

# the Electric Current



APRIL 2007

## Celebrity Birthdays

Debbie Reynolds.....April 1  
Alex Baldwin .....April 3  
Candace Cameron.....April 6  
Betty Ford.....April 8  
David Letterman.....April 12  
Brad Garrett.....April 14  
Boomer Esiason.....April 17  
Jennifer Garner.....April 17  
Kate Hudson.....April 19  
Ashley Judd .....April 19  
Carol Burnett.....April 26  
Jay Leno .....April 28  
Willie Nelson .....April 30

## Events in April

April Fool's Day.....April 1  
Passover Week.....April 3-10  
No Housework Day.....April 7  
Easter.....April 8  
Lincoln Shot in 1865.....April 14  
1st McDonalds opens  
in Des Plaines, IL in 1955.....April 15  
Earth Day .....April 22  
Administrative  
Professionals Day .....April 25  
Take your Daughters/Sons  
to Work Day.....April 26  
National Honesty Day (in observance  
of George Washington being inaugu-  
rated as 1st President).....April 30

## It's A Boy!

Congratulations Carlos and Robyn Delgado on the birth of their 2nd son, 6 1/2 lbs - Eyan Thomas, born on February 27th @ 1:30 p.m.



## Lighting the Way!

Arizona Sun Electrical Contractors  
9205 N. 10th Ave., Phoenix 85021  
602-331-3804 • Fax 602-331-3816  
www.azsunelectric.com

## Copper Theft: The Metal Theft Epidemic

Despite copper's drop in price from a high of nearly \$4 per pound to about \$2.50 per on the London Metal Exchange, theft of the commodity metal continues unabated.

Partly, that's because even at \$2.50 per pound, copper remains at historically high prices. It could also be partly the result of a self-fulfilling prophecy: Once copper theft rose so sharply in 2006 and was widely reported, more people decided to try it. In other

Copper thieves have joined shoplifters, identity thieves and mail thieves as a scourge on Arizona business and consumers. Not surprisingly, all of these criminal activities have a strong correlation with adult drug use. It's estimated that there are 19.7 million drug users in America today, more than 17 million are adults and 74.8 percent of these adults are employed.

words, the high prices initially drove the theft, but now awareness does.

Authorities in many of the cases continue to make the link between drugs and metal theft as a means of getting cash for drugs, evidence by the risky behavior many are still taking to get the metal, such as the more brazen theft, when a thief climbed a utility pole in Rattlesnake Canyon to steal 4,400 feet of half-inch Tucson Electric Power copper cable. Utility companies are not the only victims. As we've witnessed first-hand, construction projects often are halted for days, even weeks, when critical materials are looted from work sites. One of the major builders stated that copper theft causes multimillion-dollar losses to the building industry each year.

Copper thieves have joined shoplifters, identity thieves and mail thieves as a scourge on Arizona business and consumers. Not surprisingly, all of these criminal activities have a strong correlation with adult drug use. It's estimated that there are 19.7 million drug users in America today, more than 17 million are adults and 74.8 percent of these adults are employed.

At any rate, a small sample of recent headlines demonstrates that copper thefts continue across the globe. This unfortunately affects everyone, from the homebuilder right down the line to the homebuyer. Many of the Valley's builders are offering rewards to the person(s) that identify thieves that are caught and prosecuted.

Information from *CSO Magazine*, Scott Berinato; *The Business Gazette*, Susan Jones

**Ron Dickens** President/Project Manager ..... 602-331-3804 ron@azsunelectric.com  
**Tina Dickens** VP/Controller.....602-331-3804 tina@azsunelectric.com  
**Stacia Ripley** Accounting Manager.....602-331-3804 stacia@azsunelectric.com  
**Carlos Delgado** General Superintendent.....602-628-7346 carlosd.azsun@mcleodusa.net  
**Bob Koch** West Valley Superintendent ..... 623-707-6652  
**Jesus Urias** East Valley Superintendent..... 480-228-0297  
**Daniel Dickens** Warehouse ..... 602-628-7343

# the Electric Current



## Office Dog

If anyone stops by our office, you will be greeted by Sienna, our Chocolate Lab/Pit mix. Sienna was found and rescued in Northern AZ, upon which, delivered ten, yes I said 10 puppies! All of which lived and were adopted out to wonderful homes. We did have a family reunion with 9 out of the 10 puppies and their adopted families. She had a great time getting reacquainted.

Upon being adopted by Ron and Tina Dickens, Sienna's job is to follow Ron wherever he goes; request and collect treats from any and all employees and the all important job...lay under Ron's desk. After all, that is the center of the operations of AZ Sun Electric.

Sienna is a wonderful dog and a great asset to our family...you're welcome to come and visit her any time - just remember the treat!

**“Quality is never an accident. It is always the result of intelligent effort.”**

— John Ruskin

## Ground Fault Interrupter

Ground fault interrupters are designed to protect from electrical shock by interrupting a household circuit when there is a difference in the currents in the “hot” and neutral wires. Such a difference indicates that an abnormal diversion of current from the “hot” wire is occurring. Such a current might be flowing in the ground wire, such as a leakage current from a motor or from capacitors. More importantly, that current diversion may be occurring because a person has come into contact with the “hot” wire and is being shocked. When a circuit is functioning normally, all the return current from an appliance flows through the neutral wire, so the presence of a difference between “hot” and neutral currents represents a malfunction which in some circumstances could produce a dangerous or even lethal shock hazard.

GFI's are required by the electrical code for receptacles in bathrooms, some kitchen receptacles, some outside receptacles, and receptacles near swimming pools. The horror story scenarios which led to these code requirements are things like dropping a hair dryer or a portable radio into a bathtub with a person, causing electrocution. A typical circuit breaker interrupts the circuit at 20 amperes, but it takes only about 100 milliamperes to electrocute a person in such a scenario.

The GFI is designed to detect currents of a few milliamperes and trip a breaker at the receptacle or at the breaker panel to remove the shock hazard.

The GFI has a “TEST” button which causes a small difference between “hot” and neutral currents to test the device. In an example, the test button put the 120 volt supply across a 14.75 K resistor, producing a current of 8.2 mA. The UL requirement for a GFI is that it trip when there is 5 mA of leakage current. There is also a reset button to use after it has been tripped.

## Ladder Safety

1. Inspect all ladders to insure they are in safe working condition before each use. If the ladder is not safe, immediately remove it from service and mark it as unsafe. Remove it from the job ASAP.
2. All ladders should be secured when not in use especially at the end of each shift. This will help prevent potential for unsafe use by other employees.
3. Look around you, especially above you for obstructions when setting a ladder. Also make sure the area around the base of the ladder is kept clean and protected from someone else knocking it over.
4. Ladders must be set on a stable base and extend three rungs above the access point. They must be set at a safe climbing angle; this is usually about 70 degrees. You can easily check this by standing on the first rung and extending your arms straight out in front of you. While standing straight your hands should reach the rungs.
5. For short duration use (one person – one short task) it is not required that the ladder be tied off. Ladders that will be used as access for more than one person must be secured.
6. You must maintain a three-point contact with the ladder when climbing. Climbing ladders with tools or materials that prevent hand contact is not acceptable.
7. When working from a ladder, if your work position is such that your stomach is outside of the side rails, you are in an unsafe position.
8. Stepladders are designed to be used in the “A” position. They should not be used leaning against a wall. Never stand on the top 2 rungs of a stepladder.
9. Only use ladders for their intended use. Do not use as scaffolds, bridges, or hoists.

## The Bidding Process

Technology is ever-changing, the cost of computers was astronomical... Remember the “brick phones”. I remember when we first started AZ Sun Electric and Ron would have not only his tool belt on – loaded, but also the brick phone and a pager. Now he carries just a Blackberry and gets all his emails as well.

The bidding process has also changed over the years. We'd pick up a set of plans that took an Ironman to lift and have to strap them with clamps to the drafting table and have another table next to the drafting table to hold all the rest of the pages. What a sight! Everything was hands-on, wire lengths were measured with a ruler... Now computers have taken over!

AZ Sun Electric now receives an email that bids are ready for viewing on “Buzzsaw”. We're able to print only the pages (at half size) that pertain to the electrical scope of work.

In the next few years; the homebuilding arena will see many more changes. We want to thank you for being innovative and pursuing excellence. With technology evolving, AZ Sun Electric must also be on the cutting edge. We are continually refining our procedures and policies to better serve the Home Builders.