



# aef/fyi

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SPRING  
2007



"Special Treasure Issue"

THE OFFICIAL NEWSLETTER OF A.E.F. SALES ENGINEERING COMPANY

VOLUME 16  
ISSUE 4

"America's  
Favorite Newsletter"

MARCH 2007

TEAM AEF

**aef**  
HAPPY - BRAVE - NICE

Our 43rd Year

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Who's got the core steel?  
You do, you old sea dog, if you  
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More treasure for AEF  
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Don't let this happen to you!

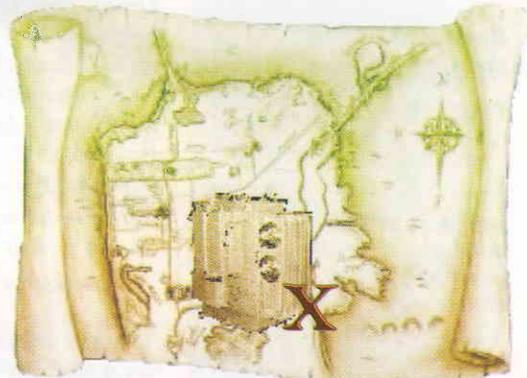
### ASK BERNADETTE

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explains things to one reader,  
and for the first time in memory  
is STUMPED by another!!!  
Bernadette asks for your help!

## Here's Where all the Core Steel Be Hid, Ya Swabs!

*These days you can't get hold of core steel  
for love or money.  
But we knows where there's plenty.*

For want of a nail the horse was lost, and for want of core steel a lot of people are having to wait up to a year for a new transformer. "There's no core steel, we're waiting on our allocation, so you'll have to wait too." But if you look at yon treasure map you'll see that the core steel you need may be right in your own backyard, sitting in a transformer you already own. OK, says you, but how do I get at it? Simple: just have R.E. Uptegraff rewind the unit, using the same core steel you *already have* to build the transformer you need.\* The re-built unit can be identical to what you have now (but with a new transformer warranty) or it can be surgically enhanced by the experts at Uptegraff to be better than it ever was. (Go to 2)



**X Marks the Spot**

\*Rewinding re-uses the core steel in most cases. Your mileage may vary.

## Forget Them Doubloons, Matey: Go for the Rusty Thermostat!

*Ahoy there, lubbers. If ye swear by Davy Jones Locker  
you'll read this article, we'll belay the fake pirate jabber.  
But there's treasure ahead, me hearties. A-argh!*



Back in the day when there was only one kind of Coke, and cars were actually made out of metal, all heat tracing systems were controlled by good old mechanical thermostats, in happy NEMA 4 sheet metal enclosures with a nifty white paint finish to match any decor. As time went on age, rust and corrosion caught up with those stats, but many of them are still on the job, well the worse for wear, if they're still working at all.

As time marched along, things changed. One of the things that changed was the materials available for enclosures, and NEMA 4X enclosures in materials and powder coated finishes that nobody out side of NASA would have dreamed of forty years ago became the new standard.

Another big change came when the NEC began to require ground fault protection on all heat tracing circuits.

So the question comes up, how do I bring my older heat tracing system up to code, and what do I do with all them rusty old thermostats? Is there a neat, simple way to bring everything up to snuff? And can I sell those old stats on eBay or something? (Go to 3)

All we have to decide is  
what to do with the time  
that is given to us.

J.R.R. Tolkien

People who enjoy  
meetings should not be  
in charge of anything.

Thomas Sowell

By its fruit  
the tree is known.

Matthew 12:33

And thou shalt have  
dominion over all  
creatures, except, of  
course, cats.

Felines 1:1

That man is successful  
who has lived well,  
laughed often, and loved  
much; who has gained  
the respect of intelligent  
men and the love of  
children; who never  
lacked appreciation of  
earth's beauty or failed to  
express it; who looked for  
the best in others and  
gave the best he had.

Robert Louis Stevenson

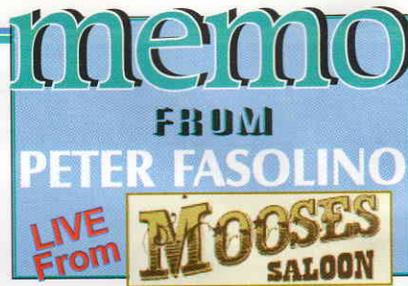
Even if you're on the  
right track, you'll get run  
over if you just sit there.

Will Rogers

I keep a bottle of whiskey  
handy in case I see a  
snake, which I also keep  
handy.

W.C. Fields

Diman penz e' riebbette.  
Stasera so nu Re.  
Lellucio di Santa Lucia



If your travels happen to take you to the northwest corner of Montana, I highly recommend a visit to Moose's Saloon on Main Street in Kalispell. It's a friendly place with sawdust on the floor and a local tradition of people carving their names into the benches, tables, and wood paneled walls. They serve pretty good pizza (considering it's 2500 miles from New York) and they forgo the unfortunate Montana custom of serving ranch dressing on the side to dip the pizza in.

Whenever I travel, I try to sample local beers, so I asked the bartender what regional brews they had on tap, thinking there might be two or three to choose from. He smiled, tipped back his baseball cap, and invited me to join him at the far end of the bar.

There, he gestured to a dazzling array of draft beer pulls with names I had never heard. Moose Drool. Last Train Home. Troutslayer. Slow Elk. Flathead Lake Monster. And more --so many beers, so little time. But with a few questions and some friendly advice, the barkeep guided me to an excellent choice.

If you don't have travel plans to northwestern Montana, but you'd like to enjoy a semblance of the Moose's Saloon experience, the next best thing is to buy some heater cable from AEF Sales. We have over 60 different kinds in stock in our warehouse, and our team of graciously knowledgeable heater cable geeks will make sure you get the one that's just right for your application.

For more information about AEF Sales, visit [www.aefsales.com](http://www.aefsales.com). For more information about Moose's, visit <http://www.moosessaloon.com>.

Thanks for stopping by!

(Team AEF reminds you to enjoy our products responsibly.)

**A Surgically Enhanced Transformer?** Sure. For one thing modern winding designs can result in lower core and winding losses, so the kVA of the unit can actually be increased.

Real life doesn't give you many do-overs, but rebuilding a transformer is definitely a do-over opportunity: Rewind to another voltage? Sure. Relocate the bushings? No problem. Add accessories? Don't be afraid to ask.

**M-O-N-E-Y.** If you don't care about saving money, skip this section. If you do care about money (not that there's anything wrong with that), consider that rebuilding can save you about 40-45% over the cost of a new unit. Yes, you heard that right, **save 45% over the cost of a new unit.** On a \$50,000 transformer you could save \$20,000. Worth checking into, yes?

**Guaranteed.** Units re-built by Uptegraff come with the same warranty as a brand new transformer, and have the same life expectancy.

**Environmentally Peachy Keen!** Re-winding generates a whole lot less scrap---good for the planet, good for your company.

**And in Conclusion . . .** Having Uptegraff re-build your transformer lets you utilize the precious core steel you already own, get your transformer faster, is way cool environmentally, and saves you around 45% over the cost of a new transformer. *Is there something here not to like?* If you have a transformer you'd like to turn into hidden treasure, call now. Operators are standing by.

### "Engineered to Order" --- What It Means for Our Customers

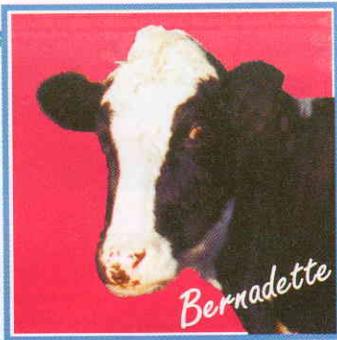
Susan Endersbe is the President of R.E. Uptegraff, an independent, family owned company that's been doing nothing but building transformers since 1926.

Many customers use Uptegraff's engineering expertise to repair and rebuild units originally provided by other manufacturers who can't (or won't) re-build their own units.

"Engineered to Order" involves more than technical know-how, it involves attitude: a willingness to listen to what the customer needs and then finding a way to do it.

- ZIG-ZAG Grounding Transformers
  - Disc Wound Transformers
- Gigantic Padmount Transformers (12 mVA)
- Subsurface and Network Transformers
  - Special Requirement Transformers
  - Phase Changing and Phase Shifting Transformers
  - Current Limiting Rectifiers
  - Submersible Transformers
  - Network Transformers
- The Special Transformer You Need\*

\*The one that solves your problem and makes you a hero!



**Bernadette**  
The AEF Sales Answer Cow

DEAR BERNADETTE:

In the last issue of this newsletter they mentioned something about replacing old mechanical thermostats with new electronic stats. Can you provide a little more info on that please? J.D.

DEAR J.D.:

Glad you brought that up, cause this is definitely an idea whose time has come. There are many older heat trace systems controlled by mechanical thermostats in old-fangled sheet metal enclosures.

Time has wrought its fateful work on those old enclosures, and times have changed with regard to code requirements, which make ground-fault protection mandatory. One way to bring an older system up to snuff is to replace the thermostats with new ones in NEMA 4X enclosures, and add ground fault breakers to the panel. I don't care for this approach for two reasons. First off I get steamed up thinking about how expensive those darn GF breakers are; plus in some cases the distribution panel can't be retrofit with 30 mA ground fault breakers anyway. I'd rather spend

the money replacing the mechanical stats with electronic stats. These little beauties provide the ground fault protection the Code requires, WITHOUT ground fault breakers. At the same time instead of the On/Off and that's all folks you get with a mechanical stat you get the more precise temperature control, high and low temperature and current alarms, all using the existing wiring and conduit as well as the existing heater cable and breaker panel. A neat little solution, yes?

DEAR BERNADETTE:

You gotta help me out here. You know how little kids are always 'Why? Why? Why?' I try and answer my little guy as best I can, cause I know that's how he's gonna learn, and usually I've got an answer for him, but now I need help. I showed him a globe, showed him how the earth spins. Naturally after a few seconds it slowed down and then stopped. He asks me how come the real earth doesn't do the same thing? I was stuck. How come anything else moving like that slows down and eventually stops, but not the earth. R.S.

DEAR R.S.:

Usually if I don't have the answer to a reader's question, I can find the answer. But this has me completely stumped, for the first time, and I've been writing this column for over twelve years now.

Rather than give R.S. wrong information, I am appealing to you, dear readers. I know that many of the best minds and deepest thinkers read this newsletter regularly, and I'm hoping one of you can provide the answer. Please e-mail to [Bernadette@acfsales.com](mailto:Bernadette@acfsales.com).

Many thanks!

## Rusty Stats . . . .



Well matey (*sorry, we won't say it again*), TEAM AEF has your answer, and you'll get everything you need (and more than you hoped for) *plus* a Cash Reward for those old stats!

You've probably heard the expression 'Win-Win Situation' so many times it makes you sick, but how bout a Win-Win-Win Situation? That's what we've got going here.

**Win.** Your old heat tracing system comes up to code, ground fault protection and all, without spending a nickel buying or installing GF breakers. (Bonus: If you have multiple heater segments on a single GF breaker, and any one of those cables has a ground fault problem, the breaker trips and EVERY heater cable gets turned off, even the ones with no problem! It's just not fair, and it won't happen with your new electronic stat.)

**Win-Win.** Those old corroded stats get replaced by beautiful new electronic thermostats. ALL YOU DO IS SWAP OUT THE OLD FOR THE NEW: NO NEW WIRING, NO NEW CONDUIT! And those new stats give you high and low temperature and current alarms.

**Win-Win-Win.** This here's the Reward part. As far as we know no one has ever offered a trade-in on old thermostats. (We sure as heck never have.) But right now TEAM AEF is doing just that: for every old mechanical stat you replace with a new electronic stat, you'll get \$15 right off your invoice.

Wait. Make that 25 samoleans!

But you better call us quick, before we come to our senses.

*Sing it now, while  
you still have a song.*  
Jefferson Starship

*Reflect on your present  
blessings, of which every  
man has many; not on  
your past misfortunes, of  
which all men have some.*  
Charles Dickens

*Be thankful we're not  
getting all the government  
we're paying for.*  
Will Rogers

*No great deed is done  
by falterers who ask  
for certainty.*  
George Eliot

*Tell people exactly what  
they want to hear enough  
times, and they will start  
to believe it.*  
Susan Clancy

*Everybody wants to save  
the earth; nobody wants to  
help Mom do the dishes.*  
P.J. O'Rourke

*Innovators and men of  
genius have almost always  
been regarded as fools  
at the beginning of their  
careers, and very often  
at the end.*  
Fyodor Dostoyevsky

*The key to being a good  
manager is keeping the  
people who hate you away  
from the people who are  
still undecided.*

Casey Stengel

**'A-AWK!'**  
**'Fine Print! Fine Print!'**



FINE PRINT: We are not actually interested in accumulating old thermostats, but we want to give our customers an incentive to get their system up to snuff. The \$25 for each old thermostat you replace with an electronic one will come right off your invoice. Offer ends May 31, 2007.



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