



2nd Quarter 2016

THE MELTMINDER

A PUBLICATION BY BENTON FOUNDRY, INC.

Web Site: <http://www.bentonfoundry.com>

Congratulations - Employees of the Quarter



Congratulations to **Roger Green** (right), Benton Foundry's 2nd shift Employee of the Quarter. Roger has been employed at the Foundry since 1983. He works in the Molding Department. Roger resides in Unityville and he is the son of Roy Green who worked in our core room for many years. Roger's four brothers (Robert, Ron, Frank and Dave) have also all worked here. Roger enjoys working on cars and spending time with his wife Mary, their son, daughter-in-law and grandchildren in his spare time.

Congratulations to **Adolfo Barrientos** (left), Benton Foundry's 1st shift Employee of the Quarter. Adolfo works in the Melt Department as an iron pourer. He previously worked in our molding department and molded on the back floor for many years. Adolfo has been employed at the Foundry since 2005. He lives in Berwick and he enjoys spending time with his family. **Good job — to both recipients!!**



Benton Adds Sand Silo

Over our July 2016 shutdown, an additional silo was added to our green sand system. This silo adds roughly 200 tons of tempered sand capacity to our system, bringing the total molding sand capacity to around 725 tons. In addition to adding capacity, this upgrade also reduces the clay required to meet the desired properties. By adding tempered sand capacity, the molding sand can be stored with a higher water content, activating the clay remaining in solution.

This upgrade will not only supply all of our current molding machines, but adds enough capacity for two additional molding machines at some point in the future. The molding sand preparation area will not be accessible, once we begin the core room expansion within the next two years. This is due to the size of the crane needed to reach the center of the plant. The

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Sand System Addition

(Continued from page 1)

cranes used for this project had stated capacities of 250 tons and 400 tons. The tonnage limit is for loads very close to the crane. When the boom is extended, the tonnage capacity drops dramatically. For example, the weight of the heaviest load lifted

for this project was only around 16,000 pounds. The crane operator had to set these sections in place without being able to see his target. This was a pretty amazing feat. You have to admire the work of the professionals who are able to perform such work.



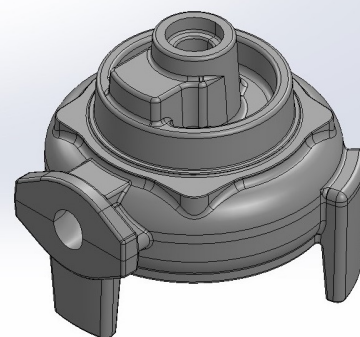
Prototyping with 3D Printed Cores/Molds

Recently, Benton Foundry produced prototypes for two different part numbers for a pump-producing customer. The customer's new pump concept had been untested, so the customer did not wish to invest \$20,000, or more, on new tooling. Our customer provided the 3D models. Benton's staff performed a design review including draft analysis, solidification analysis and developed the cores/molds as they would be made on a production basis. The gating was also designed and incorporated into the 3D models. Benton

Foundry then contracted with Hoosier Pattern who produced the 3D printed core/mold assembly.



Hoosier Pattern "prints sand" using an ExOne S-Max system. This machine fills a cube one layer at a time. Each layer is roughly 0.011" thick. As a point of reference, a human hair is only 0.0025" thick. After each layer of sand is spread, a binding agent is applied only in the areas where the core/mold will be formed. The process is repeated multiple times and can produce molds up to roughly 39"x71"x28". Once completed, the loose (uncured) sand is removed leaving just the shape that is desired. The sand and the binding agent used by Hoosier is very similar



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Money Saver: Nine Upgrades That Pay You Back

Classic home projects don't always offer the top returns (By John F. Wasik)

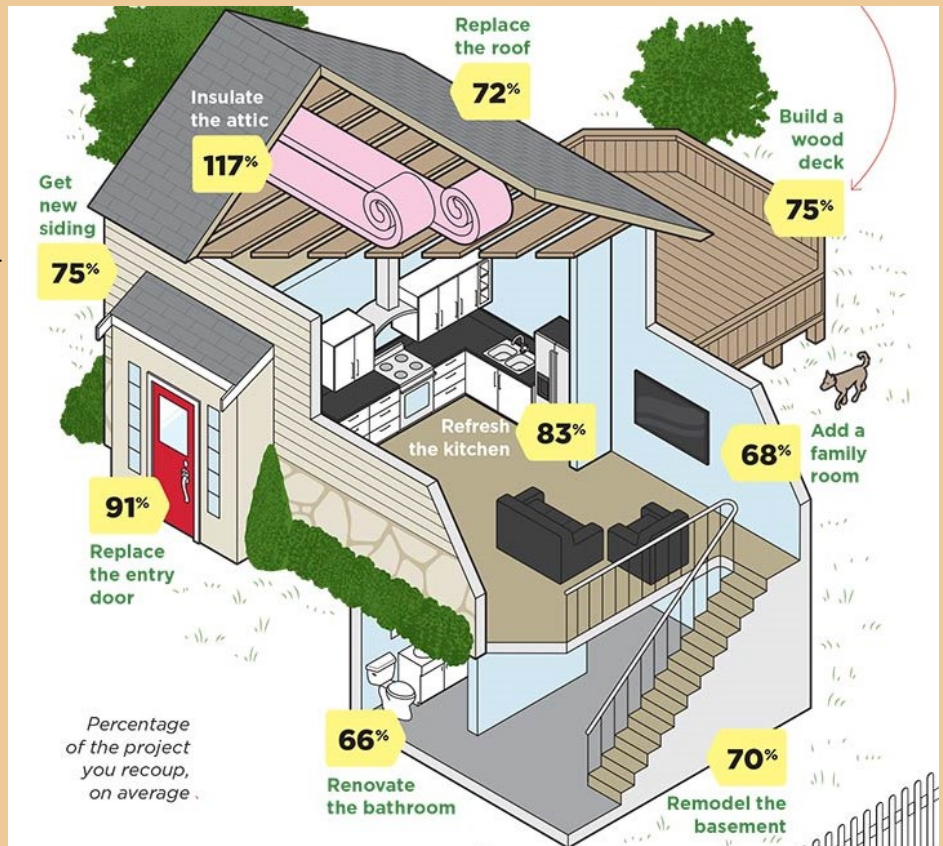
If you are like many people 50 or older your biggest asset may not be your 401(k) or IRA. It's your house and if you've been thinking of cashing out to downsize or move to a less costly region, you'll want to maximize your gain.

That means laying out money to give the place the curb appeal it needs to sell quickly and at the highest possible price, which can be money very well spent. According to the 2016 *Remodeling* magazine Cost vs. Value survey, the average return on home-improvement projects was 6.7 percent higher than it was a year earlier, handily beating the inflation rate of 1.4 percent.

Simple replacements can give you a better return than major remodeling projects—about 4 percent more, on average. Manufactured stone-veneer siding and front door replacement, for example, have better returns on investment than kitchen and bath projects.

Returns will vary by region. Where home prices are high and job growth is strong, you can count on a higher payback, says Craig Webb, editor of *Remodeling*.

Nationally, the average return at resale for the 30 projects surveyed was 64 percent (up from 62 percent in 2015), or \$64 for every \$100 spent, assuming the home was sold within a year. *AARP Magazine*



3D Printed Cores/Molds

(Continued from page 2)

to the sand and resin system Benton Foundry uses in our core room.



When the process was completed by Hoosier, the components were shipped to Benton, where they were assembled, poured, cleaned and ground. The customer then had the design reviewed, cast and the product delivered within 3 weeks without the expense of tooling.



Rick Wilson & Mike Mohr Retire

Rick Wilson and Mike Mohr retire, both with over 40 years of service. Rick Wilson (below) recently retired, he was our Molding Department Supervisor. Rick started working part-time in 1973 when he was still in high school. He was an iron pourer when he started working full-time. Rick then moved on to our molding department to run our first Hunter HMP 20x24 molding machine. Rick's brother-in-law, Bob Martz, was the iron pourer on the machine that Rick was operating. His two brothers, along with his sister and son-in-law, who is now our pattern shop supervisor, have worked here over the



years. Rick's hard work and dedication in both our pattern shop and molding departments throughout the last 40 years have been greatly appreciated and will be missed. Rick enjoys hunting, fishing and investing. Rick has been on many hunting and fishing trips throughout the country. We wish him well and hope he enjoys many more years of relaxing in the outdoors.



Mike Mohr (above) retires as one of our full-time truck drivers.

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Trends & Innovations

Investors Daily

Unemployed smokers are likely to stay unemployed longer than nonsmokers, according to Stanford University researchers. A year into the study, just 27% of smokers had found new work vs. 56% of nonsmokers. Even when education, race and other factors were taken into account, smokers were still less likely to find new jobs. Moreover, smokers earned \$5 less an hour on average.

World drinking guidelines vary. Government guidelines for how much alcohol a person can safely drink vary dramatically from nation to nation, risking "a substantial chance for misunderstanding," researchers from Stanford University found. The U.S. defines a "standard drink" as having 14 grams of alcohol; it's 20 grams in Austria, and 8 in both the U.K. and Iceland, the researchers said. However, the WHO's standard is 10 grams. Differing guidelines for how much men and women can drink in different nations also add to the confusion.

WHO—World Health Organization

Gluten-removed barley is here. If you are on a gluten-free diet, a new strain of barley with nearly all the gluten removed could bring some taste back to your beer. Researchers in Australia say they created the first barley to be qualified as gluten-free by the WHO, Reuters reports. While gluten-free beer has proliferated over the past decade, it has often lacked traditional beer's taste because it doesn't contain barley. The barley has already been sold to a big German brewer, Reuters said. And demand is expected to be high.



Nearly 80% of Arab teens in 16 countries strongly oppose the Islamic State, up from 60% last year, according to a new survey sponsored by ASDA'A Burson-Marsteller, a public relations firm. Over 50% of those surveyed said the terrorist group was the biggest problem facing the Middle East and 75% said the group would fail to establish an Islamic caliphate.

Killing The HSAs

Something Benton Foundry considered, but cannot do. Health Reform: Health Savings Accounts are a proven free-market health-reform idea. No wonder the Obama administration has been trying to kill them off. This year, the president might finally get his wish.

HSA plans have become increasingly popular as companies and individuals realize their benefits. Instead of paying high premiums for low deductibles, HSAs offer high-deductible, low-premium plans that let people put money aside tax-free for out-of-pocket expenses. What's left is theirs to keep.

Democrats have long hated HSAs, mainly because they let consumers decide about their own health care and finances, but Republicans managed to get them authorized starting in 2005.

In the past seven years, enrollment has climbed 18% a year on average. Today, there are almost 20 million enrollees with more than \$24 billion in their HSA accounts. Even the Health and Human Services Department admits that these "consumer-directed" health plans are helping to hold down costs.

Conservatives worried that Democrats would use ObamaCare to kill off HSAs by writing rules for what constitutes a "qualified health plan" in such a way that HSAs—which have to comply with their own set of rules—couldn't possibly meet. In the first year, that didn't happen. In fact, Merrill Matthews a longtime HSA supporter, said the "qualified health plan" rules from the administration in early 2013 were "great news," and that HSA plans could end up being the favorite option in

ObamaCare exchanges.

Now it appears the administration has quietly killed off HSAs, at least in the individual market.

As HSA expert Roy Ramthun explained in a National Review article, the Obama administration's new set of rules on March 8 detailing what constitutes a "qualified health plan" in an ObamaCare exchange will make it impossible to offer HSA-qualified plans in the future."

According to Ramthun, the rules require deductibles and out-of-pocket limits that conflict with requirements for an HSA plan. The plans now have to cover services below the deductible that HSAs aren't allowed to pay for. "It is only a matter of time before HSA-qualified plans completely disappear," Ramthun says.

If he's right, Republicans should prepare to fight. HSAs are popular, they are delivering as promised (unlike ObamaCare), and they are a model of free-market health reform. The Obama administration must not be allowed to kill them off in the dark of night.



Investors Daily

Retirees

(Continued from page 4)

Mike also has over 40 years of service. He started as a forklift operator. Mike comes from a family of truck drivers. He is a favorite with our customers, to the point when he was stuck in a snow storm and our customer took him home. Mike's oldest son, Brian works in our shipping department. His son Rick also worked here. Mike also has a set of twins Kolby and Kaden. Ironically, Rick Wilson and Mike were involved in a "horse" incident many years ago. Rick lived close to the foundry at the time and in a snow storm one January, two of Rick's horses escaped their enclosure and made their way to the highway. The foundry trucks (Mike being one of the drivers) were both leaving the foundry in the middle of the night for early morning deliveries. To make a long story short, let's just say... Rick's run-away horses nearly wiped out Benton's entire fleet of trucks. Mike intends on traveling when he retires and he will still be driving part-time at Benton. We wish him health and wellness for the next million miles!

Enjoy your retirement Rick and Mike!!

Trends and Innovations Cont'd

Overdose Patients Get Drugs

Nine of 10 patients still got prescriptions for opioid painkillers, according to a new study from Boston University researchers, and 70% of the time, the doctor who wrote the prescriptions before and after an overdose were the same, meaning they didn't know the patient had overdosed. Some 16,600 people died from prescription painkillers in 2010.

Investors Daily

Enjoy the Summer
Stay Healthy
Stay Safe



Safety & Health

10 Super Foods — For Better Health!

1) Sweet Potatoes

A nutritional superstar—one of the best vegetables you can eat. They're loaded with carotenoids, and are a good source of potassium and fiber. Toss sweet potato wedges with a bit of olive oil and roast until tender and lightly browned. Sprinkle with a spice or two (cinnamon, cloves, nutmeg or all spice) or savory (cumin, coriander, paprika, chili or curry).



2) Mangoes

About a cup of mango supplies 100% of a day's vitamin C, one-third of a day's vitamin A, a decent dose of blood-pressure-lowering potassium, and 3 grams of fiber. Bonus: mango is one of the fruits least likely to have pesticide residues.



3) Unsweetened Greek Yogurt

Fat free plain Greek yogurt has a pleasant tartness that's a perfect foil for the natural sweetness of berries, bananas, or your favorite whole-grain cereal. It's strained, so even the fat-free versions are thick and creamy. The lost liquid means that the yogurt that's left has twice the protein of ordinary yogurt (but less calcium) - about 17 grams in 6 ounces of plain non-fat Greek yogurt.



4) Broccoli

It has lots of Vitamin C, carotenoids, vitamin K, and folic acid. Steam until it's bright green and just tender. Add a sprinkle of Parmesan cheese and spritz of fresh lemon juice.



5) Wild Salmon

The omega-3 fats in fatty fish like salmon may help reduce the risk of heart attacks and strokes. Wild-caught salmon is more sustainable than farmed salmon.



6) Crispbreads

Whole-grain rye crackers, like Wasa, Finn Crisp, RyKrisp, Kavli and Ryvita have ingredients that are as simple as it gets: whole-grain flour (typically rye), water, salt and (sometimes) yeast. Try them topped with tuna, chicken or shrimp salad, hummus or tomato with chopped basil.



7) Garbanzo Beans

All beans are good beans. They're rich in protein, fiber, copper, folate, iron magnesium, potassium and zinc. However, garbanzos stand out because they're so versatile. Look for no-salt-added varieties in BPA-free cans or cartons. Add a handful to your tossed salad or stir them in your vegetable stews, curries and soups.



8) Watermelon

Watermelon is a heavyweight in the nutrient department. A standard serving (about 2 cups) has one-third of a day's vitamins A and C, a nice shot of potassium and a healthy dose of lycopene for only 90 fat free, salt-free calories. When they are in season, watermelons are often locally grown, which means they may have a smaller carbon footprint than some other fruits.



9 Butternut Squash

Steam a sliced squash or buy peeled, diced butternut squash at the supermarket that's ready to go into the oven, a stir-fry or a soup. It's an easy way to get lots of vitamins A, C and fiber.



10) Leafy Greens

Don't miss out on powerhouse greens like kale, collards, spinach, turnip greens, mustard greens and Swiss chard. These stand-out leafy greens are loaded with vitamins A, C, K, folate, potassium, magnesium, calcium, iron, lutein and fiber. Sauté in a bit of olive oil with minced garlic and season with ground black pepper and red wine vinegar.



Despite Medical Advances, Obesity is a Stumbling Block

Los Angeles Times

New statistics on death rates in the United States appear to confirm a grim prediction: that obesity is reversing decades of steady expansion in Americans' life spans, according to a Harvard University researcher calling for more and better research and the urgent adoption of policies that could improve Americans' food and drink choices.

In the first nine months of 2015, more Americans of all ages died of obesity-related diseases compared with the same period in 2014, writes David S. Ludwig, an obesity-prevention specialist at Boston Children's Hospital and Harvard Medical School. In one year alone, deaths from stroke ticked up 4 percent, chronic liver disease deaths jumped 3 percent, and deaths attributed to heart disease and to diabetes rose by 1 percent each, according to the Centers for Disease Control and Prevention. Deaths because of Alzheimer's disease, which has been linked to midlife obesity rose 19 percent over the year before.

"The new rates potentially signal a looming social and economic catastrophe that demands a comprehensive national strategy," writes Ludwig, who acknowledges that one-year increases do not, by themselves, establish a clear trend. The recently released CDC data "suggest that a tipping point has been reached beyond which technological advances no longer compensate," Ludwig warned in an article published last week. "It's probably been underway for years," he writes, citing county-level statistics that show that two decades of steady nation-

wide gains in life expectancy began to turn as early as 1983. Translation: no pills, no widely available procedures, and no life-prolonging improvements in medical care or public health measures are likely to be able to compensate for the life-shortening effects of obesity that are now coming home to roost.

In a "Viewpoint" article in the *Journal of the American Medical Association*, Ludwig writes that the U.S. government must ante up the research funds to undergird better advice to Americans. The National Institutes of Health in 2015 spent \$900 million on obesity research—about the investment required to bring a major drug to market in the United States.

Meanwhile, the food and beverage industry offers its views on maintaining and losing weight, writes Ludwig, while "lobbying against sensible regulations" such as taxing sugar-sweetened beverages and limiting advertising that entreats children to demand "demonstrably unhealthy products".

Further, he writes, the federal government should end its farm policies that support production of corn and wheat and encourage, instead, the production of high-quality proteins, nuts, legumes, fruits and vegetables to make more nutritious foods more affordable.

Fitness,
Health &
Weight Loss



The Skinny on Fat

Eating fat doesn't make you fat. It's not even across-the-board bad for your health. That's why the new U.S. dietary guidelines don't put a limit on the total amount of fat that should be in our diets.

Increasingly, nutrition experts believe that it's the kind of fat we eat that most affects our overall health, especially heart and brain health, weight management and longevity.

It's a huge shift. We've been condemning all fats for 30 years without good evidence, "says physician and nutritionist Steven Masley, M.D., co-author of *Smart Fat*, who helped us prepare the guide to the new, healthy ways to eat fat.

Best Fats to Eat

Smart Treat: *Dark Chocolate* - Who said healthy had to be dreary?

Best Cooling Oil: *Virgin Olive Oil* - Skip "vegetable" oils



(which don't contain veggies), including corn oil and safflower oil. You can heat virgin olive oil, but avoid heating extra-virgin olive oil, coconut oil and sesame



oil above 350 degrees, which damages their benefits.

Good Value: Canned wild salmon, bulk walnuts, dried beans.

Healthiest Meat and Dairy: Grass-fed meat, free-range chicken, organic yogurt, milk or anything from animals that receive no hormones, chemicals or pesticides (in their feed), which erode their benefits. A 2016 British review of almost 200 studies found that organic meat and milk contain 50 percent more good omega-3 fats and overall healthier fat profiles.



*Paula Spencer Scott
Parade Magazine*

Is It 'Fair' 45% Pay NO Taxes?

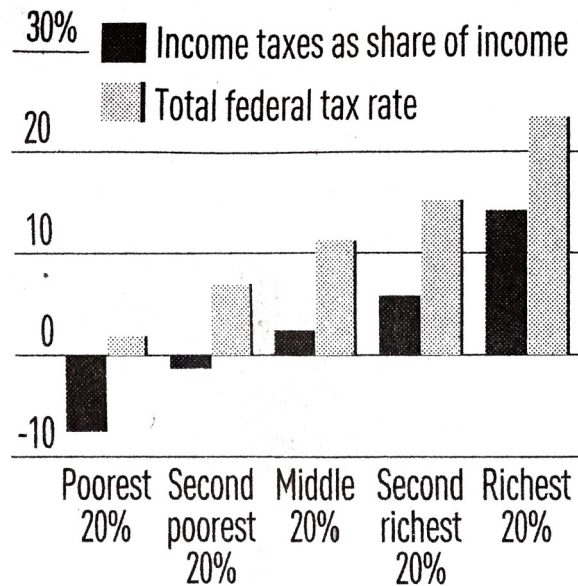
Tax Policy: Democrats keep demanding that the rich pay their "fair share" of income taxes, but they never say what fair is. Probably because they know that the rich pay huge amounts while 45% of households pay nothing.

The nonpartisan Tax Policy Center has some startling statistics on its site that add a new twist to the "tax fairness" debate. Did you know that the richest 20% of households pay 88% of federal income taxes? Or that this is up from 64.7% the year before Reagan took office?

Did you know that 45% of all households pay no taxes?

OR that most of them actually get money back? Tax Policy Center data show that the poorest 20% of households have an effective tax rate of negative 7.5%, while the next poorest 20% face a rate of negative 1.3%.

How Fair Is Fair?



Source: Tax Policy Center

Ah, the argument goes, but the rich have gotten all the income gains over the past 35 years, so of course their share of income taxes has gone up. The problem is that the top 20 percent's share of income is up just seven percentage points since 1980, while their share of income taxes jumped more than 23 points. The argument continues that these numbers don't account for payroll and other taxes that the poor pay. Yet even when you combine all these taxes, the average effective tax rate for the poorest is 1.9%; the rate for the wealthiest rises to 23.4%, Tax Policy Center data show.

The bigger problem with all the talk of "fairness," however, is that it is a completely undefined term.

You could just as easily argue that the tax code is unfair to the more productive members of society, heaping punishment on them while vast numbers of households pay nothing. —Or that it's unfair that Bernie Sanders and his wife can pull down \$206,000 and pay an effective tax rate of only 13.4%, when the average tax rate for people in his income group is more like 15%.

Nevertheless, both Sanders and Hillary Clinton are determined to raise taxes sharply on the "rich" to pay for their massive increases in spending. **But as always, it's not just the rich who end up paying more.**

Sanders' \$15.3 trillion tax hike, for example, would boost taxes at every income level. The poorest 20% would pay an average \$165 more a year, while almost \$5,000 in new taxes would hit families with median incomes, according to a Tax Policy Center analysis. Clinton's \$1.1 trillion tax hike would also boost taxes, at least a little, for every income group.

It's unlikely that already hard-pressed middle-class families hit with these tax hikes would view them as "fair" just because someone else has to pay more.



Original Wawa Store Closes After 50 Years in Business

The first ever Wawa store, which opened more than 50 years ago in Pennsylvania, has served its last customer. The company's history in the region dates back more than 200 years. Wawa **started as an iron foundry** in New Jersey in the early 1800s. Owner George Wood took an interest in dairy farming in the late 1800s and the family opened a processing plant in Wawa, PA, in 1902.

As home delivery of milk declined in the early 1960s, Wood's

grandson, Grahame Wood, pushed to open convenience stores and the first Wawa store opened on MacDade Boulevard on April 16, 1964.

Since then the company has added more than 700 stores in Pennsylvania, New Jersey, Delaware, Maryland, Virginia and Florida.

Erin O'Neill *NJ Advance Media for NJ.com*

Trivia Question ???

Guess who the two longtime Benton Foundry employees are in the picture below and *what year it was?*



Answer will be in 3rd Quarter 2016

Answer from 1st Quarter question:

The Penn State (Hazleton Campus) offers an Industrial Maintenance Program. It covers the following subjects: Industrial Electronics, Industrial Math, Electricity I & II, Motor Controls I & II, PLC I, II & III. It meets two nights a week for four hours a night. The industrial electronics & industrial math components are 16 hours each. The other components run five weeks each. The certificate program requires 312 hours of in-class work. Can you name the individuals that have completed this program?

Ed Whitmoyer, Lynn Sheatler, Eric Piatt, Tom Toporcer, John Hospodar, Aric Stauch, Mike McDonald, Tom Edkin, Ed Lemelin and Noel Shortlidge

Other News & Tidbits

PPL Cuts Default Electricity Price

Allentown—PPL Utilities customers who don't shop for power, purchasing it directly from PPL, will see a decline in their electric bills in June.

The utility announced it will cut its default price or "price to compare" for residential customers to 7.393 cents per kilowatt-hour on June 1, down from 7.878 cents per kilowatt-hour. The price for small business customers will drop to 6.593 cents per kilowatt-hour, from the current 7.731 cents per kilowatt-hour.

The utility adjusts its price-to-compare, also known as its generation rate, twice a year in December and June. The prices announced today will be good until December.

Scott Kraus (The Morning Call)

Summer is here, use sunscreen! Skin cancer is the most common form of cancer, accounting for nearly half of all cancer cases. A broad spectrum sunscreen with an SPF 30 or more should be used on all exposed skin, even on cloudy summer days. For more info. www.hopkinsmedicine.org

Benton Foundry receives a **Thank you** for helping sponsor a class for Camp Victory. Mrs. Womelsdorf's Class read 1,906 books and raised \$2,568.00 for Camp Victory's "100,000" Miracle Program.

Good Job

to Mrs. Womelsdorf's Class!



Pennsylvania College of Technology's School of Industrial and Engineering Technologies sent Benton Foundry a set of brass candlesticks, as a token of gratitude for our support. The candle sticks were crafted by students using equipment in the College's Automated Manufacturing laboratory and are an example of the applied technology education that we support.

At the 2015 AFS College Industry Conference, **Aaron Weir**, a Benton Foundry 2014 summer intern, was awarded the Modern Casting Scholarship. Aaron attends Virginia Tech.

Clara Spencer, a Benton Foundry retiree, recently passed away at age 95. Clara worked in the core room for ten years making oil sand cores, retiring in 1982.

Benton Foundry Donates

Benton Foundry donated equipment to the Foundry Classroom at Thaddeus Stevens College of Technology through American Foundry Society (Keystone Chapter). Thaddeus Stevens College of Technology is located in southeastern Pennsylvania in Lancaster, about 71 miles west of Philadelphia and just east of Harrisburg. The campus is a few blocks from downtown Lancaster. Thaddeus Stevens College of Technology is owned by the Commonwealth of PA, with a job placement rate of over 95%. Students can earn certificates and degrees in several fields including short-term programs in metalcasting and welding.

Birthdays

July

Jeremy Pepe
Frank Packer
Albert Phillips
Robert Wayda
Brian Mohr
Ben Gonzalez
Lonnie Bailey
Don Copeland
Theresa Kubasek
Fred Kessler
Kevin Trychta
Rob Bowman
Dave McLucas
Deb Clocker
Mike Parsons II

August

Dale Engle
Adolfo Barrientos
Felix Ivan Lopez
Ernie Priebe
Shawna Minnick
Steve Lappan
Howard Jones
Nyman Engel
Tina Bizup
Beth Litwhiler
Tom Boatman
Dustin Burke
Roger Green
Nick Lawton
Eric Piatt
Roger Hart
Ed Evans
Walt Lutcavage

September

Mike Mengine
Shawn Nevel
Adam Evans
Tim Kepner
Ken Morris
George Bagdoyan
Dave Travelpiece
Dan Snyder
Tyler Hartman
JR Peterson
Bill Keefe
Eric Malcein
Andrew Ritinski
Allen McBride
Charles Tomb



Good Job

The last two quarters we listed employees with over 30, 35 & 40 years of service.

Following is a list of Employees with 25 Years of Service:

Dave Laubach
David Thoen
Mike Machuga
Dave Eveland
Tim Kepner
Albert Phillips
Donna Remley
Annette Brown
Bryan Puderbaugh

Fred Hittle
Brian Mohr
Lynn Sheatler
Rob Bowman
Scott Vandine
Glenn Cregar



**They
Had
One
Job
To
Do**



“The Wisdom Well”

“About the only thing that comes to us without effort is old age.”

~Gloria Pitzer

