



# SAABE TIMES

A Publication of the San Antonio Association of Building Engineers

May, 2001

## Mark Your Calendar —

### Explosive Program Offers an Arsenal of Information

Please join us Wednesday, May 16th for a very informative program focusing on bomb threats and explosive devices.

Mike Pickett, an experienced fire fighter and counter-terrorism expert, will discuss bombers' objectives and how to recognize motives that might trigger a bomb threat or attack. Members will also learn:

- Terms associated with explosives and bomb searches
- How to identify commercial explosives and where they might be found
- How to respond to a bomb threat and how to conduct a bomb search

Mr. Pickett holds a bachelor of science degree in nuclear chemistry with minors in nuclear physics and mathematics from Wichita State University, and a master's degree in urban studies from the University of Texas at San Antonio. He taught at San Antonio College, where he is currently a professor emeritus in the college's Protective Services Department.

He is a member of the National Fire Protection Association, the EOD Masterblasters, Inc., the National Explosive Ordnance Disposal Association and the American Society of Training and Development.

## Education Corner

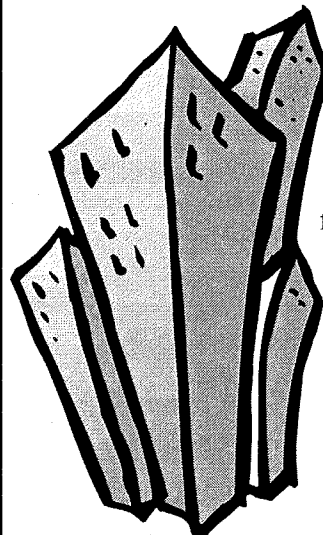
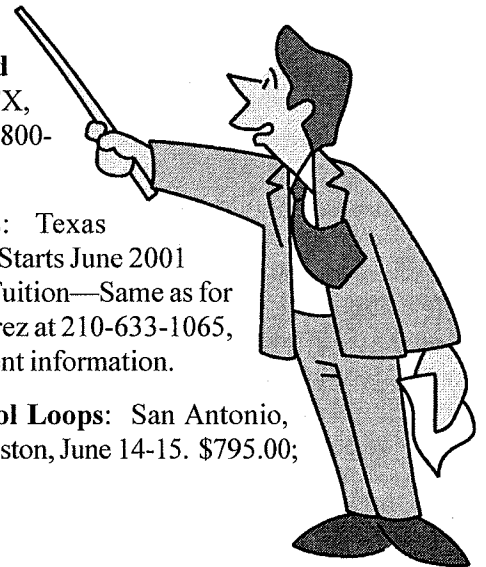
by Kenny Aguilar

Classes being offered:

**AC and DC Variable Speed Drive Technology:** Dallas, TX, May 8-10, 2001, \$1245.00; NTT 800-922-2820.

**Evening HVAC 2-100 hours:** Texas Engineering Extension Service, Starts June 2001 Tues. and Wed. 6:00-10:00pm, Tuition—Same as for HVAC 1; Contact Leanna Ramirez at 210-633-1065, 210-633-1064 FAX for enrollment information.

**Tuning DDC / Process Control Loops:** San Antonio, June 11-12, Dallas, June 4-5, Houston, June 14-15. \$795.00; NTT 800-922-2820.



## Building Tours

May is here and there have been no building tours scheduled. We urge our building engineers to open up their facilities to SAABE members and share their wealth of information. Other engineers may not have exposure to different types of equipment and this would be an excellent opportunity for them to learn. If you are interested, contact one of the board members by phone. (See their names and numbers on the back page of this newsletter.)

# A Message from the President by Elena C. Castillo

## Fire Safety

When was the last time your building tested its fire alarm system? Is it up to par? Does it need repair? If you have not had a fire drill in your building, then you need to think about performing one as soon as possible. It is very probable that something could fail, i.e., smoke detectors, strobes, speakers, ANYTHING!! The same applies to any and all emergency equipment on your premises.

One real life example was the high-rise building in Austin on Tuesday, May 1, 2001. The fire, as quoted by the Associated Press, broke out about 6:20 AM in a dorm room on the second floor of a 10-story tower that housed about 200 students. The intensity of the three-alarm blaze melted the emergency lighting system and the fire alarm system in the hallway outside of the room where the fire broke out. Inspectors found some strobe lights were not working and the generator that provided the backup energy supply was not working either. It is the responsibility of the owner and property management company to make sure that the fire alarm systems and emergency equipment operate properly to prevent loss of life and property damage.

On this Tuesday morning at 6:20 AM, most people were sleeping. A fire does not wait until you wake up; rather, it will feed on combustibles that are nearby and consume everything in its path. It has no mercy, it does not care, it just wipes out what you leave for it to devour, even you. Unfortunately, a 19-year-old man became the victim and suffered burns and smoke inhalation; he was pronounced dead at a nearby hospital. Another man also suffered burns and smoke inhalation and was listed in critical condition.

Sometimes we cannot prevent these fires, but there are precautionary steps that we can take to minimize or eliminate such predicaments. First of all, if you work or live in a multi-story building, establish procedures for training and evacuating all tenants. Train each and every person, leasing or residing in the building, to respond to these emergencies. If a Monitor or Representative is designated as a leader on a floor, and that person is unavailable for emergency duty, then another person can immediately take over.

Remember, the person who volunteers as the lead now becomes of vital importance to the fire and emergency program for the building. That person is on the scene to take command and control of the occupants of their suite or floor. He knows who works or lives on the floor, he knows

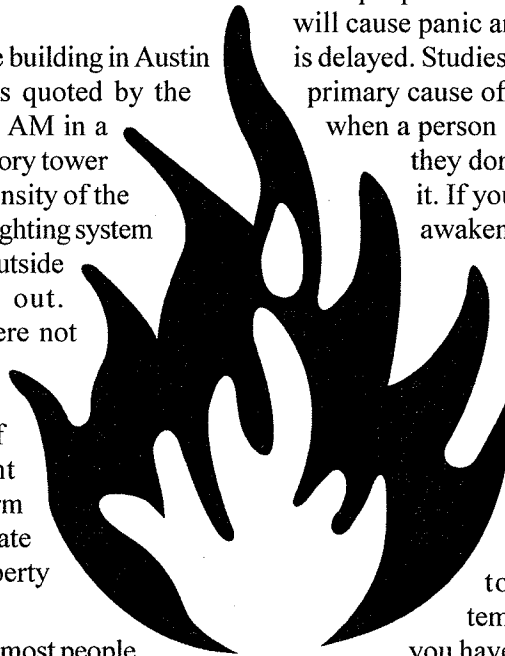
who is disabled and who may need assistance leaving the floor. These lead people are trained to carry out their duties in an emergency, and will react in a positive, correct manner. It is these same individuals that people look up to for leadership and guidance.

If people are not trained to respond, lack of leadership will cause panic and any emergency evacuation procedure is delayed. Studies show that panic is often pointed to as the primary cause of death in public fires. Why? At the time when a person is faced with a fire, they're in denial, or they don't want to appear foolish if they react to it. If you can think of a time when you have just awakened from a nap in the evening, *just for a moment*, you think, what time is it? What day is it? Is it morning? It takes just a few moments to reconcile what you are feeling or seeing. The same thing happens when there is a fire. You think it is not real, or it can't be happening. In just a few moments, a lot can happen.

Remember, it takes less than 3 minutes to have a free burning fire reach temperatures over 1,000 degrees. Because you have so little time, it's important to be ready. A few things to consider during a fire, or even a fire drill:

- Assist visitors and customers. Escape routes will be unfamiliar to them.
- People are skeptical; they don't think it's a real fire and disregard it as a false alarm.
- Know fire extinguisher locations. Are they up to date? Most people can't locate the ones on their own floor.
- Know fire pull station locations. Some people pass by them all the time, but don't know what they are. How many are on the floors?
- Report broken glass on extinguisher cabinets.
- Report EXIT sign lights out.

Fire is always unexpected. It demands fast decisions and quick action. Know your exits. You may be faced with a smoke filled room or building and darkened exit routes unavailable. Treat every alarm as an emergency — **DON'T BECOME A VICTIM. . . GET INVOLVED!**



A little Trivia.....

# What is a Glow Plug?

Diesel engines do not need a spark plug. Rather, they use a glow plug. In a diesel engine, as in a conventional petrol engine, a piston compresses a cylinder full of air into a small space. This space can be as little as one twenty-fifth of its original volume.

Compressing a gas to this volume raises its temperature considerably. In a diesel engine, if fuel is injected into the space containing the compressed gas, it will ignite, firing the motor.


When a diesel engine is cold, the compression process may not raise the temperature of the compressed air sufficiently to ignite the fuel. An electrically heated hot wire, the glow plug, supplies the extra heat energy required for ignition to occur, and start the engine.

Read about diesel engine development: <http://starfire.ne.uiuc.edu/~ne201/1996/wascow/>

# It Pays to Advertise!


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Send ad copy (camera-ready black and white laser, or black and white velox) and payment to SAABE, P.O. Box 691861, San Antonio, TX 78269.



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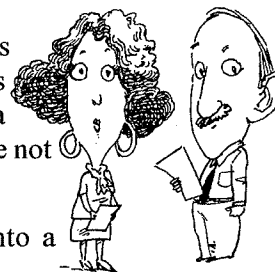
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# Management Quiz

The following short quiz consists of four questions and predicts whether you are qualified to be a "professional". The questions are not that difficult.



1. How do you put a giraffe into a refrigerator?

The correct answer is: Open the refrigerator, put in the giraffe and close the door. This question tests whether you tend to do simple things in an overly complicated way.

2. How do you put an elephant into a refrigerator?

Wrong Answer: Open the refrigerator, put in the elephant and close the refrigerator.

Correct Answer: Open the refrigerator, take out the giraffe, put in the elephant and close the door. This tests your ability to think through the repercussions of your actions.

3. The Lion King is hosting an animal conference. All the animals attend except one. Which animal does not attend?

Correct Answer: The Elephant. The Elephant is in the refrigerator. This tests your memory.

OK, even if you did not answer the first three questions correctly, you still have one more chance to show your abilities.

4. There is a river you must cross, but it is inhabited by crocodiles. How do you manage it?

Correct Answer: You swim across. All the Crocodiles are attending the Animal Meeting. This tests whether you learn quickly from your mistakes.

According to Andersen Consulting Worldwide, around 90% of the professionals they tested got all questions wrong. But many preschoolers got several correct answers. Anderson Consulting says this conclusively disproves the theory that most professionals have the brains of a four year old.

## Employment Opportunity

Engineers wanting to earn \$12.00 to \$15.00, please fax resumes to the following:

Pat Williams - Human Resources  
HCR-ManorCare  
Fax #: 616-0369

## Speaking of Safety.....

SAN DIEGO, Calif. — The California Real Estate Inspection Association (CREIA) cautions all homeowners and potential homebuyers to take pool fencing seriously.

According to recent studies, more than half of all pool drownings that occur in the United States involve children under the age of five.

Attention to pool fence and other safety issues is a vital imperative for everyone owning or living near a pool or backyard spa.

There are some rules to keep in mind when fencing an area around a pool or spa:

- Fencing should totally surround the pool area.
- Fencing should be at least four feet, but preferably six feet, in height.
- The bottom edges of fencing should be within four inches of pavement or within 2 inches of unpaved ground.
- To prevent children from squeezing between vertical components of a fence, the spacing should not exceed 4 inches.
- Fencing should provide no footholds or handholds that would facilitate climbing.

- Pedestrian gates should be self-closing, self-latching, and latch mechanisms should be out of reach of small children.

- Pedestrian gates should swing in a direction away from the pool (so small children do not push them open).

- Gates for non-pedestrian use should remain locked when not in use.

- When the exit doors from adjacent buildings enter directly into the pool area, each such door should be equipped with a self-closing device and an audible alarm.

In addition to these guidelines, an inspection by a professional home inspector may determine if the pool or spa is equipped with an anti-vortex drain cover. This inexpensive, yet important device, helps prevent children or small adults from being trapped by the suction of the pool drain. Other areas inspectors review may include diving boards and/or slides, which may be “fun” but can produce serious injuries.

Hand rails, steps, grippable coping, GFCI protected lighting and general foot traffic issues are also important safety aspects of a pool and/or spa that a professionally trained home inspector will review.

## Trade Show Comments

If you attended the trade show, we want to hear what your thoughts are. Did you get your shirt? Was it the right size? Did you like it? Was there enough food to eat? What did you get out of the trade show? Did you feel the attendance was adequate? Not enough people? Too many people? Did you win a prize? What did you think of the aliens? We want to know....Send your comments to Lynn. If there are a lot of responses, we will publish them in the June newsletter. Hope you enjoyed the 2001 Space Odyssey!

## A Thank You to Last Month's Lunch Sponsor

Kelly Welker from Edward Jones Investments and Kirk Pearcy of Planco, a Hartford Life Company. They did a fabulous job in discussing disability issues and investments. Many of the members walked out with valuable information as well as little gifts and prizes. Hats off to them.

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## Smoke and Mirrors, The Bottom Line! (Part Two of Three)

Over the past two months we have discussed the dilemma found when reducing the amount of electrical consumption via present technologies. To further influence these findings, we have documented what occurs when an occupied building becomes vacant. In most instances, the utilities would become a landlord expense, in this scenario; the building was vacant but still leased. Regardless of the building's disposition, it is our duty to attempt to operate the property at its peak efficiency. What you will find in the following may surprise you.

As with the properties previewed earlier, this case in point also received a compliment of DDC equipment and variable speed drives in October of 1998 as a part of Y2K compliance. In February 2000, the building became vacant. The thought at the time was to alternate only a portion of the HVAC system to maintain humidity control. Additionally, decrease the hours of operation to reduce the utility expenses. As immediately as the usage was decreased, the cost per Kwh was increasing. Even though the usage and demand were reduced, the cost per unit increased and the monthly amount remained nearly the same.

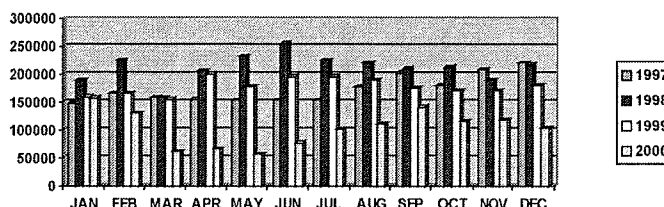
From March thru May of 2000, experimenting with the operational hours to increase usage was performed.

In June of 2000, the HVAC and lighting were operated as if the building were occupied to further increase the electrical usage in an effort to offset the rising cost per unit. These efforts were proving beneficial but without population, there was not enough heat loads to operate the HVAC anywhere near its capacity to consume the amount of electricity we were trying to reach. The building was reoccupied in September 2000. The only thing gained from this period was to set an all time record low "Seasonal Provision".

As indicated by the previous and following charts, the installation of energy saving equipment with emphasis on the payback by reduced utility consumption does not guarantee a reduced utility expense. Be careful in your dialog when communicating with your Property or Asset Manager of how the installation will benefit your property and where the actual savings is. It will keep you from getting hung out to dry if the utility expenses do not decrease as dictated. *Watch your bottom line!*

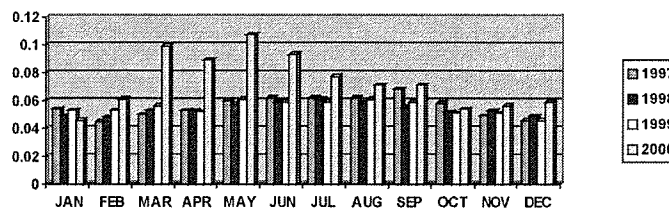
Although the previous and following charts only reflect the past four years, there are over eight years of charts as support. We will continue to chart and see what 2001 brings. If you would like to make charts for your property but are unsure how, please contact me. All you need is a pc with WordPerfect or Microsoft Word. It's easier than you think!

**Kwh USAGE**

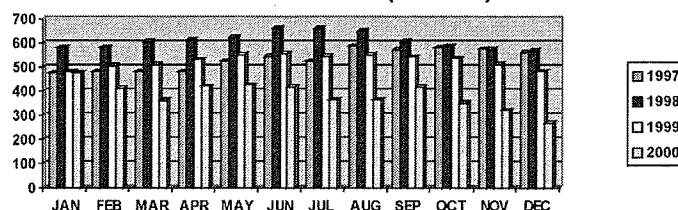


**Cost per Kwh**

(Total amount for month divided by units used)



**Kw demand (Actual)**



Next Month: Celebrating the 5<sup>th</sup> year of Tech Talk

**CHARLIE'S LAW:** Money cannot buy happiness. But it sure makes misery easier to live with!

JUSTA MAINTENANCE MAN



San Antonio Association  
of Building Engineers  
P.O. Box 691861  
San Antonio, TX 78269

Charlie

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

*Final Thought —*

*Never be afraid to try something new. Remember amateurs  
built the ark, professionals built the Titanic.*

**2001 Board of Directors**

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Lynn Forester (830) 981-5223  
Association Coordinator (lynnfor@mindspring.com)

**Membership Luncheon**  
**May 16, 2001**

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

**Location:** The Barn Door  
8400 N. New Braunfels Ave.

**Topic:** Bomb Threats and Explosive Devices

**Speaker:** Mike Pickett

**Upcoming Luncheon:**

June 20, 2001

The SAABE Times is produced monthly for the San Antonio  
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**ink**  
SPOT

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