

Environmental umpire making bad calls



Kelly Hamm
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As a sports fan, sometimes we're upset by an umpire's decision. Umps are needed to enforce rules of the game, but we've all seen quite a few blown calls in our time.

In many ways, umpire mistakes mirror what's going on with government regulation regarding electric utilities and electricity production. The U.S. Environmental Protection Agency (EPA) writes the rulebook for power suppliers like Prairie Power, Inc., and EPA also serves as an umpire, enforcing the rules of the game. **4426DA-1210A**

At McDonough Power, we're committed to keeping your electric bill affordable. So you can understand why we get upset when we see EPA folks make bad calls that put pressure on how much you pay for power.

Over the past two years, Congress debated, but never passed, a comprehensive climate change bill. Into this void, EPA has stepped forward and has now fielded a team of new regulations. Out of these "players," three could hit electric bills out of the park.

- **Clean Air Transport Rule:** This rule kicks in next year and aims to cap power plant emissions of sulfur dioxide and nitrogen oxides from state to state between 31 eastern states and the District of Columbia including Illinois. By 2014, EPA claims the rule, when combined with other state and federal measures (such as Maximum Achievable Control Technology, or MACT, rules for mercury emissions), will reduce sulfur dioxide emissions from power plants by 71 percent and nitrogen oxides emissions by 52 percent from 2005 levels, but it will cost utilities \$2.8 billion every year to comply.
- **Cooling Water Intake Requirements:** Power plants use water from lakes or rivers to cool generating equipment. While screens and various components



prevent fish and other wildlife from entering water intake pipes, EPA thinks this equipment could be improved. We're expecting a rule proposal this month, and the impact could be severe. The North American Electric Reliability Corporation (NERC), the nation's bulk power grid watchdog, claims if this rule is strictly enforced, one-third of U.S. electricity capacity may need to be retired.

- **Coal Ash:** To ensure the safe disposal of fly ash and other residues (bottom ash, scrubber sludge, and slag) produced by coal-fired power plants (known as coal combustion residuals, or CCRs), EPA is considering whether or not to designate the materials — for the first time — as hazardous waste. Complying with this rule could cost billions and would also halt recycling efforts. Right now we use one-third of all fly ash as a Portland cement substitute — and for every ton of concrete replaced by fly ash, a ton of greenhouse gas emissions is avoided. On four prior occasions — most recently under the Clinton Administration in 2000 — EPA determined CCRs do not warrant regulation as a hazardous waste. Not only did EPA find CCRs rarely, if ever, exhibit a hazardous waste characteristic, the agency also concluded states can safely manage CCRs under federal non-hazardous waste rules.

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Energy Audits – another valuable benefit of being a co-op member

The cooperative is always seeking ways to improve the benefits that you have as a member of a cooperative. So, in 2010 McDonough Power teamed up with GreenUP Technology to offer members an affordable energy audit solution. With energy prices on the rise and proposed legislation, we are doing all that we can to be good stewards. Offering energy audits helps you, the member, take control of your energy use and make sure your home is as energy efficient as possible. McDonough Power wants to help you find ways to save on energy consumption and make your homes as safe and comfortable as possible. The ultimate goal is to help you save money on your heating and cooling costs all while also reducing your carbon footprint. **532RM29-900A**

There are two types of audits available, the Base Level Audit and the Mid Level Audit.

Base Level Energy Audit – \$75

Most energy audits are actually “Checklist” or “Walk-through” surveys. This style of investigation relies on observations in the home, but the inspector typically doesn’t use any tools to quantify a problem. This type of assessment will look visually at the HVAC system as well as the types of appliances and lighting in the home. This audit will consist of visual inspection as well as a written summary



of findings and recommendations for the homeowner. This audit typically takes one hour to complete.

Mid Level Energy Audit – \$150

This energy audit is similar to the base level audit with the addition of Infrared (Thermal) Imaging to see more clearly the energy transfer of the exterior walls, ceiling and floors of the home. The infrared technology is used to specifically look at the window and door openings in a home as well as missing insulation in walls, ceilings and floors. In the event moisture problems exist in the home, the infrared technology is used to assess these areas as well. This audit is more detailed and takes approximately 2 to 3 hours to complete.

For more information and to schedule your audit, contact McDonough Power at 309.833.2101.

Energy Efficiency

Tip of the Month



Ninety percent of the energy it takes to wash clothes is used to heat water. If you wash in cold water, you could save \$40 per year if you have an electric water heater and \$30 annually if you have one powered by natural gas.

Source: U.S. Department of Energy



A 'two-pronged' approach to home electrical safety

By Christine Smith

Consumers can depend on a pair of important safety devices to protect them from electrical hazards in the home: ground fault circuit interrupters (GFCIs) and arc fault circuit interrupters (AFCIs). Each device protects against different dangers: GFCIs address shock hazards while AFCIs fight fire hazards.

Get Grounded!

According to the Electrical Safety Foundation International (ESFI), GFCIs have cut the number of home electrocutions by half. By detecting ground faults - an unintentional electric path between a source of current and a grounded surface; essentially, current leaking to the ground - a GFCI protects you from severe or fatal electric shocks. It can also prevent some electrical fires. If you have ever experienced an electric shock, it probably happened because part of your body contacted an electrical current and provided a path for the current to go to ground. If your body provides the path, you could be seriously injured.

GFCIs constantly monitor electricity moving through a circuit. If the current

flow differs from that returning, the device quickly switches off power.

Fighting Fire

AFCIs, a relatively recent technology, help prevent home fires caused by arcing faults in damaged or deteriorated wires and cords. Home wiring problems, like sparking, are associated with more than 40,000 home fires each year, according to the Consumer Product Safety Commission. These fires kill more than 350 and injure 1,400 victims annually.

Nominal arcs may happen in the brushes of a vacuum sweeper or light switch; dangerous arcs can occur in frayed cords. When unwanted arcing occurs, it generates high temperatures that can ignite nearby combustibles such as wood, paper, and carpets.

Conventional circuit breakers only respond to overloads and short circuits.

By the time a fuse or circuit cuts power to defuse these conditions, a fire may have already started. AFCIs use unique current-sensing circuitry to discriminate between normal and unwanted arcing conditions. In the event of an arcing fault, the AFCI shuts off electricity flowing through a circuit.

For more information on where to install GFCIs and AFCIs, visit www.cpsc.gov. **5326C9-260B**

Sources: *Electrical Safety Foundation International, Consumer Protection Safety Commission*

Christine Smith writes on electrical safety for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

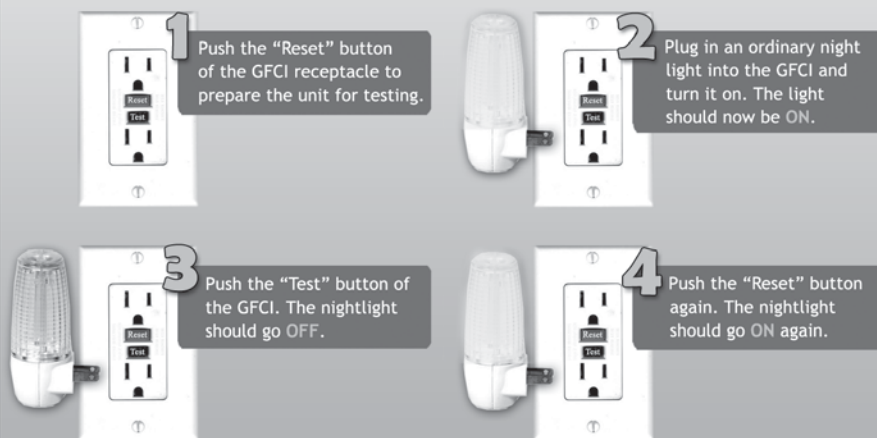
MAP LOCATION GAME

Every month we will have four map location numbers hidden throughout *The Wire*. If you find your map location number, call our office and identify your number and the page that it is on. If correct, you will win a \$10 credit on your next electric bill.

How to test electrical outlets

Since the 1970s ground fault circuit interrupters (GFCIs) have saved thousands of lives, helping cut the number of home electrocutions in half. The safety devices prevent deadly shock by quickly shutting off power to the circuit if the electricity flowing into the circuit differs from the amount returning. The safety devices should be used in any indoor or outdoor area where water may come into contact with electrical products.

GFCIs should be tested once a month to make sure they're working properly. To test a device, follow these four steps:



Source: *Electrical Safety Foundation International*



Time to get moving

By Holly Israel

Walk off health worries? Dance away from disease? According to the Harvard School of Public Health, you can, as exercise - by helping you maintain a healthy weight and lowering stress levels - prevents chronic problems like heart disease, diabetes, osteoporosis, and certain types of cancer.

Despite these benefits, only 30 percent of Americans engage in regular physical activity, while 40 percent almost never exercise. The American College of Sports Medicine recommends healthy adults fit in at least 30 minutes of moderate-intensity aerobic activity five days a week. **532RM3-900A**

This includes brisk walking - ideal since it requires no equipment, specific time or place, and can be done at each individual's pace - as well as chopping wood, mowing the lawn with a push mower, or even dancing. In a workplace setting, use stairs instead of the elevator,

park your car further away from the entrance, or take a walk for 20-30 minutes during a lunch hour.

For a more vigorous approach, work out for at least 20 minutes three days per week. A "vigorous" workout should result in a higher heart rate, rapid breathing, and conversation occurring in shorter sentences. Jogging is a good example of a more vigorous activity.

Pump it up

As you age, strength training helps you maintain the ability to perform everyday tasks such as climbing stairs, carrying your own groceries, etc. It's a good idea to get guidance from an expert in this area.

Flexibility training is the final component to any exercise routine. Stretching for about five minutes before and after workouts reduces soreness and injury, and also will aid in preserving the

range of movement needed to function normally.

If your present lifestyle could be categorized as sedentary, begin exercising slowly, and gradually increase the duration of your workouts. The health benefits will be noticeable. Remember that some movement is better than none, and more is even better!

Editor's Note: Before beginning any exercise regimen, please consult a physician.

Source: Harvard School of Public Health, American College of Sports Medicine

Holly Israel writes on general health topics for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

"Environmental Empire" continued from 16a

McDonough Power is committed to keeping you informed about government regulations that will increase the cost of electricity. We're joining co-ops nationally to ask Congress for a much-needed time-out — a two-year moratorium on EPA regulation of carbon dioxide greenhouse gases. A delay would give lawmakers the opportunity to fashion climate change legislation that protects you, our consumers, and keeps electric bills affordable.

Looking Out for You

We're working together to keep your electric bills affordable. We're controlling costs through innovation. And we're continuing to put you, our members, first. No matter what the future brings, one thing is certain. *We're Looking Out for You.*

Old refrigerators eat energy and money

Does this sound familiar? You bought a new refrigerator and moved your old fridge to a garage or basement to keep a few drinks and some surplus food items cold. Here's a tip from McDonough Power that can help you save energy and money.

Old refrigerators, especially those bought before 1993, use more than twice as much electricity as a new ENERGY STAR model. What's more, refrigerants in these older appliances weaken over time and door seals start to leak, causing a decline in the performance.

If you have moved your old refrigerator to an uninsulated location, such as a garage, it will use even more energy during hot weather. A fridge in a 90 degree environment, for example, uses nearly 50 percent more power than one in a 70 degree environment. And if the temperature falls below about 40 degrees in winter, the refrigerator's thermostat may not run its cooling and defrost cycles for the appropriate amount of time.



By pulling the plug on that old refrigerator, you can save \$146 a year. For other tips on how to save energy — and money — visit www.mcdonoughpower.com.