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TEAM AEF

aef

HAPPY - BRAVE - NICE

Our 42nd Year

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REDUNDANT RULES!

In the high tech world of mission critical heat tracing systems, AEF's customers find redundancy is the way to go. *redundancy is the way to go.*

X-RAY EYES?

How the heck can those guys from TEAM AEF actually tell what's going on underneath insulation? Find out, and see what it can mean for you.

TEMPUS FUGIT

We're all getting older, and it's probably safe to say most of us are not getting cuter, but we bring you a Calvacade of Cuties, Babes in AEF Land.

ASK BERNADETTE

The World's Only Answer Cow doles out common sense and encouragement to readers with problems.

Redundancy is the Way to Go! Redundancy is the Way to Go!

If you can't stand the heat, you'd better stay away from data centers (some folks prefer to call them 'server farms'). Used by banks, financial institutions, and internet companies among others, these centers are packed, PACKED, with servers, the computers that do the heavy lifting of all the data that floats around cyberspace. While newest servers process a lot more data a lot faster than their predecessors, they also throw out a whole lot more heat, so much



Twice as Good. Two are better than one, especially when you can have two for the price of one. (Almost. See article for details.)

so that for every dollar spent to power a server, another dollar is spent keeping it cool. (The four cooling towers at one telecom center pump 13.5 million gallons every day.)

Because the cooling system is so absolutely vital to these centers, the freeze protection systems that keep them going are 'mission critical'; and because the freeze protection *has* to work, all the time, the people responsible for them in AEF Land have been turning to TEAM AEF, putting their forty-plus years of experience to work.

In many cases the best answer is a redundant system, which not only provides superlative reliability, but turns out to be surprisingly cost-effective. (Go to 2)

Who Knows What Evil Lurks Under That Insulation? We Do!



We See Through Insulation!

If you're responsible for an existing heat trace system, you know the drill. If there's a problem, just what *is* the problem? Is the heater good but the controller has failed? Are the heater and the controller good but the insulation isn't? How can you tell?

Here's how you can tell. (And why you should care.)

Finding out where the problem is is pretty easy: you holler for TEAM AEF and they come running to do a complete survey of your system, lock, stock, and thermostats. They check out everything, pinpoint the problem areas, and give you a detailed proposal on the best way to fix it. What ain't broke won't get fixed; what needs fixin' ll get fixed.

Why You Should Care. Doing it our way will save you time, agita, and a whole lot of money. Removing insulation is expensive (even more expensive if asbestos is involved) and so is replacing it. So TEAM AEF will diagnose your system **WITHOUT** removing insulation! Combine that with utilizing every part of your existing system that's working, and you get a fully functioning heat trace system in a fraction of the time a new one would take, at a fraction of the cost. On one utility project the customer calculated that the AEF Turnkey retrofit saved them \$285,000 over replacement cost. Worth a (toll-free) phone call to have us look at your system, yes? (To find out what one survey said, see Richard Dawson on page 2.)

The formula 'Two and two make five' is not without its attractions.
Fyodor Dostoyefsky

*I accept chaos.
I am not sure whether it accepts me.*
Bob Dylan

If a blind man leads a blind man, both will fall into a pit.
Matthew 15:14

The world is full of obvious things which nobody by any chance ever observes.
Sherlock Holmes

In today's society we spend so much time making sure no one is 'stigmatized' that we tend to forget the some things deserve a stigma.
Katharine Ham

You cannot run away from weakness; you must fight it some time or perish; and if that be so, why not now, and where you stand?
Robert Louis Stevenson

An ignorant person is one who doesn't know what you just found out.
Will Rogers

Do not anticipate trouble, or worry about what may never happen. Keep in the sunlight.
Ben Franklin

memo

FROM
PETER FASOLINO

At AEF Sales, our fiscal year ends before the calendar year does, and in both cases it's an opportunity to pause and take a look back. For the fiscal year, the company far surpassed its' previous best sales year. It has taken a lot of hard work by all hands to generate that kind of growth

with everyone pulling together as a team. Great job, guys!

Of course, we also have to thank our customers for a great year. All of us here understand that when you place an order with us, you are entrusting our company to become a part of your team, and we are all committed to work flat out to make your project go smoothly. I think that our willingness to go the extra mile keeps customers coming back, and that has been a key factor to our continued growth. We appreciate your loyalty, but we know we have to keep earning it every day.

Over the past year, we've been involved with larger, more complex projects than ever before. It's been exciting, and it has pushed us to add new skills and new systems to keep pace.

Looking ahead to the new year is even more exciting. New projects on the drawing boards and new initiatives with the company hold the promise of an even better year in 2007.

On behalf of all of us at AEF Sales, our best wishes for a wonderful holiday season, and a healthy and happy New Year.

Redundancy Redundancy

Counting the Cost. When you consider the installed cost of any heat tracing system, the most vital element, the heater cable itself, accounts for a very small percentage, with much larger shares going to insulation, distribution, and installation costs (which in turn are only a small part of the cost of the cooling towers, air handling units, and associated pipes and valves). So the incremental cost increase for including a redundant heater cable on each pipe is modest, yet it adds tremendously to the reliability of a system that cannot be allowed to fail.

Watching over the entire system twenty-four hours a day is a CM2 Monitor Panel, also provided by AEF. This automatically checks every heater cable, AND every pipe. Besides checking every heater for high current, low current, and sensor failure, it uses RTD inputs to monitor and display the actual temperature of every pipe.

The CM2 is programmed so that the temperature settings between the primary and secondary systems are coordinated, with the low temperature alarm on the primary system set slightly

"The incremental cost increase for including a redundant heater cable on each pipe is modest, yet it adds tremendously to the reliability of a system that cannot be allowed to fail."

Survey Said:



One recent AEF Survey was kind of interesting. Pietro Fasolino went to check out a system originally laid out back in the '70's by his grandfather, Chairman Tony. The MI cables were going strong, but the mechanical stats had become corroded over time, and the building engineer wanted a monitoring system.

The eight old stats were replaced with electronic stats to provide ground fault protection (not required by code in the '70's but required now) plus more precise temperature control, high and low temperature alarms, and high and low current alarms, all using existing wiring and conduit.

above the control setpoint on the redundant system. If the pipe temperature drops below the low temperature alarm of the primary system, the CM2 cleverly turns on the redundant cable, saving the day. A dry contact in the CM panel is tied into the BMS to indicate an alarm condition on any one of the heater segments, or loss of power to the panel itself. (Additional remote control and monitoring is available via an RS485 connection, which allows all control and monitoring functions to be accomplished remotely over a windows-based PC.)

Even Redundanter. On many mission critical systems the owners opt for a redundant CM2 panel to control and monitor the redundant cables. The primary and redundant CM2 panels are fed from different power sources, giving the absolute ultimate in protection to these vital cooling systems.

One More Thing. The "GF" version of the CM2 panel allows for adjustable ground fault and trip settings. Setting the ground fault alarm lower than the ground fault trip level, allows time to address the problem before the heater is shut off. Where several short heaters are combined on a single breaker, the CM2GF will alarm or trip *only* the cable with the problem, leaving the other heaters on the same breaker in action. And the "GF" provides this protection WITHOUT ground fault breakers.

From the simplest heat trace system to the most sophisticated, TEAM AEF has your answer.



Bernadette
The AEF Sales Answer Cow

DEAR BERNADETTE:

I installed one of those hydronic floor warming systems. There were big problems, leaking, damages, lawyers. Never again. I never had any problem with any MI floorwarming system I ever installed, but the only problem I have with MI cable is sometimes I can't get it fast enough. Is there any hope? There's nobody crazy enough to keep a bunch of MI cables on a shelf someplace, is there? R.F.

DEAR R.F.:

Actually there is someone crazy enough to put MI cables in stock. I have learned that in the AEF Sales Warehouse there are actually over 228 MI cables on the shelf, ready to ship to customers the same day the

order is placed. These are cables that range in length from 30 feet up to 210 feet, so whatever you need, you're pretty well covered. 228 MI cables! Maybe those guys at AEF *are* wacky!

DEAR BERNADETTE:

As a mechanical contractor sometimes I find myself between a rock and a hard place. What I mean is sometimes the spec calls for me to provide heat trace, even though the electrical contractor actually installs it. So I buy what I think I'm supposed to buy, and give it to him to put in, but then sometimes he needs more material, and sometimes he says what I gave him won't work because of some electrical issues, and I get hit with extras I don't want and aggravation I don't need. Everybody at the job meetings winds up pointing at everybody else --- can't we all get along? L.D.

DEAR L.D.:

On-site support for heat tracing is never more important than when the material is provided by one trade to be installed by another. TEAM AEF spends a lot of time crawling around jobsites to make sure that the material they provide will function as promised, and so everyone is up to speed. Make sure you call AEF next time out, and let me know what you think. I think you'll love the way they do business!

Never fight an inanimate object.
P.J. O'Rourke

It will never rain roses; when we want roses we must plant rosebushes.
George Eliot

Be not afraid of going slowly; be afraid of standing still.
Chinese Proverb

The word 'genius' isn't applicable in football. A genius is a guy like Norman Einstein.
Joe Theismann

Watch out when you're getting all you want. Fattenin' hogs ain't in luck.
Uncle Remus

If your sister hits you, don't hit her back. They always catch the second person.
Maria D.

Customers prefer to trade with salesmen who offer them special service and demonstrate willingness to do the special and unusual even when business is good.
Tony Fasolino

Take all your savings and buy some good stock and hold it till it goes up, then sell it. If it don't go up, don't buy it.
Will Rogers

Babes in AEF Land

As much as us grownups would like to kid ourselves about the passage of time, and pretend as best we can that we aren't getting any older, here's living (and very cute) proof that it just ain't so.



ISABELLA
(Pietro's Daughter)



MALACHI
(Brandy and Brandon's Son)



MEG
(Wes' Granddaughter)



LEAH
(Wes' Newest Granddaughter)

Officer Joe Bolton

There's not a kid who grew up in New York in the '50's and '60's who didn't spend quality time with Officer Joe Bolton. Although Joe Bolton had been around for years in Philadelphia and New York working as a sportscaster and doing newsreels, 1954 found him doing a weatherman gig on WPIX in New York.

WPIX had just gotten the rights to air *The Little Rascals*, and they were looking for someone to host the new show. The station's program director asked his son's friends who they would choose, and he was surprised when they chose the TV weatherman. Joe Bolton got the nod, but he didn't like the station's idea that he should host the show as a comical hobo. He wanted to do it as a friendly local cop. Officer Joe Bolton went on the air in January 1955.

In 1957 WPIX lost the rights to the *Rascals*, and the station filled the gap with *The Three Stooges*. The *Stooges* were an instant hit, and were soon making appearances all over New York, usually with Officer Joe. The show continued until the mid '60's. Joe Bolton eventually retired, and passed away in 1986 at the age of 76. But for a lot of his fans he still evokes nice memories of a simpler time.



Backwords

Optometrist Optimist

Actor Peter Falk, who has only one eye, tells a story about a time he went in for an eye test. The optometrist asked him to read the chart with his left eye; then he told Falk to switch to his right eye. "Doc, the right eye is glass," Falk said. "Well," says the eye doc, "just do the best you can."

FAST Relief for Temporary Lines

When you've got temporary lines that need heat tracing, you usually don't have a lot of time to waste. We've got everything you need, and we'll ship it today. (For some folks 'Stock' seems to have a different meaning that it does for TEAM AEF, where 'Stock' means 'It's-on-the Shelf-and-We-ll-Ship-It-Today'.)

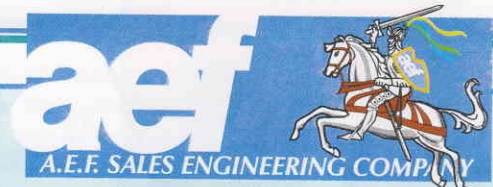
Calendar Boys

Julius Caesar is famous for inventing the Roman Empire, the comb-over, and the calendar. While the Empire is gone, the comb-over and the Julian calendar have stood the test of time. The calendar used by the Romans consisted (theoretically at least) of 12 months totaling 355 days. By the time Julius was calling the shots the calendar did not really match up to the seasons anymore, so he came up with a new one, with 12 months totaling 365 days, with one leap year every fourth year. The month we call July was named for him. The month of August was later named for his successor, Augustus. (They also stole a day from September, so that Augustus' month would have as many days as Julius'.)

Today's calendar underwent slight tweaking in 1582 by Pope Gregory XIII, but is otherwise pretty much as the Julemeister set it up.

Spectacular Finish at Yonkers Raceway

The contractor installing heat tracing at Yonkers Raceway needed a few end seals and some fibreglass tape to finish up the job. Since it was a construction site UPS couldn't get it there; the material would have had to ship to their shop, and they'd lose time they couldn't afford to lose. Fortunately they got their heat trace material from TEAM AEF. AEFer Peter Fasolino gathered up what was needed, hopped in the car, and hand delivered it to the site. AEF's Legendary Service strikes again!



A.E.F. SALES ENGINEERING COMPANY

TRANSFORMERS Central Moloney

Single Phase Transformers: Pole Type, Padmounted, Vault, and Stepdown
Three Phase Padmounted Transformers
Components: Bushings-Switches-Accessories
JSRP Job Site Ready Padmounts

R.E. Uptegraff Manufacturing
Liquid Filled Transformers to 20mva
Subsurface, Load Center, Station Type
Rectifier Applications, Zig Zag Grounding
Phase Changing and Phase Shifting
Traction Power, Current Limiting Rectifiers
Rebuilding and Rewinding Services

HEATER CABLE & CONTROLS
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