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(tear-out article you may copy for hand-outs)

MISSION STATEMENT

“Protecting and preserving the water and wastewater resources of Rural Illinois through education, representation and on-site technical assistance”.

On the Cover: After the tornado ripped through Southern Illinois on February 29th, 2012...the altar was all that was standing at the 100 year old Catholic church in Ridgway, IL. The Mayor, Becky Mitchell later stated that the company out of Chicago, that will be picking up the altar for repairs & storage until further notice, are descendants of the people that built the altar so many years ago.

Water Ways is the official publication of the Illinois Rural Water Association, P.O. Box 49, Taylorville, Illinois 62568, and is published quarterly for distribution to members as well as other industry associations and friends. Our website is www.ilrwa.org. Articles and photographs are encouraged. Advertising and submissions should be mailed to the above address or e-mail us at ilrwadb@ilrwa.org.



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A Question To Be Answered

by Don Craig,
IRWA Deputy Director

So, where do you stand? Is your water and/or wastewater utility management and operations, one of admiration, embarrassment.... or does it ride the fine line of being one or the other. In most cases, it is the latter of the three. Through my years involved in the Rural Water Association work, I have discovered that most systems continue operations at an intermediate level. That is, striving to maintain a level of sustenance that is "acceptable" in the least. That is not to say, that there are not many well operated and managed systems out there; but, without a doubt, there are just as many or more, that have undergone a lot of deterioration through the years, due to various reasons. They are hindered in their ability to attaining and retaining a fined-tuned state of

operation. In my opinion, this may be caused by one, or a combination, of three factors.

Number one may be the inability to meet regulatory guidelines that are mandated upon the system. Are the rules imposed by agencies, ones that are "economically attainable" by rural facilities that have limited revenue intake? Undoubtedly, many systems are hard pressed to meet requirements passed on to them from regulatory agencies. But, it's important to remember, that they are just one of many "dominoes" that stretch all the way back to our elected officials. Meeting these mandates is sometimes very hard for rural systems to take on, and achieve. But, it's a burden that must be incorporated to protect those



customers they now serve and will in the future. So, in the end, the ball is in the utility's court, so to speak.

Without question, another main factor for a facility to achieve good and proper operations falls in the laps of the governing board. Meeting regulatory mandates is a never ending obligation

continued on page 5

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by system personnel and boards; and seemingly, it never gets better or easier. Elected officials are, and should be, instruments of their constituents. And thus, should conduct their responsibility, in a manner that is warranted by the position they fill on the board. I believe that "commitment" is the key in succeeding as a member of the utility's governing body. Direction taken in operating and maintaining a water or wastewater system, requires a needed interest by each board member into the present condition of the system, as well as what is needed to make it excel into the future. This should be derived from a moral obligation to provide an adequate and safe water supply; and succeed in securing safe collection and effluents

from the sewer system. Also, which is sometimes overlooked by the "transition" board members, is the obligation to secure a good financial future for the particular facility as a whole. Present good operations are definitely important, but preventative maintenance for continued operation in the future, will undoubtedly save the system from large outlays of funds in the years ahead. Tough financial decisions, which may not always be popular... such as keeping proper rates to operate sufficiently in the black, adequate insurance coverage for system protection, proper wages and benefits to hire or retain qualified personnel, and funding for proper system maintenance, are an integral part of operating efficiently and effectively.

Unfortunately, through the years, I have seen a general lack of interest or care by board members. And, this is not unique to just one state or region... as sad as that is. You, who are board members of a utility, are critical to the survival of your system. Because, you can either put the "wheels into motion", or slow it to an inevitable stop.

And, the third factor to influence the success of a rural water or wastewater system is the operator; or one or more of these other personnel as they may be titled... manager, superintendent, supervisor, foreman, custodian, and maintenance personnel. So, how can these people be a plus or detriment to the utility? The key here is dedication.

continued on page 6



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A Question To Be Answered


continued from page 5

In any of these positions, you are more times than not, underpaid, unnoticed, unaccepted, unappreciated and about every other “un” you could think of. I speak from experience in this regard, from many years ago. And yes, I do understand that this is not always the case in every system, but it has been and probably always will be a problem in many. So, what is to be done in such situations that are not good for hard working, dedicated personnel? Voice your opinion and thoughts to improve and protect your system for now and into the future. It may seem that no one is paying attention, let alone listening, at times. But, some are..... some do. Whether

you get the credit all the time is another story, but continued dedication and action will be noticed more and more, and more importantly....not forgotten. Because, the truth is, the system operations management personnel have the savvy and the common sense about each individual utility, to offer positive and influential ideas to keep it at an appreciable level of operation. Honestly, who has a better “rapport” with the utility system than these personnel? No one. It’s in the best interest of the board and utility, to take heed of what good and dedicated operations personnel are doing and offering in regard to running your system in the best manner possible. And,

by all means, those who excel and put that extra effort forward should be duly compensated.

Finally, the important factor in culminating these three factors is cooperation. Doing so, is crucial to reaching the goal of having and keeping a good, efficient, and effective water or wastewater system. There are no easy avenues or shortcuts in succeeding... straight-forwardness is a necessity. It’s important that all three of these work in unison, to say the least. If that is not achieved, then the common goal will be overlooked and never attained.

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What's Happening in Kinmundy, Illinois?

by John Bell,
IRWA, Wastewater Technician

I am the IRWA Wastewater technician for the southern Illinois area. My area extends from Lincoln in the north to Cairo in the south and all points in-between. During my travels I have been asked about whats happening in Kinmundy? Kinmundy is a community of approximately 900 located in Marion County just north of Iuka and west of Oskaloosa. If that doesn't pinpoint Kinmundy for you, you are probably not from southern Illinois. To help the northern folk, Kinmundy is 25 miles south of Effingham and 12 miles north of Salem, Illinois. In the heart of a great mushroom picking area I've been told. So, what is so darn interesting about whats going-on in Kinmundy? Well it turns out to be a very interesting thing that water and wastewater operators want to know. So, to let all the southern boys know whats happening I write this article and in the process let you northern boys in on whats happening in Kinmundy.

Let me back up and give you a quick historical perspective of what I am about to tell you that is of such great interest. In 1889 the Eiffel Tower in Paris, France was dedicated as the entrance arch to the 1889 Worlds' Fair. Four years prior to the 1889 Worlds' Fair, the Illinois Central Railroad built a wooden water tower in Kinmundy to resupply their steam engines. The question asked is what was happening in Kinmundy was "is Kinmundy still using the railroad water tower as part of its water system?" The City of Kinmundy purchased the water tower and adjacent reservoir in 1960 and it was in use as an active part of Kinmundy's water system until 2000. The water tower is no longer used as part of the water system but has been restored to an original condition, using approximately 70 percent of the original

construction material. That means that the 100,000 gallon storage tank was in active service for over 100 years.

The Historical Plaque Reads as Follows:

"This 100,000 gallon cypress water tower was built in 1885 and served the Illinois Center Railroad steam engines until 1953. The City of Kinmundy purchased the tower, pump station and lake from the railroad in 1960 and continued to use the lake and tower as a source of city water until 2000, when a new lake was put in. After 115 years of continuous service the tower was abandoned. The city made application to the Illinois Historical Society to have the tower placed on the National Register of Historic Places, to commemorate it as one of the few remaining such structures in the United States and the only one to have been used continuously for over 100 years. The National Preservation Department agreed that the water tower and pump station should be preserved and they were placed on the National Register of Historic Places by the US Department of the Interior on November 12, 1998. The State of Illinois and the City of Kinmundy shared the \$126,000 cost of renovation, using 70 percent of the original materials in the preservation. As you look at the tower today, honor it for what it has been. Hear the distant whistle of the steam engine as it screeches to a halt and imagine the activity as the crew prepares to take on water. Listen to the



engine labor as it pulls away. This old water tower is an important link to the past. It has done its part to make this Country the greatest on earth."

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I hope that answers your questions about the water tower in Kinmundy. My question is who holds the oldest active certified wastewater license in Illinois.

You can e-mail me at ilrwajb@ilrwa.org. And my next article will be about you. 💧

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High THMs – Where Do I Go From Here?

by Perry Musgrave,
District 8 Board Member

Here at Lake Egypt Water District we have struggled at times with high Trihalomethanes (THMs) just like many other surface water treatment plants that use chlorine gas. We were unsure where the THMs were being formed. Was it in the rapid mix, the clarifiers, the filters, in the clear well, or out in the distribution system? So last year we did a study to find out where our THMs were being formed. The results were that we were forming 75% of our THMs in the rapid mix. Part of the reason is because at times we see our raw water manganese as high as 1.8 mg/l and one spike of 3.6 mg/l. In order to oxidize that much manganese we would have to feed as much as a 15 mg/l free chlorine dose in the rapid mix. We were able to oxidize the manganese at this rate and our finished water quarterly average in the last two years hasn't been over .015 mg/l. Even with that we still received brown water calls at the rate of 2009 = 56, 2010 = 44 and 2011 = 41. We were on a constant flushing program to keep complaints at a minimum.

So the Lake Egypt Water District Board, Manager, Engineer, and Water Plant Operators took a proactive approach and began looking at other treatment systems and visiting other water plants to come up with a solution to our THM and manganese problem.

We did an evaluation to see if we could use potassium permanganate to oxidize the manganese and found that we did not have enough detention time for it to work properly. We visited two water plants that used chlorine dioxide in their pretreatment with great success. They also visited plants that were using MIOX for their post chlorine treatment. The Board decided to do an upgrade to our water plant which included chlorine dioxide and MIOX for approximately \$580,000.00. This would allow us to get rid of the chlorine gas all together.

In September 2011, we began feeding MIOX for our post chlorine treatment. After about a week of working a few bugs out we were very pleased with the chlorine residual leaving the plant. We had also plumbed the MIOX to the front of the plant so we could use it in the rapid mix while we were taking out the chlorine gas and installing the chlorine dioxide. Once we saw that the MIOX was up and running we began installing the chlorine dioxide and in December 2011 we started feeding it in the rapid mix.

As they say the proof is in the pudding, and I'm happy to say that our THM levels are down significantly. Our first quarter THM when using chlorine gas for 2010 were 46 ug/l, and 2011 first quarter were 41 ug/l after feeding chlorine dioxide our 2012 first quarter were 8 ug/l. That is with an average chlorine dioxide feed rate of .87 mg/l. We also have not had any brown water calls since we have made these changes and have a 3.5 mg/l chlorine residual



leaving the plant. Another benefit has been in our TOC removal. When we were feeding chlorine gas our TOC reduction for 2010 first quarter average was 39% and 27% in 2011 first quarter average. With the chlorine dioxide and MIOX our TOC reduction average for the first quarter of 2012 was 56%. Both the chlorine dioxide and the MIOX are on sight generated so we no longer have the safety concerns due to having a large amount of chlorine gas on hand.

There are a few draw backs - more testing is required, the electric bill has gone up, and you receive a lower log removal for giardia and viruses.

We have not hit our historically high months yet for THMs or manganese but with the results we have seen so far it looks very promising that we will have no problems. Because chlorine dioxide has 2.6 times the oxidizing capacity of chlorine. Chlorine gas is a very cost effective chlorine for many water plants but for us to meet the new EPA standards for THMs we had to do something different. The chlorine dioxide and the MIOX upgrade have proven to be a good answer to our issues. 💧

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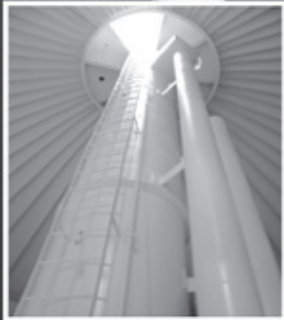


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Alumni of Water University

by Kathy Rogers,
EPA Source Water Specialist

Kerry Gifford, General Manager of Sangamon Valley Public Water District, became the second in the state (in addition to the staff at IRWA) to receive his Utility Management Certification from National Rural Association's Water University for demonstrating knowledge in the complex field of water and wastewater management.

Gifford began his career in the water and wastewater industry as an Environmental Support Specialist in the US Air Force in September of 1986. He was a member of the 1776 Civil Engineering Squadron, a high mobility, emergency response team able to provide water from both surface and ground water supplies.

Once Kerry Gifford began wearing civilian clothes again, he moved back to central Illinois to utilize his new set of skills at Champaign – Urbana Sanitary District where he worked with one of IRWA's founding circuit riders Richard Talkington and received a Class I Wastewater license. When asked about his time in Champaign Gifford expressed that his on the job training was exceptional. He was able to grow his skills and pursue a motivated career development path. "Every move I made was a step up." Gifford was heard saying. Afterwards, Gifford joined the team at Illinois American Water (then known as Northern Illinois Water Systems), earning Class A Water Operator License.

Today, the water and wastewater industry is more complex than ever before. Economics, increased complexity in regulatory requirements and a changing society are crafting the water and wastewater systems of tomorrow. As our industry changes, there is a strong need to recognize the individuals who provide leadership to

the industry and create a standard for the future. At the same time, the industry needs new ways to educate, train and empower industry professionals to meet these new standards.

Kerry Gifford now enjoys the steep learning curve that being a general manager of Sangamon Valley Water District in Mahomet provides. He has continued to expand his experience and

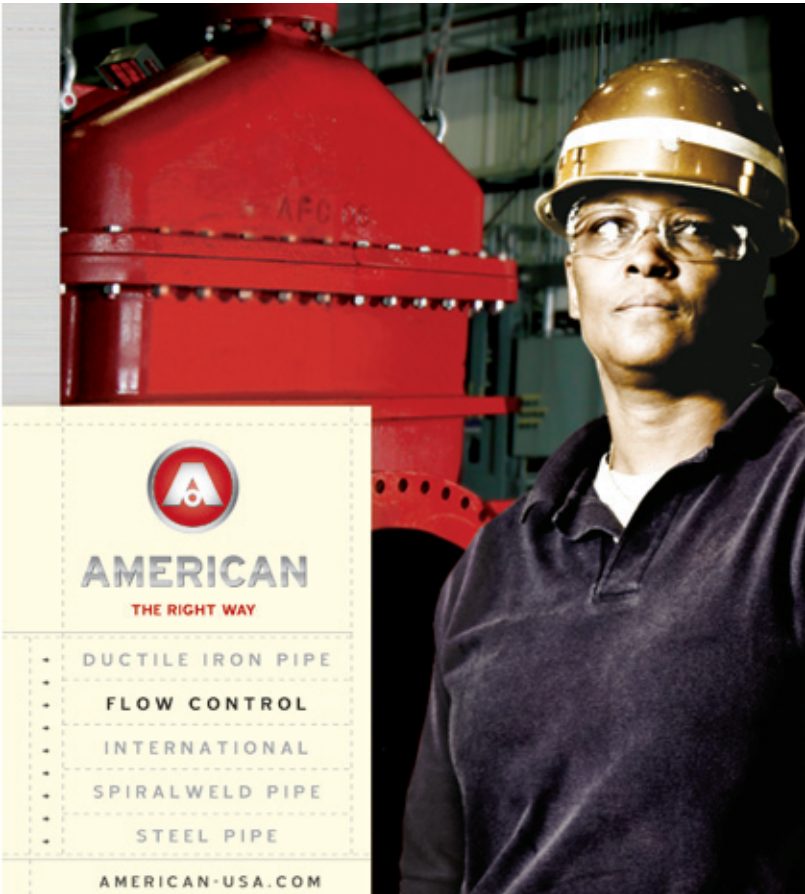


skill set to include: running a business, learning the process of the audit, the art of rate adjustment, drafting ordinances, etc. After completing Water University's Utility Management Course Gifford was quoted saying "The test and course was exceptional. It covered what we do from A to Z."

The Water University certification programs are designed to recognize the professional educational achievements of individuals and to market their achievements and skills to increase the value of today's water professionals. Gifford surmised his experience with the Water University's Utility Management course with, "I recommend this course to anyone in the water industry who is in or who wants to be in a managerial position."

The mission of the Utility Management Certification Program is to provide recognition and certification for experience and educational achievements in the field of water and wastewater management. To register for the Utility Management Course or learn about additional courses that the Water University provides go to: <http://www.wateruniversity.org/>.

For further information please contact your IRWA circuit rider or Kathy Rodgers at 217-820-8377. 💧



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IRWA president Greg Bates presenting the award for Water Plant of the Year to Ken Dulle from Holiday Shores Sanitary District.



IRWA President Greg Bates presenting Dale Biggerstaff from Hamilton County Water District with the Water Operator of the Year Award.



IRWA president Greg Bates presenting Penny Pinkstaff from the City of Lebanon with the Wastewater Operator of the Year award.



IRWA president Greg Bates presenting the Wastewater Plant of the Year award to John Mann from the Town of Astoria.



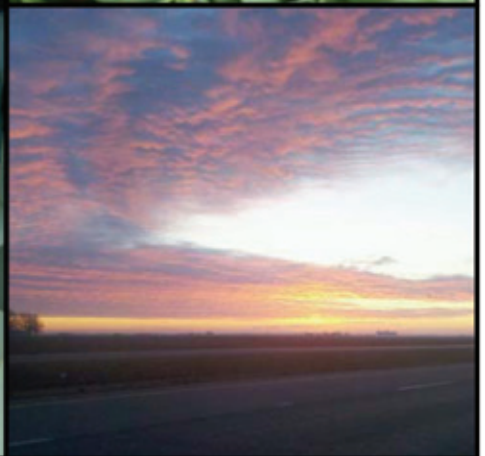
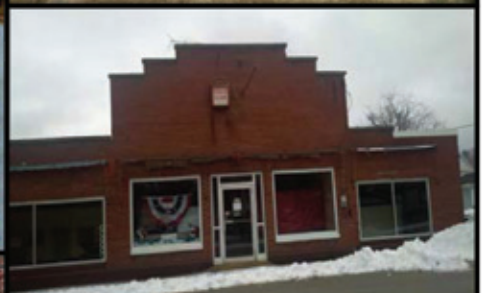
IRWA staff Denise Burke presenting the Associate Member of the Year award to Marla Braun of JCM Industries.



IRWA Executive Director presenting the Best Tasting Water Award to Deanna Young from the City of Mt. Pulaski.



Pictures from around Illinois



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Future Generation



Pictured are Ethan and Gwen, IRWA Source Water Specialist Kathy Rodgers' children, donning their IRWA hats as proud supporters of rural water. 💧

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A graphic advertisement for Layne Christensen Company. It features a central blue circular logo with the word 'Layne' in white. Surrounding the logo are various icons representing water infrastructure: a well, a pump, a water treatment plant, and a water drop. Below the logo, the text reads: 'Wells', 'Pumps', 'Water Treatment', 'Layne Christensen Company', 'Aurora, IL (630)897-6941', 'Beecher, IL (708)946-2244', 'St. Louis, MO (636)343-3700', and 'www.laynechristensen.com'.

Sample Collectors Handbook – Make Chapter 14 Required Reading

*by Wayne Nelson,
IRWA Training Specialist*

As a certified water operator, you should have received a letter from the Illinois Environmental Protection Agency regarding the many recent changes in the operator certification law in Illinois. These changes include items such as the issuance of operator ID numbers to what it takes to be eligible to take the operator examination to the submission of training hours for certification renewal. These changes are all covered in Chapter 14 of the Sample Collectors Handbook. In this article I want to cover just the highlights but I do recommend a complete reading of the chapter.

The first change I'll mention is that operators finally have a permanent ID number for renewal and IEPA correspondence purposes. First, we had to use our Social Security numbers on our paperwork and, in this day of identification theft, nobody thought that was a good idea. Then we used the last four digits of our Social Security number for quite a while. That might have been deemed too easy because operators have now been issued a nine-digit ID number that must be used in all agency correspondence. This number was included in the IEPA letter that you should have received in late winter. If you as a certified operator have not received this number by now, contact the CAS at 217-785-0561.

Next, all training courses that operators take for renewal purposes will have a code number that must be used on the IEPA training submission form to receive credit for the course. This requirement will become effective July 1, 2012. If you have training hours that you have not submitted to the agency, please

do so BEFORE July 1 to receive credit for them.

All training providers will be submitting training courses to the agency for review and approval and these courses will receive code numbers. These code numbers as well as the course name must be submitted on the Training Submission Form after July 1, 2012.

The policy on the renewal of certificates and having the required hours (15 for Class C and D; 30 for Class A and B) before the end of your three-year cycle has changed. It was always accepted that if an operator did not have his/her required hours by the end of his/her three year certification cycle, that operator had to retake and pass the examination to regain their certificate. Now the accepted policy will be that operators that fail to receive the required number of hours (or submit proof to the IEPA of that training) will have two years to receive the needed hours and submit the information to the agency as well as any restoration fees that may be required. If two years have passed since the end of the certification cycle the operator will need to reapply and pass the examination to regain their certification. I want to point out that from the end of the three-year cycle to when the data and restoration fees are paid and the IEPA renews the certificate the operator will not be recognized as a certified operator in the state of Illinois.

Perhaps the biggest change in the operator certification law is who is qualified to take the examination. Under the old policy, if an operator had worked in the public water supply field for three years (or more) in a Class D facility, that person could qualify to take the Class A,



B, or C certification examination. Such a person may have never stepped foot in an actual Class A, B, or C water treatment plant.

In Chapter 14, it is stated that to take a Class A certification examination, that person must have three years "hands-on" experience in the operation of a Class A facility. The same is required for applicants wanting to take the Class B, C, and D exams. They must also have the appropriate certification-level experience. I do want to point out that each certification level can still have the "hands-on" requirement time reduced by up to one-half upon the completion of agency-approved training courses.

It can be argued that both the old and new policies have merit. The old policy allowed a person with a lower-level certificate to upgrade his/her certification to better his/her employment opportunities. It also provided the possibility of more operators with higher level certificates in an industry that is facing a shortage of operators that is only going to get worse with the retirement of the "baby boomer operators". The argument for the new policy is that a

continued on page 20

Sample Collectors Handbook – Make Chapter 14 Required Reading

continued from page 19

Class A, B, or C exam applicant has received the appropriate “hands-on” experience and does not need the “on the job” training after obtaining certification. For lack of a better term, this “hands-on” experience would be considered an internship in the medical profession.

At this writing, it appears that some type of “operator in training” or other option may be considered by the agency to make this type of situation work smoother.

The chapter does briefly cover the option for public water supplies to

hire an operator with the appropriate certification (or higher) to serve as its Certified Operator in Responsible Charge on a contractual basis. This has long been allowed but major changes look to be forthcoming for the approval of a contractual operator by the agency.

Currently, only one basic form is required by the IEPA to recognize a contractual agreement between a certified water operator and an Illinois public water supply. In the near future it is likely that a contract between a system and a possible contractual operator will

need to be approved by the agency before the contract can go into force.

This contract must include the parties involved (system/operator) and a detailed list of duties and responsibilities that each party will be required to perform. The IEPA may also require that the operator be on-site at the system a certain amount of time each week or month.

As I said at the beginning, in this article we’ve just covered the highlights of Chapter 14. Go to page 508 of the Sample Collectors Handbook to learn more. 💧

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2012 Annual Conference Summary

This year's annual conference was another record setter! The number of attendees was 463, which topped our 2008 record by 2 people.

Our 86 exhibitors were generous in their donations again this year. They donated \$1,400 in cash prizes that was given away during the breaks, \$300.00 was given to the Scholarship fund, and 35 of them donated prizes for the Sportsman's raffle, which also broke a record this year bringing in \$8,040.00.

Thank you to **PDC Labs** for sponsoring lunch on Wednesday, **Tom Rodebaugh** for helping again this year with the Sportsman's Raffle, **Cecil Van Etten** for playing Professor Faucet at our

water taste test, and **Brian Jablonski – Linden Group Health Services, Tom Newell – Newell's Sand/Rock Filter Cleaning, and Jim Allen – The Sherwin Williams Company** for judging the water for the taste test, and the **Southern**

IL Water Operators Association for donating 2 prizes for the auction.

Congratulations to the winners listed below! Pictures are posted on our website (www.ilrwa.org)

CASINO NIGHT WINNERS

Tom Butcher	Terry Freese	Gary Kuntzman
Perry Musgrave	Bruce Shields	Jim Lamkin
John Mann	Nathan Wilson	Calvin Scoles
Tracy Jones	Bob Roberts	Deanna Young
Jim Clifton	Dale Biggerstaff	Mike Patridge
Tim Lee	Kurt Downie	Patrick Gleason
Maury Daubs	Mike Depoister	Vince Schwab
Charles McGuire	Ed Shirley	Tim Price
Todd Dial	Lorne Faletic	Robert Dieker
Gary Eby	Scott Robertson	John Hunzinger

SPORTSMAN'S RAFFLE WINNERS

Randy Geister – Portable DVD player - A.Y. McDonald Mfg.

Greg Bates - \$50.00 - Air Diffusion Systems

Greg Bates – Vizio TV - American Flow Control

Greg Bates – Mini hydrant - American Flow Control

Louis Jordan – Utility Vest - Brotcke Well & Pump

Geoff Jones – Cast iron cookware - Carus Corporation

Pat Odell – Quantum QX36/IM7 Rod & Reel - Construction Site Services

Bob Roberts – Powerbilt Golf Bag - Dixon Engineering

Mark Girrante – Travel cooler - Ferguson Waterworks

John Mansfield – Brass Clock - Ford Meter Box

Tracy Jones – Golf putter with golf balls - Ford Meter Box

Alan Secrest – Legendary Whitetails package - Giant Maintenance & Restoration

John Swearingen – 4 STL Cardinals box seat tickets - HMG Group

Rick Vice – Craftsman tool set - Illinois Electric Works

Phil Reeds – Nike driver - IMCO Utility Supply

Mike Lebshire – eZip Scooter - IRWA

Mike Bennett – Fishing rod & tackle - JM Eagle

Louis Jordan – Brass Pro gift card, hats & sunglasses - Key Equipment & Supply Co.

Shelby Leo Nolte – Hunting blind - Layne-Christensen Company

Don Howell – Tackle box & fishing rod - Metropolitan Industries, Inc.

Julie Rada – Calloway Irons & Bag - Midwest Meter, Inc.

Bruce Shields – Kindle - Municipal Equipment Co.

Louis Jordan – Stationary bike - NATGUN Corporation

Greg Bates – Gigantic drinking mug, Bass Pro gift card & Applebee's gift card – PDC Labs

Michael Harrison – Buck knife - Peerless-Midwest

Jess Jenkins – Remote Control car - R.E. Pedrotti

Dale Biggerstaff - Craftsman Screwdriver & Flashlight - Schulte Supply

Mark Mitchell – GPS unit - Smith Ecological

Jeff Mercer – Outdoor propane cooker - Stewart Spreading

Margie Winkler – Bean bag toss - Teklab

Bob Roberts – Omaha Steaks gift card - TEST, Inc.

Robert Dieker – Texas Hold'em set - The Sherwin Williams Co.

Frank Dunmire – Queen airbed - United Systems & Software, Inc.

Bill Ambrose – 3-D fish picture - USA BlueBook

Jay Bell – Bushnell binoculars - Water Well Solutions

Greg Krikie – Tent & lawn chairs - Frank Dunmire & Don Craig

Winner of the Muzzleloader Raffle – Shane Eddleman

*Next year's Conference will be held February 19-21, 2013
Keller Convention Center/Hilton Garden Inn. ♡*

They Did It Again! City of Mt. Pulaski Wins Best Tasting Water - 2 Years Running!

For the second consecutive year, the city of Mount Pulaski is the recipient of the “Best Tasting Water” award from the Illinois Rural Water Association. Water operator Deanna Young accepted the award on behalf of Mount Pulaski. Ms. Young is pictured receiving the award from Frank Dunmire, Executive Director of IRWA.

Mt Pulaski’s public water system supplies clean and safe drinking water to a population of 1,680. The water is pumped from a sand and gravel aquifer by four community wells into a Class C water treatment facility.

“Good water and good health are closely related.” says Kathy Rodgers, source water specialist with Illinois Rural Water Association. “IRWA’s annual water taste test contest provides an opportunity for public water systems to show pride in the quality of the water that they supply to their community.”

All voting members of Illinois Rural Water Association (“IRWA”) were eligible to enter the contest. Participating public water systems submitted their water samples to contest officials at IRWA’s Annual Technical Conference held February 21, 2012 at the Keller Convention Center in Effingham, IL. The water samples were then assigned a number and transferred into uniform glass jars.

Judges were selected from vendors that participated in this year’s conference. Entries were scored by the chosen panel of unbiased judges in a “double blind” sampling. Judges were instructed to base their scoring evenly on clarity, odor, and taste. Scores were tabulated on a 10-point scale; 1 point was the lowest score possible and 10 points was the best score possible. Mt. Pulaski was announced as the winner immediately following the contest with a score of 25 out of 30 possible points.

The news of Mt. Pulaski winning the “Best Tasting Water” award made front page of several regional newspapers which spotlighted the care that Mt. Pulaski puts into providing superior water quality. They are now eligible to

participate in the 2013 National Rural Waster Association’s Great American Taste Test held annually as part of the Rural Water Rally in Washington, D.C.

IRWA (Illinois’s largest rural utility association) along with forty-nine other state rural water associations form National Rural Water Association. The primary goal of Illinois Rural Water Association is to promote professional, efficient operation of water and wastewater systems through education and on-site assistance, working on a one-to-one basis, and addressing problems from the system level. For further information please contact IRWA’s Kathy Rodgers at 217-820-8377.



Cartoon Humor Can Tickle Your Funny Bone

by Anita Agrawal

Didn't the world seem a lot better during Saturday morning cartoons? There was no school, no troubles and no homework worries as cartoon humor entertained us for hours. All it took was the favorite show, a bowl of corn flakes and a never ending smile. Somehow, the tradition faded in time but if you still like cartoons, you are in luck.

There are so many new options that you would be left confused. You can now enjoy cartoons on television shows, morning newspapers and the internet. Whenever you are lonely or sad, turn on your favorite cartoon and roll away in laughter. Remember that your responsibilities increase as you grow old, but the child inside you does not die. You can always bring that back by reading the morning Garfield strip or checking out the new SpongeBob show.

The comic strip in the newspapers was a favorite for most people as they grew up. What started out as a small strip has grown into a variety of world famous cartoons. You can probably remember Archies and Garfield. Now you can choose between a variety of cartoon strips from Calvin and Hobbes to The Wizard Of Id. If that is not enough, you can also catch your cartoons as television shows on morning channels. What can be better than Bugs Bunny outsmarting the hunter or the road runner defeating his smart enemies. You would laugh and laugh until you have tears in your eyes. From getting hit with anvils to blasting each other with cannons, it's a dream world of fun and laughter.

Cartoons have some of the funniest jokes and the wittiest punch lines. You

can laugh at anything and anyone in cartoons. You could even make one yourself. Remember the bully who troubles you at school? Why not draw him as a fat slug and show him falling under a piano. That can surely bring a big grin to your face. Cartoon humor has been growing constantly.

If you are bored of the repeats on television, switch on your computer and log onto any cartoon site. You will hold your stomach, crying out in laughter as you see the funny range of cartoons. One year old talking babies or a family of idiots, all of them can make you laugh for hours. Books and movies, people and places, things and thoughts, all come alive with cartoons.

If you love cartoons, there is always something that you have never seen before. Starting from Mickey and the Disney Gang to Pokemon and SpongeBob, all are genius shows. If you feel you have watched them all, you can always watch exclusive clips

or unreleased extras on the net. There is never a dull moment with the huge collection of cartoon pages and websites that is sure to make anyone laugh with pure fun. A bundle of laughs and memories of joy, cartoons keep being a part of our lives. It is up to you to enjoy the world of cartoon humor and always keep the laughs alive when you are feeling down.

And now I would like you to take a peek at some really funny stuff by going to this Kid-Friendly Website A top line resource on clean humor for young families with lots of things for kids to do.

About The Author

Anita Agrawal is a freelance writer for online publications and writes for family enjoyment and child education. If you want to have some fun and laughter, go to this Kid-Friendly Website: <http://www.familyfuncartoons.com>. A top line resource on clean humor for young families with lots of things for kids to do. 💧



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Spring Air Conditioner Maintenance

The most important step? Clean the outdoor unit!

In this article, we'll show you how to clean and maintain your central air conditioner to keep it running efficiently. We won't demonstrate the maintenance steps for a window-mounted model here. Most central air conditioners have two basic parts: an outdoor unit (compressor/condenser) that sits next to your home and an indoor unit (evaporator) that's located in a central duct near your furnace (Fig. A). If you have a heat pump instead of a furnace, the indoor unit will be in the air handler. Use the same maintenance steps we show here. If your furnace looks different from the one in Fig. A, or you have a heat pump, use the owner's manual to find your way around it. The basic parts will be the same.

The most important maintenance steps are fairly simple, but if this is the first time you've cleaned the unit, allow about a half day to carefully work through the steps. If you're not up to the task, call a pro (look under "Air Conditioning Contractors" in your Yellow Pages). Cleaning and servicing a central air conditioner costs \$100 to \$250.

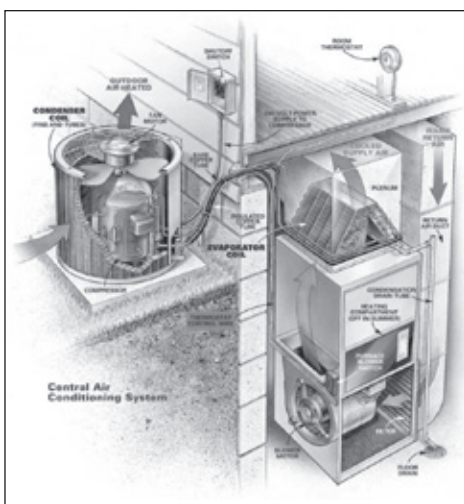


FIGURE A

Fig. A shows a typical central air conditioning/furnace setup. Two copper tubes connect the outdoor compressor and its condenser coil (a "coil" is a combination of fins and tubes) to the indoor evaporator coil that's located in the plenum (Fig. A) above the furnace blower. One tube is covered with foam

insulation. If you have a heat pump, both tubes will be insulated.

Outside, your main job is to clean the condenser coil (Photos 2 - 3). The fan inside the condenser coil sucks air through the fins, and as a result, pulls dirt and debris with it. Dust, leaves, dead grass and anything else that collects on the fins will block airflow and reduce the unit's efficiency. Grass clippings thrown by the lawn mower and "cotton" from cottonwood trees and dandelions are particularly bad offenders. You might have to clear the fins weekly or even daily during the spring "cotton" season! Always begin by shutting off the electrical power (Photo 1).

TIP:

Cover your outdoor unit in winter with plywood to prevent damage from falling ice. Don't wrap it with plastic or any other material that completely blocks airflow. Moisture that's trapped inside will promote corrosion.

Then proceed with the cleaning (Photos 2 - 3). If the fan motor (Photo 3) has lubrication ports, apply five drops of special oil for electric motors (not penetrating or all-purpose oil). You can find oil for electric motors at hardware stores. Many fan motors are maintenance-free—they don't have oil ports (ours doesn't) and can't be lubricated. Check your owner's manual if unsure.

The compressor and its motor sit inside the coil (Fig. A). They're usually sealed and won't need maintenance. However, if you have an older compressor that's belt-driven by a separate motor, lubricate the motor through its oil ports. In every case, keep an eye out for dark drip marks on the bottom of the compressor case or pad (Photo 4). This

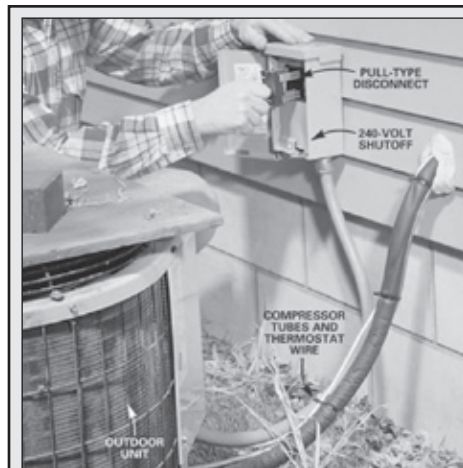


Photo 1 - Shutoff power to the air conditioner

Turn off the 240-volt power at the appliance shutoff box. It's usually outside within sight of the outdoor unit. Some shutoffs simply pull out; others have a handle to pull down or a fuse to remove. If there isn't one, turn off the power at the circuit breaker at the main panel that controls the outdoor unit.



Photo 2 - Remove the outer case and vacuum the fins.

Vacuum the condenser fins with a soft-bristle brush attachment. The metal fins are delicate; avoid bending them. Clear away weeds, grass and other debris that block airflow through the coil. You often have to unscrew a protective metal case and lift it off to get at the condenser fins.

indicates an oil leak; the compressor or tubes might be leaking coolant (refrigerant) as well. If you find a leak,

continued on page 26

call in a pro to check the problem. Don't tighten joints to try to stop leaks yourself! Over-tightening can make the problem worse. And only a pro with proper equipment can recharge the system to the proper level of coolant.



Photo 3 - Remove the grille.

Unscrew the top grille and hold it open. The fan will usually come with it, so support it carefully to avoid stretching the electrical wires and stressing the connections. If the fan doesn't lift out, avoid hitting it with a direct spray of water when you clean the fins.

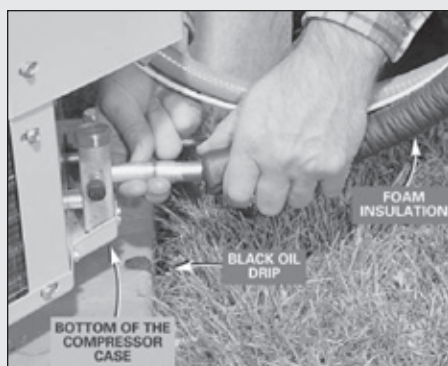


Photo 4 - Feel the pipes to see if they're warm and cool.

Turn the power back on and adjust the thermostat so the outdoor unit comes on. Listen for odd noises that might indicate damage or wear. After 10 minutes, pull back the insulation on the insulated pipe (or pipes, if you have a heat pump). It should feel cool, about 60 degrees. The other pipe should feel warm, about skin temperature. If either doesn't feel right, call in a pro to check the refrigerant level.

Important Outside Startup Guidelines

Compressors are surprisingly fragile. Follow these precautions when restoring the power:

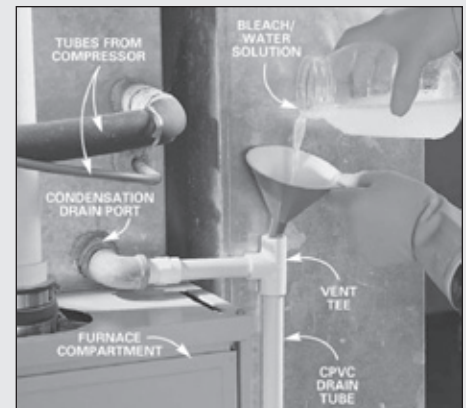
- If the 240-volt power to your compressor (Photo 1) has been off for more than four hours, don't start the outdoor unit immediately after cleaning. Instead:
 1. Move the switch from "Cool" to "Off" at your inside thermostat.
 2. Switch the 240-volt power back on and let the outdoor unit sit for 24 hours. (This allows a warming element to heat the compressor's internal lubricant.)
- If you switch off the air conditioner (at the thermostat) at any time, wait at least five minutes before switching it back on. Once off, the compressor needs time to "decompress." If you restart it too soon, you'll stress the motor. Many thermostats have automatic time delays built into the circuitry to protect the compressor from this problem.
- Clean the outdoor unit when the temperature is 60 degrees F or higher. Compressors won't work properly in temperatures below 60 degrees.

Important Inside Maintenance



Replace a dirty filter

Check the furnace filter and change it if it's dirty to keep dust from collecting on the evaporator coil fins. Turn off the power to the furnace before pulling the filter so the blower doesn't come on and blow dust throughout the system. Orient the filter according to the instructions printed on it.



Clean a clogged drain

Check the Condensation drain for sludge and algae growth. If it's partially clogged, pour a bleach solution (1 part bleach to 16 parts water) through the tube. This rigid plastic tube can't be removed unless you cut it. Flexible tubes should be removed and cleaned. If possible, poke a wire into the drain port to make sure it's not blocked.



Vacuum the blower compartment

Open the blower compartment (with the power turned off) and lubricate any accessible ports on the blower motor with electric motor oil. Many newer blowers don't have ports, or if they do, they're inaccessible. Vacuum up any dust that has collected in the compartment.

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