Arkansas Rural Water Association

WATERINSIGHT

WINTER 2015

FROM YOUR CHIEF EXECUTIVE OFFICER
DENNIS STERNBERG

It's Budget Time again!! Tighter budgets for your utility could come from your utility due to loss of customer base as you see some systems facing in Eastern Arkansas. The price of services and products are continuing to increase, the ever-present aging infrastructure that all systems are facing, aging work force, loss of institutional knowledge of your systems as individuals retire, or in the worst-case scenario, long-time employees pass away.

Let's take a minute to look at the above items individually we listed as challenges for the water and wastewater industry, and see how we might be able to better understand and adapt to working through these challenges.

The water industry is and will continue to change with regulations whether it is from EPA or specific state regulation changes. The one thing I would say is that everyone in the water industry has an opportunity to help change regulations if we all stand together (united as a member) through the different water organizations, such as being a member of Arkansas Rural Water Association.

Yes, regulations can be changed if everyone stands united and work together for a common cause. That is just one of the many things your membership to Arkansas Rural Water Association provides you is a voice to the state and federal legislators. When all the national water organizations stand together, it provides for a much louder voice on the federal level.

Tighter budgets will continue to be the trend in the industry, I believe. However, we must all do a better job educating the public/board/councils/mayors about the importance of safe, quality water and wastewater services.

As the manager of your water and/or wastewater system, you need to be as energy efficient as possible in the operation of your system. For example, one of the highest bills your utility pays every month is your electric bill or bills for your wells, plant, pump stations, or on the wastewater side, your lift stations and sewer plant.

On the water system, "Water Lost Cost" in more than one way. If you are producing your own water, you are either getting water from a well or from surface water supply. Both require you to pump to the plant or into the system. With a well, you might be able to pump directly into the system with just the addition of chlorine if it meets all the water quality standards. Either way, you have electrical costs and chemicals. If you have to treat the water first, you have chemical costs and additional electrical costs before you pump into the system with the high service pumps. If your system has more than one pressure plain, you will have a booster station. If your water system is purchasing treated water, and your water system is experiencing high water loss (over 15%) each month, you are losing money in more than one way. You have increased electrical costs for the amount of water you are losing through the wells, plant, booster stations, and increased chemical costs. If you purchased treated water, you have increased expenses through purchased costs and possibly booster station electrical costs as well. This would also mean increased cost on wear and tear on the pumps or shorter life expectancy of the pumps and/or motors. These are areas where by being a member of Arkansas Rural Water Association we can provide assistance through our field staff with leak detection equipment, master meter testers, and residential meter testers. This is but one more service Arkansas Rural Water Association's membership provides to your system to help with tighter budgets.

On the wastewater side, excessive Infiltration and Inflow (I&I) can cost your system through higher electrical readings on lift stations during the months of heavy rain when I&I occurs, as well as putting a load on your wastewater plant during these times. I must

(continued on page 4)

Arkansas Rural Water Association

Working To Improve Life In Rural Arkansas

BOARD OF DIRECTORS

PRESIDENT
Bradley Scheffler — Piggott

FIRST VICE PRESIDENT
Greg Cross — Greenwood

SECOND VICE PRESIDENT
John Choate — Russellville

SECRETARY
Robert Stout — Jacksonville

TREASURER
David Harper — New Edinburg

IMMEDIATE PAST PRESIDENT
Diana Woodle — Higginson

NRWA DIRECTOR
Steve Wear — Morrilton

MEMBERS
Phil Miesner — Pine Bluff
Doug Wasson — Harrison
Greg Hooten — Guy
Noble McCord — Salem
Roy Dison — Calion
Benjy Hildebrand — Smackover
Cecil Zolliecoffer – Ozark
Bobby Brown – McDougal
Butch Bartholomew – West Fork

ARWA STAFF
Dennis Sternberg, CEO
Jeff Ford, Deputy Director
Fatina Dodson, Executive Secretary
Donna McGaha, Accountant
Kathryn Mashburn, Receptionist
Jim Philipp, Training Specialist
Susan Poe, Wastewater Trainer/Technician
Jim Barkie, Wastewater Trainer/Technician
Terry Fortenberry, Circuit Rider/Trainer
Tim Carey, Circuit Rider
Josh Freeman, Circuit Rider
Rodney Baldwin, Circuit Rider
Chris Harris, Circuit Rider
Roy Richards, Circuit Rider
David Quattlebaum, USDA Source Water Technician
Steve Frankenberger, Wastewater Specialist/ Energy Tech

The ARWA Magazine is published quarterly by ARWA,
P.O. Box 860, Lonoke, AR 72086
Phone (501) 676-2255 Fax (501) 676-2266

E-Mail: arkrwa@sbcglobal.net
E-Mail: arkrwa@arwa.net
Web page: arkansasruralwater.org

Contents

From Your Chief Executive Officer . . . . . .2 & 4
How Do I Operate My Wastewater Plant? by Susan Poe 6-7
Asset Management by Chris Harris 8
Security and Your Water System by Tim Carey 10
Long-Range Planning by Josh Freeman 12-13
Treatment Plant Safety by Rodney Baldwin 15
USDA Rural Development 17
Water Utility Data Base (WUDB) System by Roy Richards 18
ARWA Training and Events 2016 19
Letters and Emails 20
Practice Before We Master by James Philipp 23
Emergency Response by Jeff Ford 24
Rural Cooking 27
Water Operator License Examinations 28
Backflow Program 29-30
Advertisers Index and Order Form 31

Cover Photo

Buffalo River

Photo courtesy of Arkansas Department of Parks and Tourism

Magazine Editor – Fatina Dodson

ARWA Mission Statement

To provide Arkansas' Rural Water Utilities the highest level of Training and Technical Services in order to obtain Quality Water at the lowest possible cost.

Arkansas Rural Water Association is a non-profit organization of rural and small publicly owned water and wastewater systems. Our goal is to enhance the lives of Arkansans. Our efforts to achieve this goal are focused on providing training and technical assistance to the managers and operators of all eligible systems serving populations not greater than 10,000. We work with other non-profit organizations in representing the interest of public water and wastewater systems at both the local and national levels.

• ARWA is affiliated with the National Rural Water Association •

Dennis Sternberg *(continued)*

say there is NO wastewater system that I am aware of that doesn't have some type of I&I problems. However, every system must continually work to keep this to a minimum, and Arkansas Rural Water Association's membership provides these types of services through smoke testing equipment and onsite assistance. If you really want to find out what problems you have in the sewer mains, Arkansas Rural Water Association has a sewer camera and Vac Con truck that can clean and allow the sewer camera to come in after the cleaning, and camera the main sewer lines to identify the bigger problems. This is another benefit of becoming a member of Arkansas Rural Water Association.

Both water loss and I&I are areas that water and wastewater systems can have some affect on controlling expenses to their budgets.

Customer base decreasing in some areas is a problem that really a water or wastewater system has little or no control. What it does do is to continue to make it more expensive for the remaining customers to cover the operational costs. One suggestion might be for utilities in those areas to look into entering into some type of combined operation and management of several utilities and operate under a utility management company. For example, there is the possibility of reducing operational expenses through employees operating and maintaining several systems in a county.

Aging infrastructure is something all systems are dealing with and is something that will take a long-range plan to address regarding financial assistance through loans or bonds to correct the most vital infrastructure first, and address the other areas as funding can be obtained. Taking into consideration, what can your system afford based on the customer base and their needs. Water rates have been way too cheap for many years. As you see new systems going in, the cost of operation is something that has to be passed on to the customer or end users. We are seeing rates being a lot higher than in the past years due to the decline in grant monies for projects. I would say that every system should be doing a rate study on their system each year to stay up with increases in cost of operation. Again, by being a member of Arkansas Rural Water Association, this is another one of the many services we provide to you the member.

Aging work force is something that the water and wastewater industry is facing due to the youth growing up and going to work in the larger cities and for higher wages for the most part. The water and wastewater industry needs to do a better job on retaining younger people through higher wages and better benefits (health insurance & retirement) for their employees to allow for them to stay in their local areas and raise their families in rural Arkansas. It really isn't an expense to your utility it's an investment in your community and its future.

This is one area systems need to make sure their employees are also cross trained with other employees in the unexpected event that a senior employee would become unable to perform their duties. The water and wastewater systems must continue to operate in safe and proper manner for all the customers.

Another area I would mention is that Arkansas Rural Water Association has an Endorsed Insurance Program called "Aquasure", and I would recommend each system contacting them and getting them to give your system a quote on your system's insurance needs. This insurance is designed specifically for water and wastewater systems' needs, another reason to become a member of Arkansas Rural Water Association.

Thanks, and if there is anything Arkansas Rural Water Association can answer or assist you with, feel free to contact our office at 501-676-2255.

ETEC
ENVIRONMENTAL TECHNICAL SALES, INC.
Chad B. Cooley, P.E.
900 S. Shackleford
Suite 300
Little Rock, Arkansas 72211
(501) 978-1025
Fax (501) 978-1026
Cell (501) 690-3721
ccooley@etec-sales.com

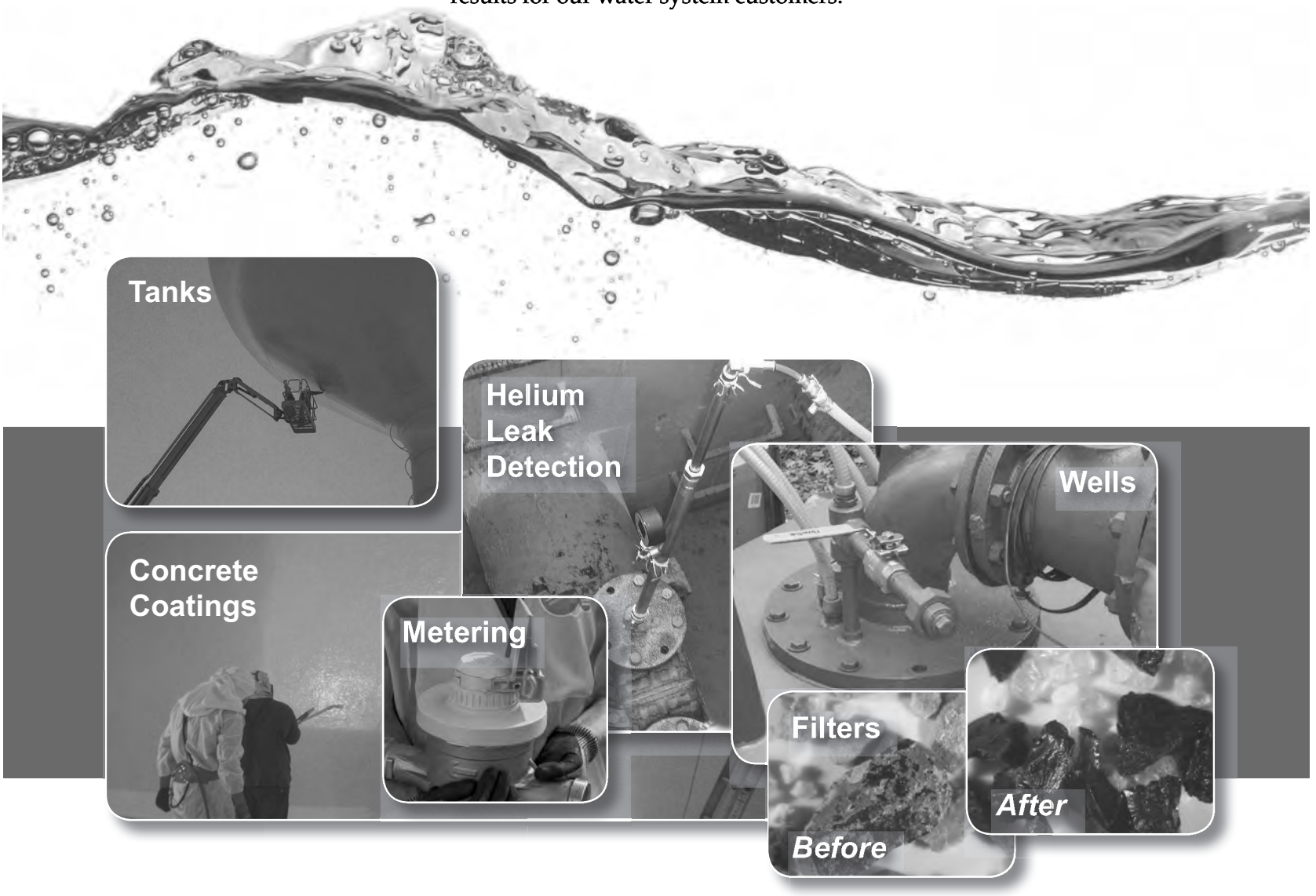
U.S. Underwater Services, LLC
(800) 860-2178
www.usunderwaterservices.com
- In Service Diver Inspection
- In Service ROV Inspection
- In Service Sediment Removal
- In Service Leak Detection & Repair
- Intake Inspection & Repair
- Tank Fabrication Products
American Water Works Association
ADC INTERNATIONAL

Utility Service Group

Clean. Safe. Sustainable.

Utility Service Group has proudly served the potable and industrial water industries for over 50 years.

Today's Utility Service Group (USG) provides comprehensive condition assessments, rehabilitation services and sustainable asset management solutions throughout the whole water cycle. Our comprehensive portfolio of innovative sustainable technologies and custom designed professional asset management services deliver value-based, sustainable and compliant results for our water system customers.



USG offers diverse services covering the entire water cycle, encompassing (but not limited to) **tanks, concrete coatings, filters, filtration solutions, smart metering solutions,** as well as leading-edge technologies like **helium leak detection.** Contact us today to learn more about the value and savings that USG, the largest tank painting contractor in Arkansas, can deliver to your Arkansas water utility!

State of Arkansas | Brian Woodring | 855.526.4413 | help@utilityservice.com

How Do I Operate My Wastewater Plant?

By Susan Poe, Wastewater Trainer/Technician

Let's go back to basics. I find a lot of operators have taken over the duties of calling all the shots on their wastewater plant, and they are continuing with the routine. That was the way we always did it. There is nothing wrong with that as long as your samples reflect that everything is running properly, and your removal of pollutants is hitting the mark. However, a violation on a sample here and there is becoming a bigger problem for systems than in the past (including financially in fines). Ultimately, we don't ever want to receive a violation. This should be everyone's goal for the monthly sample reports.

Here are some of my tips that I use when I visit a system for the first time to get their plant optimized or assist someone with figuring out what to do. One, let us find that Operation and Maintenance Manual. Every plant should have been issued one, and in the world of "modified" plants there is no one set of guidelines for every type plan anymore. Usually, when I ask if it is there, no one has seen it, and sometimes it just isn't there anymore. Try going back to the manufacturer or engineer that was on the original project, and a lot of times there is one that they can pass on to you. If not, try finding another project like yours in the state, and let's see if we can get a copy of theirs for you to work with. Often, we find it is in a back cabinet that everyone has forgotten about, since there are usually several copies left behind. There are a lot of basic rules of thumb for operating different types of plants; however when it comes to your plant, each is an individual that may have had something special done to it for your circumstances that will help achieve your goal. If you are totally out on samples on a regular basis, try working back to factory settings or recommendations that came with the plant, but work slowly. Anyone that has taken our classes on wastewater knows that we do believe in small changes just like it states on the exam (10 to 15%). Changing dissolved oxygen levels drastically can cause an upset in your biological environment that will require major adjustments from your microorganisms to adapt. It also usually takes five to seven days for a plant to adapt and let you know if the reaction is good or bad. Keep in mind, being able to adjust air rates or chemical doses are a cost savings if you are able to lower those amounts, which hopefully reflect as a job well done in your budget to allow for other items to be purchased that you need or maybe even a raise for the person that saved the day.

Those of you using chemicals really need to monitor your plant reactions even if you are in compliance with your samples. If you are using a chemical for pH adjustment, for example, and are not monitoring its effects daily with a pH meter, it could be possible you are throwing money away. Sometimes the adjustment started for an emergency situation and just continued, because we have good samples. Chemical costs are through the roof, and most plants were designed to run naturally with the use of chemicals only to offset problems such as weather events. So, make sure if you are feeding something, you know exactly why it is being fed. Again, do not just take it away. Reduce it slowly, and watch your results closely to see how much you can reduce and stay in range. Don't forget to apply the five to seven day rule.

Last, but not least, but very important right now,

watch your chlorine. A lot of systems have a large range on fecal colonies that can be discharged and still be in permit limits. These vary according to the receiving stream. Chlorine is there to kill the pathogens or diseases causing organisms, and most have a lot of room to play when they are frequently coming in below 0 on samples or with a less than number. ADEQ is starting to really monitor your chlorine discharge, and unless you are using a de-chlorinating agent, you have to prepare to meet new limits in the future. It is best to start now than having a small window of time to achieve it. The standards are already being put in the works on several systems. So, do not get comfortable if you have no limits, your next permit could completely change your world.

Start monitoring your residual more closely; perhaps you can reduce your usage while achieving your goals, which could be a large savings to your system. Chlorine only needs 30 minutes contact time to react, so this should be simple to monitor at the site. Those of you that already have the limit may be surprised how much you can reduce your usage, and who knows, maybe you can reduce your de-chlorinating agent as well.

If you need more assistance with any of these items trying to locate a manual for your plant or making adjustments without totally disrupting everything, please do not hesitate to call 501-676-2255 for a wastewater technician to visit your system. That is what we are here for, and we look forward to trying to assist you.

Don't forget to make plans for the

2016 ARWA
Annual Technical Conference

Conference Dates:
September 18-21, 2016
Exposition Dates:
September 19-20, 2016
HOT SPRINGS CONVENTION CENTER
Hot Springs, Arkansas

Badger Meter

Clearly Better.

Henard Utility Products
Authorized Distributor of Badger Meter
www.henardutility.com
800-776-5990

Water Meter Data Collection and Management
• Cellular fixed based transmitters
• Hosted and managed analytical software

BEACON
Advanced Metering Analytics

Asset Management

By Chris Harris, ARWA Circuit Rider

In today's economy the age of 100% grants has all but come to a close. This puts the pressure on the systems to develop ways to generate more income and properly manage what they already have. In water and wastewater systems, an "asset" is a component of an infrastructure with an autonomous physical and functional identity and age. This could include motors, pumps, and sedimentation tanks. The upkeep and replacement of assets that make up the state's independent water structures is a constant and unending task. To ensure efficiency in that area, many systems have turned to asset management. This approach has gained recognition for its effectiveness and proven valuable to systems across the state. Asset management is generating new revenue, managing the assets that a system already possesses to make them last, and to utilize the equipment longevity to its fullest potential. Each system is responsible for making sure that the infrastructure stays in good condition and the components work to the best of their abilities in a cost-effective manner. Asset management programs can help keep track of the age of equipment, condition of equipment, cost of maintenance, and provide replacement plans based on financial data evaluations. This can provide crucial data to a water or waste water system, make the management of the infrastructure more informed about components of their system, regardless of the system size, and help them sustain their systems and keep the customers they service satisfied to the fullest extent.

We are looking for article and recipe submissions from our members for future editions of Water Insight!

Please email your submissions to **arkrwa@sbcglobal.net.** ARWA reserves the right to edit all submissions, and we do not guarantee that all articles or recipes will be published. We are looking forward to hearing from the Arkansas Rural Water Community!

ARE YOU AN ARWA MEMBER?

All of our regular training classes are free of charge to all ARWA members. Non-members will be charged $99 a day for each person attending our training sessions effective January 1, 2015. These fees cover the cost of training materials provided in each class. If you want to update your ARWA membership you can print our membership form online at **www.arkansasruralwater.org** You can also call us directly at 501-676-2255.

PITTSBURG
TANK & TOWER
MAINTENANCE CO., INC.

SAVE!
We have a crew in YOUR AREA!

Inspections	Repair	New & Used	Tanks
Wet	In Service Cleaning	Relocation	Elevated
Dry	Paint	Erectors	Underground
ROV (Robotic)	Insulation	Dismantles	Ground Storage
	API	Mixing System	

ROV inspections can be viewed on TV console during inspection & DVD provided. All inspections include bound reports, recommendations and cost estimates.

Hugh McGee
270-826-9000 Ext. 330
www.watertank.com

Attention: Board Members and Managers of Rural Water Associations:

Airport Road Water Association
Arkansas Rural Water Association, Inc.
City of Ash Flat
Bald Knob North Water Association
Beaver Water District of Washington & Benton Counties
Bee Branch Water Association
Benton County Rural Water #5
Benton/Washington Regional Public Water Authority
Benton County Water District #1
Bethesda Water Association, Inc.
Blue Mountain Water Department
Breckenridge-Union Water Association
Brinkley Municipal Waterworks
City of Brookland
Bruner Hill Water Association
Buffalo Island Regional Water District
Calhoun County Water Association, Inc.
Carthage Water & Sewer Commission
City of Cash
Cedarville Water Works
Center Grove Water Users
City of Cherry Valley
Cherokee Village Waterwork Facilities
City of McDougal
Clay County Regional Water
Cleveland County Rural Water Users
Colt Water Department
Concord Water and Sewer P.F.B.
Conway County Regional Water
Cotton Plant Water & Sewer Main and Control
Town of Cove
Cross County Rural Water System
Dennard Water Association
Dorcheat Community Water Association, Inc.
Dota Public Water Authority
Earle Water and Sewer Division
East Prairie County Water Association
Edgewood Bay Association, Inc.
Etowah Waster Water System
Franklin Sebastian Public Water Authority
Freedom Water Users Association
Fulton County Water Authority
City of Fulton Water & Sewer Department
Gentryville Water Association
Gillham Lake Regional Water Association
Glen Acres Mutual Water System
Grange Calamine Water Association
Grand Prairie Region Water Distribution District
Grand Prairie Bayou II Public Facilities Board
Greenfield Capital Development, LLC
City of Greenbrier
Hardin Water Association, Inc.
Town of Harrell
Old Bella Vista POA, Inc.
City of Omaha Water Department
Outside Kingsland Water
Ozark Acres PFB of Sharp County
City of Haskell
Helena Municipal Water & Sewer System
Highway 4 & 24 Water Association
Highway 63 Water Users Association
Highway 71 Water District No. 1
Highland Public Water Authority
City of Highland Sewer Department
Horsehead Water Association
City of Hoxie
Independence-Jackson County Regional Water Users
Jefferson Triple D Water Association
Johnson Township Water
Kingsland Water and Sewer
City of Kingsland
Lake Water Association
Lake Rural Water Association
Lake Bull Shoals Water Association
Lake Chicot Water Supply Association
Lakeside Midway Public Water Authorities
Lakeside Water
Lawrence County Regional Water
Lawson-Urbanna Water Association
City of Lead Hill Water
Leonard Water
Locke-Fern & Dollard Road Waterworks
City of London
Lost Bridge Village Water Association
Louann Water & Sewer
Lurton Pelsor Water Association
Madison County Water Facilities Board
Magnolia Water Association
Malvern Water and Light Department
Marion Water Association Inc.
McKinnon Contractors, Inc.
McNeil Water Association, Inc.
Milltown Washburn Public Water Authority
Mountain Top Public Water Authority
Mt. Holly Water Association, Inc.
Mt. Olive Water Association
City of Moutain View Water and Waste Water Dept.
Nail Swain Water Association
North Garland County Regional Water
North Howard Rural Water Association
North Pike County Rural Water
North White County Rural Water Public Facilities Board
Northeast Yell County Water
Oak Manor Water and Waste WaterOzark Water & Sewer
Ozone Water Association, Inc.
City of Pangburn Waterworks Department
Parkers Chapel Water Association
Parkin Rural Public Water Authority
Paron Owensville Water Authority
City of Perrytown
Phillips County Sewer Facilities Board
Rural Water
Quadex, Inc.
Quinn Water Association, Inc.
Water and Sewer Department
River Valley Water District
Riviera Utilities of Arkansas, Inc.
Rock Moore PWA of Arkansas
Water Distribution District
Association of the State of AR
Sevier County Water
Sidney Waterworks
Southwest Arkansas Water System
Southwest Arkansas Water Users
Southwest Boone County Water Association
South Logan County Public Water
South Pike County Public Facilities Board
Southwest Section American Waterworks Association
South Sheridan and Little Creek
Southeast White County Water
Water Users Association
City of Springdale
Subiaco Abbey Inc.
Sylamore Valley Water Association
Toad Suck Public Facilities Board
Tri-County Regional Water
Trumann Water Association
Tulip Princeton Water Association
Tumbling Shoals Water System, Inc.
City of Valley Springs Water Department
Van Buren County Water Association
Vandale Birdeye Water Association
Walkers Creek State Line Water Association, Inc.
Walker Water Association
Watalula Water Users
Watson Chapel Water Association, Inc.
Wesson Newell Water Association
Western Greene County Regional Water District
West Saline Water Users Association
West Stone County Water Association
Wilburn Water Association
Wildwood Water Association
Woodson-Hensley Water Co.
Wright Pastoria Water Association
Yorktown Water Association

Everyone else is benefitting from arwa's Aquasure insurance program.

Why aren't you?

Call David Feild today for more information at 501-666-6653, or email: dfeild@riskservicesar.com

Security and Your Water System

By Tim Carey/ARWA Circuit Rider

Many people have concerns about whether or not their system is secure. Every day, you the operator or manager, drive to the system. When you arrive, you never think about whether or not somebody has been there. Many things are on your mind when you start your day. The last thing on your mind is the possibility of your water system being breached. As I visit all of the water systems around the state, I see gates open, doors unlocked, and no lighting around the areas that need to be watched or patrolled.

In recent years, the staff at Arkansas Rural Water Association has helped many of the systems in Arkansas complete an Emergency Response Plan. We have also helped many systems complete a Vulnerability Assessment. I have to question if the manager or operator in charge really realizes the purpose of these reports. The Vulnerability Assessment spells out your assets such as the working components of your water system; these areas could be disabled or destroyed. This would leave the system with no way to treat or deliver potable water to the customers.

The Emergency Response Plan is a necessary tool to use in the event that an emergency could disable your water system. This report has all contact information to be used to give the operator the necessary avenues to repair the system. These reports are completed and filed but rarely looked at until the next time they are updated. Please ask yourself if you are ready to handle any situation described above.

The past has shown us that we are not exempt from people seeking to crush this wonderful country we live in. 9/11 has come and gone and is now a distant memory. Now we have people being kidnapped, and lives are being destroyed. Please take a hard look at your water system and surrounding areas. If you are not sure what to do in the area of tightening up security, please feel free to call us.

Remember as you drive home at the end of your day, and you arrive at your home, what is the last thing you do? Before you retire for the evening, you lock your doors. For those of you that have a security system, you arm it or turn it on. This makes you feel safe in your home. What is the difference in your home and your water system? The difference is there are only a few people in your home. There are many consumers depending on you and on the water system. They take for granted that we as operators are protecting this most important utility. People cannot live without Water!

I look forward to talking to you about this matter.

Eagle Sandblasting & Painting, Inc.

136 Main Street
Pleasant Plains, AR 72568
Phone #: 501-345-2542 Fax #: 501-345-2032
email: espi@centurytel.net

WATER TANK MAINTENANCE

• REPAIR OF STEEL TANKS
• INTERIOR & EXTERIOR TANK PAINTING AND PROTECTIVE COATING SYSTEMS
• LADDER SAFETY PROTECTIVE SYSTEMS
• CABLE & FLOAT REPAIRS
• WELDING REPAIR
• TANK WASH-OUT & INSPECTIONS

WUDB System®

"A New Generation In Tracking Collections"

Eliminate Your Delinquent Accounts With Our Web Based Solution For Tracking Collections.

Features	Benefits
Personalized Company Info	Affordable Monthly Fee's
Multiple User Security Levels	Automatic Tracking Of Inquiries
New Customer Inquiries	Notice Of Matches Upon Login
Debt Customer Entry	Establishes Communication
Built In Request Forms	Ultimately Reduces Bad Debt

THOUSANDS OF DOLLARS CONTINUE TO BE COLLECTED THROUGH THIS SYSTEM.

EXERCISE YOUR RIGHT THROUGH ARKANSAS ACT 769 BY USING THE ONLY STATE APPROVED SYSTEM

Logon At:
www.wudb.com

The WUDB System®

Call Us At:
800-451-5351

Long-Range Planning *By Josh Freeman, ARWA Circuit Rider*

Under Section .H of the Arkansas Rules and Regulations Pertaining to Public Water Systems, each public water system shall have a written Long-Range Plan covering a planning period of at least ten years. This plan should be updated at least every 5 years. A Long-Range Plan shall address the following information at a minimum.

Technical Capacity:

Technical capacity is the water system's ability to consistently provide an ample quantity of safe drinking water to its customers, including such items as water use data, projected water use, regulatory compliance, etc. The system needs to list and describe all major projects and expansions anticipated within the planning period. Give a brief analysis of possible alternatives to the planned projects and expansions; including such items as interconnection with a neighboring system, purchased water arrangements, alternate ownership, and management arrangements.

Has the system had hydraulic analyses of the distribution system at all pertinent flows and storage tank levels anticipated within the planning period? If hydraulic analyses have been done, give the details associated with flows and tank levels anticipated within the planning period. Describe the source water adequacy, for both quality and quantity concerns, for the planning period. What does the system have in place for adequacy of source water protection areas? What measures are in place to control potential contaminants, including any applicable legal authority to implement such measures? Describe the current adequacy of water treatment processes and their projected performance and adequacy for the planning period. Address any waste disposal issues occurring due to water treatment, (e.g. sludge, backwash water, etc.).

Have available, documentation that the water system currently has a sufficient number of properly licensed operators, and list the operators and the grade of licenses. Describe the plans that the water system has for maintaining a sufficient number of properly licensed operators for the planning period. Give a list of any laboratory/water quality monitoring needs anticipated within the planning period.

What is the water system's planning efforts to ensure compliance with applicable state and federal regulations anticipated to be finalized within the planning period. A statement of compliance with section XIV.F of the Rules and Regulations Pertaining to Public Water Systems regarding plumbing inspection and sewage disposal requirements, and a description of the system's legal authority to implement the requirements. A statement of compliance with section .E of the Rules and Regulations Pertaining to Public Water Systems regarding the establishment of a cross-connection control program and a description of the system's legal authority to implement the requirements. Address the deficiencies that were listed in the water system's sanitary survey that would result in major capital expenditures, and explain how those issues will be solved. Explain any other items as appropriate for documenting and/or maintaining the water system's Technical Capacity.

Managerial Capacity:

Give clear identification of the owner or other responsible legal body for the water system. List a commitment from the owner or controlling body to adhere to, periodically review, and update the Long-Range Plan. Provide an organizational chart for the water system, showing all staff and their role in the organization. Also indicate any license or certification requirements of the positions. List any anticipated or on-going operator training and certification efforts.

Provide a general operation and management plan for the water system, addressing such items as routine inspections, planned equipment replacements, equipment calibration, emergency procedures, record keeping, reporting and similar activities. Questions need to be answered such as: How often are routine inspections performed? How often are planned equipment replacements performed (meter change out program)? How often are equipment calibration measures performed (master meter tested)? How often are emergency procedures examined? How often is record keeping performed, as well as similar activities performed?

Describe the billing and collection procedure and address such items as: Is water use metered or estimated? If estimated, what is the basis for the estimate? If metered, who reads the meters? Are the meters tested periodically? What is the bill collection success rate? Please include any procedures in place to manage delinquent accounts. Are revenues collected sufficient for current and future operation of system? Who is responsible for reading meter? What is the bill collection success rate? Include any procedures in place to manage delinquent accounts. Are revenues collected sufficient for current and future operation of

system? Give an evaluation of unaccounted for water, and a discussion of plans to address any excessive losses.

Give a listing of any standing O&M contract(s) and the relative responsibilities of the water system and contractor(s) relating to each contract.

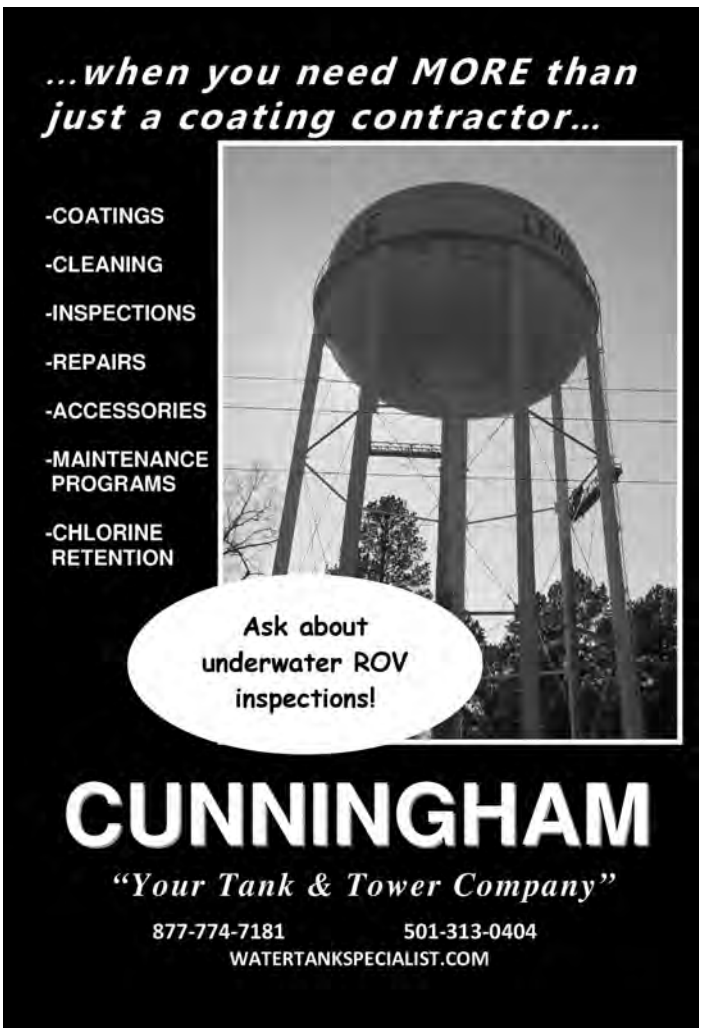
A statement of compliance with section .G of the Rules and Regulations Pertaining to Public Water Systems regarding emergency planning, and a description of the system's legal authority to implement the requirements. Give an adequate list of spare parts on hand for repairs and chemical supply inventory on hand. Describe the water system's existing safety program for chemical handling and other work area activities. Describe other items as appropriate for documenting and/or maintaining the water system's Managerial Capacity.

Financial Capacity:

A forecast of all future capital needs and operating expenses to meet SDWA requirements, infrastructure rehabilitation, and system expansion. Give a cash flow analysis to demonstrate revenue sufficiency. The system will need an operating budget to include such items as: depreciation, reserves, debt service, O&M, salaries, etc. Describe any other items as appropriate for documenting and/or maintaining the water system's Financial Capacity.

Managers/Operators need to keep all this information in mind in everyday operation and maintenance. For instance, if you have a problem line that has had leaks on it year after year; think about replacing it instead of repairing.

If you have any questions please feel free to give Arkansas Rural Water Association at 501-676-2255.



POWER YOUR UTILITY BILLING WITH ONE SOURCE

Only QS/1 gives you the entire sphere of utility finances – billing software plus a full accounting suite, Internet/IVR payments, bill printing services, hardware, software and IT services. Additionally, we can eliminate the need for on-site servers and software, on-going maintenance and disaster recovery concerns – all the headaches that come from working with multiple service providers. It's next-generation utility billing infrastructure with a refreshing affordability that's budget and board approved.

Learn more about QS/1 Governmental Solutions at qs1gov.com or call 800.231.7776.

QS/1

1.800.231.7776
qs1gov.com

© 2012, J M SMITH CORPORATION. QS/1 is a registered trademark of the J M Smith Corporation.

Treatment Plant Safety

By Rodney Baldwin/ARWA Circuit Rider

Why is Safety Important?
Maybe there has never been a serious accident at your plant. If so, either you have a great safety program already, or you are lucky! On-the-job injuries killed 61 water and wastewater treatment plant workers between 1992 and 2002, according to the Bureau of Labor Statistics. In 2006, there were over 2,000 work related injuries and illnesses in the water and sewer industry. At water and sewer plants across the country, people have:

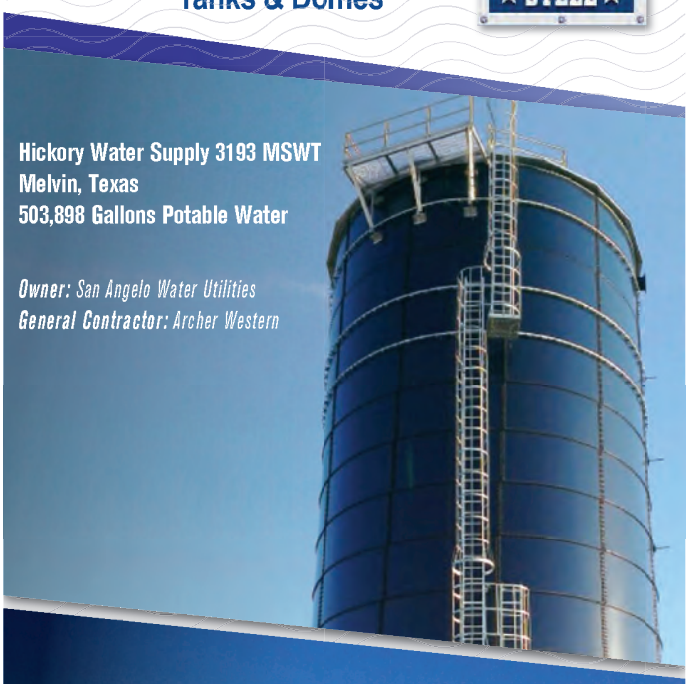
* fallen into treatment tanks
* fallen off of treatment tanks
* gassed themselves with chlorine or sulfur dioxide
* splashed chemicals into their eyes
* crushed fingers in machinery
* wrenched their backs
* slipped on wet walkways
* had tools or repair parts dropped on their head
* died in confined spaces
* shocked themselves…Well, you get the picture.

These workplace accidents are devastating to the employee and his or her family. The victim's pain, suffering, or even death, represent the highest cost of an accident, but there are other costs as well. For the employer, expenses include loss of productivity and higher insurance rates. For co-workers, additional duties and more stress. Nobody wins when someone gets hurt.

Why have a safety program?
Maybe you do not think you need a safety program to be safe. After all, nobody wants to be injured, right? People should be inherently safe. So, why do we need a safety program? That is a nice theory, but if it is true, why do people get hurt? Contrary to what you may hear, accidents do not just happen. Often, many factors contribute to the cause of the accident. In addition to injuries, many employees become ill from work-related activity. For instance, a wastewater plant operator may be exposed to Hepatitis A or other diseases. That is why many agencies or companies refer to their programs as a "Safety and Health Program," or a "Safety and Health Management System." No matter what you call it, having a safety program benefits everyone.

TEXAS AQUASTORE®
Tanks & Domes

MADE IN AMERICA WITH AMERICAN STEEL



Hickory Water Supply 3193 MSWT
Melvin, Texas
503,898 Gallons Potable Water

Owner: San Angelo Water Utilities
General Contractor: Archer Western

Grand Lake PWA 4820 SFWT
Ochelata, Oklahoma
260,000 Gallons Potable Water

Owner: Grand Lake Public Works Authority
General Contractor: Texas Aquastore

OVER 600 TANKS CONSTRUCTED

AQUASTORE® GLASS-FUSED-TO-STEEL TANKS

Lowest maintenance
Never Needs Repainting
Guaranteed Quality

Texas Aquastore
Phone 561.994.2400 • www.florida-aquastore.com

"We're the Website People!"

NEED A WEBSITE?

Rural Water Impact provides beautiful, mobile-friendly, easy-to-edit websites for small towns and water systems. We launch your website quickly and show you how to maintain it yourself with your secure Client Dashboard. Hosting is included, and Customer Support is unlimited. *You'll never hire an expensive web designer again!*

RuralWaterImpact.com
Smart Websites for Smart Utilities™

Call us Today at 888.551.4815
or visit www.ruralwaterimpact.com

FREE TRIAL • 100% MONEY-BACK GUARANTEE

NEED A WEBSITE FOR YOUR CITY OR SMALL TOWN?
Visit WWW.MUNICIPALIMPACT.COM!

Tired of the Odor and Corrosion complaints associated with your lift stations and sewer forcemains?

SEWER DAWG Commander

CommanderTM is a unique, and safe liquid additive from Helix Laboratories, Inc that eliminates common sulfur odor problems, such as hydrogen sulfide and mercaptans. Commander is very cost efficient. It requires much less product to be effective than common technologies. CommanderTM chemically alters the sulfur-based odor molecule when it comes into contact with it. This changes it to a harmless, non-volatile by-product. Commander is not a nitrate, so it doesn't add to your nutrient issue's at the WWTP.

For more information on Commander and other proven products from Helix Labs for odor and grease control in your sewer system contact:

MCINTIRE MANAGEMENT GROUP
Representing only the Best

120 E. 15th Avenue • N. Kansas City, MO 64116
(ph) 816-746-6669 • (fx) 816-746-8264
MMGONLINE.NET

USDA Rural Development

USDA Rural Development has low cost infrastructure loans and grants available now to help you provide quality water and waste services to your customers and we stand ready to assist you! USDA Rural Development has a long, rich history of working with rural America's smallest and most needy communities to provide loan and grant assistance for essential water and sewer infrastructure projects. Since 2009, we have helped more than 18 million rural residents receive new or improved water and waste disposal services, emergency water assistance, and technical help. Our assistance has been as varied as the need: for new or upgraded water and sewage treatment plants, equipment, wells, and even water itself for drought-inflicted communities.

Our program started as a partnership with rural communities. It was designed with an understanding of how good, clean, affordable and reliable service interconnects with every other aspect of life in rural America and the knowledge of how important rural contributions are to the national economy. 78 years later - the issues surrounding water are no less critical to our country. And the need for programs like rural development's water program remains high.

We are proud of our successes – but we know we can do better. We realize that the funding process for USDA water and waste loans and grants can be time-consuming. We are working to change that.

Our goal is to ensure our loan and grant applicants receive funding decisions within 45 days of submitting a complete application. We have already demonstrated this can be achieved. Grove City, Minnesota sought funding in FY 2015 from Rural Development to replace its more than 50-year-old sewer system. In just thirty days from the time they submitted a complete application, the project was reviewed and funds were obligated. In Georgia, the Town of Resaca received loan and grant funding for their sewer project in 48 days from the date a completed application was on hand at Rural Development. Mustang Special Utility District has a similar experience when funds were obligated in 57 days from completed application.

USDA Rural Development funded more than $1.6 billion in loans, grants and guarantees in all 50 states over the last year. We have funding available now under the Continuing Resolution, and our success depends on helping you, our rural partners, receive the funding you need to provide essential water and waste services.

To reach our goal, we are taking measurable steps to improve and expedite our customers' experiences. Through new streamlined underwriting processes, use of improved technologies, collaboration and outreach, as well as increased employee training and engagement, we are decreasing loan processing times.

Many time-saving improvements have already been implemented. On September 28, 2015 we launched RD Apply at the NRWA Water Pro Conference in Oklahoma City. RD Apply is an online system that allows you to complete and submit your applications online. You can register to use the system on any smart phone, tablet or laptop. And the system is designed with our applicants and their consultants in mind. In Oklahoma City hundreds of community leaders, engineers and circuit riders signed up and were able to test out the system. The feedback was overwhelmingly positive. "Easy to use" was the most used way to describe RDApply. Even NRWA President registered and started an online application at the conference! The system will result in faster processing times and an easier to understand filing process. If you are interested in learning more, contact your state Rural Water Association, or USDA at 202-253-8060.

In 2014, our streamlining efforts began in earnest with the introduction of new procedures for faster processing Emergency and Imminent Community Water Assistance Grant (ECWAG) applications. By utilizing this new streamlined process, towns such as tornado-ravaged Gifford, Illinois were able to receive much-needed ECWAG grants to help replace a destroyed water plant and damaged water tower in record time. Our guaranteed loan program is currently being revamped and streamlined. We will have a new user-friendly guaranteed loan process in place in the coming year.

We are also intensifying our employee training and customer outreach efforts, ensuring all staff has the knowledge and skills to deliver our programs efficiently, effectively, and consistently.

Collaboration with other state and federal agencies remains a priority. Our partnership with EPA on the new sustainability guide, also known as "Workshop in a Box," has proven to be very successful. Over the last 24 months, together we have trained more than 1,600 trainers to facilitate the workshop. Workshops have been held in more than 140 locations across the country. Through this and many more collaborative efforts, we are building capacity and leveraging knowledge and financial resources.

To learn more about how Rural Development can help meet your water and waste needs, please contact your local USDA office. I look forward to working with you and the rural communities we all serve!

Jacki Ponti-Lazaruk
Assistant Administrator,
Water and Environmental Programs
Rural Utilities Service
USDA Rural Development

Water Utility Data Base (WUDB) System *By Roy Richards/ARWA Circuit Rider*

The Water Utility Data Base (WUDB) System is a tool utilized by water utilities to collect bad debt from unpaid utility bills.

As we all know, every utility has bad debt. The Water Utility Data Base (WUDB) System helps you keep track and stay connected with other utilities so that you can collect on these bad debts. Since it is a LAW, every utility in the state should be utilizing the Water Utility Data Base (WUDB) System.

After talking with a few water systems at our conference this past September, I realized that some of the systems that are using the Water Utility Data Base (WUDB) System were getting little to no cooperation from other systems on debt collection. Most of the systems, I communicated with, feel that other systems do not take the law seriously that covers this.

YES, I SAID LAW!

To reiterate on this LAW, I have included it in this article for everyone to review. Since this Act originated, the legislature has added two more Acts for sewer and sanitation to the law.

If you have any questions about this program or the Acts, you can go to the Water Utility Data Base (WUDB) System's website. http://www.wudb.com

Stricken language would be deleted from and underlined language would be added to the law as it existed prior to this session of the General Assembly.
Act 195 of the Regular Session

A Bill

State of Arkansas
87th General Assembly A Bill
Regular Session, 2009 HOUSE BILL 1048

By: Representative Woods

For An Act To Be Entitled

AN ACT TO EXTEND TO A MUNICIPAL SEWER ENTITY THE ABILITY TO REQUEST TERMINATION OF WATER SERVICE BY A WATER AUTHORITY FOR DELINQUENT SOLID WASTE SERVICE PAYMENT; AND FOR OTHER PURPOSES.

Subtitle

TO EXTEND TO A MUNICIPAL SEWER ENTITY THE ABILITY TO REQUEST TERMINATION OF WATER SERVICE BY A WATER AUTHORITY FOR DELINQUENT SOLID WASTE SERVICE PAYMENT.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:

SECTION 1. Arkansas Code § 14-229-103 is amended to read as follows:
14-229-103. Termination of water service.

(a) ~~Any~~ A municipality owning or operating a public sewer system or sewer improvement district ~~providing~~ that provides sewer service to its citizens may request a water association ~~or,~~ a water improvement district, or a water authority ~~providing~~ that provides the water service to terminate the water service to ~~any~~ a resident who is delinquent at least thirty (30) days in making payment to the municipality for sewer service or solid waste service.

(b) The water association ~~or,~~ water improvement district, or water authority shall send notice to ~~any~~ a person who is delinquent in making payments for sewer service or solid waste service of the date the water service will be terminated and shall terminate the water service upon that date unless the balance due the municipality for sewer service ~~has been~~ or solid waste service is paid.

(c) The water association ~~or,~~ water improvement district, or water authority shall terminate the water service upon certification by the municipality that the person:

(1) ~~is~~ Is more than thirty (30) days delinquent in making payments for sewer service or solid waste service; and

(2) ~~has~~ Has been sent notice of the termination of the water service ~~by the municipality~~ as required under subsection (b) of this section.

(d) As used in this section, "water authority" means the public body politic and governmental entity organized under the Water Authority Act, § 4-35-101 et seq.

APPROVED: 2/20/2009

ARWA TRAINING AND EVENTS 2016

ARWA WATER TRAINING SCHEDULE 2016

January 12, 2016	Basic Water Math	Clarksville
January 14, 2016	Applied Water Math	Clarksville
January 26-28, 2016	Basic Treatment	Lonoke
February 9, 2016	Basic Water Math	Lonoke
February 11, 2016	Applied Water Math	Lonoke
February 17, 2016	Sustainability Workshop	Lonoke
February 23-25, 2016	Basic Distribution	Clarksville
March 2-3, 2016	Water Exam Review	Lonoke
March 15, 2016	Basic Water Math	Bono
March 17, 2016	Applied Water Math	Bono
March 29-31, 2016	Intermediate Treatment	Lonoke
April 12, 2016	Basic Water Math	Arkadelphia
April 14, 2016	Applied Water Math	Arkadelphia
April 19-21, 2016	Intermediate Distribution	Clarksville
April 26-27, 2016	Water License Renewal	Warren
May 10-12, 2016	Advanced Distribution	Lonoke
May 24-26, 2016	Advanced Distribution	Lonoke
June 1-2, 2016	Water Exam Review	Lonoke
June 28-30, 2016	Basic Distribution	Springdale
July 12-14, 2016	Basic Distribution	Mountain Home
July 26-28, 2016	Intermediate Distribution	Springdale
August 2, 2016	Basic Math	Lonoke
August 4, 2016	Applied Math	Lonoke
August 23-25, 2016	Intermediate Distribution	Lonoke
August 31, 2016	Water Exam Review	Lonoke
September 1, 2016	Water Exam Review	Lonoke
September 27-28, 2016	Water License Renewal	Mountain Home
October 11-13, 2016	Advanced Distribution	Springdale
November 8, 2016	Basic Math	Lonoke
November 10, 2016	Applied Math	Lonoke
November 15-17, 2016	Advanced Distribution	Lonoke
November 30, 2016	Water Exam Review	Lonoke
December 1, 2016	Water Exam Review	Lonoke
December 6-8, 2016	Advanced Treatment	Lonoke
December 13-14, 2016	Water License Renewal	Heber Springs

ARWA WASTEWATER CLASS SCHEDULE 2016

January 19-21, 2016	Class I Wastewater	Lonoke
February 22-25, 2016	Class II Wastewater	Lonoke
March 21-25, 2016	Class III Wastewater	Arkadelphia
April 12-14, 2016	Class I Wastewater	Nashville
April 18-21, 2016	Class II Wastewater	Bono
April 27-28, 2016	Wastewater License Renewal	Warren
May 9-12, 2016	Class II Wastewater	Mountain Home
July 18-22, 2016	Class III Wastewater	West Fork
August 16-18, 2016	Class I Wastewater	Lonoke
September 19-21, 2016	Class I Wastewater	Hot Springs
September 28-29, 2016	Wastewater License Renewal	Mountain Home
October 3-6, 2016	Class II Wastewater	Smackover
December 14-15, 2016	Wastewater License Renewal	Heber Springs

To see our entire schedule of classes or to get more details please go to our website: www.arkansasruralwater.org

ARWA GETS LETTERS AND E-MAILS FROM SYSTEMS

• Dear Mr. Sternberg, September 21, 2015

I recently took a test to obtain a license to check the water once a month in Ulm, AR. I'm not sure I passed the test, but I wanted to commend Jim and to thank him for his help to me. I, especially, appreciate the time he spent reviewing for the test. We were there all day. I wanted to let you know how much I appreciate his efforts.

Yours Truly,
Tom Blackwell
Ulm, AR

• Jim Barkie, September 22, 2015

I would like to thank you for helping our city employees with the smoke testing of our city lines during the month of September 2015.

I appreciate your help and the Arkansas Rural Water Association's assistance.

Sincerely,
Brandon Nelson, Supt.
City of Waldron

• Arkansas Rural Water Association September 22, 2015

I would like to thank Jim Barkie and Terry Fortenberry for coming down and assisting our city employees with the sewer camera of the city sewer system on September 22 through 24, 2015.
I appreciate your help and all the assistance the Arkansas Rural Water Association offers our city.

Sincerely,
Brandon Nelson, Supt.
City of Waldron

• Dear Mr. Dennis Sternberg, September 28, 2015

East Johnson County Water would like to extend a huge thank you to you and your staff for all that you do for our Water Department. We would like to thank you for the leak detection that was recently done in Lamar, Arkansas. It makes us feel so at ease knowing that Arkansas Rural Water Association has people like Josh Freeman to invest so much time during work and also after-hours to make sure our operators are trained and have all the knowledge needed to be excellent employees. We could not be more appreciative for everything ARWA has done to make our employees feel comfortable and knowledgeable.

Sincerest Thanks,
East Johnson County Water Users Association, Inc.
Milton Nordin, Field Operator

• Dear Mr. Sternberg: October 13, 2015

We want to express our thanks to Rodney Baldwin for coming to help us when a flange was blown apart inside of one of our well plants. We know that he had just gotten back from a meeting in Oklahoma and came when we called. The dedication of the ARWA circuit riders to help water systems when we call is often taken for granted. We commend all of you and sincerely thank you for not just the field assistance but for all that you and your staff do.

Thank You!
Donna Sefers, Manager
Crowley's Ridge Water Association, Inc.

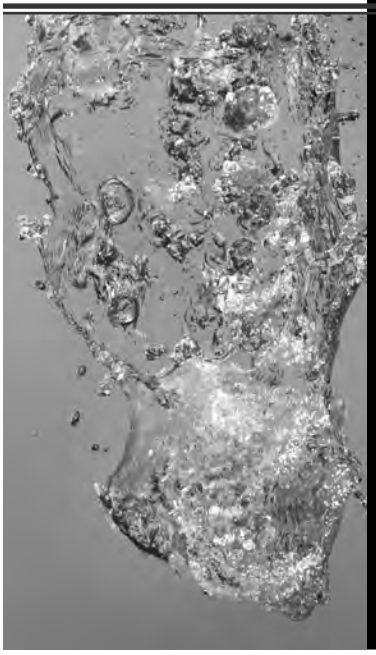
• Dear Mr. Sternberg: October 25, 2015

On behalf of the Town of Chester Water Department, we like to express our appreciation for the excellent job your people performed in repairing our pump station.
They are a group of cordial and experienced professionals. The repairs were done in record time with a minimal downtime to the water service.
The water system in its 35-year existence has had an unusual number of catastrophic problems, making it a continual challenge to stay financial solvent. Even now, the system for the last two months, has seen a 90% water loss, which we have not been able to pinpoint. Due to this problem, we may have to call on your help again.
Again, please except our sincere gratitude and support for your organization.

Sincerely,
Peter Showl, Mgr.
Town of Chester Water Department

Water Treatment is our Business

HAWKINS Water Treatment Group



Hawkins Water Treatment Group has been meeting the requirements of commercial, industrial, municipal and institutional organizations since 1938.

Columbia, MO
573-886-9500

Fort Smith, AR
479-648-9900

Garnett, KS
785-448-1610

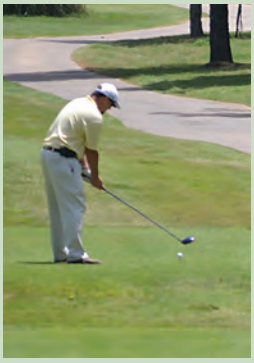
Memphis, TN
901-774-1299

www.hawkinsinc.com

Make plans to attend:

Jack Lambert Memorial Golf Tournament

Golf Tournament Date: May 18, 2016
Golf Tournament Location: Hurricane Golf Course
4300 Hurricane Dr. • Bryant, AR 72022



• NOTICE •

Arkansas Rural Water Association will not be hosting their Annual EXPO for 2016. Please visit the ARWA website www.arkansasruralwater.org for upcoming dates in 2017.

PRZYBYSZ & ASSOCIATES
CERTIFIED PUBLIC ACCOUNTANTS

Visit us online at: www.selectcpa.com

Specializing in audits of municipal water departments, rural water associations and public water facilities boards.

4200 Jenny Lind Road
Fort Smith, Arkansas 72901
Phone: 479.649.0888
Fax: 888.343.5852

Shupe and Associates, Inc.

Quality Solutions for Water and Waste Treatment

Representing

Westech, Inc./General Filter,
Lakeside Equipment,
Cole-Parmer, ICS Healy-Ruff, Enduro,
Neuros, Lonza, ASA Analytical, Koflo,
Force Flow, Eagle Microcsystems,
Golden Harvest Gates,
Stamford Scientific, Inc.,
MFG Weirs & Baffles, Johnson Screens,
Flow Meters and , Hallsten, Prominent Fluid,
Flow Control & Instruments,
Severn Trent Services, Solar Bee,
Monroe Environmental

Located at
6160 Getty Drive – North Little Rock, AR 72117
Bus: (501) 834-4271 – Fax: (501)834-6169
general@shupeandassoc.com

TANK CONNECTION
AFFILIATE GROUP

SIMPLY THE BEST IN WATER STORAGE!

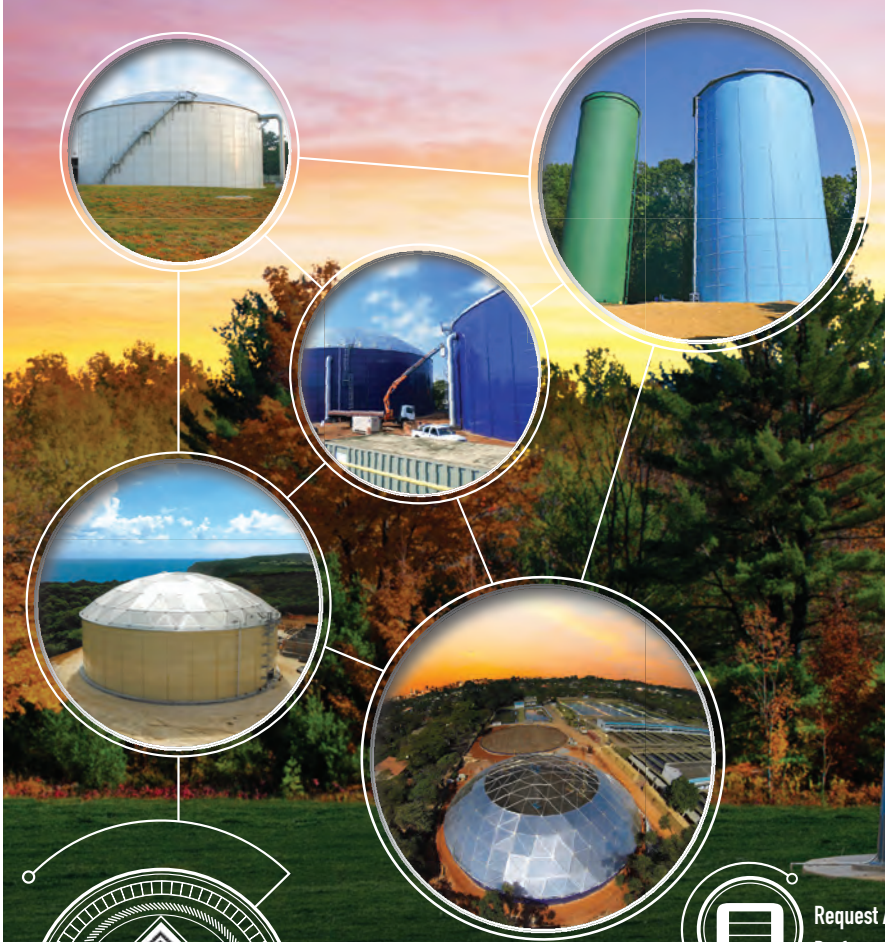
DESIGN Our bolted RTP (rolled, tapered panel) tank design is unmatched worldwide. It is the strongest, precision tank design that does not utilize cheap web stiffeners.

COATINGS Our LIQ Fusion 7000 FBE™ coating system and application technology is unmatched in water storage applications. It is a *STRONGER SYSTEM THAN GLASS COATINGS* and other epoxy powder systems. It is provided exclusively by one company, Tank Connection.

PRODUCT QUALITY Simply unmatched worldwide. Our facilities are ISO 9001 quality system certified. TC operates 5 storage tank manufacturing facilities in the U.S. and supports over 400 employees. Our storage products and services are requested globally because our quality is recognized as "the BEST" in the industry!

INDUSTRY EXPERTS IN STORAGE We are the leading experts in storage applications with more years of combined industry experience than any other tank company.

FIELD CONSTRUCTION PROCESSES Unmatched in quality and field safety. EMR: .59



Request A Quote And "Get Connected" With Real Performance From The Market Leader, Tank Connection!

AluminumDomes.com

TANK CONNECTION AFFILIATE GROUP
3609 North 16th Street • Parsons, KS 67357
PH: +1 620.423.3010 • www.tankconnection.com
Inquiry: sales@tankconnection.com

Practice Before We Master

James Philipp, MPA, ARWA Training Specialist

Great day fellow Arkansas Operational Specialists,

The leaves have all turned and fallen, the temperatures have dropped, clocks set back an hour, and we have been given the much needed rain our reservoirs, lakes and wells needed to prepare for next year's Arkansas summer. Looking back for a moment at 2015, ARWA was honored to assist and provide training to hundreds of water and wastewater professionals from all corners of the state. The six license renewal classes offered throughout the state were VERY well attended, and we look forward to hosting three separate water and wastewater license renewal classes in 2016. A convenient way for an operator holding both a water and wastewater license to obtain the required 24 hours of training utilizing a "hands-on" format in one location.

The 2016 calendar should be received by your utility soon and will be available on-line at our website, www.arkansasruralwater.org. We encourage managers and operators to plan for new employee training, and remember to register with the Arkansas Department of Health a MINIMUM of 45 days prior to the quarterly exam sessions if a paper-based exam will be taken. Don't forget, there is a computer-based exam that can be taken at the operators' convenience, contact ADH for information.

As passage rates continue to struggle, I remind and encourage every class, that you as the operator, must study the suggested reference materials, and put the time and effort into achieving the desired outcome. Just as we must practice every task before we master it (skiing, pottery, proper clamp installation), preparing for the exam WILL require you to put the dedicated study time and preparation in, in order for your successful attempt at the exam. Remember, no one ever mastered any task on the first attempt.

We at ARWA look forward to providing the necessary services and training your water and wastewater system and personnel will need in 2016. Please call our office should you and/or your system need assistance. I hope for a good year for you, your family, your community, and your continued success as an Arkansas Operational Specialist. Until I write again, please continue to always WORK safely, continue to educate yourself on upcoming regulations such as the Revised Total Coliform Rule (RTRC), and most of all, to keep that water flowing.

DN TANKS
DYK and Natgun
Generations Strong

Sustainable Infrastructure
Prestressed Concrete Water Storage Tanks

913.681.6006 www.dntanks.com
Dave Ornduff, Regional Manager
dave.ornduff@dntanks.com

Emergency Response *By Jeff Ford, Deputy Director*

Winter is about here once again and the question remains - are you prepared in case of an emergency? Many things can happen that would disrupt service for a utility such as ice storms, tornadoes, and floods just to name a few. Many times when something like this happens, it is an emergency, because the system has not prepared to handle the disaster. Now, we know you cannot be prepared for every disaster that may happen, but have you at least done the basics? Does your system have an emergency response plan? The Arkansas Department of Health requires Community Public Water Systems and each Non-Transient Non-Community Public Water Systems to have a written emergency plan. Now, if you have an emergency plan, is it a piece of paper that says emergency plan or a real emergency plan that can be used when an emergency happens?

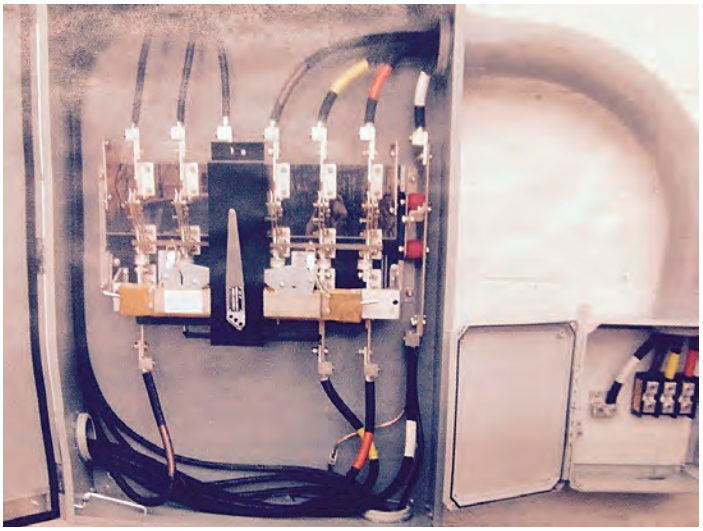
During most disasters, the biggest need is a generator for emergency power. This brings up the question; does your system have a generator for emergencies? If you have a generator, is it properly maintained and exercised? I know several systems in the state that have generators, and they are started on a regular basis but not connected to anything to put a load on the generator. Systems should connect their generators to the well, plant, pump, or whatever it was purchased for every 6 months and let it run for an hour with a load on it. This will help to ensure it will work at the time of an emergency.

Another item that needs priority, if you have a generator or not, is a manual transfer switch. Most systems, when a generator is needed, rent or borrow a generator until the power is restored. One of the problems we find when delivering generators or helping with generators is connecting the power to the well, plant, pump, etc. I have seen this take several hours due to finding an electrician or supplies to connect the power where the power supply is needed. A transfer switch will make connecting a generator quicker, safer, and a lot faster to getting power back your system.

When disaster strikes, many systems rely on ARWA for generators. ARWA does have some generators but not always enough to assist all the systems' needs in the state during these times. Another alternative is to rent one from one of the companies that leases or rents generators- RP Power, Riggs Cat, or any company that leases generators. Before you can rent a generator from one of these companies, you must have a credit application on file with them. This is something you can do before a disaster strikes and save a tremendous amount of time when trying to recover from loss of power for whatever reason.

In preparation for a generator, you will also need to know the size generator that will be needed for your application. This will include the voltage, the amperage, single phase or three phase, and motor size can help as well. It would be great to have this information as part of your emergency response plan, and have it available to email for fax when sizing a generator. This can really help when deciding the proper generator for your application.

Please let us know at ARWA if we can answer any questions about emergency response or generators.



Consolidated
PIPE & SUPPLY COMPANY

400 Phillips Road • North Little Rock, AR 72117
Phone (501) 371-9520 • Fax (501) 375-5742
Wats (800) 844-6581

Consolidated Pipe & Supply is a stocking distributor for a wide variety of manufacturers in the water, storm drain, and natural gas industries. Consolidated carries the full line of products needed to assist municipalities and contractors in the installation, repair, and replacement of pipes, valves, fittings, and accessories. We have strategically partnered with the highest quality vendors in the marketplace. A few things that make CPS unique in the utility market:

- In-house manufacturing of PVC pipe at Vulcan Plastics.
- Water meter specialists throughout the company to assist with AMR meter replacement projects.
- Concrete vault and structure facilities for backflow, large meter and ARV assemblies among others.
- Fleet of McElroy machines for sale and rent along with technicians to service the polyethylene pipe market.

Our experienced sales staff will "take-off" the project from your set of approved plans and offer a complete package of materials. We are on call 24 hours a day to service any emergency situation.

www.tencarva.com
Factory Authorized Repair Centers
Start up /Troubleshooting
Push/Pull Repairs on all
products.
TENCARVA
MUNICIPAL
Distributor of the finest
Pumps & Equipment
Contact your local representative
John Cleckler (479) 871-7243 | jcleckler@tencarva.com
Ricky Pollan (901) 794-7570 | rpollan@tencarva.com
abs
SULZER
GOULDS
PUMPS
New England
BRAIDING
SEVERN
TRENT
WATER
ALLIS-CHALMERS
GOULDS
WATER TECHNOLOGY
a xylem brand
PolyProcessing
SOLUTIONS, SIMPLIFIED.
SMARTCOVER
SYSTEMS
ANUE
WATER TECHNOLOGIES
ProCast
SINCE 1948
RACO
REMOTE ALARMS AND CONTROLS
SHELTER
WORKS
PUMPSMART
BIACOH
FLUID CONTROL
ITT
ESSCO
ELECTRIC SERVICE & SALES
John Crane
TSURUMI PUMP
GR
GORMAN-RUPP
PUMPS
Neptune
REGAL
GAS CHLORINATOR
UNIGUARD
Machine Guards
(888) 388-6310
TENCARVA MACHINERY COMPANY COPYRIGHT © 2015
BH.LS.9.18.15.AR.MU

Rural Cooking

• Charleston Cheese Dip

½ cup mayonnaise
8 oz cream cheese
1 cup sharp cheddar cheese
½ cup Monterey Jack cheese
2 green onions chopped fine
1 dash cayenne pepper
8 butter crackers crushed (Ritz)
8 slices bacon cooked crisp crumpled

Mix mayo, cream cheese, cheddar, Mont Jack cheese, Green onions and cayenne pepper. Place in glass oven dish. Top with crushed crackers. Bake 350 degrees for 15 minutes. Top with bacon.

• Chocolate Sheet Cake

Cake:
2 cups All Purpose Flour
6 Tbsp. cocoa
2 cups sugar
1/2 cup buttermilk
1/2 tsp salt
1 tsp soda
1 stick butter or margarine
2 eggs
1/2 cup oil
1 tsp vanilla
1 cup water

Sift flour, sugar, and salt; set aside. Bring to a boil in saucepan butter, oil, water, and cocoa; mix dry ingredients together with hot mixture in a mixing bowl. Fold in buttermilk, eggs that have been beaten slightly, and vanilla. Pour into a greased and floured large sheet pan (12x18x1"). Bake 20 minutes at 350 degrees.

Icing:
1 stick butter or margarine
1 box powered sugar
2 Tbsp cocoa
1 tsp vanilla
6 Tbsp milk
1 cup nuts

In a saucepan put butter, cocoa and milk; then bring to a boil. Add powdered sugar, vanilla and nuts. Pour over cake while cake and icing are still hot. Let cool completely before cutting.

• Fajita Mix

(better than store bought)
1 Tablespoon corn starch
2 teaspoons chili powder
1 teaspoon salt
1 teaspoon paprika
1 teaspoon sugar
¾ teaspoon crushed chicken bouillon cube
½ teaspoon onion powder
¼ teaspoon garlic powder
¼ teaspoon cayenne pepper
¼ teaspoon ground cumin

• Fantastic Fried Onion Rings

Large Onion sliced
Butter Milk
Hot Sauce
Self-Rising Flour
Salt

Separate sliced onions into rings and place in bowl. Pour enough butter milk over onions to cover. Add 1 tablespoon or more hot sauce to butter milk and onions and mix well. Have your self-rising flour in separate bowl. Take onion rings out of milk mixture and dredge well with flour. I like to fry my onion rings in a fry daddy because of the depth of oil. You can use any pan as long as you have enough oil for the onion rings to float. Fry them till golden brown and place on a metal cooling rack with paper towels under it. Salt while they are still hot.

I like to use the following sauce for dipping:

Chili Sauce
1 cup mayonnaise
2 tablespoon chili sauce or ketchup
1 teaspoon chili powder
1/8 teaspoon cayenne pepper

Combine all ingredients and chill till ready to serve. Make about one cup.

• Maple Walnut Fudge

1 ½ cups sugar
2/3 cups evaporated milk (1 small can)
2 Tablespoons butter
¼ teaspoon salt

Combine sugar, milk, butter and salt in pan and bring to a full rolling boil over medium heat.
Continue to boil stirring constantly for 5 minutes.
Remove from heat and add:

1 ½ teaspoon maple flavoring
2 cups (12oz) white chocolate chips
2 cups mini marshmallows
3 cups broken walnut pieces

Pour in 9x13 pan lined with foil. Put in refrigerator until firm.

• Best Chocolate Fudge

2 cups sugar
½ stick butter
1 small can pet milk

Put in pan and bring to a boil and continue boiling for 5 minutes stirring well. Remove from heat and add:
1 teaspoon vanilla
6 oz real milk chocolate chips
6 Hershey's candy bars with almonds
1 jar marshmallow cream
2 cups pecans
Pour in buttered 9x13 pan and let set.

• Fire & Ice Pickles

1 gal dill pickles drained (hamburger slices)
1 - 2oz bottle tobacco sauce
Tbls crushed dried red pepper
2 Teaspoons chopped garlic
4 pounds sugar

Mix last four ingredients together and pour over pickles in original jar. Let set for 2 to 3 days, until all sugar is dissolved and is juicy again. They are best refrigerated and can be transferred to smaller jars and shared with friends.

Arkansas Department of Health

4815 West Markham Street ● Little Rock, Arkansas 72205-3867 ● Telephone (501) 661-2000
Governor Asa Hutchinson
Nathaniel Smith, MD, MPH, Director and State Health Officer

Engineering Section, Slot 37 Ph 501-661-2623 Fax 501-661-2032
www.Healthy.Arkansas.gov/eng/ After Hours Emergency 501-661-2136

WATER OPERATOR LICENSE EXAMINATIONS
JANUARY 2016 – DECEMBER 2016 PAPER BASED SCHEDULE

Most current Exam Schedule is available at http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm
You must register for the exam 45 days in advance. Call (501) 661-2623, ask for Water Licensing Program.
Listed below are the dates and locations of examination sessions as scheduled, as of **January 1, 2016**. All Treatment and Distribution exam grades will be available at the sessions. Acceptable photo identification (Drivers License or equivalent) will be required to sit for an Exam. Cell phones, pagers and other electronic communication devices are not allowed. Non-Programmable calculators are allowed in exam sessions.

EXAM DATE	REGISTER DEADLINE	CITY	LOCATION	TIME
3/4/2016	1/19/2016	Mtn. Home	Baxter Co OEM Training Facility, 170 Dillard Dr, Midway	9:00:00 AM
3/4/2016	1/19/2016	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00:00 AM
3/4/2016	1/19/2016	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
3/11/2016	1/26/2016	Camden	AR Environmental Training Academy, 100 Carr Road	9:00:00 AM
3/11/2016	1/26/2016	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00:00 AM
3/11/2016	1/26/2016	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00:00 AM
5/4/2016	3/21/2016	Hot Springs	AWW&WEA Annual Conf, HS Convention Center	9:00:00 AM
6/3/2016	4/19/2016	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
6/3/2016	4/19/2016	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00:00 AM
6/3/2016	4/19/2016	Nashville	Carter Day Center, 200 Nichols Drive	9:00:00 AM
6/10/2016	4/26/2016	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00:00 AM
6/10/2016	4/26/2016	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00:00 AM
6/10/2016	4/26/2016	Camden	AR Environmental Training Academy, 100 Carr Road	9:00:00 AM
9/2/2016	7/19/2016	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00:00 AM
9/2/2016	7/19/2016	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
9/2/2016	7/19/2016	Mtn. Home	Baxter Co OEM Training Facility, 170 Dillard Dr, Midway	9:00:00 AM
9/9/2016	7/26/2016	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00:00 AM
9/9/2016	7/26/2016	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00:00 AM
9/9/2016	7/26/2016	Camden	AR Environmental Training Academy, 100 Carr Road	9:00:00 AM
9/21/2016	8/8/2016	Hot Springs	ARWA Conference, HS Convention Center	9:00:00 AM
12/2/2016	10/18/2016	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00:00 AM
12/2/2016	10/18/2016	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
12/2/2016	10/18/2016	Nashville	Carter Day Center, 200 Nichols Drive	9:00:00 AM
12/9/2016	10/25/2016	Camden	AR Environmental Training Academy, 100 Carr Road	9:00:00 AM
12/9/2016	10/25/2016	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00:00 AM
12/9/2016	10/25/2016	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00:00 AM

The above exam session information is subject to change. You should confirm this information just prior to the scheduled examination period. Also, the latest exam schedule information can be viewed on the Internet at:
< http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm >.

You must register for the exam 45 days in advance. Call (501) 661-2623, ask for Water Licensing Program.

Compiled December 11, 2015

ARKANSAS RURAL WATER ASSOCIATION
BACKFLOW PROGRAM

Arkansas Rural Water has been approved by the Arkansas Department of Health and is now offering training courses for persons wishing to be certified in backflow prevention and cross-connection.

Below, you will find courses offered and their cost. If you wish to attend a course, please fill out and return this registration form, along with a check for the amount of the course.

Please mail to:
Arkansas Rural Water Association, P.O. Box 860, Lonoke, AR 72086
You may also fax your registration form to 501-676-2266
and we can take a credit card payment over the phone. Class fees are non-refundable.

ASSEMBLY TESTER CERTIFICATION COURSE

COST: ARWA MEMBER: $400.00 NON-MEMBER: $445.00

The Assembly Tester Course is a 40-hour course that consists of classroom training and actual hands-on training to train the student to field test various backflow prevention devices.

NOTE: (It is required by the Arkansas Department of Health that anyone wishing to be a Certified Tester, attend and pass this type of an approved course and also pass a test given by the Arkansas Department of Health after completion of this course.)

ASSEMBLY TESTER RE-CERTIFICATION COURSE

COST: ARWA MEMBER: $100.00 NON-MEMBER: $125.00

The Assembly Tester Re-Certification Course is an 8-hour course that consists of lab training to re-certify CERTIFIED TESTERS.

NOTE: (It is required by the Arkansas Department of Health that Certified Testers attend and pass this type of an approved course every two years in order to maintain Certification.)

ASSEMBLY REPAIR CERTIFICATION COURSE

COST: ARWA MEMBER: $300.00 NON-MEMBER: $345.00

The Assembly Repair Course is a 24-hour course that consists of classroom training and hands-on lab training to train the student to be able to repair Assemblies in the field.

NOTE: (It is required by the Arkansas Department of Health that before someone can be a Certified Assembly Repair person they must be a Certified Tester, attend and pass an Assembly Repair Course and also pass a test given by the Arkansas Department of Health after completion of this course.)

PLEASE FILL OUT THE INFORMATION ON THE FOLLOWING PAGE & MAIL IT TO ARKANSAS RURAL WATER 10 WORKING DAYS PRIOR TO THE CLASS DATE YOU ATTEND.

If you have additional questions you can contact ARWA at 501-676-2255 or

arkrwa@sbcglobal.net or arkrwa@arwa.net

BACKFLOW CLASSES

Please fill out information below and mail to Arkansas Rural Water, with payment, ten working days prior to the class date you wish to attend:
ARWA - P.O. Box 860, Lonoke, AR 72086. You may also fax your registration form to 501-676-2266 and we can take a credit card payment over the phone.
Class fees are non-refundable.

REGISTRATION FORM

Class Time: 8:00 a.m. - 5:00 p.m.

NAME: _____

ADDRESS: _____

CITY:_____STATE:_____ ZIP:_____

PHONE_____

EMPLOYER:_____ARWA MEMBER: YES___ NO___

NAME OF CLASS: _____

DATE OF CLASS: _____

BACKFLOW CLASSES IN 2016

February 8-12, 2016	**Tester Certification**	**Lonoke**
April 4-8, 2016	**Tester Certification**	**Lonoke**
July 11-15, 2016	**Tester Certification**	**Lonoke**
October 17-21, 2016	**Tester Certification**	**Lonoke**
February 8, 2016	**Tester Re-Certification**	**Lonoke**
April 4, 2016	**Tester Re-Certification**	**Lonoke**
July 11, 2016	**Tester Re-Certification**	**Lonoke**
October 17, 2016	**Tester Re-Certification**	**Lonoke**
March 15-17, 2016	**Repair Course**	**Lonoke**
August 16-18, 2016	**Repair Course**	**Lonoke**

If you have additional questions you can contact ARWA at 501-676-2255 or
arkrwa@sbcglobal.net or arkrwa@arwa.net

ADVERTISERS INDEX

ETEC 4
U.S. Underwater Services 4
Utility Service Co. 5
Henard Utility Products 7
Pittsburg Tank & Tower 8
Aquasure 9
Eagle Sandblasting & Painting 10
Taylor Power Systems 10
WUDB System 11
Cunningham 13
QS/1 14
American Flow Control 15
Texas Aqua Store 16
Rural Water Impact 16
McIntire Management Group 16
Hawkins Water Treatment Group 21
Shupe and Associates, Inc. 21
Przybysz & Associates 21
Tank Connection 22
DN Tanks 23
Maguire Iron, Inc. 25
Consolidated Pipe & Supply Company 25
Tencarva Municipal 26
USABlueBook . . . . . Back Cover

ARKANSAS WASTEWATER OPERATOR LICENSING PROGRAM RECOMMENDED STUDY REFERENCE MATERIALS

ORDER FORM

Arkansas Rural Water Assn.
P.O. Box 860
Lonoke, AR 72086

Order Date: _____
Phone: 501-676-2255
Fax: 501-676-2266

Name: _____ System: _____

Street Address : _____ City, State, Zip: _____

MATERIALS:

Training Materials Title	Quantity	Price	Total
Operation of Wastewater Treatment Plants, Vol. 1 - 7th Edition	_____	$50.00	_____
Industrial Waste Treatment, Vol. 1 - 3rd Edition	_____	$50.00	_____
Operation of Wastewater Treatment Plants, Vol. II - 7th Edition	_____	$50.00	_____
Advanced Waste Treatment - 5th Edition	_____	$50.00	_____

Please make checks payable to: ARWA Wastewater Education Account – P.O. Box 860 – Lonoke, AR 72086
Prepayment is required on all book orders!

Shipping & Handling: $8.00 per book or $20.00 per set.
Shipping/Handling must be included for order to be processed.

ARKANSAS RURAL WATER ASSOCIATION
P.O. Box 860
Lonoke, AR 72086

PRST STD
U.S. POSTAGE PAID
Little Rock, AR 72201
Permit No. 88

The New Slimmer USABlueBook® is still BIG on Selection!

Don't let the smaller footprint fool you! USABlueBook's new catalog uses an environmentally friendly paper that slims down our book—but not our selection. USABlueBook still offers ***everything you need for water and wastewater operations and maintenance!***

28 PRODUCT CATEGORIES

- Aeration
- Chart & Data Recorders
- Chemical Feed
- Collection Systems
- Electrical
- Flow Metering
- Gauges
- Hose
- Hydrants
- Lab Chemicals
- Lab Equipment & Supplies
- Lab Testing
- Level & Pressure
- Locating & Leak Detection
- Maintenance
- Office Products
- Pipe
- Plugs
- Process Analyzers
- Pumps
- Reference
- Safety
- Sampling Equipment
- Tanks
- Tools
- Valves
- Water/Wastewater Treatment
- Workwear

GREEN IS THE NEW BLUE!

Printing on environmentally friendly, 100% recyclable paper is only part of the story. By reusing shipping boxes, using responsible mailing practices and offering FREE electronic billing services, USABlueBook is doing its part to help protect the environment.

Over 64,000 Products • Personal Customer Service
Expert Technical Support • Nationwide Distribution Network
100% Satisfaction Guarantee!

USABlueBook®
A PROUD HD SUPPLY FACILITIES MAINTENANCE COMPANY

Request your **FREE** catalog today! **Call 800-548-1234 or visit www.usabluebook.com**