SAABE TIMES

A Publication of the San Antonio Association of Building Engineers *October, 2000*

Mark Your Calendar —

Direct Digital Control (DDC)

Ward Systems & Mechanical Maintenance of Texas together have installed over 200 DDC Systems in a variety of commercial properties over the last several years.

As these DDC Systems are turned over to the customers, we have noticed either a peace of mind or a fear of the system.

Actually, the more the customer/ operator is familiar with the operation of the system, the more relaxed they become with it. The intent of any DDC System is to:

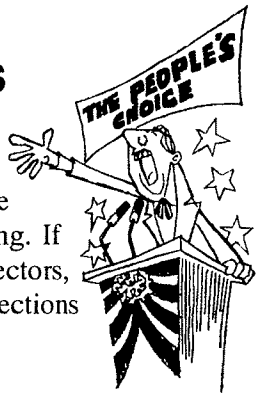
1. Provide tenant comfort
2. Provide energy savings ($$$)
3. Provide one-seat control solution
4. Reduce in-house maintenance cost

Our topic for this month's luncheon is to make you aware of how important it is for any installed DDC System to become "user friendly", and to describe the basics of the so-called "Glorified Time Clock".

Presenters for this luncheon will be Bob Wright and Mike Alvarez. We hope to see you there!

What's Happening —

Call for Board Members



SAABE elections are just around the corner. Nominations for President, 1st Vice President, 2nd Vice President and Treasurer will be taken from the floor at our November General Membership Meeting. If you'd like to run for a position on our Board of Directors, please give Lynn Forester a call at (830) 981-5223. Elections will be held at the December meeting.

Building Engineer of the Year

We are now accepting nominations for Building Engineer of the Year (BEOTY). This special honor will be awarded to a SAABE member who best exemplifies the pinnacle of professionalism — the building engineer who has a thorough understanding of all issues affecting their property and runs a top-notch operation. Please review the insert in this month's newsletter for a list of Building Engineers and a nomination form. The recipient of the BEOTY award will be announced at the January General Membership Meeting.

Upcoming Building Tour

Our next free Building Tour has been scheduled. Put Wednesday, November 8th on your calendar for a tour of One Oak Park. We will meet tour director Doug Graves at 6:00 p.m. at 1020 NE Loop 410. Be sure to join us for a behind - the-scenes look!

Tío SAABE

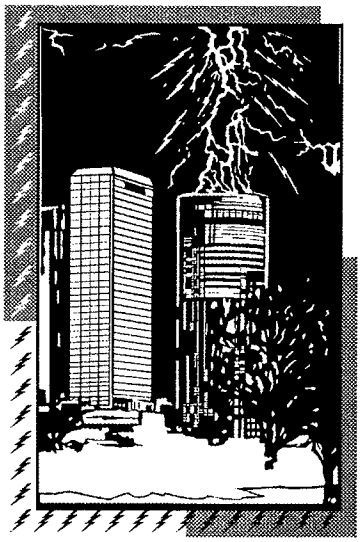
Do you have any questions or issues that you would like to have addressed in future issues of the SAABE Times? Our very own Tío SAABE is seeking article ideas. If you have a question or topic relating to building engineering please call Tom Lasater at 828-9829.

Above the Ceiling

by Paul Thompson

Riding the Storm Out

Couldn't sleep again last night when that storm blew in and dumped 2.5 (much needed) inches of rain. Preceded by strong winds, whitecaps on the lake and ten-inch-thick limbs on the giant pecans whipping around like a sapling while the temperature plummets. Couldn't sleep. Haven't been able to sleep in a storm for years now. Started at the old Somerset place 15 years ago the night of the big storm: rain coming down in horizontal torrents 'cause the wind was so strong — blew down the high voltage lines, laying in the street out front. Mrs. Bishop's big tree next door fell on some other wires and was burning merrily in the night. And at our house, the wind was knocking our fifty-plus-year-old-with-no-insulation meter loop wires together. Every time they touched there would be a big zzzzzzzzt! and the whole neighborhood would be momentarily illuminated like a giant flash bulb went off while inside we all hunkered down.



And then later, when Dee was seven months pregnant with Aidan and lighting hit the telephone pole in the front yard with a BOOM!! It's surprising the little bugger wasn't born then and there.

Of course at the new place I had it on my list of things to do: change out the meter loop. It went to the top of the list with a bullet at 4:30 a.m., in the rain, when it started shorting to ground like a .22 shot — POW! POW! POW! At 5:00 a.m., the electric company cut us loose. At 5:00 p.m. the same day, they hooked us back up after Gordon and I spent the day building the new loop. And of course, since that time, I've ripped down all the old, ratty overhead wires going to the meter pole, put in new panels (house, well pump shack and garage) and went with underground 4-wire copper services in PVC pipe. Let the storm rip now — I'm ready!

But, as it turns out, it's not only worrying about the home that causes this loss of sleep — someone es-plained to me that I'm also responsible for the BUILDING! Darn, like I don't have enough on my mind already! So, over the years we developed the "Byootiful Pyramid Building List of Things To Do So You Can (Possibly) Sleep Through a Storm at Night" as follows:

Number 1: Don't let ANY water into your building through the roof, walls, windows, doors, etc. (including flood waters). No need to go into more detail on this.

Numero 2: Everything else. To include:

Electrical Systems — You just know that power will brown out, spike, single phase and who knows what else during a storm, so build yourself a good system. Start with the basics: 5-wire copper service (on 3 Ø systems —3 Hots, Ground and Isolated neutral) with good, solid connections. I recommend a complete retorque of every single electrical connection in the building (all switchgear, panels, disconnects, transformers, buss duct, motors, etc., etc.) every five years. Warning: don't try to do this "in-house" unless you are licensed for it and know what in God's name you are doing! This work can be extremely dangerous! Not a bad idea to throw in an infrared scan to look for hot spots at the same time. Another small but important item: run a separate green ground wire through every conduit — don't trust a conduit ground (spoken as a former construction electrician). You may also consider adding a separate isolated ground bus riser — your computers will love you for it. If you do all of the above, you'll automatically fix a lot of weak links that Mother Nature would just love to exploit.

A Transit Voltage Surge Suppressor device (TVSS) can help when them old high-voltage spikes come barreling down the wires. These things basically put a high limit on the voltage they let through and shunt all else to ground. I've heard that the best ones can even take the slam of a lightning hit — of course, they'll turn to charcoal, but downstream thousands of dollars worth of equipment is protected. TVSS come in a wide variety of sizes from your basic computer plug strip to devices that protect your incoming building main lines. Buy good stuff.

And as long as we're on the subject of lightning hits, how well-maintained is your lightning protection system? You know what I'm talking about — the cables, clamps, spikes, etc. on the roof that (are supposed to) help provide protection against those multi-million volt boomers. Have clamps come loose over the years? Spikes broken off? Have you *had any roofing work done since the day the building was built?* Just like anything else, it needs maintaining.

As bad as a high-voltage spike can be, under-voltage and single phasing incidents can really take a toll also. Install Loss of Phase Protection on all 3 Ø motors that you would

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Above the Ceiling

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like to keep running. Believe me, this is *very* cost effective protection.

Of course, even if you do all this stuff, the power will still go dead. Just because the lights are out doesn't mean it's nap time! Does your generator work? Do you test it weekly and check all the good stuff (batteries, oil, belts, fuel level, block heaters, gauges, coolant, etc.)? Is it on a regular semi-annual PM program? Do you do load bank testing? Do you ever run it under building load? And don't you dare forget about upkeep on your automatic transfer switch!

But since we *all* keep on top of genset maintenance, the next question is: what should be on generator emergency power? My answer would be *every critical system that your generator has room for,* such as:

Lighting: Every 10th fluorescent fixture or so in my building is on generator. In the event of a CPS outage, everyone can still find their way out. *All* stair lights are on E-power. Don't forget aircraft warning lights!

Elevator(s): Especially in a high-rise. These can be tricky. Coordinate with your elevator guys.

Fire Systems: Fire alarm control panel, stairway pressurization fans, dry sprinkler system air compressors, fire pump, etc.

Security: Card key access systems, door locks, cameras (although it may be too dark to get much use from them) and VCRs. You don't want the doors to open just because the power went out!

Critical Mechanical Systems: Includes domestic water pumps, pneumatic controls, compressor, etc. You may also want to put your generator diesel fuel pump (if applicable) on E-power. Ask me about the last one sometime.

Other Stuff: Like maybe building management office systems, computer room power, critical area AC, special tenant needs (sounds like a lease item to me), etc. Look very closely at what you would like to keep a-runnin' when your transformer stops a-hummin'!

So you did all that good stuff, but when the power went out, your generator went putt, putt and the block broke in half. It's *almost* time to start getting nervous. Almost, but not quite because you know that:

The battery backups (which you also test regularly) for your fire alarm control panel and security door locks will give you hours of worry-free operation.

You have at least one phone on a "trunk-line" (not-going-through-any-electronic-black-box-and-subject-to-the-smallest-electrical-burp) for communication with the outside world.

You have Uninterrupted Power Supplies (UPS) to the most critical systems.

You have a list of emergency contacts (contractors, Fire Department, SAWS, CPS, phone, suicide prevention hotline, etc.) on hand.

The battery on your pager has been known to go dead at the most inopportune times (and heaven knows if the building can't get hold of you, it's NOT YOUR FAULT!) and lastly:

You've got 24-hour, on-site security guards (hopefully) who can handle any emergency (insert prayer here). Treat these people well! END OF DISCUSSION.

Sooooo... when the winds of November come early, monsoon season threatens to make you feel like a cork in the ocean, and mighty Thor (God of Thunder) himself hurls his lightning bolts at your heart... sleep peacefully. Or, take two Sominex and Call Me In The Morning!

Bits & Pieces

Thanks to Gregg Graham, Wyatt Stevenson and Greg Mattison, CLEP of American Light for last month's great presentation.

Building tour, Wednesday, November 11th at 6:00 p.m. at One Oak Park. Everyone's invited. Be there.

Membership Drive continues — see Judy, Judy, Judy Garcia (CPS) our new chairperson for details. *Somebody* is going to win these prizes.

... And lastly, I watched the Vice-Presidential debate last night and saw two well-informed men, clearly respectful of each other, outlining their goals and policies in a very forthright manner. Now I've made my decision: Lieberman/Cheney! But seriously, if you watch what's going on in Yugoslavia and how hard the people there are struggling for democracy, you know how easy we've got it. The least we can do is pay attention and VOTE!

Roofing: An Investment in Overhead

by Richard Boon, Former Director of the Roofing ndustry Educational Institute; submitted by David Webb, Cram Roofing

Reduction of overhead expense and better long term budgeting through the use of a proactive plan to manage roofing assets can have a positive impact on a company's financial health.

Overhead is an expense that can drain a company and turn a successful one into a problematic one. Most companies work diligently at cutting or at least minimizing overhead expenses. The concept of investing in automation to reduce overhead is a common practice in business today. Investing in upgrading facilities on the other hand is generally limited to the portions of a building that are seen to be of benefit to building occupants. As an example, a great deal of time and money is being expended to upgrade communications capabilities in many facilities today because there is a perceived immediate return on investment. Companies are typically not putting similar energies into effectively planning and increasing the return on investment of their roofing assets.

Why does this happen? Part of the problem is the perception that building expenses are nonvalue-added expenses. What is the value of a good roof? Well, what is the cost of putting a new tenant into a building? Or, what are the costs of repackaging finished goods or of repairing manufacturing equipment damaged by roof leaks?

The value of a roof should be based upon the consideration of what it protects in addition to the replacement cost of the roof itself. The problem that most owners have is that they have not properly considered the value of a working roof. The decision of what to do with the roof is usually based on the low-cost approach. Taking action to only repair the roof when it leaks is fine for short-term solutions when a long-term plan is being implemented. But when the leaks stop, the roof is usually forgotten.

The effort to maximize performance from your roofs should be based upon several fundamental steps as outlined below:

1. You can't manage a facility in an informational vacuum.

The best way to approach the roof is with a ladder ... and information! This effort can be nothing more than having a collection of all of the records pertaining to the roofs in one central file. Having this information together will put you miles ahead when a problem arises.

2. Know the condition of your roofing inventory.

A common misconception is that all roofs perform the same. The quality of the installation, amount of abuse/ maintenance, and type of roofing materials will all be factors in determining a roofs' life expectancy. To assess the condition of a roof requires some knowledge of roofing and the symptoms of aging for each type of roofing system.

One way to accomplish this is through a visual survey. The information gathered from a visual survey is only as good as the inspector or contractor's representative that performs the survey. In addition to reporting on the condition, the survey should be supported by photos as of the date of the inspection.

A second level of investigation would be to include a "core cut" as part of the roof survey. A core cut is simply an extraction of the roofing materials in a small area to determine the materials used to construct the roofing system. A proper core cut will reveal what is underneath the roof. There may be multiple roofs already in place, or there may be wet materials that can not be detected through a visual inspection alone. Owners are sometimes reluctant to allow core cuts, and this is often a mistake.

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Roofing: An Investment in Overhead

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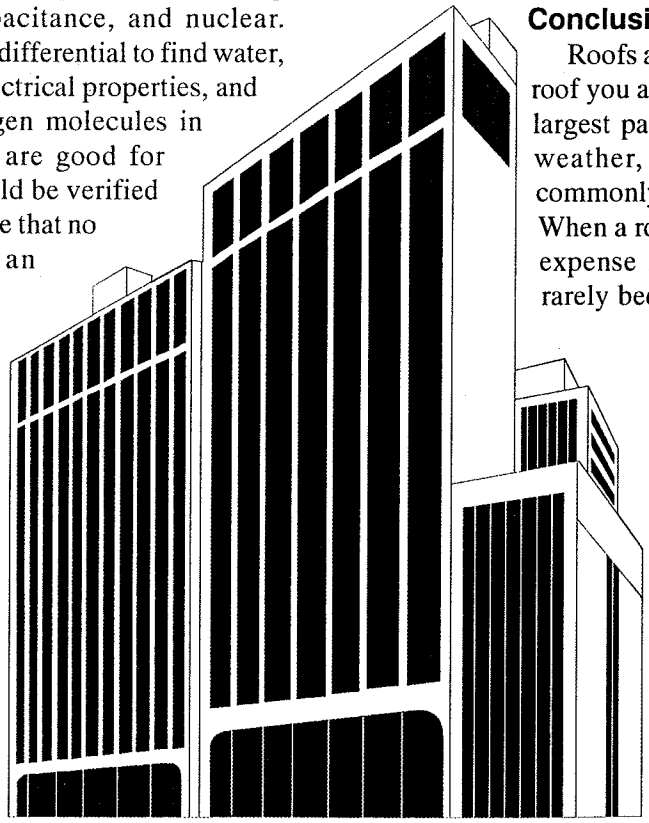
The most detailed survey includes both of these methods and adds a non-destructive moisture detection survey. This type of survey gives the ability to actually "see" through the roof to detect moisture that might be present within the roofing system. There are three techniques for conducting moisture surveys: infrared, capacitance, and nuclear. Infrared imaging uses temperature differential to find water, capacitance uses differences in electrical properties, and the nuclear meter detects hydrogen molecules in water. While all of these tests are good for locating moisture, the results should be verified by cutting into the roof to make sure that no other condition has created an anomaly. It goes without saying that the equipment operator must be highly experienced and also be a roofing professional.



3. Budget and execute a plan for maximum return on investment.

This does not necessarily mean spend lots of money. Some roofs are already dead. It is too late to save these roofs through maintenance. Spending a lot of money on dead roofs is simply not justified. The only answer for dead roofs is to start saving so you can make the right decisions next time.

For newer roofs, the best option is to periodically spend small amounts on regular preventive maintenance to keep the roofs working well. For older roofs, the best plan is to replace the roof while maintaining it. Then take care of the new roof through scheduled preventive maintenance to keep it working well.

4. Work the plan you create.

Having a plan to spend money on roof maintenance does no good unless you spend the money. Roofing problems are usually a "pay me now or pay me later" situation. Small amounts of preventive maintenance money can prolong the life of the roof thereby reducing total roofing expenditures over the lifetime of the building.

One large building owner recently instituted a policy of penalizing facility managers for not spending all of their roofing monies. Their company opinion was that preventive maintenance for roofing assets was critical to long term performance of the roof while maximizing return on investment of their roofing assets.

Remember... emergency roof replacements almost always cost more than planned roof replacements.

Conclusion

Roofs are not your business. Without the roof you are out of business. The roof is the largest part of the building exposed to the weather, and yet it is one of the most commonly neglected parts of the building. When a roof fails and must be replaced, the expense is usually large and funds have rarely been set aside to cover the expense.

Planning ahead works if you know what to include in the plan and how to keep good records of your roofs. Following the previously mentioned steps will help. One fact about roofing is that all roofs will fail. Roofs will never be any better than the day they are completed. The objective should be to get the most life out of your roof through aggressive planning and preventive maintenance before the cost of repairing roof leaks becomes an addition to your overhead.

Remember, maximize profits by minimizing overhead. Increasing the life span of your roofing through preventive maintenance will increase your return on investment on those capital assets.

Cram Roofing Co., Inc. is sponsoring a roofing seminar for facility professionals featuring Richard Boon, former director of the Roofing Industry Educational Institute in Englewood, Colorado. This 4-hour program will include information on types of roofing systems, how they work, and other information a building owner or specifier should know about roofing. There will also be product demonstrations and the opportunity to meet suppliers of roofing materials most commonly used today. This seminar has been approved for CPD credits for RPA, FMA, and SMA certifications. If you are interested in attending the seminar or would like more information, contact David Webb at Cram Roofing Co., Inc. at 694-7815x19 for more information.

SAABE Welcomes New Members

Regular: Robert Divin of Broadway Bank
1177 NE Loop 410
SATX 78209
phone 210-283-6524

Associate: Robert Hernandez of Aero Safe & Lock
PO Box 28297
SATX 78228
phone 210-433-5397

Associate: Bob Hartman & David Titus of Alamo Controls
848 W. Byrd Blvd
Universal City TX 78148
phone 210-658-0900

Associate: Fred Kongabel & Gary Kuentz of Bexar Electric Company, Ltd.
2238 NW Loop 410
SATX 78230
phone 210-344-3031

Associate: Harvey Holcomb & Carlos Ortegon of Cummins Southern Plains, Inc.
6226 Pan Am Expressway N
SATX 78218
phone 210-655-5420

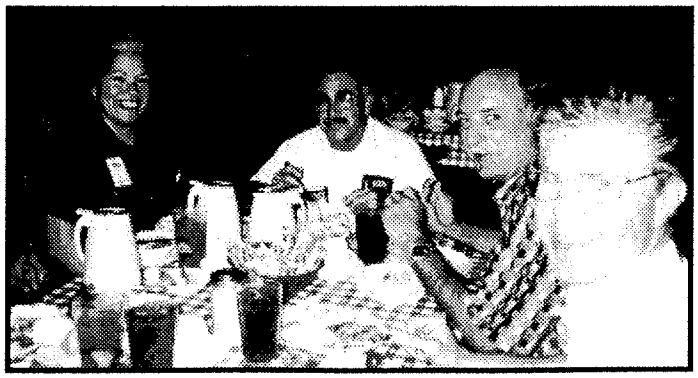
Associate: Kenny Aguilar of Environova
PO Box 2991
Universal City TX 78148
phone 830-914-2555

Associate: Rhondo Jauer of Genesis Supply, LLC
1442 Parkridge
SATX 78216
phone 210-375-8555

Associate: Adolfo Perez of San Antonio Restaurant Equipment Parts & Service
2400 Boardwalk
SATX 78217
phone 210-824-3271

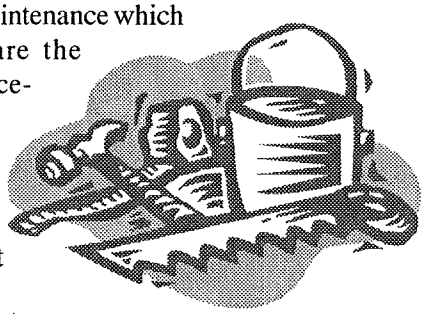
Associate: Bryant Kuvakos of York International
5692 E Houston St, Suite 101
SATX 78220
phone 210-496-6630

Scenes from the September Luncheon



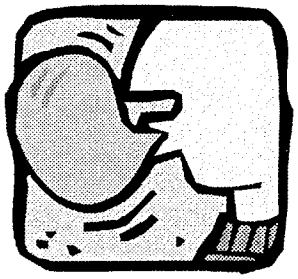
The Craftskills Training Program

With today's tight labor market squeezing us all a little tighter, it's nice to know that there is an additional resource to use when looking for maintenance employees. The Craftskills Training Program has been developed in a joint effort by the National Council on Aging, the Senior Employment Agency (a division of Catholic Charities) and the Home Builders Institute. At St. Philips College SouthWest Campus, older workers go through a twelve-week training program in building maintenance which is designed to prepare the students for apprentice-level work in the maintenanceindustry. For more information about this program, contact Mark Price at 222-1294.



Who Made Chewing Gum Popular?

One of the prime candidates is not somebody you would connect to chewing gum. You've probably heard of him, but only if you "remember the Alamo." He was the commander of the Mexican troops who attacked and killed the Texans defending this San Antonio mission in 1836: General Santa Anna. Santa Anna won that battle but his country lost the war and the territory of Texas. The General ruled Mexico for a while and then, in exile, ended up in—of all places—Staten Island, New York. He brought with him his habit of chewing chicle, the sap of a Mexican tree. An inventor he befriended, Thomas Adams, was inspired by Santa Anna's habit to turn chicle into a commercial product. Adams later added flavor to it and it became modern chewing gum, making one of America's most reviled villains also an unsung hero of its popular culture.



Tech Talk #41

by The Charlie

What Are Backflow Preventers?

(Part Two of Three)

There are two basic types of backflow prevention devices. These are single check valves and double check valves, both of which limit flow in one direction.

Single-check valves allow water to move in one direction while preventing flow in the reverse direction, so that pressure builds up on the system side of the check valve. Because single check valves can leak small amounts of pressure and water in the reverse direction of flow, they aren't approved backflow prevention assemblies and aren't used in cross connections where backflow prevention is necessary.

Double-check valve assemblies are basically two single check valves in a series. However, these two valves have rubber faces that give them tight seals to prevent even small amounts of water from flowing in the reverse direction. The check valves are installed between indicating valves with test cocks and pressure gauges for routine testing to verify their effectiveness.

A third type of backflow preventer (called a reduced-pressure-principle backflow assembly), is similar to the double check valve assembly, but it keeps the pressure between the two check valves lower than the supply pressure. The reduced-pressure-principle assembly consists of two independent check valves separated by an automatically operating pressure-differential relief valve. If either check valve leaks, the relief valve operates to keep the pressure between the valves lower than the supply pressure. Reduced-pressure-principle assemblies provide the highest level of safety for direct cross-connection to potable water supplies. However, many fire officials worry that if the relief valve fails in the open position, the water supply will discharge directly to the drain, drastically reducing the water available to the automatic sprinkler system.

Classifications and Recommended Backflow Protection

The American Water Works Association (AWWA), the leader in providing guidance for backflow prevention, has rated the various contamination hazards that fire prevention systems present to the potable water supply by classifying them according to their piping arrangement and supplies. The classifications range from Class 1, which presents the fewest hazards, to Class 6, which presents the most.

Class 1 fire protection systems have direct connections from public water mains. They contain no pumps, tanks, or reservoirs, and there's no connection to other water supplies. No additives, such as antifreeze, are put into the system water, and all sprinkler drains discharge to the atmosphere, to dry wells, or to other safe outlets. Class 2 systems are similar to Class 1 systems, although booster pumps may be installed in the connections from the street mains.

Class 1 and 2 fire protection systems don't generally require an approved backflow protection assembly at the system user connection unless special conditions threaten to contaminate the domestic water supply. Examples of such conditions include underground sprinkler pipelines parallel to, or within 10 feet (3 m) horizontally of, sewer or other pipelines carrying toxic materials; occupancies in which materials are used, stored, or handled in a way that might present a health hazard to the domestic water supply; and a premises with unusually complex piping systems.

Class 3 fire protection systems also have a direct connection from the public water supply mains, but they have elevated storage tanks, fire pumps that take suction from above ground covered reservoirs or tanks, or a combination of these elements, as well as pressure tanks. Class 3 systems generally require an approved double check valve as cross-connection protection.

Like Class 1, 2 and 3 systems, Class 4 systems are directly supplied from public mains. However, they also have an auxiliary non-potable water supply dedicated to fire department use within 1,700 feet (518 m), of the pumper connection. Class 4 systems normally require backflow protection at the service connection, although the type of protection generally depends on the quality of the auxiliary supply.

Class 5 systems are supplied from public mains as well. Like Class 4 systems, they're also interconnected with auxiliary supplies. However, these supplies include pumps that take suction from reservoirs exposed to contamination, rivers and ponds, driven wells and other industrial water systems, and systems in which antifreeze or other additives are used (condenser and chilled water). Class 5 systems normally need the maximum protection to keep them from contaminating the public water supply.

Finally, there are the Class 6 systems which are also supplied from the public water mains. Class 6 systems may also include gravity storage or pump suction tanks. Protection for these systems depends on both industry and

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Tech Talk

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fire protection requirements and can only be determined by surveying the premises.

Fire protection systems may require a jockey pump (an auxiliary pump with a high head and low capacity), to keep the system pressure elevated. Jockey pumps must be discharged downstream of any check valve, double check valve assembly, or reduced-pressure-principle backflow prevention assembly. But they can take water from the public supply either up, or downstream of an assembly. If the water is taken from the upstream side, an assembly of the type used on the main line must be installed on the supply line.

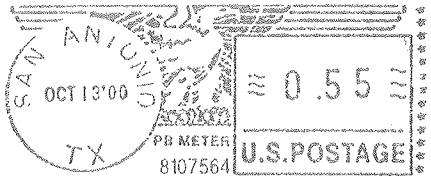
Both the fire protection and the backflow community agree that Class 3, 4, 5, and 6 systems need approved backflow prevention assemblies because they present cross-connection hazards. However, the backflow community also feels that the presence of stagnant water in the sprinkler system piping makes Class 1 and 2 systems cross-connection hazards, as well. The fire protection community disagrees, noting that there is little or no documentation to support the backflow industries position. In fact, it's difficult for water authorities to determine precisely where a given backflow incident starts because the piping arrangement is so complex!

Next Month: What exactly is at issue here!

Charlie's Law: The trouble with doing something right the first time is that nobody appreciates how difficult it was!

"Just a Maintenance Man"

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



Charles H. Mikolajczyk, Jr., CBE
Endeavor Real Estate Group
8000 IH 10 W, Suite 250
San Antonio TX 78230

SAABE TIMES
October Issue

Final Thought —

In America, anyone can be President.
That's one of the risks you take.

2000 Board of Directors

Paul Thompson, SMA President	524-9285
Elena Castillo 1st Vice President	495-2195
Tom Lasater 2nd Vice President	828-9829
Bill Blackford Secretary	967-8766
Cesar Alvarado Treasurer	357-2258
Mike Lusk Education Director	340-2533
Mike Alvarez Vendor Representative	824-9581
Lynn Forester Association Coordinator	(830) 981-5223

Membership Luncheon
Octber 18, 2000

Time: 11:30 a.m.

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

Topic: Direct Digital Control

Speakers: Bob Wright and Mike Alvarez

Sponsor: Ward Systems

Upcoming Luncheon November 15:
Five Star Electric Motors

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

ink SPOT ink

210-340-5454
e-mail: inkspot@onr.com

San Antonio
Association of Building Engineers

TO: All Members of SAABE

FROM: Lynn Forester, Association Coordinator

RE: Building Engineer of the Year Award

The Awards Committee is beginning its Building Engineer of the Year evaluation process, and is requesting nominations for consideration this year. Please submit the name(s) of building engineers that you feel are outstanding professionals in the field of commercial property maintenance.

We are looking for a SAABE member who best exemplifies the pinnacle of professionalism – the building engineer who has a thorough understanding of all issues affecting their property and runs a top notch operation.

We thank you for your careful consideration in assisting us with nominees, and look forward to the announcement of the 2000 Building Engineer of the Year at the January General Membership Meeting.

* *

Nominee's Name: ____

Building(s) Maintained by Nominee: ______________________________________

____

Please state within the space provided below why you feel this individual should be considered for the Building Engineer of the Year award:

____

____

____

____

Your Name: ____________________________________

Company: ____________________________________

Date: ____________________

Nomination Deadline: Please fax to 830-981-5188 by Tuesday, October 31, 2000
(no cover sheet required, don't dial a "one" first)

SAABE REGULAR MEMBERS (BUILDING ENGINEERS)

Henry Aguirre (Rector Management)
Cesar Alvarado (GPM Life Insurance)
Phillip R. Anderson, SMA, FMA, CBE
(Ultramar Diamond Shamrock)
Robert C. Andrews, SMA, CBE
(Mack-Cali Realty Corporation)
Rudy Balboa (Lincoln Property Company)
Bob Beal (Transwestern Commercial Services)
Mike Casteneda (West Teleservices)
Elena Castillo (Rector Management)
Bernardo Chapa (St. Anthony Hotel)
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David Coca (Mack-Cali Realty Corporation)
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Phil Eastman (Mack-Cali Realty Corporation)
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Alex Flores (Mack-Cali Realty Corporation)
Roger Fraser (QVC San Antonio Inc.)
Miguel Garcia (KCI Properties)
Emmett Garrison (Lincoln Property Company)
Dave Gifford
(Tolin Mechanical Systems Company)
Andrew Gilkey (Orion Parners)
Jimmy Gonzales (La Mansion del Rio Hotel)
Alex Gonzalez (Healthcare Realty Services)
Danny Gonzalez (Alamo Towers Management)
Bruce Goodman (CB Richard Ellis)
Doug Graves (Hines Interests)
Mike Gruber (Euro Alamo Management)
Bill Humes (SACU)
J.R. Iniguez, Jr. (Wells Fargo Bank)
Jim Johnson
(Transwestern Commercial Services)
Tom Lasater (The Carlyle)
Jim Lavoie
(South Texas Blood & Tissue Center)
Ernest Lesa (REOC)
David Loera
(Tolin Mechanical Systems Company)
Jerry Lovell
(Texas Engineering Extension Service)
Rudy Marroquin
(Macfarlan Real Estate Services)
Adam Martinez (Spectrum Building)
John Martinez (Cross & Company)
Ray Martinez
(Transwestern Commercial Services)
Floyd McDonald
(Kennedy Wilson Property Services)
Doug Merisola (R.M. Crowe)
Charles H. Mikolajczyk, Jr., CBE
(Endeavor Real Estate Group)
Will Moke (Cross & Company)
Carl Montgomery (La Mansion del Rio Hotel)
Armando Morales (Spectrum Building)
Ruben Morales
(Tolin Mechanical Systems Company)
Danny Moreno
(Tolin Mechanical Systems Company)
Howard Newsome (Trammell Crow Company)
Willie Ng (Lincoln Property Company)
Tony Norton (Weston Properties)
Ramiro Olveda (PS Business Parks, L.P.)
Roland Ortiz (North Frost Center)
Tom Parrish
(South Texas Blood & Tissue Center)
Eugene Patillo (REOC)
Larry Peck
(Transwestern Commercial Services)
Raul Perez
(Tolin Mechanical Systems Company)
Robert Ramos (Trammell Crow Company)
Gilbert Saldana (Mack-Cali Realty Corporation)
Mark Salinas (Ogle Enterprises)
Gilbert Sancho (Trammell Crow Company)
Tony Schmidt (Airport Center)
Modesto Serros (Four Thousand One)
Perry E. Shipman (McMarr Properties)
Allen Simon (Lincoln Property Company)
Bill Smith
(Tolin Mechanical Systems Company)
Tim Taylor
(Security Service Federal Credit Union)
Stuart Thompson
(Tolin Mechanical Systems Company)
Paul Thompson, SMA
(Pyramid Property Management, Inc.)
Jock Tilghman (CB Richard Ellis, Inc.)
Larry Trujillo (San Pedro Plaza)
Bruno J. Vera (USAA Realty Company)
Luis A. Villarreal (Grubb & Ellis)
Andy Vivian (USAA Realty Company)
Mike Waller (Trammell Crow Company)
Ken West (McMarr Properties)
Andrew Zaragoza (Equity Office)
Tony Zepeda (Euro Alamo Management)