

fall  
1998

Volume 9  
Issue 3

# aef/fyi

brought to you by

A.E.F. SALES ENGINEERING COMPANY Mamaroneck, N.Y. (914) 698-0432 Fax (914) 698-7279

"America's Favorite  
Newsletter"



A.E.F. Sales  
Engineering Company

July 1998



Our 34th Year

## CONTENTS:

### DC HEROES

Five thousand users of Direct Current in the Big Apple are about to get squashed. AEF Sales rides to the rescue!

### SURF'S UP!

AEF launches the best site on the Internet. We know it's the best cause our Mom said so.

### CASH BACK from AEF

Is there a catch to it? Sure there is, but it's a very small catch.

### PROMISES, PROMISES.

A scary look back at a past performance of the same government that's bringing you Social Security will be there for you.

## AEF to Rescue the 'DC 5000'

You know you've got trouble when you get a letter from your electric company that starts out "Dear Valued Customer". But for five thousand Con Ed customers in Manhattan and Brooklyn, it was even worse than they thought. See, when ConEd started supplying power back in 1898, most people used DC power. But over time most usage has changed over to AC, which means that, in today's competitive environment, the five thousand valued customers still using DC (mostly to run older elevators, fire pumps, motors, and industrial sewing machines) are about to take a Big Hit. Here are the questions, and the answers.

**How Big a Hit?** Big. Really Big. For most customers it means a monthly charge of \$385, plus an extra 11 cents per kilowatt hour of DC power! What's that in real dollars? For one mid-town building the increase was calculated to mean an extra \$5,900 on their monthly bill. That's more than \$70,000 a year. YIKES!

**Is There Any Way Out?** Yes, there are two: 1) Convert your building and equipment over to AC, or 2) install an AC Rectifier between the building's AC feed and your DC equipment.

**Is Converting the Whole Building to AC as Complicated as It Sounds?** Yes; worse actually. Every DC motor in the building would have to be replaced, from those big old things running the elevators to all the smaller ones running machines and fire pumps. You don't even want to know what that would cost. And according to one expert we interviewed, that's not even the worst of it: "This is big and it's complicated. It's not something you start on Saturday morning and have it done by Monday." He likened it to highway construction, with most of the lanes closed down. Do you really want to spend a couple of months like that? (Editor's Note: If any buildings owned by the Federal Government are affected, they'll probably convert to AC. Need we say more?) **continued**

## www.aefsales.com

What can you say about a website that's warm and cozy, that's young and happy, and yet so packed with valuable technical information that you can visit while you're at work and not feel guilty? What can you say about a website that really loves you?

Well, you could say it's [www.aefsales.com](http://www.aefsales.com) and that it's waiting to hear from you. It features helpful suggestions on good places to buy electrical equipment, different ways AEF Sales can make you look like a hero (and let you take the credit!), a guide to products and services, hot links to some great manufacturers, plus an inside look at AEF's Amazing Local Inventory, your guide to miles of festive heater cables and piles of zesty controls that you can have tomorrow! And last but certainly not least, an on-line edition of aef/fyi, America's Favorite Newsletter!

Why not drop everything and visit us right now?



**BENVENUTO! WELCOME!**  
Guido, AEF's World Famous  
Corporate Seal, welcomes visitors  
to our website in two languages!



*Is it just us, or is the  
20th century starting to  
seem like a bad idea?*

**Dave Barry**

*A good parent  
remembers what it was  
like to be a child.*

**Anna Quindlen**

*Look! The nations are  
as a drop from a bucket;  
and as the film of dust  
on the scales they have  
been accounted.*

**Isaiah 40:15**

*It is hard to believe in  
God, but it is far harder  
to disbelieve in Him.*

**H.E. Fosdick**

*A whole loaf is better  
than a kick in the head.*

**New Riders**

*When Columbus left, he  
didn't know where he  
was going. When he got  
there, he didn't know  
where he was. When he  
got back, he didn't know  
where he'd been.*

**Michel Robert**

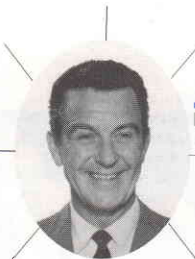
*Hatred and unhappiness  
corrode the container  
they're carried in.*

**Pop Simpson**

*Never go to bed mad.  
Stay up and fight.*

**Phyllis Diller**

## memo from Peter Fasolino



During the summer, I had the chance to visit Walt Disney World with my family. There, in the Magic Kingdom, just past Peter Pan's Flight, is one of my favorite signs. At the entrance to the Skyway, it reads "This Attraction is One Way to Tomorrowland."

If you haven't been to Walt Disney World lately, pencil it in. But whether you go there or not, keep the sign in mind, because the attraction you are on right now --- Planet Earth --- is also a one way ride to Tomorrowland. In fact, because of the rotation of the earth, right at this moment you're heading to tomorrow at just about a thousand miles an hour.

What will it be like? Will you be ready for it?

At AEF Sales, we ask these questions a lot. The rapid changes in technology, in the business climate, in the ways that people can work together

means that what worked yesterday probably won't work tomorrow.

How are we getting ready? Well, our website is a start. We plan to grow that into a resource for both new and existing customers, supplementing the work of our sales team and putting some of the resources of our company right on your desktop.

We're also working on new ways to bring our products to market, to make it easier than ever to find out what you need, and get it fast.

Finally, we are moving closer to a team selling approach, using the newest technology to pull together data that exists in a dozen different databases, helping Team AEF work more efficiently than ever. Over the next year and a half, we will be investing in the computer hardware, software and training to make sure that we'll be ready for tomorrow.

Because that's where we're headed. All of us. At a thousand miles an hour. See you there!

## Saving the DC 5000 ...

**So Installing a Rectifier's the Way To Go?** Yup--here's why. It's simpler. It's faster. And it's cheaper.

**SIMPLER.** Rather than buying and installing who-knows-how-many motors, and probably some panels along the way, you buy and install one rectifier to convert the AC you're getting from Con Ed to the DC all those motors need to stay healthy and happy.

**FASTER.** Installing a rectifier at the AC feed is almost a cake-walk: One piece of new equipment installed in One location. Fast, with no long disruption of building services.

**CHEAPER.** Much cheaper to buy and install one rectifier than umpteen motors, n'est-ce pas? (See also SIMPLER and FASTER above.)

**Who Do I Get a Rectifier From?** You mean 'From whom do I get a rectifier?' We at AEF Sales are not the type of people to stand idly by while our fellow human beings are about to suffer. How could we help these poor folks get the situation rectified? (Sorry.) We needed to find a rectifier manufacturer that really knows what they're doing. Maybe a company that was born in Da Bronx in 1944 and has been supplying DC power supplies to meet the most demanding requirements ever since. And wouldn't it be great if they were close enough to the Big Apple to provide local service? We decided to search far and wide till we found that company.

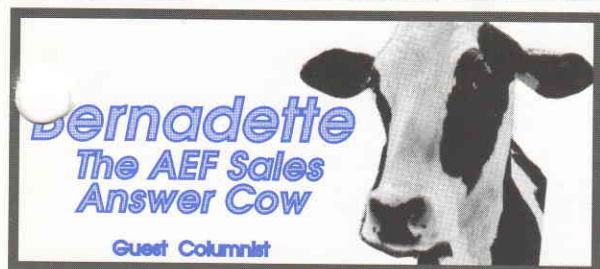
Turned out we didn't actually have to look too far. AEF has worked with Rapid Electric of Brookfield, CT for over eight years, and it turned out that Rapid fit the bill *exactly!* So now Rapid and AEF have teamed up to help all those "Valued Customers" who've got their backs up against the wall.

**Act II.** The scene is Rapid's 250,000 square foot plant, just over an hour's drive from the Bronx. Rapid's George Viola shows us around. Three hundred employees hustle around the R&D, engineering, and manufacturing facilities, making sure that every Rapid product incorporates the latest electronics and power technology, and the highest quality materials. Rapid winds their own transformer coils, and fabricates, assembles, and finishes their own enclosures, so you get exactly what you need. They design and build their own circuit boards, write their own software, and back everything up with guarantees that meet or exceed industry standards.

"We're state-of-the-art, but we don't design on the edge," George tells us. "Every component is continuous duty rated; the semiconductors are oversized. We use only copper for transformer windings and busses, and the re-gen is fail-safe."

That's the story folks--reliable equipment from a knowledgeable, independent manufacturer and AEF Sales, working to solve real problems for real people. Like you.





*Bernadette is a Registered Holstein.*

DEAR BERNADETTE:

I have two questions. What's the difference between green tea and regular tea? Are they from different plants? And is green tea supposed to be healthy? Also I have a question about heating cable. Which is better, self-regulating, constant wattage zone heaters, or MI cable? And is there anywhere I can get straight answers and good advice on heat tracing? C.B.

DEAR C.B.:

Green tea and 'regular' tea (technically *black* tea) come from the same plant, an evergreen that grows in tropical and sub-tropical climates. The difference is due to the way it's processed. For black tea the leaves are air dried, crushed, allowed to ferment, and then oven-dried. For

green tea, the leaves are steamed, then crushed, and then dried in ovens.

Recent studies have shown that green tea has many health benefits, similar to those found from drinking red wine. (The Legal Department has cautioned me against being too specific, but one big help seems to be in preventing a disease that rhymes with 'dancer'.) So by all means drink green tea and red wine!

With regard to heat tracing cables, there isn't really a *better* one -- every job is different, with different requirements that must be considered. Pipe tracing is different from snowmelting or floor warming. For pipe tracing, is it simple freeze protection, or maintenance of higher process temperatures? Will the pipe (and cable) be exposed to high temperatures, such as steam clean-outs? What sort of controls will be used? The right cable is the type (or types) that's right for this job, capisce?

As for where to get straight answers, logic would dictate that you'd get an unbiased answer only from someone who manufactured all three major types of cable. (Like Nelson Electric in Tulsa, OK.) It's also vital to find and deal with honest people who know what they're talking about. Experience counts--someone with lots of experience has probably seen (and solved) a problem like yours before. (AEF Sales has been do-

Questions? Problems? Anxiety? Ask Bernadette c/o AEF Sales, Box 295 Mamaroneck NY 10543



## HEAT TRACING SYSTEM FALL CHECK-UP

*Since cold weather is just around the corner, now is the time for a pre-season checkup. Here's how:*

1. Check Insulation -Wet insulation is worthless! If the insulation has been damaged, check the heater for damage too.
2. Inspect junction boxes and thermostats for corrosion and moisture, and check for tightness of electrical connections and the integrity of moisture seals.
3. Check thermostat capillaries to ensure they are shielded from physical damage and properly secured to the pipe. Verify that stat is switching on and off by rotating knob set point back and forth, and measuring current flow in the circuit when unit switches on. REMEMBER to RESET to proper temperature after testing!

**We Have Everything You Need.  
YOU CAN HAVE IT TOMORROW.**

*Best Wishes to Jim and Barbra Brolin  
from all of us at aef/fyi.*

## Cash Back From AEF!

The above headline, while legally accurate, is misleading, but we wanted to get your attention. Technically, you won't exactly get cash back from us, but you could get it back from your credit card company since AEF Sales now accepts Visa, MasterCard, American Express, and Discover for payment on heat tracing orders

In our never-ending quest to ensure that our customers are the Happiest People on Earth, we found two good reasons to do this. First, it lets us ship needed material to new customers immediately, without waiting for credit reports, or resorting to tacky C.O.D. shipments.

Second, some of our customers prefer the use of corporate credit cards when processing certain orders in order to save the time and cost of writing requisitions and purchase orders, and to reduce the number of invoices they have to process. All we need from you is the type of card, the account number, the expiration date, and the name as it appears on the card.

So just say *Charge It!* and get Cash Back, Frequent Flyer Miles, Free Gas, or whatever the heck else your little heart desires.

**IMPORTANT NOTICE: The more you spend,  
the more you'll get back, so spend plenty!  
You'll be glad you did!!**

*There are many people  
who look at everything  
and see nothing.*

*Andrea Bocelli*

*When you make a  
mistake, admit it. If you  
don't, you only make  
matters worse.*

*Ward Cleaver*

*A man said to the  
Universe, 'Sir, I exist.'  
'However', replied the  
Universe, 'the fact has  
not created in me a sense  
of obligation.'*

*Stephen Crane*

*The sky is not less blue  
because the blind man  
does not see it.*

*Danish Proverb*

*What's another word for  
thesaurus?*

*Dooms Madigan*

*Now and then for no  
good reason a man can  
figure out, life will just  
haul off and slam him  
agin the ground so hard  
it seems like all his  
insides is busted. But it's  
not all like that. A lot of  
it's mighty fine, and you  
can't afford to waste the  
good part fretting about  
the bad--that makes it  
all bad.*

*Jim Coates*

*Taurelilomea  
tumbalermorna,  
Tumbaletaura Lomeanor,  
that is what they used to  
say. Things have  
changed, but it is still  
true in places.*

*Treebeard*



# Promises

The 1860's were troubled times for the Sioux Indians of what is now South Dakota. Their land, on which they had lived and hunted for years, was being overrun by white settlers and gold-seekers. The tensions seemed to end with the signing of the Laramie Treaty in 1868, wherein the Sioux gave up some of their land, and the Great Sioux Reservation was created. The Reservation, which encompassed just about the whole present state of South Dakota, was guaranteed by the U.S. Government to be Sioux territory for "as long as the rivers run and grasses grow and the trees bear leaves".

The treaty lasted until gold in large quantities was discovered in the Black Hills, in part as the result of a treaty-breaking military expedition in 1874 led by Lt. Col. George Custer. By 1875 gold towns like Deadwood had sprung up on the Reservation, and Sitting Bull, Crazy Horse, and their people were ordered onto new, smaller reservations. They refused.

In 1876, Crazy Horse led his forces against the U.S. Army, defeating General George Crook in the Battle of Rosebud, and eight days later wiping out George Custer's 7th Cavalry at the Little Big Horn. That was the high-water mark, the beginning of the end. One year later, his wife and daughter dead from tuberculosis, Crazy Horse voluntarily surrendered to U.S. forces at Fort Robinson, Nebraska. While being forced into a jail cell, he was stabbed by a soldier and died. He was about thirty-four years old.

The Sioux were given a new, smaller, gold-free reservation, theirs, you guessed it, "for as long as the rivers run".

In 1980 the US Supreme Court ordered the Federal government to pay \$122 million to eight Sioux tribes as payment for land seized illegally in 1877.

# Backwords

## Tempus Fugit

Soupy Sales is 72. Chery Tiegs is 51. Haley Mills is 52. Tug McGraw is 54. Musical giants Bob Dylan and Chubby Checker are 57. Ringo is 58. Clint Eastwood is 68. Johnny Carson is 73. Former NY Mayor John Lindsay is 77. Perry Como is 86. Buddy Ebsen is 90. And, alas dear reader, none of us is getting any younger either.

## Read All About It!

Nelson Electric's Mitchell Todd and Robert Ragno of Kvaerner Process in Bridgewater NJ have co-authored a paper which will be published in the November issue of Chemical Engineering magazine. "Integration of Heat Trace Design Software with Plant Design Systems" is MUST reading for anyone involved in designing large scale heat tracing systems (Note: Nelson's Renegade, a Windows-based heat trace design program, supports all common types of heat tracing: Self-regulating, Series resistance, Parallel constant wattage and Flexible panel heaters [for vessels]. And Renegade is the ONLY heat trace software that let's you compare all the alternatives--EVEN OTHER MANUFACTURER'S PRODUCTS!)

## Dream Team II

Last year a bus driver in Zimbabwe was transporting twenty patients to a mental hospital when he stopped off for a few drinks at a roadside bar. When he returned to the bus his passengers were gone. He then offered free rides to another twenty people and delivered them to the hospital, warning the attendants that they were easily exitable. It took hospital staff three days to discover the mistake.



A.E.F. SALES ENGINEERING COMPANY

## TRANSFORMERS

### Central Moloney

Single Phase Transformers: Pole Type, Padmounted, Vault, and Stepdown  
Components: Bushings-Switches-Accessories

### R.E. Uptegraff Manufacturing

Liquid Filled Transformers to 15mva  
Subsurface, Load Center, Station Type  
Rebuilding and Rewinding Services

## HEATER CABLE & CONTROLS

### Nelson Electric Heater Products

MI Cable for Pipe Tracing & Snowmelting Self-Regulating Cable for Pipe Tracing  
Self-Regulating Cable for Roof & Gutter De-Icing  
Thermostats & Controls  
CM-1 Cable Monitoring Systems  
CM-2 Heat Trace Management & Control System

## UPS SYSTEMS

### Lortec Power Systems

On-Line UPS 600va to 300kva  
Specialty Inverters, Battery Trackers

## CLEAN POWER PRODUCTS

### Rapid Power Products

Power Conditioners, Voltage Regulators  
Isolation Transformers to 1000kva  
Rectifiers, 50kw to 3000kw

### Myron Zucker, Inc.

Low Voltage Capacitors, Harmonic Traps  
Capacibanks and AutoCapacibanks

## WIRE & CABLE

### Conex Cable

Aluminum Clad Shield Wire, Guy Wire  
Messenger Wire, and ACSR/AS (AW)

### Nehring Electrical Works

Bare Copper and Aluminum Cable  
Aluminum Clad Cable  
Weather Proof Copper Wire  
Ground Rods & Accessories  
Cathodic Protection Cable

## SILVER SAND CURRENT LIMITING FUSES

### Norberg Industries

Type E General Purpose Fuses  
Type R Motor Starting Fuses

## ALL-PURPOSE DISCLAIMER.

While every effort has been made to ensure that aef/fyi is a legally accurate, wholesome product, nobody is actually responsible for any of it. Some assembly required, batteries not included. May contain small parts which could be dangerous for younger children, therefore this newsletter should not be given to children under 3 years of age. Do not operate heavy machinery while reading this newsletter. Not to be combined with any other offer. Your actual mileage may vary. Consult with your physician before use. Void where prohibited.

DO NOT REMOVE THIS WARNING UNDER PENALTY OF LAW.