



# ARKANSAS DRINKING WATER UPDATE

Volume 26, No.2

ENGINEERING SECTION – DEPARTMENT OF HEALTH

Summer 2013

## Engineering Section To Propose Revision of Regulations

Jeff Stone, P.E., Director

At the July 25<sup>th</sup> meeting of the Board of Health, the Engineering Section will request permission to begin the process for revising the *Rules and Regulations Pertaining to Public Water Systems*. The request is being made for the purposes of re-dating the regulations following the recent publication of the Revised Total Coliform Rule and to add clarity concerning the certification required to document product/component compliance with the new federal “lead free” requirements that become effective January 4, 2014.

Approval of the Board of Health is required under the Department’s administrative procedures policy in order to begin the process to revise the regulations. Following the initial approval of the Board to proceed, the process includes notification of the public, a public hearing, and legislative committee reviews before coming back to the Board for final approval of proposed regulation changes.

In addition to having the regulations re-dated, the Engineering Section will propose that *Section VII.G. Approved Chemicals, Materials, Equipment and Process* be modified to include in the first paragraph of that section the additional statement

*“In addition, all products required to be “lead free” as determined through Section 1417 of the Safe Drinking Water Act (42 U.S.C. 300g-6) shall be certified as being in compliance with NSF/ANSI 372 or Annex G of NSF/ANSI 61.”*

It is proposed to insert this statement as the second sentence in the first paragraph of that section.

The intended purpose of this addition is to clarify the certification that is required in order to document product/component compliance with the

new federal “lead free” requirements that become effective January 4, 2014.

The new “lead free” requirements apply to both water system components utilized by drinking water systems and also to plumbing components utilized in buildings and residences. Currently the plumbing code is undergoing revision with respect to the new lead free requirements. For public water systems, brass and bronze components are of special concern due to the fact that older non-compliant brass and bronze components will have to be discarded if not used before January 4, 2014.

The Engineering Section has previously communicated information concerning these upcoming changes via a newsletter article titled “New Lead Content Restrictions To Take Effect In 2014” which appeared in the Fall 2012 edition of the Arkansas Drinking Water Update. Also, in the Spring 2013 edition of the Arkansas Drinking Water Update, the “Got a Question” section discussed the need to use older components before the new law becomes effective in January 2014. In May 2013 each public water system in Arkansas was mailed a letter from the Engineering Section detailing the requirements of the “Reduction of Lead in Drinking Water Act”.

Information on the new federal “lead free” requirements, also referred to as the “Reduction of Lead in Drinking Water Act”, can be found at: <http://water.epa.gov/drink/info/lead/index.cfm>

If Board of Health permission to proceed is granted, water systems will receive a separate notice on the proposed change in addition to a notice being placed in the statewide newspaper for a public hearing. The date and location for the public hearing have not yet been determined.

If you have any questions, please send them in an e-mail to [jeffery.stone@arkansas.gov](mailto:jeffery.stone@arkansas.gov)

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# Annual Compliance Report Available

Jeff Stone, P.E., Director

The Engineering Section has completed the Annual Compliance Report (ACR) pertaining to calendar year 2012. As the primacy agency in Arkansas for the federal Safe Drinking Water Act (SDWA), the ACR is required to be completed and made available for each calendar year. The deadline for making this report available is July 1 of the following year. This most recent ACR is available via the Engineering Section website <http://www.healthy.arkansas.gov/programsServices/environmentalHealth/Engineering/Documents/Reports/EngReports/ACR2012.pdf> or a paper copy is available if requested.

The ACR contains detailed information concerning the violations that public water systems have incurred and overall statistics concerning compliance with SDWA requirements for public water systems in the state. Highlights of the report are as follows:

Population of Arkansas	2,949,131
% of Arkansans Served by Public Water	93.5%
Community Public Water Systems	707
Transient, Non-Community PWSs	339
Monitoring Compliance (person months)	99.9%
SDWA Water Quality Compliance	97.2%
Overall SDWA Compliance (person months)	97.1%

It is important to understand that overall compliance rates rise and fall incrementally as new SDWA requirements become effective and public water systems then make adjustments to maintain compliance. The overall compliance rate of 97.1% for 2012 is approximately the same as 2011 overall compliance rate of 97.7%.

If an electronic copy of the ACR is desired, please utilize the internet link provided above. If a paper copy is desired, please send a request to [jeffery.stone@arkansas.gov](mailto:jeffery.stone@arkansas.gov) or via snail mail to Jeff Stone, Engineering Section, Arkansas Department of Health, 4815 West Markham, Slot 37, Little Rock, AR 72205.

# DO YOU NEED TRAINING IN WATER FLUORIDATION?

Glenn Greenway, P.E.

The Engineering Section of the Arkansas Department of Health periodically offers a 12 hour school on Water Fluoridation for water operators. The course covers various fluoride chemicals, feed systems, analysis, and safety. If you are interested in attending such a school please contact Glenn Greenway at 501-661-2623 or [glenn.greenway@arkansas.gov](mailto:glenn.greenway@arkansas.gov). If there is enough interest in a school, one or more training sessions will be scheduled and announced in a latter edition of this newsletter. Also, your Engineering Section District Staff are available for onsite technical assistance with water fluoridation.

The purpose of this school is to educate water operators about the benefits of water fluoridation and the proper methods for implementing water fluoridation. Hands-on training includes the use of different testing instruments and chemical feeders. Attendance of both days of the school is recommended and encouraged. However, partial attendance of specific topics or a portion of each day will be allowed with partial credit (less than 12 hours training) given.

The primary purpose of this course is to improve the quality of water fluoridation programs in Arkansas. Operators/managers of all systems are encouraged to attend. Operators of systems that fluoridate are encouraged to bring their fluoridation testing equipment, including the instrument manual and sample cells, to the class. A large portion of the class will be dedicated to hands-on training.

The Engineering Section presents this course at no charge to the participant. Please inform your staff of the availability of this school. Class size will be limited to 25 students.

If you have any questions or need additional information, please call Glenn Greenway, Engineer Supervisor at 501-661-2623.

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# 82<sup>nd</sup> Annual AWW&WEA Conference

Ashley Hobbs, District Engineer

Howell Anderson,  
Conference Chair



The 82<sup>nd</sup> annual conference of the Arkansas Water Works and Water Environmental Association (AWW&WEA) was held on April 28 - May 1, 2013 at the Hot Springs Convention Center in Hot Springs, Arkansas. It is one of the largest annual waterworks professional conferences in the State of Arkansas. There were 2,115 utility

operators, managers, supervisors, laboratory technicians, engineers, scientists, educators and students at this year's conference, and the 2013 conference theme, "Pride through Performance," sought to recognize the hard work and long hours that these individuals devote to protecting the public's water resources and providing safe drinking water. The 2013 conference chair, Howell Anderson "encouraged this year's conference attendees to take time to reflect on their accomplishments and without doubt, take 'Pride' in a job well done." Ashley Barr will succeed Mr. Anderson as the 2014 Conference Chair.

On Monday morning, the conference began with speeches by environmentalist Chad Pregracke and Steve "Wild Man" Wilson of the Arkansas Game and Fish Commission. To encourage attendance at this year's keynote address, a drawing for a Lifetime Arkansas Hunting and Fishing License was held for the first time for those in attendance.

Over 100 technical classes were offered with topics including collection systems, water quality, lab and pretreatment, health and safety, new regulations and professional development. Water professionals could earn up to 16 hours of direct water license renewal credit by attending these classes; other professionals could earn hours toward wastewater and professional engineering licenses. Mandatory training for water licensing exams, which included the Water Compliance Course, Basic Water Math, and Applied Water Math, was also offered at the conference with water and wastewater licensing exams held on Wednesday. Attendees also had the opportunity to visit with over 120 vendors in the exhibit hall.

Amidst the learning and education, there was time for fun at the conference as well. On Sunday,

winners from the State's District Drinking Water Contests competed in the annual Drinking Water Contest for the title of 'Best Drinking Water in Arkansas.' Paragould won this year's competition. The Operations Challenge and Equipment Rodeo, which included the backhoe and tandem dump truck competitions, allowed utility personnel to put their training and field experience to the test. The Dump Truck ROADeo winner, from Little Rock Wastewater, was Paul (Leon) White. The Backhoe ROADeo winner, from Little Rock Wastewater, was Jesse Burlison. The winner of the Operations Challenge was Jacksonville Wastewater Utility - Mixed Liquors. Jacksonville will represent the AWEA at the national operations challenge in WEFTEC 2013 at Chicago in October.

The Water for People raffle and the Ted & Clara Memorial Scholarship Golf Tournament are two fundraising events held each year at the conference. Water for People is a nonprofit international humanitarian aid organization that "helps the most impoverished people worldwide improve their quality of life by supporting sustainable drinking water, sanitation and hygiene projects." This year 45 prizes were donated for the Water for People raffle, which raised approximately \$13,992. The Ted & Clara Memorial Scholarship Golf Tournament was held on Wednesday, May 1<sup>st</sup>. The four-person scramble was held at the Hot Springs Country Club, and all tournament proceeds helped to fund the Ted & Clara Memorial Scholarship Program. Through this fund, six scholarships are awarded annually to dependents of employees of water and wastewater utilities throughout the state. Ted "Doc" Gentry was a strong supporter of the water and wastewater industry, and these scholarships carry on his belief in the value of higher education. The 1<sup>st</sup> flight, 1<sup>st</sup> place winners with a score of 64 were: Aaron Stallman, Robert Parkman, Chrise Brizendine, and Brent Monk; The 2<sup>nd</sup> flight, 1<sup>st</sup> place winners with a score of 69 were: Dean Roberts, David Green, Jeff Plymale, and Robert Walker.

Mr. Alan Fortenberry, Chief Executive Officer for Beaver Water District, was inducted into the prestigious Glen T. Kellogg Water & Wastewater Hall of Fame. Over the past 40 years, Mr. Fortenberry has served in many roles in the water industry including regulatory, private consulting, utility, and is also currently serving on the Arkansas State Board of Health. Mr. Fortenberry has been with the Beaver Water District for the past 22 years.

The 83<sup>rd</sup> annual AWW & WEA conference, will be held on April 27 - April 30, 2014 at the Hot Springs Convention Center in Hot Springs, Arkansas.

# Oil Pipeline Leak Raises Concerns

Jeff Stone, P.E., Director



On March 29<sup>th</sup>, 2013, a section of the Pegasus pipeline carrying crude oil ruptured near residences in Mayflower, Arkansas. Approximately, 200,000 gallons of crude oil spilled out into the housing area and eventually reached a cove of Lake Conway. The Pegasus pipe line is owned by Exxon Mobil and is currently used to transport Canadian Wabasca heavy crude oil from Illinois to Texas. The 850 mile pipeline was constructed in the late 1940s and reportedly was constructed using a welded seam type of pipe. When failures of this type of pipe occur, it is not uncommon for the failures to be described as seam-type failures. In many cases, corrosion will exploit imperfections in welded seams and eventually lead to pipe failure. Pipelines are routinely protected by cathodic protection systems designed to prevent corrosion. There has not yet been an official report describing the cause of this particular failure near Mayflower. Since the failure occurred, the Pegasus pipeline has been shut down. Nevertheless, a second smaller leak occurred on the Pegasus pipeline on April 30<sup>th</sup>. The second leak, located near Doniphan, Missouri is estimated to have leaked 42 gallons into a residential yard.

Approximately 22 homes in the immediate area of the spill, at Mayflower, were evacuated while clean-up efforts commenced. There were no reported injuries associated with this spill. No drinking water sources were affected by this incident. The affected area is served by the City of Mayflower's public water system. Epidemiologists from the Arkansas Department of Health were

involved in monitoring the incident and cleanup efforts. As of the date of this article, no adverse health impacts have been documented. On April 8, 2013, the Engineering Section of the Arkansas Department of Health assisted the Mayflower water manager in sampling the drinking water quality of the water system. The results of that sampling indicated that no hydrocarbon contamination of the drinking water system had occurred.

Interstate pipelines such as the Pegasus pipeline are not primarily regulated by the states which the pipelines traverse. Primary regulation for these pipelines is the responsibility of the Pipeline and Hazardous Materials Safety Administration (PHMSA). The PHMSA is a part of the US Department of Transportation. According to the PHMSA, the goal of their organization is: "Our mission is to protect people and the environment from the risks of hazardous materials transportation." They also state that by 2016 they aim to: "Reduce the number of hazardous liquid pipeline spills with environmental consequences to between 65-81 per year." It is unclear what, if any, special precautions pipeline companies are required to take when pipelines cross critical drinking water source protection areas.

Fortunately the oil spill at Mayflower did not occur in an area that would directly affect a drinking water source. This affected area drains into Lake Conway and then via Palarm Creek to the Arkansas River. The most immediate adverse impact was to the environment. It has been reported that approximately 683 creatures were affected by the incident. Many of those "creatures" were snakes and many of those venomous. Other types of creatures affected included: ducks, frogs, turtles, nutria (sometimes described as river rat), and perhaps other species as well. Apparently, the number of venomous snakes removed from the area has been very high and raised legitimate concerns for worker safety.

It is clear that critical drinking water sources could be compromised if a similar leak happened to occur in a critical drinking water source area. This incident has caused many to consider what could have resulted if this leak had occurred in a more critical area. Also, it cannot be assumed that the amount of crude oil spilled would be small enough to be manageable. As a result, several initiatives have been made to attempt to address these concerns.

The Arkansas Legislature during the 89<sup>th</sup> General Assembly of 2013 enacted Act 1484 titled "Public Surface Water Supply Protection Act". Act 1484 is aimed at ensuring the safety of drinking water sources from oil pipeline spills. Act 1484

encourages petroleum pipeline owners and operators to: install automatic cut-off valves; provide annual response training to pipeline operators, water providers, and local first responders; create detailed emergency response plans and provide the plan to the water provider and the Arkansas Department of Health; and additional measures not detailed in this article. Act 1484 will not necessarily compel pipeline companies to take these steps because interstate pipelines are regulated at the federal level.

The route of the Pegasus oil pipeline is near up to 18 drinking sources as the pipeline traverses the state of Arkansas. Just southwest of the oil spill at Mayflower, the pipeline crosses through the Lake Maumelle watershed which is a source of drinking water for much of central Arkansas. There is a significant potential for harm if an oil spill occurred in the Lake Maumelle watershed or near any of the other sources near the pipeline. As a result of the oil spill at Mayflower, local concern increased regarding the location of the pipeline near Lake Maumelle as well as concern with regard to perceived deficiencies in the pipelines condition. As a result, several resolutions were passed, and letters sent, calling for the eventual removal and relocation of that section of the pipeline that lies within the Lake Maumelle watershed.

On April 11, 2013, the Central Arkansas Water Board of Commissioners adopted Resolution No. 2013-03 that called for the pipeline company to: evaluate the safety of the pipeline in the watershed prior to restart of the pipeline, implement additional risk mitigation steps within 12 months, and relocate the pipeline outside the watershed within 5 years.

On April 16, 2013, the Board of Directors of the City of Little Rock adopted Resolution No. 13,676 that called for removal of the Pegasus pipeline from the watershed and to complete this work expeditiously and as soon as practicable.

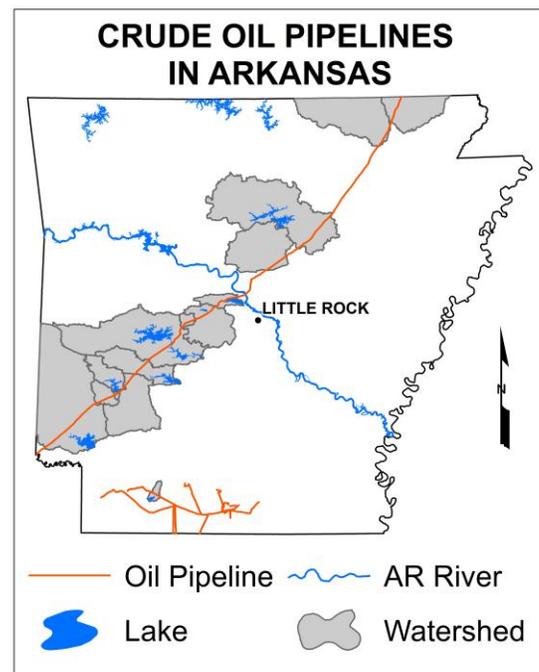
On April 23, 2013, the Pulaski County Quorum Court adopted Resolution No. 13-R-09 that called for ExxonMobil to take immediate action to begin the removal of the Pegasus pipeline from the Lake Maumelle Watershed and called for the Department of Transportation and the Pipeline and Hazardous Materials Safety Administration to require ExxonMobil to take such action.

In a letter dated June 3, 2013, Dr. Nathaniel Smith, MD, Interim Director and State Health Officer of the Arkansas Department of Health called upon ExxonMobil and the Pipeline and Hazardous Materials Safety Administration to ensure that numerous safety related measures are taken prior to the pipeline restarting. The June 3, 2013 letter also called for eventual relocating of the pipeline so that

risks to drinking water sources in the state of Arkansas are minimized.

On June 13, 2013 it was reported that the US Department of Justice and the State of Arkansas filed suit against ExxonMobil concerning the oil spill. It was reported that the Justice Department is seeking civil penalties for violations of the federal Clean Water Act. The Arkansas attorney general is pursuing civil penalties for violations of the Arkansas Hazardous Waste Management Act and the Arkansas Water and Air Pollution Control Act.

There are also many other types of pipelines that cross our state and in doing so also cross critical drinking water source watersheds. Underground pipelines should be marked at various road, railroad or waterway crossings and those markers should include an emergency contact phone number. Water managers and water operators are encouraged to include these concerns in their emergency response planning. While it may not be possible to completely eliminate these risks, it is nevertheless important to maintain up-to-date contact information concerning the owners and operators of pipelines located in your area. The owners and operators of these pipelines are required to maintain emergency response plans concerning the operation of these pipelines. Water operators and managers should attempt to ensure that the pipeline companies are aware that the pipelines are near critical drinking water sources.



# Monitoring for Source Water Protection

Bob Morgan, Beaver Water District

A source water protection (SWP) program is a set of actions put in to maintain or improve the quality of the utilities raw water and to prepare for events that may temporarily degrade water quality. SWP is recognized by the United States EPA, and the American Water Works Association (AWWA) as one of the multiple barriers to protect the public from water born disease. Other barriers include redundant treatment units, multiple disinfection locations, regulatory compliance, distribution system management and consumer education. Because each utilities source of water is unique, and each utility has a unique set of management issues, no one SWP program fits all. However, the AWWA's standard G-300, "Source Water Protection" provides six elements that are essential for successful SWP programs:

1. Vision Statement,
2. Source Water Characterization,
3. Source Water Goals,
4. Action Plan,
5. Implementation, and
6. Evaluation and revision.

Water quality monitoring is essential to implementing these six elements. The type of monitoring depends upon the utility's unique situation. Obviously surface and ground water systems require different monitoring protocol, but even different surface water situations require different protocols. Is the intake on a lake or reservoir, or a flowing stream? If it is on a reservoir, is it small and shallow, or large and deep? The two have different characteristics. Is the intake far upstream on a large reservoir, or near the dam? It makes a difference in how quickly the quality of water may change. Even in a ground water situation, different protocols are required if it is ground water under the influence of surface water or a deep aquifer. Then the utility has to consider the availability of resources for implementing the monitoring program, both financial and personnel.

After considering the utilities situation and water source, then monitoring objectives need to be developed along with a protocol to collect and analyze data that will meet those objectives. Finally, the utility must consider quality assurance and quality control procedures.

At Beaver Water District, our intake is on the upper end of a large US Army Corps of Engineers multi-purpose reservoir. In this situation, water quality changes seasonally but can also change quickly any time of year during heavy storms or algae blooms. The District has an extensive monitoring program beginning at our intake, expanding out into the lake, and up into the watershed.

The District's objectives for the source water protection monitoring are:

- 1) To understand the current characteristics of the lake with respect to water treatability,
- 2) to understand the natural variability of water quality in the lake,
- 3) to be aware of trends in the quality of the water,
- 4) to be prepared for emergency situations that may arise.

We meet these objectives with four monitoring programs starting at our intake and moving out into our water source, Beaver Lake, up into our tributaries, and finally with targeted monitoring around potential sources of contamination (PSOCs).

**Source Water Characterization (objective 1 and 2):** At our intake on Beaver Lake, data are collected daily, weekly and monthly. Data collected daily include aluminum, iron, manganese, conductivity, turbidity and bacteria. These data are primarily collected to inform plant operations. However the long term record provides valuable information on the characteristics of Beaver Lake and the natural variability.

On a weekly basis at the intake in addition to the daily data we also collect nitrate, nitrite, ammonia, silica, orthophosphate, copper, zinc, color, turbidity and TSS. These data are also mostly to inform operations, but the addition of the nutrients and metals helps to characterize the condition of the lake especially with respect to limitations on algae growth in the lake.

Beaver Lake is large and deep. During the summer the water stratifies by temperature with a warm layer on top and a cold layer underneath. During this stratified period, we collect a weekly profile consisting of temperature, turbidity, dissolved oxygen, specific conductivity, total suspended solids, total dissolved solids, pH, chlorophyll\_a, and oxidation-reduction potential. These data help operations plan their withdrawal elevation and chemical dosage, but they also give us a good idea of the variability in water quality from the surface to the lake bed as well as provide a base line for long term comparison. At the same time, algae samples are collected from the photic zone of the lake and analyzed for taxonomy, and concentration. Photic zone samples are also sent to an outside laboratory to be analyzed for the taste and odor causing compounds, 2-Methylisoborneol and Geosmin. During mixed conditions (winter) when the lake is not stratified; the profile is only taken monthly.

Intake data are useful for characterizing water quality in the lake, but the prime reason for collecting them is to inform operations. Water quality in reservoirs is variable longitudinally as well as vertically so to fully characterize the source water at Beaver Lake it's necessary to move out into the lake away from our intake. The specific objective of the in-lake monitoring is to characterize water quality and to quantify seasonal, longitudinal and vertical variability as well as to track trends over time. The protocol consists of a joint funding agreement with the United States Geological Survey to conduct six sampling events per year including four during stratified conditions and two during mixed conditions. Profiles are collected at six in-lake sites from the headwaters to the dam. Sample parameters include:

Parameters analyzed for during the USGS tributary sampling are pH, temperature, dissolved oxygen, conductivity, turbidity, alkalinity, hardness, BOD, ammonia, chloride, copper, iron, manganese, nitrate, nitrite, ortho-phosphate, total phosphorous, TDS, TOC, TN, E.coli bacteria, organic nitrogen, dissolved magnesium, sulfate, calcium, fluoride, chloride, solids, and total iron and manganese. These data are also necessary for calibrating water quality models.

USGS in-lake data are augmented once per year by volunteer monitors during our annual Secchi Day event. Volunteer data provide two benefits. First, if the data are adequately quality assured, they can be used alongside the professionally collected data. Secondly, volunteer monitoring provides an opportunity for public awareness and education. News media love to cover volunteer monitoring events.

The water quality of a lake or reservoir is by and large determined by the quality of water flowing into it from its tributaries. To augment our lake sampling, we have another joint funding agreement with USGS to monitor the three major tributaries of Beaver Lake, the White River, Richland Creek and War Eagle Creek. Our objective for this monitoring is to determine the annual and seasonal load of various water constituents into the lake. Determination of loading requires data on both flow volume and constituent concentration. Therefore it is necessary to have accurate gages as well as water quality data. USGS gage data are the standard of excellence in stream gaging. Because in-stream concentration of many constituents varies with flow, to determine mass, data from both base flow and storm events are required. Our protocol is to collect samples during base flow six times per year across all seasons, and to collect samples during four storm events. Parameters analyzed for during the USGS tributary sampling are pH, temperature, dissolved oxygen, conductivity, turbidity, alkalinity, hardness, BOD, ammonia, chloride, copper, iron, manganese, nitrate, nitrite, ortho-phosphate, total phosphorous, TDS, TOC, TN, total suspended sediment and E.coli bacteria.

**Analysis of Trends (objective 3):** Our third objective of the district's monitoring program is to be aware of trends in water quality of our source. This helps in the design programs to ameliorate trends that may impact our treatability. Water quality is notoriously variable seasonally, annually, and even over decades. That variability means that trend analysis requires a long term continuous record to separate trends from natural variability. A data management system is necessary to keep track of the data. The District currently uses a Laboratory Information Management System or LIMS for all of our data. The LIMS operates on an Access database. Earlier, data were compiled on Lotus 123 and then Excel spreadsheets. Unfortunately, software providers only support software for so long. It is necessary every few years to update the dataset to assure it remains accessible.

**Emergency Response (objective 4):** Our last objective for monitoring is to be aware of and able to react to any sudden changes in water quality. To achieve this objective we monitor ten sites on lake tributaries monthly in what we call the "Long Run". Samples are analyzed for pH, temperature, dissolved oxygen, conductivity, turbidity, alkalinity, hardness, BOD, ammonia, chloride, copper, iron, manganese, nitrate, nitrite, ortho-phosphate, total phosphorous, TDS, TOC, TN, E.coli. Each month the data are graphed and inspected for anomalies. All PSOCs in our source water protection area are also plotted in a geographic information system. Additional long run sites are currently being initiated to cover areas downstream from the major PSOCs.

To respond to emergencies, the District has compiled a "go-box" and an emergency action plan. This box contains bottles, personal protective equipment, SOPs and a checklist for analytical needs. In the case of an actual emergency, going through the checklist will force us to think of what should be sampled for, and insure we grab the right equipment the first time. The emergency action plan provides sampling protocols for likely emergency events including tornados, forest fires and spills. Fortunately we have not yet had to use either our go-box or our emergency action plan

**Quality assurance/quality control:** The quality of water quality data refers to the precision, accuracy and completeness of the data collected. These attributes do not just happen. Quality assurance and quality have to be planned in advance. Beaver Water District has a written quality assurance plan that includes quality objectives, standard operating procedures, reporting, and steps for corrective action if necessary. Our water quality lab is currently certified by both the Arkansas Department of Health and the Arkansas Department of Environmental Quality for water analysis. Our data collected by the USGS are all collected and analyzed in accordance with their extensive QA/QC program.

Monitoring the source of water is essential for characterizing the current condition of your raw water as well as trends in that quality. An effective monitoring program allows the utility or its partners to design and implement voluntary and regulatory programs that will help maintain or improve water quality. The data are also necessary for evaluating those programs effectiveness. Beaver Water District is able to conduct its extensive monitoring program because our board of directors has been supportive of our source water protection program, and because we have developed many partners with which we can share the costs. In addition to the USGS, partners that invest in these data include the Arkansas Natural Resources Commission, the Arkansas Department of Environmental Quality, the Arkansas Game and Fish Commission, the US Army Corps of Engineers, and the Arkansas Water Resource Center. In addition, we have many dedicated volunteer citizen scientists to help collect data from remote locations.

## Staff News:



We welcome back Mac Faulkner, P.E. to the Engineering Section as the District 5 Engineer. Mac holds a Bachelor's degree in Electrical Engineering and a Master's degree in Business Administration from the University of Houston and is a licensed professional engineer in Arkansas. He previously held the position of District 8 Engineer for the Engineering Section.



Joseph Harris has joined the Engineering Section, as an Engineer Technician. Joseph will be working in the sample collection program and will primarily work in south Arkansas. His duties will consist of collection of SDWA compliance samples for community, non-community, and transient public water systems. Joseph previously worked for the City of Felsenthal, AR as a Water Operator.



Laura Nelson has joined the Engineering Section as the Environmental Health Specialist for District 6. She has a B.S. in Biological Sciences from the University of Arkansas at Little Rock. Laura comes to Engineering from the ADH Laboratory where she worked as a Lab Technician.

## Have You Renewed Your Water Licenses?

Renewal notices for water licenses were mailed in May 2013. If your license expires June 30, 2013 and you have not received your renewal invoice, please contact the water licensing program. To renew you must have 24 contact hours of approved training, and at least 12 of the hours must be approved as direct water operator training. The other 12 can be more direct or indirect training. Considerable training attendance may be documented at: [https://health.arkansas.gov/wa\\_engTraining/hours.aspx](https://health.arkansas.gov/wa_engTraining/hours.aspx)

If you are short renewal hours, the Regulations allow hours to be obtained until June 30, 2014 to meet the 2013 renewal requirements. Licenses not reinstated by June 30, 2014 are lost. Training schedules are on the internet at: <http://www.healthy.arkansas.gov/eng/autoupdates/oper/opcertlinks.htm>

There is a 90 day grace period after a license expires to complete the renewal process. Training may be attended after the expiration date, June 30, 2013, to complete renewal training requirements. A renewal penalty is assessed on July 31, 2013. Reinstatement of licenses expired for more than one year is not allowed by Regulations.

It is the operators' responsibility to see that their license is renewed regardless of the receipt of a renewal invoice, the renewal being processed by their utility, or receipt of the renewal documents by the license program. The operator needs to verify their license renewal by watching for the receipt of their renewal wallet card.

Operators who submitted renewals 30 or more days ago without a response should please contact the Water Licensing Program to determine your renewal status, by calling (501) 661-2623 or by email at [martin.nutt@arkansas.gov](mailto:martin.nutt@arkansas.gov).

# Major Monitoring, MCL, Treatment Technique, & Licensing Violations

Community & Nontransient Noncommunity Public Water Systems, Jan. – Mar., 2013

ADC CUMMINS UNIT	Bmon 1	PARKIN WATERWORKS	Bmon 1
AMITY	DBPR	PERLA WATER ASSN	Bmon 1
BANKS WATERWORKS	Bmon 1, 2	PIKE CITY WATER ASSN	Bmon 3
BANKS WATERWORKS	DBPR 2, 3	PLAINVIEW	DBPR 1, 2, 3
BEULAH GROVE WATER	OperLic 1, 2, 3	PYATT	Bmon 1
BLUE MOUNTAIN WATERWORKS	DBPR 1, 2, 3	RATCLIFF WATERWORKS	DBPR 1, 2, 3
BODCAW RURAL WATER	DBPR 1, 2, 3	SDM WATER ASSN	FMCL 1, 2, 3
BOWSER WATER SYSTEM	OperLic 2, 3	SDM WATER ASSN	RMCL 1, 2, 3
BRANCH WATERWORKS	DBPR 1, 2, 3	SOUTH LOGAN COUNTY	DBPR 1, 2, 3
CASH WATERWORKS	Bmon 3	SOUTH MOUNTAIN WATER	RMCL 1, 2, 3
CHARLESTON	DBPR 1, 2, 3	SPARKMAN WATERWORKS	Bmon 1
COTTONWOOD WATER	Bmon 3	TRUMANN RURAL WATER	DBPR 1
DANVILLE WATERWORKS	DBPR 1, 2, 3	WABBASEKA WATERWORKS	Bmon 1
DANVILLE WATERWORKS	SWTR 1	WALKER WATER ASSN	DBPR 1, 2, 3
DEER WATER ASSNIATION	TMCL 1	WARD MOBILE HOME PARK	Bmon 2, 3
DERMOTT WATERWORKS	Bmon 1, 2	WATSON WATERWORKS	GWR 1, 2, 3
DERMOTT WATERWORKS	DBPR 1, 2, 3	WATSON WATERWORKS	DBPR 1, 2, 3
FOUKE WATERWORKS	Bmon 1	WKMM RURAL WATER	DBPR 3
FREE HOPE WATER ASSN	Bmon 1	WYNNE WATERWORKS	DBPR 1
HWY 71 WATER	Bmon 1		
LEISURE HILLS MHP	Bmon 2		
LURTON-PELSOR WATER A	Bmon 3		
MAGAZINE WATERWORKS	DBPR 1, 2, 3		
MILLTOWN-WASHBURN W	DBPR 1, 2, 3		
MOUNTAIN PINE	Bmon 1		
MT SHERMAN WATER	RMCL 1, 2, 3		
NORTHERN OHIO WATER A	Bmon 2		
OLD UNION WATER ASSN	DBPR 1, 2, 3		
OZAN CREEK WATER	DBPR 1, 2, 3		

**KEY:** Bmon = Bacti Monitoring; BMCL = Bacti MCL; Dmon = Disinfection By Product Rule Monitoring; DBPR=Disinfection By Product Rule MCL or Treatment Technique; GWRMCL=GWR Treatment Technique; GWRmon= GWR Monitoring or Reporting; Tmon = SWTR Major Monitoring; TMCL = SWTR Treatment Technique; SWTR= Various SWTR requirements; Failure to Filter; RMCL = Radiochemical MCL; FMCL = Fluoride MCL; IMCL=Inorganic Chemical MCL; SMCL = Synthetic Chemical MCL; OperLic = Operator Licensing; 1 = Jan. 2013, 2 = Feb. 2013, 3 = Mar. 2013

## FREE WATER EXAM STUDY MANUALS To Eligible Systems

The Arkansas Department of Health, utilizing EPA Operator Certification Training Funds, will continue to provide free replacement or additional exam study manuals. Systems eligible are all Community Public Water Systems or Non-Community Non-Transient Public Water Systems that serve a retail population of fewer than 3300 persons. The Operator Certification Training Funds provided all the above grant eligible water systems with a complete set of reference manuals in December 2003, see list of the provided manuals below.

If a grant eligible system needs a free replacement or additional set of manuals, please contact the Water Operator Licensing Program by phone at: (501) 661-2623 or by email at: [martin.nutt@arkansas.gov](mailto:martin.nutt@arkansas.gov) to start the simple straight forward process to receive.

Reference Manuals Provided OpCert Fund Eligible Systems	Value
Water Treatment Plant Operation, Volume I, by CSU Sacramento	\$49.00
Water Treatment Plant Operation, Volume II, by CSU Sacramento	\$49.00
Water Distribution System Operation & Maintenance, by CSU Sacramento	\$49.00
Small Water System Operation and Maintenance, by CSU Sacramento	\$49.00
Utility Management, by CSU Sacramento	\$29.00
Manage For Success: Effective Utility Management Practices, by CSUS	\$49.00
Water System Security: A Field Guide by American Water Works Assn	\$65.00
Operator Certification Study Guide by American Water Works Association	\$59.00
<b>Total Value of Set</b>	<b>\$398.00</b>

*\*Provided if treatment license is required.*

# **REPORT OF THE Arkansas Drinking Water Advisory and Operator Licensing Committee**

Martin Nutt, Training and Certification Officer

The Arkansas Drinking Water Advisory and Operator Licensing Committee held its quarterly meeting on April 11, 2013, in Lonoke, Arkansas. Committee members present were: Terry House, Committee Chair, Grand Prairie Bayou Two PFB; Susan Merideth, P.E., Committee Chair Elect, Jonesboro City Water and Light; Tim Shaw, Community Water System; Matthew Dunn, P.E., Crist Engineers, Inc.; Stacy Cheevers, Beaver Water District; and Jeff Stone, P.E., Executive Secretary, Arkansas Department of Health (ADH). One member Dr. Findlay Edwards, P.E., University of Arkansas was unable to attend. ADH staff & guests present were: Reginald Rogers, Attorney, ADH; Martin Nutt, Training and Certification Officer, ADH; Ida Hampton, Administrative Specialist, ADH; Alicia Prioleau, Training Coordinator, ADH; and Randy Harper, Arkansas Environmental Training Academy (AETA).

## **Standing Business**

The Committee reviewed and approved the minutes from the January 10, 2013 meeting. Nutt updated the Committee on the SDWA OPCERT Operator Training Grant. He provided a copy of the grant's final EPA report titled "SDWA Operator Certification Expense Reimbursement Grant Report" submitted to EPA by the grants closeout deadline. He pointed out to the Committee the reports information concerning final spending efforts to complete the grant. He noted the grant closed December 31, 2012 with \$666.54 left of the original grant amount of \$1,488,000.00. He reviewed the variables in predicting grant expenditures, primarily how many students would attend a particular course and how many would request meal and lodging expense reimbursement. He noted the amount left in the grant represented approximately the cost of two to three students attending a course. He reviewed last minute supply and equipment purchases to expend the grant. In particular, the purchasing of a large volume of exam preparation training manuals as a means to extend into the future the provision of manuals to water systems serving a population less than 3,300. Nutt closed by noting that the EPA SRF Capitalization Grant's Capacity Development Set Aside funds would be used to continue funding the cost of providing the same level of mandatory training courses through June 30, 2014, excluding meal and lodging costs for students.

## **Old Business**

Nutt addressed progress on the Committee's October 2012 Committee meeting's recommended changes to the Rules and Regulations Pertaining to Water Operator Licensing. He reported the Engineering Section (Section) had provided an article in the "Drinking Water Update" on the recommended changes and had received very few written comments. In two AWW&WEA District meetings, his presentation on the changes had received general acceptance. He reported the changes getting the most pro and con comments concern the requirement to require courses in order and limiting the use of mandatory courses for renewal purposes. He stated the Section wished to garner more industry feedback before developing recommended regulation changes.

## **New Business**

The Committee received an update from Nutt concerning the progress of obtaining the appointment of a new license committee member to replace House as his term expires. See related article titled "Roger Moren Appointed to Water License Committee" in this newsletter. Stone updated the Committee on the Section's efforts related to the EPA required Unregulated Contaminant Monitoring Rule 3. He stated EPA will allow use of SRF monies for non-routine special sampling and the UCMR3 monitoring is considered special sampling not routine SDWA sampling. This will allow the Section to shift approximately \$400,000 of the sampling and analytical costs for the Rule from PWS Service Fees to SRF Set-Aside funding over a 3 year period

Nutt briefed the Committee on the Annual Water Licensing Committee Report provided at the Arkansas Water Works and Water Environment Association annual business meeting. He reviewed the information normally provided in the report and answered questions from the Committee on the purpose of the report.

## **Committee Reports**

Stone, in his Section Director's report, provided the Committee an update on fluoridation implementation. He reported the State Legislature is still in session, but all bills concerning fluoride have been heard by the appropriate Legislative Committee, and the Legislature has chosen not to make any changes. He indicated, barring any late session action, the present fluoridation requirements will remain in place with enforcement continuing to progress.

Stone briefly noted changes were made in the bacteriological sample collection form effective February 2013. The critical change being the addition of an information block to provide the original sample's lab number when a resample is required. This will provide a lab data tie to the water system's resample back to the original sample to meet concerns brought forth in the 2012 EPA Data Audit.

Stone reported new EPA guidance concerning Consumer Confidence Reports (CCR) will allow greater use of electronic delivery of system's CCR than previously allowed. Water Systems who have internet service can put the URL address on the customer bill and it is considered delivered. The Section is arranging to provide to each water system, if needed, the unique webpage address so more systems can take advantage of the alternate delivery method over standard mail and newspaper publishing. Systems will need to provide customers who prefer a paper copy with a method to request it, such as a check box on their returned bill stub to request a paper copy of the CCR.

Nutt provided a Licensing Program report. He referenced a spreadsheet handout titled "Water License Exam Report" pointing out where the present exams scoring performance was shown on the spreadsheet and where to compare those results with the previous exam version and overall exam performance. He reviewed a summary of compliance enforcement efforts taken by the Section noting Beulah Grove is under a signed consent order, the order has expired, and a hearing is to be scheduled. Danville Waterworks is under an enforcement consent decree. It has failed to hire Treatment 4 Water Operators per the agreement with the Section. Walker Water's warning of administrative order is to be issued and Watson Waterworks' administrative order was issued in November 2012, which requires a compliance plan that has not been received.

Harper provided the Arkansas Environmental Training Academy Report. He reported AETA's new environmental training lab was nearing completion and provided training class information.

The Arkansas Rural Water Association provided a written Training Report detailing training courses offered.

## **Other Business**

Stone presented House with a plaque thanking him for his service to the Section as this year's Committee Chairperson and his six years of faithful service to the Arkansas Drinking Water Advisory and Operator Licensing Committee. The Committee members added their personal words of thanks and acknowledged his gracious services to the Committee.

The Committee confirmed their next meeting date for July 11, 2013 and adjourned.

## **Roger Moren Appointed to Water License Committee**

On April 25, 2013, the State Board of Health appointed Mr. Roger Moren, General Manager, Sardis Water Association, Mabelvale, Arkansas, to the Arkansas Drinking Water Advisory and Operator Licensing Committee. His strong background in the drinking water industry will allow him to be a valuable member of the Committee.

Nominations were requested from the: Arkansas Water and Wastewater Managers Association, Arkansas Rural Water Association, Arkansas Water Works and Water Environment Association, and the Arkansas Environmental Training Academy Advisory Board. Mr. Lance McAvoy, Environmental Manager, Fort Smith Utility, Fort Smith, Arkansas, and Mr. David Jurgens, P.E., Utilities Director, City of Fayetteville, Fayetteville, Arkansas were also nominated.

The Committee at its April 11, 2013 meeting thanked Terry House, Grand Prairie Bayou Two PFB, with a plaque for his six years of loyal service to the Committee. He served as the Committee Chair during his last year of service.

The Committee advises the Department of Health and its Engineering Section on matters affecting Public Water Systems and the administration of the Water Operator Licensing Program.

# Water Operator Licenses Issued

**March 1, 2013 through May 31, 2013**

LICENSEE NAME	GRADE/TYPE	WATER SYSTEM NAME
ASHLEY JIMMY	T - III	BENTON WATERWORKS
ATKINSON DALE	D - II	ARSENAL WATER SYSTEM
BOUGHTON JEREMY	D - I	PERRYVILLE WATERWORKS
BREWER ROGER	D - I	CHIDESTER WATER WORKS
BROWN DONALD	D - I	BERGMAN WATERWORKS & LEAD HILL WATERWORKS
BUTLER TROY	D - IV & T - IV	BENTON-WASHINGTON REGIONAL PWA
CARTER GERALD	D - I	HELENA WATER SEWER
CROSBY LUCAS	D - II	CHERRY VALLEY WATERWORKS
DEJARNATT JON	T - IV	MALVERN WATERWORKS
DOUGLAS BILLY	D - III	WYNNE WATERWORKS
EDWARDS BILLY	D - I	MAMMOTH SPRING WATERWORKS
EVERSOLL JONATHAN	D - II	BEE BRANCH WATER
FARRIER CHARLES	D - III	BATESVILLE WATER UTILITIES PFEIFFER WATER AUTHORITY
GRAY MICHAEL	D - II	NORTH CROSSETT UTILITIES NORTH EAST CROSSETT WATER ASSN
GUYLL TOMMY	D - IV	BENTON-WASHINGTON REGIONAL PWA
HAWKINS TIMOTHY	T - I	TONTITOWN WATERWORKS
HICKS AMANDA	D - I	WEST MEMPHIS WATERWORKS
HINCHEY JACKIE	D - II	LESLIE WATER SYSTEM
HORTON DUANE	D - I	DIAMOND CITY WATER
HUFF DONALD	D - I	MARKED TREE WATERWORKS
JOHNSON CHRIS	D - I	HUGHES WATERWORKS
JOHNSON CORY	D - IV	ARKADELPHIA WATERWORKS
KENNINGTON MARVIN	D - II	FOREMAN WATERWORKS LITTLE RIVER CO RDA
LAMBERT KEITH	D - II	WALDO WATERWORKS
LARSEN JOSHUA	D - I	OZARK WATERWORKS
LEWIS JEREMY	D - I	NO SYSTEM PROVIDED
LITTLE SAMUEL	D - I & T - II	SUBIACO ACADEMY WATERWORKS
LOBBS RICHARD	D - I	TAYLOR WATERWORKS
MAWHINNEY WILLIAM	D - II	MAYFLOWER WATERWORKS
MCCOMAS TIMOTHY	D - II	RAVENDEN WATERWORKS
MCELROY RYAN	D - I	ROSTON WATER DEPARTMENT
MORRIS STEVEN	D - I	MAMMOTH SPRING WATERWORKS
PAPPALARDO SALVATORE	T - IV	JACKSONVILLE WATERWORKS
PEACHEE DEARL	D - IV	SILOAM SPRINGS WATERWORKS
PHILLIPS GEORGE	D - I	MAUMELLE WATER MANAGEMENT
REAMES BRADLEY	T - IV	PARIS WATERWORKS
REID MATTHEW	D - II	NEWPORT WATERWORKS
RIEL DANIEL	D - I	MANSFIELD WATERWORKS
ROBERTSON JAMES	D - II & T - II	BAY WATERWORKS
ROSS GREGORY	D - II	RIVERSOUTH RURAL WATER DIST
ROSSON KENNETH	D - I	MULBERRY WATERWORKS
ROY BOBBY	T - IV	DANVILLE WATERWORKS
SCHORTZMANN TIMOTHY	D - II & T - I	NO SYSTEM PROVIDED
SKIVER LARRY	T - IV	MOUNTAIN HOME WATERWORKS

## Water Operator Licenses Issued

March 1, 2013 through May 31, 2013

LICENSEE NAME	GRADE/TYPE	WATER SYSTEM NAME
SMITH JACKIE	T-IV	HUNTINGTON
SNEED TONYA	T-II	CHARLESTON
TAYLOR JEFF	D-II	ST FRANCIS RIVER REG WATER DD
USSERY TOMMY	D - II	SALEM WATER ASSOCIATION
WARD RICHARD	D - VSS	OGDEN WATERWORKS
WATSON JOE	D - IV	JONESBORO WATER SYSTEM
WEST RICHARD	D - III	CENTRAL ARKANSAS WATER
WHITE WILLIAM	D - IV	BELLA VISTA P.O.A.
WORSHAM	D - II	SALEM WATERWORKS
CHRISTOPHER		
WYSS DEREK	D - III	CLAY CO REG WATER DISTRICT
		DELAPLAINE WATERWORKS
		KNOBEL WATERWORKS
		MC DOUGAL WATERWORKS
		O'KEAN WATERWORKS
		PEACH ORCHARD WATERWORKS
		SUCCESS WATERWORKS

## **ARWA Annual Technical Conference & Exhibition** **Hot Springs Convention Center** **September 15 – 17, 2013** **Hot Springs, Arkansas**

[www.arkansasruralwater.org](http://www.arkansasruralwater.org)

The conference consists of two (2) full days of training. ARWA plans to have six (6) training topics offered each session, with four (4) sessions each day. Typically, no training topic is repeated. There will be an exhibit hall with a wide selection of water industry related companies displaying their latest and best products. The conference offers a total of 16 hours of directly applicable water training credit for full participation. The Association will be scanning name badges each morning and afternoon during training session to determine training hour credit.

No Exam Session will be offered at the conclusion of the conference. No mandatory water training courses for exam purposes will be offered during this conference.

## **American Water Works Association** **Southwest Section Annual Meeting** **Little Rock Marriott, Little Rock, AR** **October 13 - 15, 2013**

[www.swawwa.org/annual-conference-home](http://www.swawwa.org/annual-conference-home)

The conference consists of two (2) full days of training. There will be three (3) training topics offered each session, with six (6) sessions each day. Typically, no training topic is repeated. There will be an exhibit hall with a wide selection of water industry related companies displaying their latest and best products. The conference is approved for a total of 16 contact hours of directly applicable water license training credit for full participation.

This conference does not provide any mandatory training courses for licensing exams nor license exams.

## Mandatory Training Course Schedule

Most Current Listing is at: [www.healthy.arkansas.gov/eng/autoupdates/oper/mandtrngall.htm](http://www.healthy.arkansas.gov/eng/autoupdates/oper/mandtrngall.htm).

Please contact the course sponsor to register for course well in advance of course date.

(Please note all mandatory courses begin at 8:00 a.m.)

Mandatory Course Name	START DATE	ENDING DATE	Time	CITY	LOCATION	SPONSOR
Advanced Water Treatment	07/01/13	07/15/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Water Treatment	07/09/13	07/11/13	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Advanced Treatment	07/09/13	07/11/13	8:00 AM	Arkadelphia	Recreation Center, 2555 Twin Rivers Dr.	ARWA
Advanced Water Distribution	07/15/13	07/30/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Intermediate Distribution	07/16/13	07/18/13	8:00 AM	Bono	Bono Community Center, 100 Woodland Trail	ARWA
Intermediate Treatment	07/23/13	07/25/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Water Distribution	07/23/13	07/25/13	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Intermediate Water Treatment	07/30/13	08/01/13	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
Basic Water Math	08/01/13	08/15/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Distribution	08/06/13	08/08/13	8:00 AM	Mt. Home	Charles R Newton Emer Serv Trng Center, Midway	ARWA
Applied Water Math	08/15/13	08/30/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Advanced Water Treatment	08/20/13	08/22/13	8:00 AM	Lowell	Beaver Water Dist, 301 N Primrose Rd	AETA
Advanced Distribution	08/20/13	08/22/13	8:00 AM	Bono	Bono Community Center, 100 Woodland Trail	ARWA
Intermediate Water Distribution	08/20/13	08/22/13	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Basic Water Treatment	08/27/13	08/29/13	8:00 AM	Paragould	Holiday Inn Express, 3502 Linwood Dr	AETA
Basic Math	08/27/13	08/27/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Applied Math	08/28/13	08/28/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
ADH Compliance	08/29/13	08/29/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Basic Water Treatment	09/01/13	09/15/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Treatment	09/10/13	09/12/13	8:00 AM	Nashville	Carter Day Center, 200 Nichols Drive	ARWA
Intermediate Water Treatment	09/10/13	09/12/13	8:00 AM	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	AETA
Basic Water Distribution	09/15/13	09/30/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Water Math	09/17/13	09/17/13	8:00 AM	Maumelle	Wastewater Plant Training Rm, 425 B Hyman Drive	AETA
Applied Water Math	09/18/13	09/18/13	8:00 AM	Maumelle	Wastewater Plant Training Rm, 425 B Hyman Drive	AETA
PWS Compliance	09/19/13	09/19/13	8:00 AM	Maumelle	Wastewater Plant Training Rm, 425 B Hyman Drive	ADH
Basic Distribution	09/24/13	09/26/13	8:00 AM	West Fork	Wenzel Community Center, 222 Webber	ARWA
Advanced Water Distribution	09/24/13	09/26/13	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	AETA
Intermediate Water Treatment	10/01/13	10/15/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Intermediate Distribution	10/08/13	10/10/13	8:00 AM	Mt. Home	Charles R Newton Emer Serv Trng Center, Midway	ARWA
Basic Water Math	10/08/13	10/08/13	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
Applied Water Math	10/09/13	10/09/13	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
PWS Compliance	10/10/13	10/10/13	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	ADH
Intermediate Water Distribution	10/15/13	10/30/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Math	10/22/13	10/22/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Intermediate Water Treatment	10/22/13	10/24/13	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Applied Math	10/23/13	10/23/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
ADH Compliance	10/24/13	10/24/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Advanced Treatment	10/29/13	10/31/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Advanced Water Treatment	11/01/13	11/15/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Water Distribution	11/05/13	11/07/13	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Intermediate Treatment	11/05/13	11/07/13	8:00 AM	Nashville	Carter Day Center, 200 Nichols Drive	ARWA
Advanced Distribution	11/12/13	11/14/13	8:00 AM	Mt. Home	Charles R Newton Emer Serv Trng Center, Midway	ARWA
Basic Treatment	11/12/13	11/14/13	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Advanced Water Distribution	11/15/13	11/30/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Distribution	11/19/13	11/21/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Advanced Water Treatment	11/19/13	11/21/13	8:00 AM	Maumelle	Wastewater Plant Training Rm, 425 B Hyman Drive	AETA
Basic Water Math	12/01/13	12/15/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Applied Water Math	12/01/13	12/15/13	TBD	Internet	<a href="http://www.sautech.edu/admin/escience.aspx">http://www.sautech.edu/admin/escience.aspx</a>	AETA
Basic Treatment	12/03/13	12/05/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Advanced Treatment	12/10/13	12/12/13	8:00 AM	Nashville	Carter Day Center, 200 Nichols Drive	ARWA
Basic Math	12/17/13	12/17/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Intermediate Water Distribution	12/17/13	12/19/13	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
ADH Compliance	12/18/13	12/18/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Applied Math	12/19/13	12/19/13	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA

# WATER OPERATOR LICENSE EXAMINATIONS

## JANUARY 2013 – DECEMBER 2013 SCHEDULE

The most current Exam Schedule is at: <http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm>

Listed below are the dates and locations of examination sessions as scheduled, as of **December 12, 2012**. 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.

DATE	CITY	LOCATION	TIME
7/12/2013	N Little Rock	CAW Maryland Complex, 1500 West Maryland Ave	9:00:00 AM
7/12/2013	Arkadelphia	Recreation Center, 2575 Twin Rivers Dr	9:00:00 AM
7/19/2013	Bono	Bono Community Center, 100 Woodland Trail	9:00:00 AM
7/26/2013	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00:00 AM
7/26/2013	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
8/2/2013	Russellville	Tri-County Water, 5306 N Arkansas Ave	9:00:00 AM
8/9/2013	Mtn Home	Baxter Co OEM Training Facility, 170 Dillard Dr, Midway	9:00:00 AM
8/23/2013	Bono	Bono Community Center, 100 Woodland Trail	9:00:00 AM
8/23/2013	Fayetteville	Fayetteville Ops Center, 2435 S Industrial Dr (Includes Lowell)	9:00:00 AM
8/30/2013	Paragould	Holiday Inn Express, 3502 Linwood Dr	9:00:00 AM
9/13/2013	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00:00 AM
9/13/2013	Nashville	Carter Day Center, 200 Nichols Drive	9:00:00 AM
9/27/2013	West Fork	Wenzel Community Center, 222 Webber, West Fork, AR	9:00:00 AM
9/27/2013	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	9:00:00 AM
10/11/2013	Mtn Home	Baxter Co OEM Training Facility, 170 Dillard Dr, Midway	9:00:00 AM
10/25/2013	N Little Rock	CAW Maryland Complex, 1500 West Maryland Ave	9:00:00 AM
11/1/2013	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
11/8/2013	Camden	AR Environmental Training Academy, 100 Carr Road	9:00:00 AM
11/8/2013	Nashville	Carter Day Center, 200 Nichols Drive	9:00:00 AM
11/15/2013	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00:00 AM
11/15/2013	Mtn Home	Baxter Co OEM Training Facility, 170 Dillard Dr, Midway	9:00:00 AM
11/22/2013	Maumelle	Wastewater Plant, 425 B Hyman Drive	9:00:00 AM
11/22/2013	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
12/6/2013	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00:00 AM
12/13/2013	Nashville	Carter Day Center, 200 Nichols Drive	9:00:00 AM
12/20/2013	Camden	AR Environmental Training Academy, 100 Carr Road	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. You may confirm the session or its location by contacting your District Specialist or Engineer at (501) 661-2623. Also, the latest exam schedule information can be viewed on the Internet at:*

*< <http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm> >*

Please verify that your license application has been filed with this office and that the required exam fee for each exam has been paid. The license exams require significant preparation prior to sitting for the exam. The preparation must include extensive study utilizing the study guide and recommended reference materials. Credit for the mandatory Certification Training Courses must be obtained before taking an exam. Copies of your training documentation must be provided to the exam proctor.

Return Service Requested

PRINTED ON RECYCLED PAPER

AWW&WEA District Meetings

See also the Division's web site [www.healthyarkansas.com/eng/](http://www.healthyarkansas.com/eng/) for updates.

DATE	TIME	CITY	LOCATION	SPONSOR
<u>July 2013</u>				
10	8:30 AM	Pea Ridge	Emergency Services Bldg	Northwest District, AWW&WEA
11	5:00 PM	Conway	Church of the Nazarene	Central District, AWW&WEA
11	5:30 PM	Fort Smith	Golden Corral	Western District, AWW&WEA
11	5:00 PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
11	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	North Central District, AWW&WEA
11	5:00 PM	Marvell	Elm St. Training Ctr.	Eastern District, AWW&WEA
16	5:00 PM	Star City	FUMC, Family Life Ctr.	Southeast District, AWW&WEA
20	12:30 PM	Piggot	Country Club	Northeast District, AWW&WEA
25	5:30 PM	El Dorado	Water Utility Mtg. Room	Southwest District, AWW&WEA
<u>August 2013</u>				
1	5:00 PM	Benton	Browns Country Restaurant	Central District, AWW&WEA
1	5:30 PM	Fort Smith	Golden Corral	Western District, AWW&WEA
8	5:30 PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
8	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	North Central District, AWW&WEA
8	5:00 PM	Des Arc	Dondie's Riverboat Restaurant	Eastern Central District, AWW&WEA
14	8:30 AM	Siloam Springs	110 Mt. Olive	Northwest District, AWW&WEA
15	12:30 PM	Jonesboro	Ron's Catfish	Northeast District, AWW&WEA
20	5:00 PM	Ladd	Leon's	Southeast District, AWW&WEA
22	5:30 PM	Ashdown	Senior Citizen Ctr.	Southwest District, AWW&WEA
<u>September 2013</u>				
5	5:00 PM	Jacksonville	TBD	Central District, AWW&WEA
11	8:30 AM	Springdale	Jones Center	Northwest District, AWW&WEA
12	5:30 PM	Fort Smith	Golden Corral	Western District, AWW&WEA
12	5:00 PM	Wynne	Kellys Restaurant	Eastern District, AWW&WEA
12	8:30 AM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
12	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	North Central District, AWW&WEA
17	5:00 PM	Monticello	Cowboy's	Southeast District, AWW&WEA
19	12:30 PM	Paragould	Grecian Steak House	Northeast District, AWW&WEA
26	5:30 PM	Camden	AETA	Southwest District, AWW&WEA