremendous! Would you decrease the efficiency of the glass and framing if the mechanical is already short? Not a chance. How about retiring the use of large pans with table top framing and haunched girders for the use of post tension beams with stick framing? Not without opposition, but try to remember, the carpet and ceiling tiles cover any viewable areas.

Typically, deck-to-deck heights are around 13' 6", = 4.115 meters, = 41.15 dm, = 411.5 cm, = 4,115 mm (courtesy of Tech Talk #21). A current trend is to reduce this to around 12' to 12' 6". In a 13' 6" application with a 9'0" ceiling and a 30" beam, this only leaves a clearance of 22" between the beam

and grid. Imagine reducing this amount by a foot. The answer by most architects is to lower the ceiling heights to 8' 0" to accommodate the difference and optimize a lower cold deck temperature so that smaller sized ductwork can be used. Yeah, right! The rebuttal will be that by reducing the deck-to-deck heights, you are reducing the amount of skin (precast or glass), needed for each floor by each linear foot, therefore greatly reducing the cost/sf. This is a tough one! Better have your ducks in a row for this one.

If your relationship with your owner and/or company allows your participation and input into projects such as these, stay on your toes and never enter a battle without knowing your opponent and their strategies first. You will be required to provide documentation, efficiencies, hard costs, up-front costs, life cycle comparisons and maintenance costs just to prove your point! Once you have established a batting average of 500, stay in there because the rewards are bountiful. Additionally, once on the inside, there is a different view as opposed to looking in. Things are quite different on the inside but some things will never change.

Food for thought: Ever wonder why kamikaze pilots wore helmets?

"Just a maintenance man"
CHARLIE

Employment Opportunities

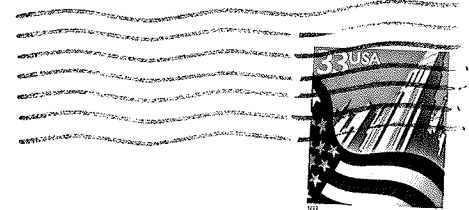
- Property management company seeking self-starter, multi-skilled in mechanical, electrical and plumbing systems. Prefer minimum of two years experience in general building maintenance for industrial and service center facilities. Must have dependable transportation (truck or van preferred) and own hand tools. Salary commensurate with experience. Please fax resume to (210) 525-0845.
- National real estate management firm seeks two Building Engineers for new office building near Sea World. 5+yrs experience with operation, repair and maintenance of commercial HVAC, electrical, plumbing, automation, fire life safety systems and strong customer service skills

required. Critical systems experience preferred. Excellent wages and benefits. Fax resume with wage history Attn: Chief Building Engineer (210) 474-4095 or mail to Jones Lang LaSalle, 3500 Wiseman Blvd., San Antonio, TX 78251. Equal Opportunity Employer.

- Apprentice Engineer with some mechanical experience needed to perform general maintenance tasks and assist Building Engineers in new office building near Sea World. Customer service skills required, excellent wages and benefits. Fax resume with wage history Attn: Chief Building Engineer (210) 474-4095 or mail to Jones Lang LaSalle, 3500 Wiseman Blvd., San Antonio, TX 78251. Equal Opportunity Employer.



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S.A.A.B.E. TIMES
May Issue

Y2K
207 Days And Counting...

1999 Board of Directors

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Membership Luncheon May 19, 1999

Time: 11:30 a.m.

Location: Tex's Restaurant
in the Airport Hilton

Topic: City Public Service
Y2K Readiness Project

Speaker: Ken Kurburski,
Y2K Readiness Project Manager for CPS

Sponsor: City Public Service

Upcoming Luncheon:
June 16: TBA

The SAABE Times is produced monthly for the San Antonio Association of Building Engineers by:



210-340-5454
email: inkspot@onr.com

1999 SAABE Salary Survey Results

Director of Maintenance - 2 responses
average salary - not statistically valid*
average years of experience 15
average years with employer 10

Chief Engineer - 14 responses
average salary \$30,001 to \$35,000
average years of experience 10
average years with employer 3.5

Building Engineer - 15 responses
average salary \$25,001 to \$30,000
average years of experience 11.5
average years with employer 4.8

Assistant Engineer - 3 responses
average salary - not statistically valid*
average years of experience 10
average years with employer 8

Journeyman/Tradesman/Craftsman - 3 responses
average salary \$20,001 to \$25,000
average years of experience 5.6
average years with employer 4.3

Other - laborer/technician - 2 responses
average salary \$15,001 to \$20,000
average years of experience 1
average years with employer 1

Interesting Facts from the Survey Data

7% have college degree
30% have professional designations
67% work for a building management company
18% work for an owner-managed property
10% work for a facilities management company
5% work for a hotel/motel property

Average square footage of portfolio 250,000 to 300,000
Average number of buildings 1.7
Higher salaries accompanied by professional designations
Not many mbrs have CEU's (continuing education credits)
39 total responses

* Not statistically valid means that a very small number of responses was received and the responses varied significantly. When this happens, a calculated average is meaningless and misleading. A higher number of responses is needed to calculate a valid average. If, however, the responses are relatively consistent within a small data sample, the average can be considered statistically valid.