



# SAABE TIMES

A Publication of the San Antonio Association of Building Engineers

May, 2000

## Mark Your Calendar —

### **Surface Water Resource Protection**

Martin B. Miller is Manager of the Surface Water Resource Protection Division of the San Antonio Water System. With a background in Biology, Environmental Management and Building Construction, Martin has more than 12 years of experience and manages a staff of 20 employees.

The Surface Water Resource Protection Division is responsible for integrating the Non Point Source Pollution Prevention Program at SAWS. Their main focus is to inform the business community about local, state and federal environmental regulations and programs. An important goal of the Surface Water Resource Protection Division is educating the public on the importance of managing stormwater runoff.

The San Antonio Water System is a public utility which is owned by the City of San Antonio and serves approximately 1 million people. It was created in May 1992 through the consolidation of three predecessor agencies; the City Water Board, the City Wastewater Department and the Alamo Water Conservation and Reuse District. SAWS also owns and operates the former City Water Board's chilled water and steam plant, which is a centralized heating and cooling system for the buildings in and around HemisFair Park.

## **Education Corner**

*by Mike Lusk*

As I write this, the Battle of Flowers parade is probably half over and I am supposed to be off this afternoon for Fiesta — oh, well. But since I am in a hurry to get out of here, and there isn't much new coming up for the summer, this will be short.

Last month I spent about a half-page talking about the Electrical Maintenance Technician requirements of the city and the courses available from IEC. The information in it was correct, but Valerie Gleason saw it and called to let me know that there is more available than I knew about. Thank you, Valerie, for passing it along so I can put it here for everyone's use. Valerie is an electrical inspector for the City and knows what's up. You can call her at 207-8286, if you have specific questions.

I have copies of the application and requirements for applying, which is too much for this column, but I can fax them to you. You can also get them from Valerie. I also try to bring some copies to the general membership meeting monthly.

Here is the list of courses, provided by Valerie, which are approved by the Electrical Examining and Supervising Board.

- Independent Electrical Contractors; Diana Foster; 736-4567
- Callaway Training Company; Perry Callaway; 495-5545
- San Antonio Apartment Association; Nicole; 692-7797
- St. Phillip's College; Bernard Grice; 531-4788 or 531-4782;  
1801 Martin Luther King Dr., SAT 78203

Please contact them for course schedules, costs, etc.

## Notice To All SAABE Members —

### **Meeting Relocation Information**

Please note that beginning with the Wednesday, July 19, 2000 general membership meeting, we will be relocating to The Barn Door Restaurant located at 8400 N. New Braunfels Avenue (inside Loop 410).

The meetings will continue to take place on the third Wednesday of every month, at the same time of 11:30 A.M. Again, this is beginning July 19th. The May and June membership meetings will be Tex's Grill. If you have any questions, please feel free to call Lynn at 830-981-5223.

## Upgraded System Means Better Data, Lower Costs for Buildings

Comparing how much it costs to build and maintain different buildings allows developers and building owners to make a host of improved decisions — especially the cost-effective selection of building designs and materials. However, making accurate and reliable comparisons of data collected during a building's life cycle is impossible unless everyone uses the same system to define elements. Elements are the major components common to most buildings that usually perform a given function whatever the design specification, construction method or materials used. Examples include foundations, exterior walls, sprinkler systems and lighting. The Building and Fire Research Laboratory of the National Institute of Standards and Technology (NIST) has refined and expanded its UNIFORMAT II system for standardizing these building-related classifications. A new report from the lab's Office of Applied Economics describes the improvements

to the 1992 NIST system adopted as a standard by the American Society for Testing and Materials (ASTM). Applying UNIFORMAT II at each step of the building process provides significant savings to industry. Data entered in a consistent format will not have to be reentered at different phases of the building life cycle. This means better, inexpensive information that is easily accessed and compared. NIST Interim Report 6389 was developed by NIST's Harold Marshall and Robert P. Charette of Concordia University in Montreal. For further information or to receive a copy of the report contact Harold Marshall at NIST, 100 Bureau Drive, Stop 8603, Gaithersburg, MD 20899-8603; phone (301) 975- 6131; e-mail: harold.marshall@nist.gov. NIST.

Source: March 2000 issue of the National Institute of Building Sciences Newsletter ([www.nibs.org](http://www.nibs.org))

### Get Yer Prospectin' Gear Ready Y'all...

Hear Ye! Hear Ye! Time to start thinkin' about who yer cumpadres are, cuz we're gettin' together some pretty nifty prizes for the hombres who rope us the most new members. First prize will be valued at approximately \$500, second prize will be valued at approximately \$300, and the third prize will be a whoppin' \$100 value. Prizes all get awarded to the most successful prospectors at the Christmas party in December.

Now, for all them boys and girls who are purty light in the pockets, keep it in yer heads that startin' in July, our Year 2000 membership dues are 40% off their normal annual cost 'til October. Startin' in October, new members will pay their Year 2001 dues and receive the last three months of the Year 2000 ABSOLUTELY FREE! Why... that there's highway robbery folks!

If you got any questions or suggestions, see your little senioritas, Joan Woods or Lynn Forester. We'll all be makin' announcements at the membership meetin's, so keep yer ear to the ground and rustle us up some new kin folk.

# Sale! Sale!

## SAABE Flea Market

### Items for salvage:

- Battery-powered Floor Sweeper
- Ceiling Speakers
- Recessed Canister Lights - 120 Volt, different styles
- Locksets
- Hinges
- Mini-blinds - metal, brown
- Projection Screen - motorized, retractable
- Commercial Doors - heavy-duty, red oak veneer, solid core

Please call Paul at 524-9441 for more information.

If your building has items to contribute to the SAABE Flea Market, simply jot down a list and fax it to Lynn Forester at (830) 981-5188. We'll feature it in the next newsletter, free of charge!

# Ask Tia SAABE

by Elena C. Castillo

## Power Transformer Change Outs

There comes a time when the main power transformer to a building gets old and must be replaced. This can be due to the transformer becoming weak and inefficient in its performance. Sometimes the oil and casing can become an issue for the EPA, and in order to meet current standards, the electric company must issue a replacement, at no cost to you. Your electric company assures that all proper personnel will be on hand to remove the old transformer, install the new, make the proper connections, and turn on power, all within a reasonable length of time. Their goal is to minimize the building downtime as much as possible.



The building owner, the property manager, and the building engineer and subsequent key people must take the necessary steps to ensure that the proper personnel are on the job to repair or service equipment and components on the building. The first step is to meet with the electric company personnel to discuss any issues you may be concerned with. Before this upgrade can take place, certain criteria must be met to lessen downtime on the building and tenant operation.

The emergency generator to the building should be maintained and serviced (according to the manufacturer's recommendation) to provide emergency lighting to stairwells or dark hallways, which could prevent egress. Lack of lighting in these areas could pose a liability issue for the building.

In some areas where critical loads are not backed up by the main generator, a rental generator should be considered.

Any additional generators serving delicate equipment, such as phone room UPS systems or computer room UPS systems, should be given a preventive maintenance check, & tested by your generator dealer to insure proper operation. UPS systems are very sensitive to voltage & frequency variations and should be calibrated on a regular basis to insure their best performance.

If there is no preventive maintenance performed on that generator, chances are the generator may not be able to provide the proper voltage, thus, blowing fuses and losing crucial information. Of course, this would only occur after the batteries have run down.

Should there be any question regarding the generator fuel supply, an alternate fuel source should be available. It

is recommended that a fuel truck be on standby to fuel the generator before it runs out of fuel. Get a confirmation a few days before.

Check to see that your Security system is on the emergency generator; otherwise, cameras will not work, and backup batteries may last for only a short time.

Contact the building tenants that will be affected by the shutdown. Alert them of the downtime, remove and dispose of perishable items from refrigerators, turn off coffee pots, computers, printers, etc.

Contact companies with receivers on the roof. No power, no reception.

Contact your local ATM department supervisor. Normally, if an ATM machine loses power, an officer will be on site immediately.

Check with building As-Builts and locate emergency lighting around main disconnects, work areas, and generator rooms. Test by running generator via the transfer switch. The emergency lights will flicker while they change over from building power to emergency, indicating they are on the generator. Emergency lighting must be sufficient to make repairs and to avoid errors on equipment.

During this outage, an assigned individual may want to go throughout the building and determine that all As-Builts contain the emergency lighting throughout. There have been cases where emergency lighting was, in fact, just a night-light, or a battery backup light. If a contractor designated generator emergency lighting for a floor, and you found otherwise, that contractor is obligated to come back and correct the problem.

The electrician on site will replace any electrical equipment and tighten up nuts and bolts on buss bars, main disconnects, etc. He also ensures a smooth startup by flipping large breakers one at a time, thus, eliminating any spikes or power rushes.

It is important to make sure that only authorized personnel enter the building. The building should be locked and secured to prevent all others from entering.

Obviously, this changeout procedure can be complicated and dangerous, but if you have a good team of professionals carefully planning this upgrade, the results can be astounding.

# Tech Talk #36

by The Charlie

## The Extreme Tool Box! (Part 1 of 2)

Many times throughout the day, our duties involve the use of basic hand tools. Although we have been around these items for decades, a large portion of these tools have other uses than intended and may not realize.

Before we put the wagon in front of the horse, we must find the ultimate tool box. We have emerged from steel boxes, to the 5 gallon plastic bucket complete with saddle bags. Only idea we can come up with the bucket idea is that you may feel as if you were fishin' as opposed to werkin'. Gosh! You could easily tie up a couple of hundred dollars of tools in a tool pouch. It must be the lottery winners that can afford to fill up that bucket with the saddle bags, full of tools. Not to mention, what ever it is you need will always be at the bottom! Anyway, who needs tool boxes/buckets/bags, to keep your tools handy? That is why there is a perfectly designed dash board and floor board in your truck. Better yet! The bed already has three sides and a gate so that your tools don't fall out. It is also simple to find the specific tool you're looking for because they're all spread out. Don't mind if the tool you need is up front, just back up and hit the brakes! If you drive a flat bed, you will have to come back later 'cause you are management staff!

Now that we've got the ultimate tool box...the following reflects the contents of an extreme tool set:

**Hammer (straight claw):** Usually the most often used tool. However, it is also the most hardest to find when needed. May also be used as fence stretcher, door prop, can opener, persuader, nut/crab claw cracker, etc.

**Crescent Wrench (12 inch):** Replaces socket and wrench sets. Handiest way to loosen a bolt (if it slips on the bolt, see below). Easy to find cause you can put a snap hook in the hole and attach it to your belt loop. May also be used as a hammer, micrometer, etc. Most often thought of as a tool set with a single handle.

**Channel Locks (Large):** Comes in handy after rounding off shoulders of bolt with crescent wrench (see above). If channel locks clean the shoulders entirely, see below. Most often thought of as a speed wrench. Should have at least three pairs of different sizes. Good bottle opener.

**Vise Grips (Big ones):** Easiest tool to find cause it will almost always stay on whatever you leave it clamped on! Multiple uses can be as license plate holder, gear shift, hood release, shut off valve (just pinch off the pipe or

hose), etc. Largely used when shoulders have been cleaned off by channel locks (see above). Note: If vise grips don't loosen bolt, see below. Another good bottle opener. May also be used in place of hammer.

**Pipe Wrench (The bigger the better):** Easily to identify by the bent handle and marks where cheater pipe was used. Makes an excellent hammer. Commonly used when vise grips don't work on situation. If this one don't work, see liquid hacksaw below.

**Screwdriver (Common):** Although original design was to insert screws, we all know that you beat a screw in with a hammer. The reason for the groove is so that you can use a screw driver to remove it, cause you can never find a claw hammer. Multiple uses include; chisel, pry bar, paint stirrer, cotter pin, shovel, General Motors tail gate opener, pick ax, etc. Multiple sizes should always be kept.

**Liquid Hacksaw (Acetylene Oxygen Torch):** A true mechanic will always have one of these rigs. Additional benefits from this tool are as a Bar-B-Que starter, fire ant killer, heater, way to put air in a flat, status symbol, spud gun propellant, and also used as a last resort if a pipe wrench didn't work (if cutting torch doesn't work, use your cell phone. Cause you really need to call someone now).

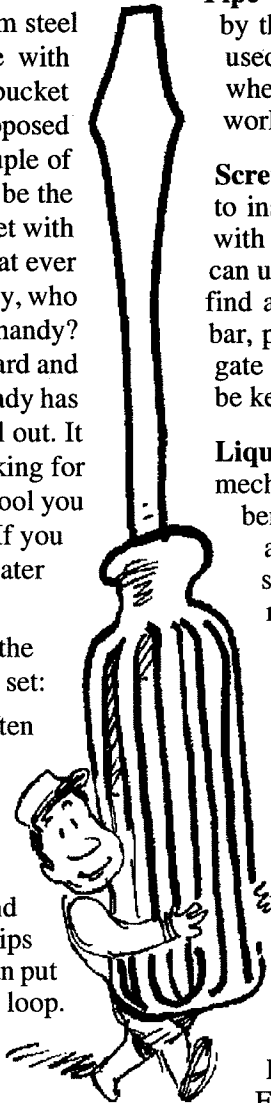
**Cordless Drill (18 volt or better):** Easy to find although hard to keep for everyone wants a better one. Usually yours! When used with a long shank Allen wrench (preferably a 1/32), it makes the ultimate drink mixer. When used in combination with drill bit, it suffices for a cork screw!

**Lineman's Pliers (without melted notch in cutting blade):** Always keep this one in your back pocket. Best used to cut yourself out of a jam when using hammer as fence stretcher. Remember to always remove from pocket at home. For you will be blamed for scratching the seat backs on the dining room chairs (this also applies to screwdriver). Good bottle opener too!

Stay tuned to KSAABE for the latest rib crackin', knee slapping news you never heard. Next Month, adhesives, lubricants and more!

Closing Quote: 3 years and article # 36 later, still dazed and confused!

*"Just a Maintenance Man"*



# EMPLOYMENT



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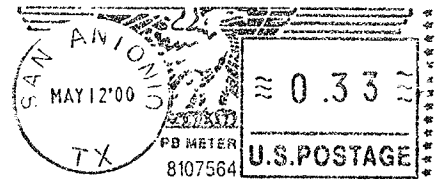
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**SAABE TIMES**  
**May Issue**

**Reminder —**

Beginning in July, the monthly General Membership Meetings will be held at the Barn Door Restaurant located at 8400 N. New Braunfels Ave. Please be sure to update this information on your calendar!

**2000 Board of Directors**

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Lynn Forester (830) 981-5223  
*Association Coordinator*

**Membership Luncheon**  
**May 17, 2000**

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

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

**Topic:** Surface Water Resource Protection

**Speaker:** Martin B. Miller, SAWS

**Sponsor:** SAABE

**Upcoming Luncheon June 21:**

San Antonio Police Department  
(this will be the last meeting at Tex's)

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



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