

SAABE TIMES

A Publication of the San Antonio Association of Building Engineers

December, 2001

November Luncheon Summary

by Kendal Langenberg, Voss Lighting

Why perform roof maintenance? David Gillian of Cram Roofing did a great job answering this question at our November general membership luncheon at the Old San Francisco Steakhouse. Some of the key reasons include longer roof life, leak prevention, and a reduction of owner liability. David explained that a lot of roof maintenance is common sense and can often be done in-house. However, there are definitely some major roofing issues that only a roofing professional should handle. Thanks again, David, for a terrific presentation.

A special thank you is also in order for Dan Tingey of Commercial Services who graciously (and spontaneously) donated two passes to the upcoming SMACNA conference for a door prize.

Don't forget that next month's lunch will be our special SAABE Christmas Party. See y'all there!



Dan Tingey
of Commercial
Services addresses
the membership
at our November
luncheon.

Education Corner

by Kenny Aguilar

No classes are scheduled for this month. I would like to take this moment to wish everyone a safe and joyous holiday season and Happy New Year. Take time to relax and enjoy your time with your families. Thanks to everyone for making this SAABE's best year yet. We will see you next year with all new training opportunities.

Cool Stuff at SACU

Bill Humes, head of operations for the San Antonio Credit Union (SACU), provided quite a "chilling experience" for all those who attended the building tour of SACU's main building at IH-10 and Vance Jackson on November 28.

We began on the roof as we checked out the new chillers and cooling towers. Bill had plenty of pictures of the hoisting up and installation of all the parts. Getting everything up to the roof was a very delicate, careful operation. We also



looked at the new elevator system (also on the roof) for the building. The elevator room was quite warm with all the heat that is generated from the system, but we didn't mind on this very cold day!

After the tour, Bill and his maintenance staff treated us to some munchies, which was greatly appreciated after our incredible workout of climbing down all those flights of stairs. (OK, so we took the elevator — but we were still hungry!)

A special thanks to Bill and his staff for this wonderful building tour. If you are interested in hosting a tour next year, please contact Lynn Forester.



Are You Stressed? Then SMILE!!!

Have you ever played a joke on your brother or sister? Like placing a giant plastic bug on their pillow right before they go to bed? Or plant it just under the ringing telephone, only to have it jump out at them because there is a thin thread between the bug and the phone? You fold over with laughter while they shriek and scream at the top of their lungs!

This bug gag is only one way to show you care for your brother or sister or even friends, since hectic work schedules have kept you apart during the day. While some may find rubber-bug bonding a little gross, it is a fun way for siblings or friends to communicate.

Anyone who has experienced a gutbusting laugh knows how it interrupts your tension. Yet many adults believe they have to march to serious jobs only to come home to deal seriously with their families. Time out! Where do these serious adults get the idea that their bosses, kids and spouses won't respect them if they just lighten up a little?

What was a crisis in the past is humorous in the present. Humor lets people put stressful events in perspective, whether it is at home or at work. This applies in all relationships. Even large companies take humor very seriously. In a study taken of corporations, ninety-six percent of those executives surveyed thought people with a sense of humor performed better on the job than those with little or no sense of humor.

Laughter also provides mental and physical release from stress. When a person laughs, they take a deeper breath. This means that more oxygen is taken in and therefore, increases the circulation. Laughing can also increase or strengthen the body's own immune system. However, no one has invented laughter pills as a cure-all for such physical problems as hardening of the arteries. But humor does "stop hardening of the attitudes" - in all types of affairs. It is inexpensive and readily available to treat all types of stress.

When people get into a rut, they forget how to laugh and play. They become angry and resentful in their boring routines. Humor is universal; it bonds people and families. When two angry people laugh at the same joke, they see each other in a friendlier light, and may even get the job done quicker or better.

Laugh off tension at work or at home. Don't view your job as a 40-hour prison job or 5-day "have to go to work" job. Unlock some of your humorous spirit and bring it to

work. Break the 9 to 5 stress monotony and create a more cheerful attitude. Have fun at work while still doing your job. Your day will go faster and may be more productive. Companies that play together, stay together. When was the last time your corporation held a company picnic and every employee couldn't wait to participate in the fun and games?

to take yourself so seriously. What makes you laugh? What's your funny bone? Do you have a humor file? Can you reflect on a past situation that now you find extremely funny? Keep some crayons on hand. If someone makes you angry, pick up a crayon, draw your angry face, laugh at it because it is a terribly angry picture

Take your responsibilities seriously, but you don't have

(especially if you are not an artist), crumple it up and throw it away! Remember when you were a child, you would get angry, but after a few minutes, you forgot all about it, and just went on with your business?

We can still do that.

In other words, you yourself are the only one who can give yourself permission to have fun and laugh at work. No matter what

kind of stress you are faced with, only you can overcome these obstacles or at least try to overcome them with a smile. Merry Christmas and a Happy New Year!

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Business Card (3.5"w x 2"h) 20	50	190

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.

Holiday Decoration Safety Tips

The U.S. Consumer Product Safety Commission is offering the following decorating tips to make your holiday a safe one.

TREES:

When purchasing an artificial tree, look for the label "Fire Resistant." Although this label does not mean the tree won't catch fire, it does indicate the tree will resist burning and should extinguish quickly.

When purchasing a live tree, check for freshness. A fresh tree is green, needles are hard to pull from branches and when bent between your fingers, needles do not break. The trunk butt of a fresh tree is sticky with resin, and when tapped on the ground, the tree should not lose many needles.

When setting up a tree at home, place it away from fireplaces and radiators. Because heated rooms dry live trees out rapidly, be sure to keep the stand filled with water. Place the tree out of the way of traffic and do not block doorways.

LIGHTS:

Indoors or outside, use only lights that have been tested of for safety by a recognized testing laboratory, which indicates conformance with safety standards. Use only lights that have fused plugs.

Check each set of lights, new or old, for broken or cracked sockets, frayed or bare wires, or loose connections, and throw out damaged sets. Always replace burned-out bulbs promptly with the same wattage bulbs.

Use no more than three standard-size sets of lights per single extension cord. Make sure the extension cord is rated for the intended use.

Never use electric lights on a metallic tree. The tree can become charged with electricity from faulty lights, and a person touching a branch could be electrocuted.

Before using lights outdoors, check labels to be sure they have been certified for outdoor use.

Fasten outdoor lights securely to trees, house

walls, or other firm supports to protect the lights from wind damage. Use only insulated staples to hold strings in place, not nails or tacks. Or, run strings of lights through hooks (available at hardware stores).

Turn off all lights when you go to bed or leave the house. The lights could short out and start a fire.

For added electric shock protection, plug outdoor electric lights and decorations into circuits protected by ground fault circuit interrupters (GFCIs). Portable outdoor GFCIs can be purchased where electrical supplies are sold. GFCIs can be installed permanently to household circuits by a qualified electrician

DECORATIONS:

Use only non-combustible or flame-resistant materials to trim a tree. Choose tinsel or artificial icicles of plastic or nonleaded metals. Leaded materials are hazardous if ingested by children.

Never use lighted candles on a tree or near other evergreens. Always use non-flammable holders, and place candles where they will not be knocked down.

In homes with small children, take special care to avoid decorations that are sharp or breakable, keep trimmings with small removable parts out of the reach of children to avoid the child swallowing or inhaling small pieces, and avoid trimmings that

resemble candy or food that may tempt a child to eat them.

Wear gloves to avoid eye and skin irritation while decorating with spun glass "angel hair." Follow container directions carefully to avoid lung irritation while decorating with artificial snow sprays.

FIREPLACES:

Use care with "fire salts," which produce colored flames when thrown on wood fires. They contain heavy metals that can cause intense gastrointestinal irritation and vomiting if eaten.

Keep them away from children.

Do not burn wrapping papers in the fireplace. A flash fire may result as wrappings ignite suddenly and burn intensely.

Improving HVAC System Performance! (Part One of Four)

Heating, ventilating, and air conditioning systems consume between 40 and 60 percent of the total energy in most commercial buildings. The building management personnel are interested in improving the performance of these systems, not only to save energy cost, but also to improve tenant comfort. Therefore, lowering the energy consumption should not be the only consideration when evaluating HVAC systems.

HVAC systems take on many forms. These systems usually include an air-handling unit with integral heating and cooling coils. Normally, this unit will be connected to an outside air duct so that the unit provides ventilation as well as circulation of air within the space.

The first step in improving HVAC system performance is to evaluate the existing equipment to determine how well it meets its intended objectives. Questions to ask at this stage include: Does the unit lack adequate heating and/or cooling capacity? Is sufficient air moved, or is the air stuffy? If the answer to either of these is yes, then the overall system is a candidate for upgrade or replacement. If the systems meet the basic needs of the space and occupants, then the system performance and improving efficiency should become the focus.

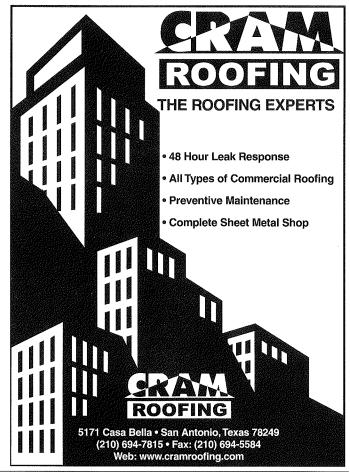
There are two general guidelines to consider when evaluating the energy performance of the HVAC systems: Making the existing system as efficient as possible, and controlling the existing system as efficiently as possible. These principles are based on the fact that HVAC systems are expensive and may not be cost-effective to replace on the basis of improved performance, or on the highly exaggerated estimated annual energy savings alone (see Tech Talk #46-48). For this reason, most systems are replaced or upgraded when they have reached the end of their useful life, or when the occupant and equipment load is grater than the original design. At this time, various systems can be considered, including those that are more efficient than the existing systems. However, more times than none, the lead-time for new equipment is the decisive factor since it will almost always overrun date of occupancy.

Inspection and Maintenance

One of the first steps is to inspect the HVAC system at least quarterly. The entire system should be inspected to determine if everything is operating properly, and that all dampers and linkages are still connected and opening and closing as designed. All motors should be inspected, and all belts should be checked to determine that they are adjusted properly and are free from any defects. Broken or damaged equipment should be replaced. Once a general inspection has been accomplished, all equipment should be cleaned and serviced. Filters should be replaced, dampers adjusted to ensure a tight seal, linkages cleaned so they operate freely, coils cleaned, pan guards replaced, etc.

One study demonstrated the effect of cleaning coils on HVAC performance, showing that coils that were left dirty, had a 27% loss in heat transfer after being in operation for 18 months. Even clean coils showed a 9 percent loss in heat transfer compared to new coils. Air conditioning systems should have their refrigerant levels check and "topped off" if necessary. Steam traps should be inspected, and rebuilt or replaced if they leak. Hydronic systems should be bled to eliminate air pockets that may have accumulated

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Tech Talk

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(see associate SAABE member Bob Harper with Industrial Systems Inc. for the Spiro-Vent), and water treatment should be verified.

Most of these are routine maintenance items. However, control systems (especially DDC systems) should be maintained, calibrated, and serviced at least once a year by a controls company that is familiar with the type of controls installed in the building. All controls should be sequenced to ensure proper operation, including proper lubrication of moving components. If pneumatic controls are used, the pneumatic lines should be inspected to correct any leaks. Annual control maintenance is estimated to cost about 5-10 percent of the original equipment cost!

An annual maintenance program should include tuneups, or tuning of fuel-fired equipment. Combustion efficiency tests should be conducted, and burners adjusted to provide maximum efficiency while minimizing non-combustibles and excess air. In some cases, 5-9 percent fuel consumption savings were not unusual after tune-ups.

Boilers should have their heat transfer surfaces cleaned of scale and soot. A .03125-inch (1/32") buildup of soot can reduce energy efficiency by as much as 3 percent.

When conducting maintenance, the equipment manufacturer's operating instructions should be consulted. If operating instructions are not available, the manufacturer or vendor should be contacted to obtain guidelines for routine maintenance. Failure to follow manufacturer's recommendations may lead to damage to the equipment or cause the warranty to be cancelled.

Next Month: Efficiency Improvements

CHARLIE'S LAW: Real Men Don't Read the

Instructions!

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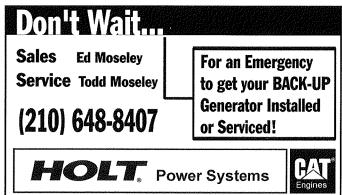
Pet Safety: Christmas Trees

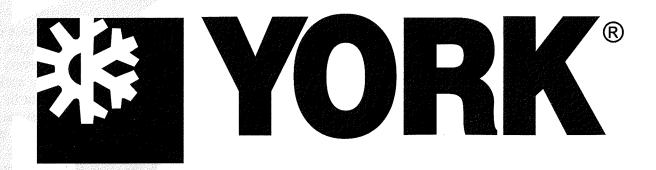
A Christmas tree is traditionally the centerpiece of the annual holiday decorating season, with its bright lights, shiny tinsel and numerous glass ornaments. But every year thousands of pets are injured or even killed by accidents caused when certain precautions are not taken by their owners when setting up and decorating their Christmas trees. Before a festive holiday ritual turns unnecessarily tragic, here are some safety tips for pet-proofing your tree.

- 1. Think like an animal. Once you've put up all your decorations and hung the lights and laid on the tinsel, take some time to think like your pet. Get down on their level, and look at the tree from their perspective. The colorful lights may be irresistible to a curious pet, and the new smells and strange shiny objects might appeal to them as well. Notice how much larger the tree looks from their level. Would you want something that size to fall on your unprotected head?
- 2. Tinsel may look pretty, but it may also look like food to an unsuspecting pet. Loose tinsel around a Christmas tree is a temptation for cats, so make an effort to keep the area clean and tinsel-free. The good news is that most tinsel will pass through a pet's digestive track without damage, but you can never be too sure. Limit the use of loose tinsel to

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Ask Tio SAABE

by Tom Lasater

The Christmas Tree: Care and Disposal

A member asks: Are there any rules or ordinances governing the display of a live tree in our building during the holidays?

Tio SAABE answers: The live Christmas tree in your building is a beautiful sight with a great scent, but requires a daily watering to stay safe. A fresh horizontal cut at the base, before you put the tree in a stand that will hold between 1 and 3 gallons of water, will allow the tree to absorb water better and maintain its fragrance. Lights burning overnight or long periods of time will rob the tree of its freshness very quickly. The Fire Department says a tree 6' requires ½ gallon a day, 6-10' at least 1 gallon a day, and over 10' takes 3 daily gallons. Evaporation from a 10' tree will range between ½ to almost 2 gallons a day.

The San Antonio Code states that a live Christmas tree must be removed from the premises no later than 15 days from the date of purchase. So, how do you dispose of your Christmas tree? BFI refuses to accept trees officially, but if it is cut into 3' sections it will get hauled away; and Waste Management will accept trees 6' and 10' trees cut into three sections. If these services are not available, the City will accept trees at both landfills for a price.

One landfill is located IH-410 and Ray Ellison near Lackland (phone 623-8800) and the other at IH-10 and Foster phone (661-4104).

A final note — City Code does not allow live Christmas trees at hospitals, nursing homes, or convalescent homes.

Pet Safety: Christmas Trees

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the higher levels of the tree, and discourage your pet firmly whenever you observe such 'sampling' of the loose tinsel.

- 3. Make sure your electric lights and ornaments are grounded properly. Many pets have a natural instinct to chew wiring, so an improperly grounded wire will not protect them from electrocution. Plug your wiring into an approved circuit-breaking power strip or a grounded (three pronged) wall socket. If you can't keep the wires above pet level, then at least do your best to bury them deeply into the branches of the tree. Surprisingly, the lights themselves are not usually seen as a temptation, but they do attract the pet closer to other dangers, like the wiring.
- 4. Brace your tree and tree stand as securely as possible. Larger animals have a tendency to pull things close to them for inspection, and a Christmas tree is one large inspection magnet. Besides the obvious aggravations of having to redecorate a fallen tree, the

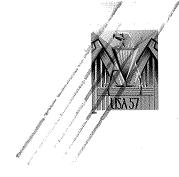
tree itself can maim or kill a pet in far too many ways. Have at least two separate systems working to hold up your tree, such as a sturdy tree stand and wires hooked to the wall. The water surrounding the base of a live tree is a notorious attractant, so discourage your pet from drinking it through the use of commercial deterrents, such as bitter apple spray.

5. Broken ornaments and lights are an invitation to injury. Glass decorations are very thin, and leave a large pile of razor-sharp pieces when they shatter. People may have enough sense to walk around the debris, but pets sometimes get 'tunnel-vision' when they are on a quest. Make sure you gather up ALL the broken pieces of a glass ornament, then vacuum the area thoroughly, if at all possible. Pets have very sensitive foot pads, and a shard of glass imbedded in a pet's paw can become infected quickly.

Author's name omitted by request



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SAABE TIMES December Issue

Final Thought —

"When peace has been broken anywhere, the peace of all countries everywhere is in danger."

— Franklin Delano Roosevelt

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Membership Luncheon December 19, 2001

Time: 11:30 a.m.

Location: Old San Francisco Steakhouse

Topic: Who's Naughty and Who's Nice? It's the annual SAABE Christmas Party!

Sponsor: SAABE

Upcoming Luncheon:

January 16, 2002

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



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Lynn Forester