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

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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 a 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.
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State of Arkansas | Brian Woodring | 855.526.4413 | help@utilityservice.com
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.
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!
Attention: Board Members and Managers of Rural Water Associations:

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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.
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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?
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.
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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.
Hickory Water Supply 3193 MSWT
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Grand Lake PWA 4820 SFWT
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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 30 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 RDApply at the NRWA Water Pro Conference in Oklahoma City. RDApply 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
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 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, 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 or solid waste service is paid.

(c) The water association, 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

WATERINSIGHT • WINTER 2015

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## ARWA WATER TRAINING SCHEDULE 2016

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<th>Course</th>
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</thead>
<tbody>
<tr>
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<td>Clarksville</td>
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<tr>
<td>January 14, 2016</td>
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<td>Clarksville</td>
</tr>
<tr>
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<td>February 9, 2016</td>
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<tr>
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<td>April 12, 2016</td>
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<tr>
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<tr>
<td>April 26-27, 2016</td>
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<tr>
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<td>June 28-30, 2016</td>
<td>Basic Distribution</td>
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<tr>
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<tr>
<td>October 11-13, 2016</td>
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<tr>
<td>December 13-14, 2016</td>
<td>Water License Renewal</td>
<td>Heber Springs</td>
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## ARWA WASTEWATER CLASS SCHEDULE 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Class</th>
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</thead>
<tbody>
<tr>
<td>January 19-21, 2016</td>
<td>Class I Wastewater</td>
<td>Lonoke</td>
</tr>
<tr>
<td>February 22-25, 2016</td>
<td>Class II Wastewater</td>
<td>Lonoke</td>
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<td>Class III Wastewater</td>
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<td>April 18-21, 2016</td>
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<td>April 27-28, 2016</td>
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<td>Class II Wastewater</td>
<td>Mountain Home</td>
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<tr>
<td>July 18-22, 2016</td>
<td>Class III Wastewater</td>
<td>West Fork</td>
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<tr>
<td>August 16-18, 2016</td>
<td>Class I Wastewater</td>
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<tr>
<td>September 19-21, 2016</td>
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<td>Hot Springs</td>
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<tr>
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<tr>
<td>October 3-6, 2016</td>
<td>Class II Wastewater</td>
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<tr>
<td>December 14-15, 2016</td>
<td>Wastewater License Renewal</td>
<td>Heber Springs</td>
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To see our entire schedule of classes or to get more details please go to our website: [www.arkansasruralwater.org](http://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 Severs, Manager  
Crowley’s Ridge Water Association, Inc.

- **Dear Mr. Sternberg:**  
  October 25, 2015

On behalf of the Town of Chester Water Department, we would 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 financially 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
Shupe and Associates, Inc.
Quality Solutions for Water and Waste Treatment

Representing
Westech, Inc./General Filter,
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Neuros, Lonza, ASA Analytical, Koflo,
Force Flow, Eagle Microsystems,
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

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.

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

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Garnett, KS
785-448-1610

Memphis, TN
901-774-1299

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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

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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.
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 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:

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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.
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.

- **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

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

- **Fajita Mix** *(better than store bought)*

  - 1 Tablespoon corn starch
  - 2 teaspoons chili powder
  - 1 teaspoon salt
  - 1 teaspoon paprika
  - ¼ 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**

  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.
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.

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

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<tr>
<td>Industrial Waste Treatment, Vol. 1 - 3rd Edition</td>
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<td>Operation of Wastewater Treatment Plants, Vol. II - 7th Edition</td>
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<tr>
<td>Advanced Waste Treatment - 5th Edition</td>
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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.
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- Level & Pressure
- Locating & Leak Detection
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- Office Products
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