



THE Breaker Buzz

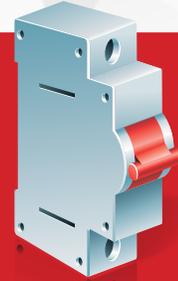
Providing Electrical Solutions Worldwide VOL IV

JANUARY 2013

CBS Saves the Day After 'Sandy'

TO THE STAFF AT CIRCUIT BREAKER SALES:

It has been a wild few weeks here in the Northeast. We experienced a significant hurricane, and then in less than two weeks, we had a Nor'easter snowstorm that dumped about 6 inches on us. I was at our site when Hurricane Sandy's furry hit New Jersey. The utility power started shutting down, and small pole-mounted transformers were lighting up the night sky.



INSIDE THIS ISSUE



How HiPot Tests Can Make Bad Vacuum Interrupters Appear Good

A successful HiPot test may not mean a vacuum interrupter is ready for service.

A WEST TEXAS UTILITY company received an alarm on one of its load tap changers. Field technicians found that one of the vacuum interrupters failed an AC high-potential (HiPot) test. The tap changer was disassembled, and the vacuum interrupter in question was tested again. Once removed, the vacuum interrupter passed an AC HiPot test. The vacuum interrupter was reinstalled and placed back into service, where it again passed an AC HiPot test.

How did this utility company place a failed vacuum interrupter back into service? In order to interrupt high voltages, vacuum interrupters are manufactured

with a very low pressure (vacuum) inside. At constant temperature, the internal pressure of the vacuum interrupter is directly proportional to the number of gas molecules inside. Therefore, more molecules inside corresponds to a higher pressure, and fewer molecules corresponds to a lower pressure. When the internal pressure of a vacuum interrupter increases to a certain point, the interrupter will no longer be able to insulate these high voltages. This means that the vacuum interrupter will not pass a HiPot test.

If the internal pressure of a vacuum interrupter is just past the point of failing

THE VIEW FROM FLIGHT LEVEL 410

By *Finley Ledbetter*, CEO, Group CBS

Giving Thanks, Sizing Up and Looking Ahead



I TAKE MY IPAD in lap leveling at flight level 410, returning to Dallas from a trip out West. I take a minute to think about the last 33 years. Starting a business with little support or capital, starting a family with less support or capital, building a life and a way to support my family and over 200 employees.

Then watching my kids and business slowly go their own ways down unknown paths with both risk and reward at every turn. And now, seeing all the Group CBS companies forge their own paths to greater success. It has pretty much been, “How big do we want to dream, and how hard do we want to work?” The two fit together nicely. It has not been easy, but it sure has been gratifying.

Every day one of the Group managers makes a recommendation that goes against the original business plan. Thirty-three years has taught me to listen and go with the flow, but that doesn't mean it's easy. Just like raising your kids, it's difficult to build all these companies from startup to mature operation, and then watch them learn to fly in new and unknown directions. But it's working, and results are what matter.

My secret was simple: Surround myself with great people that I trust, and stay away from the cold-weather states. Watch for us to break the latter three-decade-long rule and do something in the Northeast, possibly this coming year.

Today, Group CBS employees have something special to be proud of. While other companies failed or were bought out and merged into the other, Group CBS has grown every year, even through the latest U.S. economic downturn. And to prove that even an ill wind can lead to a silver lining, Hurricane Sandy will ensure we grow again this year and have a good start to 2013.

In response to Sandy, Group CBS has put our assets and capabilities behind those communities that have suffered and need our help. This is where Group CBS shines. But we recognize that millions of people continue to struggle through the effects of Sandy's fury. Our crews continue to work around the clock to provide the equipment and expertise these communities need to get the power back on.

Growth, New Products and Changes

Overall, 2012 has been Group CBS' best year yet. It enabled Western Electrical Services to add a new Transmission and Distribution service group in Vancouver, WA, and CBS Nuclear Services to purchase and outfit a great new facility. Circuit Breaker Sales & Repair has started to market their CBSMagVac product line, and CBS Arc Safe is finalizing their new Circuit Breaker Analyzer (CBA), an important new product for the electrical distribution and maintenance industry. Meanwhile, Vacuum Interrupters, Inc.

is working to develop the capabilities required to repair and re-seal SF 6 poles for all models and makes of gas-filled circuit breakers. All of this is happening at a time that when most companies are pulling back on R&D.

Group CBS also sold VNE Jet in Henderson, NV. We need to thank Scott Bullock for his great work building the business, and staying with it even after the sale.

The U.S. had an election...and that's about the best I can say on that. The Cowboys again are my biggest disappointment. Ray tried to get me to go to the Super Bowl the last time they played and I said, “Next time.” But it looks like I may have to wait a while.

On a happier note, Group CBS welcomes Andrew Farris and Mike Sweet, our two new mechanical engineers tasked with heading up development on the CBA project: www.cbalyzer.com.

And, finally, with the holiday season upon us, it's time to give my thanks to everyone for all their hard work and for another great year for Group CBS. Let's work toward another one. (Every year I say that, “Just one more.”) Keep investing in your people and capabilities. That is what Group CBS is all about. Surround yourself with great people and give them the tools they need; then watch them slowly go their own way, and you will also find the benefit. 

Revolutionary MagVac Magnetic Latching Medium-Voltage Breakers Guaranteed for 30,000 Open-Close Operations with 5-Year Warranty

MagVac pairs vacuum interrupter technology with magnetic latching actuators to remove more than 100 mechanical points of failure from traditional medium-voltage breaker designs, with guaranteed operation for five years or 30,000 operations.



“Imagine a 5KV or 15KV breaker with no charging motor, no closing or trip coils and no springs.... That’s MagVac, and it is stronger, lighter and more durable than the original air breakers and vacuum retrofits.”

CIRCUIT BREAKER SALES & Repair and CBSMagVac are proud to introduce the MagVac line of medium-voltage circuit breakers (MVCBs), which combine vacuum interrupter technology with linear magnetic latching actuators to eliminate more than 100 points of failure from traditional vacuum-interrupter-based MVCB designs.

Designed to help solve medium-voltage breaker maintenance issues for utilities, industrial and processing industries, and commercial facilities, MagVac uses three compact monostable magnetic actuators in line with the vacuum interrupters to eliminate traditional spring/crank/lever operating mechanisms. The result is a medium-voltage breaker guaranteed to last five times longer than most common MVCBs on the market.

“The MagVac has virtually no moving parts,” explains Lee Heine, President of Circuit

Breaker Sales & Repair and CBSMagVac. “By removing more than 100 moving parts in the latching assembly, we reduced the points of failure for the break to nearly zero and essentially eliminated the need for periodic maintenance. Imagine a 5KV or 15KV breaker with no charging motor, no closing or trip coils and no springs that directly replace your existing medium-voltage breakers with no cell modifications. That’s MagVac, and it is stronger, lighter and more durable than the original air breakers and vacuum retrofits.”

MagVac’s magnetic latching design delivers standard break times of less than three cycles and as low as one cycle for special applications. State-of-the-art compact vacuum interrupters are maintenance free, eliminating the need for removal or adjustment. Each MagVac breaker also comes with six NO contacts, six NC contacts and a visual

position indicator.

An ANSI/IEC/BG-tested Indoor Switching Module (ISM) simplifies interlocking through an integrated manual trip lever at the rear of the MVCB that blocks the unit both electrically and mechanically. Optional mechanism operated cell (MOC) switches are available through CBSMagVac’s innovative MOC Actuator Control System (MACS). The MACS is a patented MOC solution designed to reposition the switchgear independent of the MagVac magnetic actuator. MACS eliminates the possibility of breaker stalls and requires no cell modification.

For more information about magnetic latching and the MagVac line of medium-voltage circuit breakers, visit www.cbsmagvac.com, send an email to info@cbsmagvac.com or call 281-479-4555. 

New 'MAC' Field Test System Quantifies Vacuum Interrupter Remaining Life

As tens of thousands of vacuum interrupters near the end of their 20-year expected lifetimes, Magnetron Atmospheric Condition (MAC) Test Set is the first and only field test capable of quantifying the remaining life of vacuum interrupters used in medium-voltage circuit protection devices.



VACUUM INTERRUPTERS, INC. is proud to announce the availability of their new magnetron atmospheric condition (MAC) field and shop testing system for quantifying the remaining life of vacuum interrupters used in medium-voltage circuit protection devices.

Vacuum Interrupters' MAC Test Set is based on leak rate tests conducted by the OEMs during manufacture of the vacuum interrupter bottle.

"MAC Testing is based on the Penning discharge principle, which states that when a high voltage is applied to open contacts in a gas and the contact structure is surrounded with a magnetic field, the amount of current (ion) flow between the plates is a function of the gas pressure, the applied voltage and the magnetic field strength," explains Finley Ledbetter, President of Vacuum Interrupters, Inc. and co-developer of the MAC Testing System. "By using this test method we are able to determine the pressure in the interrupter and therefore predict remaining life expectancy."

MAC tests require a magnetron and magnetic coils. Until recently, portable

magnetrons either didn't exist or were not robust enough for field use due to careful calibration requirements, while the generic magnetic coils were not available for a wide range of vacuum interrupter sizes. Vacuum Interrupters, Inc. has

"By using this test method we are able to determine the pressure in the interrupter and therefore predict remaining life expectancy."

overcome these design challenges while developing condition-based maintenance (CBM) algorithms based on data from more than 3,000 vacuum interrupter models. The result is an easily understandable output based on MAC test data trends that quantify the remaining life of your vacuum interrupters.

Before field-capable MAC Testing, technicians could only determine if a vac-

uum interrupter passed or failed using a high-voltage AC/DC test set (HiPot). Now, for the first time, electrical field service testing companies and maintenance technicians working with medium-voltage electrical distribution equipment can know how much effective life remains in a vacuum interrupter bottle.

While vacuum interrupters are extremely rugged, designed to last up to 20 or 30 years, tens of thousands of these units are in operation today and nearing the end of their expected lifetimes. This means that large parts of the U.S. electrical grid are at risk. Vacuum interrupter failures can be catastrophic events that usually lead to the destruction of circuit protection devices and/or connected switchgear. MAC Testing offers the only sure way to know whether your medium-voltage equipment is fully protected from a vacuum interrupter failure.

For more information about MAC Testing or to inquire about replacement vacuum interrupters, visit www.vacuuminterruptertesting.com, email info@vacuuminterruptersinc.com or call 214-442-5877. 

CBS ArcSafe Remote Breaker Racking and Switching Systems Named Product of the Year Finalists

Vote for *Plant Engineering's* Product of the Year today at

CBS ARCSAFE, manufacturer of the electrical industry's leading remote circuit breaker racking and switching systems, is proud to announce that *Plant Engineering* magazine recently named six CBS ArcSafe products as finalists for the 2012 Product of the Year award.

Five of the six CBS ArcSafe products chosen as finalists for this year include:

RRS-3 AK 1/2 50 (GE AK-1/2-50) & RRS-3 VR (Square D VR) – These application-specific products are designed to safely and remotely rack the applicable low- and medium-voltage circuit breakers. The lightweight and compact design of the RRS-3 line makes the products ideal for hard-to-access areas such as catwalks, remote substations and enclosed areas.

In addition to providing a safe operating boundary (up to 150 feet), these products reduce operator fatigue by replacing all manual contact with the circuit breaker during the racking operation, thus increasing worker safety and productivity.

RSA-11A (Westinghouse DHP), RSA-12A (Westinghouse/Cutler-Hammer DS/DSL) & RSA-29 (GEAK-1/2/3(A)-25) – These application-specific lightweight and portable products, when accompanied by an applicable CBS ArcSafe RSO, are capable of remotely charging, closing



and/or tripping their applicable low- and medium-voltage circuit breakers. The RSA product line completely removes operators from manual contact with the gear during the potentially dangerous switching operations and stations them far beyond the arc flash boundary (up to 250 feet).

Subscribers to the magazine will be able to view the finalists and vote for the winner at www.plantengineering.com/POY starting on Nov. 19. The Product of the Year finalists are split into 15 categories, with all CBS ArcSafe products found in the "Safety" category. Gold, silver and bronze winners will be chosen from each category, with the product receiving the most votes across all 15 categories receiving the Grand award.

"A lot of hard work and engineering went into the CBS ArcSafe remote racking circuit breaker system," says Ashley Ledbetter McWhorter, President of CBS ArcSafe. "While saving technicians from arc flash injuries, burns and deaths is our greatest reward, there's definitely room on our walls for *Plant Engineering's* Grand Award and Gold medal. I hope everyone with an interest in electrical safety will take a minute to visit

the website, learn more about how CBS ArcSafe keeps electricians safe and vote with their conscience. And if you're not a reader of *Plant Engineering*, here's a great chance to check out their technical articles, subscribe to the magazine online and vote for electrical safety."

Voting for *Plant Engineering's* Product of the Year award contest closes Jan. 31, 2013. Winners will be announced and honored by CFE Media in late March 2013 in Chicago and published in the April 2013 issue of *Plant Engineering*.



Remanufactured breakers from Circuit Breaker Sales & Co., Inc. helped keep a utility in the Northeast up and running during Superstorm Sandy.

CBS Saves the Day After 'Sandy'

Continued from page 1

We made a decision at that point to go into our "island mode," where we isolate ourselves from the utility and use our cogeneration turbines to produce our own electric and steam. I am happy to report that the recently remanufactured breakers both on the 5kV buses as well as the 38kV ring bus performed perfectly with no problems. Prior to the remanufacturing, we were always having issues with our 20-year-old-plus breakers not always operating as expected. Given the stress of the situation, it was a great relief not to have to worry about the breakers doing their job. Many thanks to you and your technicians on their excellent work.

Thankfully, our site weathered the storm with minimal issues. Many of the employees here at the site were out of power for over a week and sustained damage to their homes. Life is slowly getting back to normal, and most of us have power back at this point. We take so much for granted until you have to live without it — electricity being one of them.

Thank you! David Meharg

CBS Nuclear Services Unveils New Facility in Charlotte, NC

By Scott Peterson, President, CBS Nuclear Services

CBS NUCLEAR SERVICES is proud to announce the grand opening of our new facility in Charlotte, NC. This 22,000-sq-ft location features a 10,000-sq-ft climate-controlled breaker shop designed with a “circuit breaker hospital” concept in mind. The test lab is outfitted with the latest state-of-the-art test equipment and fully electronic test procedures/reports developed by Group CBS engineers.

Our parts department has greatly expanded and features surplus and reconditioned parts from all major manufactures, all listed by both individual part numbers and assembly part numbers so customers can order the smallest individual component if they don't need the entire assembly listed in RPB catalogs.

Warehouse space has been tripled to allow for a larger selection of in-stock breakers, many of which are fully remanufactured and ready to ship. If you can't ship your breakers to us, we can bring the



shop to you with one of our fully outfitted mobile breaker shops. Our facility or yours, quality is always the No. 1 priority at CBS Nuclear, where we incorporate our nuclear 1E QA procedures into every breaker we service.

Contact us at 704-882-1875 or info@CBSnuclear.com to arrange a tour of our new facility, or visit our Facebook page for updates. 

How HiPot Tests Can Make Bad Vacuum Interrupters Appear Good

Continued from page 1

a HiPot test, a phenomenon can occur that can temporarily reduce the pressure inside enough to pass the test. Figure 1 shows a vacuum interrupter with a finite amount of gas molecules inside. Figure 2 shows a high voltage being applied across the open contacts, as in a HiPot test. This high voltage breaks down, or ionizes, the gas molecules inside the vacuum interrupter into charged particles, ions and electrons, seen in Figure 3. After the high voltage is removed, these charged particles immediately begin recombining into gas molecules. Under certain conditions, some of these charged particles may “stick” to the inner surfaces of the vacuum interrupter which, in turn, reduces the number of gas molecules inside, shown in Figure 4.

When the number of gas molecules is reduced, the pressure is also reduced.

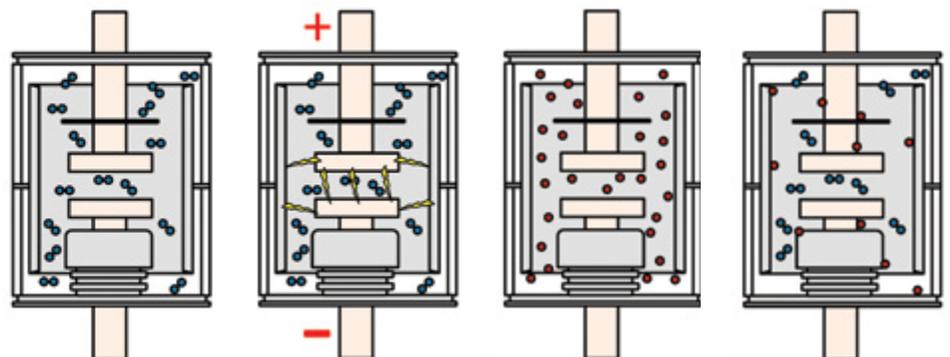


Figure 1: Vacuum interrupter showing gas molecules inside.

Figure 2: Vacuum interrupter with high voltage applied.

Figure 3: Vacuum interrupter showing ionized gas molecules.

Figure 4: Vacuum interrupter showing partially recombined gas molecules.

This reduction in pressure is temporary and dependent on a number of factors; however, it can result in a vacuum interrupter's internal pressure being reduced enough to pass a HiPot test. These remaining charged particles will eventu-

ally recombine and return the pressure to an unsatisfactory level. The amount of time it takes for complete recombination varies widely. After this recombination occurs, the vacuum interrupter will, again, not pass a HiPot test. 

Put Your Money Where Your 'Green' Is

How many times have you wished you could take all your waste and turn it into cold, hard cash? At Circuit Breaker Sales, we don't just talk green. We put our "greenbacks" behind it.

By Mike Briley, CBS ISO/Safety Manager

CBS GAINESVILLE has installed a couple of new pieces of equipment that will reduce our carbon footprint and nearly eliminate our wastewater.

First there's the low-hanging fruit. CBS has replaced the old 400W and 1000W metal halide lights with more efficient T-5 & T-8 motion-censored fluorescent fixtures in Bay #1 and the old warehouse. With these now in place and the Big E lights in Bay #2 installed (replacing even more 400w metal halide lights), we estimate a total annual energy and maintenance savings of \$14,439 each year. This has also helped in the production and the quality of our work by improving work lighting. The removal of the old halide lights will also reduce the heat in the summer, which helps our team during the hot months.

CBS also has added a new oxymoron (no, I'm not referring to any new hires). The Water Eater wastewater evaporator is engineered to efficiently evaporate

the water content from liquids. A power exhaust system releases the moisture safely into the air, leaving only a small residue requiring disposal. This residue can also be sold for its metals for more cost savings.

Evaporation is the simplest and most cost-effective method for minimizing a wide variety of common industrial waste streams. It has been approved by regulatory agencies around the U.S. as a safe and effective method for on-site wastewater minimization. The reduction in the wastewater volume not only slashes disposal costs, including time and labor, but also helps us out with available space by reducing storage area requirements.

We are currently researching other things to vaporize to save us money, be safer and have fewer headaches. Bill has sent a letter to Congress, but we haven't seen any volunteers yet.

If you would like more information, call me at CBS' Gainesville facility at 940-665-4444. 



Benefits of EMC 85E Water Eater

- ▶ No more storing waste onsite, no more handling and moving of the waste from area to area, and less chemical/waste water exposure to our employees.
- ▶ Keeps the community and environment clean and safe.
- ▶ Cash savings should equal \$37,000 per year on disposal cost.
Do you realize how many knives, fishing equipment, guns, purses, shoes and outfits this could buy? Of course, it's hard to match your gun with your shoes, but whatever.
- ▶ This house is clean! No more waste drums sitting around, spills, soiled mats and rags.
- ▶ Very quiet and no smell.
- ▶ Costs only \$.32 per day to operate.

Keeping Cool in Gainesville

By Troy Yosten, CBS

MOST PEOPLE LOVE the summer, but when you work in a 90' x 200' 1970s-model building you tend to be of two minds.

The question is: How do you cool a steel building like that without breaking the bank?

So last year, we decided to get serious about looking for a cost-effective solution. Some quotes we received were as high as \$250,000. With that quote in hand, we flew it up the flagpole and received budget approval...for a few more fans.

We kept looking. Apparently, not all contractors are out to get you. It just takes patience to find the good ones, and maybe a little

luck. Another bid came in at \$60,000 for four 15-ton rooftop units. After further consideration, we decided to go with 17-ton units to be sure they could handle the load.

Last summer was one of the hottest on record, but our crane bay stayed at 78 degrees. It made a huge difference in comfort and productivity. Sweating out the summers was a rite of passage at CBS Gainesville, but no more! I don't think we will take it for granted any time soon, because every time we step out from the front bay we are reminded of how tough things used to be, when you had to walk 15 miles backwards through the desert to get to work...and that was the coolest part of your day. 



Back row (left to right): Dan Hook, Tim Conley, Joe Selden, Eli Ankrom, Joshua Garner.
Front row: Kevin Zemanek, Lani Reed, Matt Zemanek, Pavel Tischenko.

WES Saves 'Emerald City'

DAN HOOK and the Northwest Field Service Team at Western Electrical Services are riding high after saving the City of Seattle's Municipal Tower and exceeding client expectations on the largest single job in WES history.

"We have in the past performed annual maintenance and engineering studies for this particular customer, but back in August, the City of Seattle had an emergency failure of a bus duct riser that caused outages to the city's offices and parts of their data center floors," explains Craig Archer, President of WES. "Through Dan's quick thinking and relationships with SASCO Electric, Dan was able to secure an emergency repair contract exceeding \$1.25 million, and the contract has grown from there."

The contract included engineering, installation, testing, and equipment repair and supply, showing Seattle, also known as the "Emerald City," all facets of what WES can deliver. The project went very well, gaining exposure at the mayoral and city council level. After the lights were back on, the polis quickly threw themselves a party for the miraculous save despite not being involved in the work, but that's politics!

Thanks to Dan and the crew for a great save at the Seattle Municipal Tower. 



Leukemia-Stricken Boy Needs Our Help

To those with big hearts:

I would like to take this opportunity to let you in on a situation that pulls at the heart strings.

Jason Carlson, Field Service Supervisor in our Western Electrical Services Vancouver, WA office, has an 8-year-old stepson who has a rare form of leukemia. The doctors are doing all they can for young Cole, but as you can imagine, it is hard to see a parent, let alone a child, go through something like this.

As GroupCBS gets bigger, these situations seem to hit closer to home. I hope you can find a few extra bucks to help the Leukemia & Lymphoma Society find a cure or successful treatment for Cole and anyone else who finds themselves fighting this dreaded disease. You can learn more about Cole at:

Please join me in praying for the Carlson family in hope of a favorable outcome to his treatment.

**Craig Archer, President,
Western Electrical Services**

Visit www.leukemia-lymphoma.org for information regarding matching gift programs. If your employer participates in matching contributions, please send all gifts and forms to Team Cole's local LLS chapter:

The Leukemia & Lymphoma Society
Oregon SW Washington Idaho Montana Chapter
9320 SW Barbur Boulevard, Suite 140
Portland, OR 97219

Efficiency: The Work You Don't Mind Taking Home

These days, your business can never be too lean, too efficient or too well funded.

By Chet Hough, CBS

AT CIRCUIT BREAKER SALES (CBS), we take efficiency seriously. For example, CBS's Brian Kaylor has converted all of our equipment test reports to digital formats. This allows us to efficiently store and quickly access technical data about any circuit breaker that has shipped – no more digging through filing cabinets to find this information.

CBS also is implementing Salesforce, an online customer relationship management (CRM) solution that will benefit everyone from CBS' sales to accounting to shipping, and even production. For example, the new software will enable the production team to generate and tweak prioritized work-order reports at the click of a mouse. This will make it even easier for CBS to respond to emergency orders from customers.

Looking at these initiatives made me stop and think: Is efficiency as important at home and in our personal lives as it is at work?

Although changing “the way we have always done it” is sometimes painful at first, it can pay off big in the long run. Whether it is how we mow the lawn, how we spend our money or how we build

circuit breakers, we need to look at our processes objectively and be willing to adjust the way we do things to a more efficient and smarter way. Similar to how

our strength zone.

Taking the tree analogy another step: Did you know that a fruit tree needs to be pruned if it is going to grow properly and reach its maximum fruit production? The tree needs to have its least productive branches pruned so that it can focus on its strongest and most productive fruit-bearing branches. By careful and focused pruning, a fruit tree can focus productively and maximize its potential.

The parallels to human life are stunning! Think of all the things we do each day that are not productive. Think of the energy we waste doing things that we are not good at and things that drive us crazy because we hate doing them. This robs us of energy and causes us to focus even less time, resources and energy on the things that we do best.

If we can prune unproductive, energy-sapping, time-wasting activities out of our lives, then we can spend more time doing what we do best. Just like the fruit tree that is pruned to maximize its potential by focusing on its high-production branches, we can prune our lives and begin to maximize our own potential. 

Ways to prune your life might include:

- ▶ Minimize things that are simply not productive (i.e., watching TV, surfing the Internet, spending too much time on email and social networking sites, taking personal calls at work and work calls at home, etc.).
- ▶ Stop doing things that we simply are not good at and can be done by someone else better, more efficiently and cheaper.
- ▶ Find someone to help us in the areas that we are weak.
- ▶ Find a coach to help us determine what we do well and coach us to get even better in these areas.

pruning a tree allows the tree to focus on its strength areas to become even more productive, we must prune things from our lives that take our focus away from



WES Welcomes Back Matt Connellan

WESTERN ELECTRICAL SERVICES Inc. (Phoenix) is proud to welcome back Field Service Leader Matt Connellan.

“I would like to welcome Matt back to WES and Group CBS,” says Craig Archer, WES President. “Matt took a position outside the group about 18 months ago for an assignment in Qatar. He successfully completed that project and has since seen the light and decided

to come back from the dark side!”

Matt will be Field Service Lead for the crew here in the Southwest, assisting Ryan Herbst as part of a growing top-notch field crew. WES is looking for another field tech to help Matt fill in the crew.

If you know a good field technician looking for a great opportunity, email Craig at CArcher@WesternElectricalServices.com. 

CBS Achieves ISO 14001:2004 Designation

By Mike Briley, CBS ISO/Safety Manager

Circuit Breaker Sales in Gainesville, TX, is now ISO 14001:2004 certified. This additional ISO designation comes from our commitment to be environmentally responsible and a good steward of the earth. From the invoice paper to the processing of product to the shipping box, CBS is dedicated to minimizing waste and maximizing the 3 “Rs” (reduce, reuse and recycle).

What are the Advantages of ISO 14001 Registration?

ISO 14001 registrations will improve CBS’s bottom line through improved environmental performance. A properly designed Environmental Management System (EMS) is a tool which enables an organization to achieve and systematically control its level of environmental performance. The EMS triggers procedural and technological changes that can reduce production costs, with the savings then being passed on to the customer. The requirement for continuous improvement in environmental impacts drives more productive use of all inputs, including raw materials, energy and labor. Reducing pollution means improved productivity and more efficient use of resources.

Direct benefits derived from implementing an effective EMS include:

- Material savings through more complete product input processing, substitution and recycling of byproducts and waste
- Reduced energy consumption
- Reduced material storage costs
- Reduced costs for emissions, discharges, waste handling, transport and disposal
- Increased process yields
- Reduced insurance rates
- Reduced customer audits
- Reduced environmental liability
- Reduced enforcement fines
- EMS tracking measurables via consistent plan-do-check-review methods

Intangible EMS benefits include:

- Improved corporate image among regulators, customers and the public
- Proof of social responsibility
- Improved employee morale





CBS Sponsors Golf Tournament for Those Less Fortunate

Circuit Breaker Sales Co. Inc. recently co-sponsored the 2012 3C VIP Golf Classic tournament hosted by 3C Electrical Company Inc. (Ashland, MA) on July 30th at Oak Hill Country Club (Fitchburg, MA) to raise money for a number of charities. The tournament raised more than \$5000 for several charities, including the Boston Children's Hospital, NEADS Dogs for Deaf and Disabled Americans and the Hannah Murphy Family Fund.



"A successful man is one who can lay a firm foundation with the bricks others have thrown at him."

— DAVID BRINKLEY

Reinventing Overtime

By Brian Kaylor, Mechanical Engineer, CBS



HARDWORKING CIRCUIT BREAKER Sales employee Johnny McClinton once again upped the ante in his tireless effort to fabricate the finest reconditioned switchgear. Johnny was working on a section of Square D switchgear over the weekend when he accidentally worked 25 hours in a 24-hour period.

Referring to the cause of his apparent time travel, Johnny states, "Well, I can't say for sure what happened. Troy [Yosten] was testing a flux capacitor on the other side, and there was this bright flash, but I kept working."

After working day and night (and into the next day) to get the equipment ready for a client in need, Johnny checked the time on his cell phone, which showed that only a single hour had passed. The ADP timeclock verifies Johnny's 25-hour workday, but payroll is suggesting that he only be reimbursed for one hour of work since he effectively traveled back in time. 

TRADE SHOW CALENDAR

Visit with **GroupCBS** companies at the following trade shows and exhibits:

Doble Life of a Transformer

SAN DIEGO, CA
February 18, 2013

NETA

NEW ORLEANS, LA
February 19, 2013

Electric West

LAS VEGAS, NV
February 22-23, 2013

Doble International

BOSTON, MA
April 7, 2013

Electric Power

ROSEMONT, IL
May 14-16, 2013

PEARL

NEW ORLEANS, LA
May 18-20, 2013

EPRI Circuit Breaker User Group Meeting

PROVIDENCE, RI
June 17-21, 2013

IEEE Mexico

CANCUN, MEXICO
June 20-23, 2013

Finepoint

ATLANTA, GA
October 7-11, 2013

Power Gen

ORLANDO, FL
November 12-14, 2013

IEEE PES T&D

CHICAGO, IL
April 14-17, 2014

GROUP CBS AFFILIATES:

Astro Controls, Inc.

www.astrocontrols.com
Irving, TX — Ph: 800-289-2757
Sales and service for all types of industrial molded case circuit breakers, insulated case circuit breakers and motor controls.

CBSArcSafe, Inc.

www.CBSArcSafe.com
Denton, TX — Ph: 877-4-SAFETY
Remote racking systems, remote switch actuators, and handheld motorized racking tools for low and medium voltage switchgear.

CBS Nuclear Services, Inc.

www.CBSNuclear.com
Matthews, NC — Ph: 704-882-1875
Specializes in shop and on-site field servicing of Class 1E safety-related low and medium voltage switchgear and circuit breakers. Also services industrial and non-nuclear related circuit breakers and related switchgear and substations.

CBS Power Products, Inc.

www.CBSPowerProducts.com
Dallas, TX — Ph: 940-665-4444
New alternative utility and industrial power products: transformers, switchgear and other power apparatus.

Circuit Breaker Sales Co., Inc.

www.CircuitBreakerSales.com
Gainesville, TX — Ph: 800-232-5809
World's largest inventory of low and medium voltage circuit breakers. Millions of parts in stock. Complete service, remanufacture, upgrade and life extension services. Match existing switchgear lineup.

Circuit Breaker Sales & Repair, Inc.

www.CBSalesAndRepair.com
Houston, TX — Ph: 281-479-4555
Servicing the Gulf Coast with shop or field service, repair, upgrade or replacement of power system apparatus.

Circuit Breaker Sales & Service, Inc.

www.cbs-florida.com
Lakeland, FL — Ph: 863-646-5099
One-stop service for circuit breakers, switchgear, transformers, protective relays, loadbreak switches, motor controls, unit substations, renewal parts, and repair, upgrade, life extension and maintenance services.

Reliable Electrical Testing Services, LLC

www.ReliableElectricalTestingServices.com
La Porte, TX — Ph: 713-254-0006
Onsite commissioning and acceptance testing of new installations and apparatus; or maintenance, troubleshooting, repair, and electrical testing of existing systems. Also professional electrical power engineering services to ensure the reliable, safe operation of electrical systems.

Sentinel Power Services, Inc.

www.SentinelPowerServices.com
Tulsa, OK — Ph: 800-831-9550
Sentinel Power Services is an electrical power service company servicing the Central U.S with electrical engineering studies; on-site electrical testing, preventive maintenance and repair services; and repairing, building, and installing electrical power systems.

Solid State Exchange & Repair, Inc.

www.SolidStateRepair.com
Denton, TX — Ph: 877-874-7349
Quality, reliable, on-time service and support for all brands and types of solid state power electronics including circuit breaker trip devices, protective relays, motor overload relays, and rating plugs.

Transformer Sales Co.

www.TransformerSales.com
Gainesville, TX — Ph: 940-665-4484
Offers a complete line of new, surplus, and reconditioned dry type, cast coil, and liquid filled power transformers from 1000 to 5000 kVA with primary voltages from 2400 volts to 34.5kV.

Vacuum Interrupters, Inc.

www.VacuumInterruptersInc.com
Carrollton, TX — Ph: 214-442-5877
Provides replacement vacuum interrupters (vacuum bottle interrupters) for virtually any manufacturers' medium voltage circuit breaker or contactor.

Circuit Breaker Store, Inc.

www.CircuitBreakerStore.com
Denton, TX — Ph: 855-227-8673
Your online source for all Group CBS products, a powerful solutions provider with a specialty vendor network that can supply factory new, surplus new, and reconditioned circuit breakers, electrical distribution, control equipment, parts, and remote racking equipment.

Western Electrical Services, Inc.

www.WesternElectricalServices.com
Phoenix, AZ — Ph: 888-395-2021
Serving the Southwest with superior quality on-site electrical testing, maintenance and repair services as well as rebuild, upgrade and life extension services for switchgear, circuit breakers, and motor control.

Western Electrical Services, Inc.

www.WesternElectricalServices.com
Salt Lake City, UT — Ph: 888-395-2021
The only full service electrical testing and maintenance company in the Intermountain region.

Western Electrical Services, Inc.

www.WesternElectricalServices.com
Sumner, WA — Ph: 888-395-2021
The Northwest leader in electrical testing, maintenance and power switchgear services providing on-site electrical testing and maintenance, electrical engineering studies, and sales, repair, upgrade and life extension services of circuit breakers, switchgear, motor control, and transformers. Also custom manufacturing: engineered and reverse engineered parts.

Western Electrical Services, Inc.

www.WesternElectricalServices.com
Vancouver, WA — Ph: 888-395-2021
Utility class service provider to the Northwest T&D market.