



# ARKANSAS DRINKING WATER UPDATE

## Revised Total Coliform Rule to Take Effect April 1<sup>st</sup>

Jeff Stone, P.E., Director

The requirements of the Revised Total Coliform Rule (RTCR) will take effect on April 1, 2016. After April 1, the Engineering Section will begin issuing violations if the requirements of the RTCR are not met. The Engineering Section received primacy for the federal Revised Total Coliform rule on July 17, 2015.

During the past year, the Engineering Section has been working with public water systems in the state to familiarize them with the requirements of the RTCR. During this process, the Engineering section has been reviewing sampling site plans and has developed forms for Level 1 and Level 2 assessments.

Level 1 assessments are triggered by a water system having more than one total coliform positive detections in the regular monthly samples (greater than 5% positive if 40 or more monthly samples are collected) or when repeat samples are not collected following a regular coliform sample positive result. Water system operators will be required to conduct Level 1 assessments themselves using assessment forms provided by the Engineering Section. The Level 1 Assessment form can be found and downloaded here:

[http://www.healthy.arkansas.gov/programsServices/environmentalHealth/Engineering/Documents/Reports/FormsAndMaterials/Level\\_1\\_Assessment\\_Form.pdf](http://www.healthy.arkansas.gov/programsServices/environmentalHealth/Engineering/Documents/Reports/FormsAndMaterials/Level_1_Assessment_Form.pdf)

Level 2 assessments can be triggered when more than one Level 1 assessment is required in a 12 month period or when an MCL violation for the presence of e-coli is incurred. Level 2 assessments are intended to be more detailed and will be conducted by Engineering Section staff.

Assessments focus on identifying and correcting sources of bacterial contamination.

Several publications communicate the requirements of the federal Revised Total Coliform Rule.

The Arkansas Department of Health has made available a “Revised Total Coliform Rule Summary” and this document can be viewed and downloaded at

<http://www.healthy.arkansas.gov/programsServices/environmentalHealth/Engineering/Documents/Reports/PoliciesAndGuides/RevisedTotalColiformRuleSummary.pdf>

The Environmental Protection Agency has provided the document “The Revised Total Coliform Rule: A Guide for Small Public Water Systems” at this link

<http://www.healthy.arkansas.gov/programsServices/environmentalHealth/Engineering/Documents/Reports/FormsAndMaterials/RTCRRSmallSystemsGuidance.pdf>

The Environmental Protection Agency has also provided the document “Revised Total Coliform Rule: A Quick Reference Guide” at this link <http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100K9MP.txt>

The Engineering Section encourages water operators and managers to make sure they are prepared for the upcoming effective date of the RTCR. If you have questions, please feel free to contact your district personnel at the Engineering Section. Our phone number is 501-661-2623.

Inside the <i>Update</i>	Page
Air Plane Water Systems	2
Legionella Information	3
Backflow Events	4
Algal Toxin Strategic Plan	6
Licensing Committee Report	7

# Drinking Water Systems in the Sky

Jatin Mistry, EPA Region 6

The United States Environmental Protection Agency (EPA) directly implements the Aircraft Drinking Water Rule (ADWR) through its Regional offices based on where the corporate headquarters are located for the air carrier. The purpose of the ADWR is to ensure that safe and reliable drinking water is provided to aircraft passengers and crew free of disease-causing microbiological contaminants. The ADWR applies to aircraft (excluding military) that fly routes between two or more locations within the United States, while the aircraft is within United States jurisdiction. In addition, the rule only applies to aircraft with onboard water systems that provide finished water for human consumption through pipes and regularly serve an average of at least twenty-five individuals daily, at least 60 days out of the year. Human consumption includes water for drinking, hand washing, food preparation, and oral hygiene.

Each individual aircraft that has components of an aircraft water system is considered a public water system (PWS) and are categorized as transient non-community water systems (TNC). EPA Region 6 is home to over 2,100 aircraft TNC water systems. Under the ADWR, each air carrier is responsible for developing an approved coliform sampling plan that covers each aircraft water system in the air carrier's inventory. The sampling plan includes coliform sample collection procedures, sample tap location(s), frequency and number of routine coliform samples to be taken, frequency of routine disinfection and flushing, and procedures for communicating sample results such that any required actions can be conducted in a timely manner.

For each aircraft water system, the sampling frequency is determined by the disinfection and flushing frequency recommended by the aircraft water system manufacturer. The majority of air carriers in Region 6 follow the schedule for conducting a disinfection and flushing every 90 days and collecting bacteriological samples once a year for total coliform and *E. coli*. Air carriers conduct these activities at specialized maintenance locations throughout their network. These activities are typically conducted during the 3<sup>rd</sup> shift (11 PM to 6 AM) to prevent disruption to the aircraft's flying schedule. Disinfection of the

water system is performed by qualified aircraft mechanics using 100 parts per million of chlorine dioxide or ozone where this process can take anywhere from 2 to 4 hours.

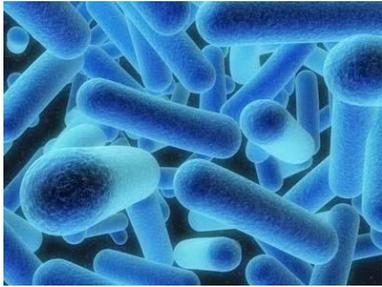
If an air carrier is notified by their laboratory that bacteriological samples tested positive for total coliforms, the air carrier has three options: take three repeat samples that are to be collected within 24 hours of notification; conduct disinfection and flushing within 72 hours of notification and collect two follow up samples; or restricting public access to the aircraft's drinking water. If on the other hand, the aircraft is positive for *E. coli*, the air carrier has to restrict public access to the drinking water system within 24 hours of notification and then the aircraft must then be disinfected, flushed and sampled. The aircraft can only provide drinking water to the public after a complete set of follow-up samples results are total coliform negative.

EPA is aware of the challenges that drinking water systems and air carriers face in implementing the ADWR. Public water systems play an important role in providing aircraft water systems with safe drinking water via their interconnection with an airport water system along with maintaining PWS to PWS communication. At the airport facility, the US Food and Drug Administration has jurisdiction of drinking water on all ground activities (e.g., water cabinets carts and trucks) and EPA has jurisdiction when drinking water enters the aircraft. If a water system is aware of an issue that impacts drinking water quality, the water system is encouraged to contact the airport and notify them of this concern. If an aircraft unknowingly uploads drinking water not meeting National Primary Drinking Water Regulations applicable to TNC systems, then each aircraft that boarded the questionable water from that airport's water system must follow corrective actions (e.g., disinfection, flushing and sampling), as soon as it is able to and before drinking water is once again provided to passengers and crew. This may lead to additional costs to the air carrier by having to reroute aircraft, conducting additional corrective actions and inconveniencing travelers. To avoid having the aircraft perform corrective actions, as soon as the air carrier is notified that an issue exists with an airport's drinking water supply, water is not boarded until the situation is resolved. Timely notification by the water system to the airport is critical for this to occur.

For more information regarding the ADWR, please contact Jatin Mistry, EPA Region 6 at 214-665-7483.

# EPA Issues Draft *Legionella* Information Document

Jeff Stone, P.E., Director



On October 21, 2015, EPA announced in the Federal Register that it had issued a draft of the document “Technologies for *Legionella* Control:

Scientific Literature Review” (The Document). The purpose of this document is to present the current state of knowledge regarding use and effectiveness of various control technologies and approaches that can be utilized to control legionella concerns in building’s water piping systems.

Following the release of The Document, EPA will consider written comments concerning the draft prior to issuing a final document. The public comment period ended November 23, 2015.

The document is intended to help facility managers and other stakeholders make science based risk management decisions regarding legionella control in buildings and facilities. There is not a single strategy or treatment scheme that is considered best for all situations due to the diverse nature of building water systems.

The genus *Legionella* currently includes more than 50 bacterial species. Most types of legionella bacteria are capable of causing human disease in some circumstances. Fresh water is the major natural reservoir for *Legionella*. Warm water between 95 and 114.8 degrees Fahrenheit present ideal growth conditions. *Legionella* are considered thermotolerant bacteria and are able to withstand temperatures of up to 122 degrees Fahrenheit for several hours. Once *Legionella* bacteria colonize a building’s plumbing system, they are able to gain protection from biofilms that may be forming within the piping system.

The disease caused by *Legionella* is referred to as Legionnaire’s disease and has a case fatality rate of 5 to 30%. While building cooling

systems have commonly made the news concerning outbreaks of Legionnaire’s disease, a significant exposure route involves building’s potable water plumbing systems. The *Legionella* bacterium can live and grow in building plumbing systems and become aerosolized via various fixtures including shower nozzles. Other fixtures/devices that can aerosolize *Legionella* bacteria include faucets, whirlpool spas, respiratory therapy devices, humidifiers, cooling towers, decorative fountains, and others. The disease is contracted via inhalation of these aerosolized pathogens. Although anyone can contract and develop Legionnaires disease, vulnerability to the disease is affected by factors that include age, smoking habits, and existing lung conditions.

It is important to note that inhalation is the exposure route of concern, not ingestion nor skin contact.

The EPA document presents 9 different treatment technologies and strategies and presents a discussion of each that addresses effectiveness, potential issues, and operational conditions. Also included in The Document is a Questions and Answers section.

The nine treatment technologies and strategies presented and discussed in the document are:

- 1) Chlorine
- 2) Monochloramine
- 3) Chlorine Dioxide
- 4) Copper-Silver Ionization
- 5) Ultraviolet Light
- 6) Ozone
- 7) Emergency Remediation
- 8) Shock Hyperchlorination; and
- 9) Point of Use Filtration

If a building or facility installs permanent treatment such as booster disinfection, it will likely meet the legal definition of a public water system and be subject to on-going regulation.

The draft document can be downloaded at the following site:  
<http://www2.epa.gov/sites/production/files/2015-10/documents/drafttechlegionellaoct2015.pdf>

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# BACKFLOW EVENTS IN ARKANSAS

(or, Why Your Public Water System ***NEEDS*** a  
Cross-Connection Control Program!)

Thomas Johnson, P.E.,  
Cross Connection Control Engineer

A backflow event is defined as the occurrence of fluids flowing from the intended user back into the source. In a Public Water System (PWS) this involves a **cross-connection**, which is **any** connection between potable water and any other source of water. That cross-connection, combined with any backpressure or backsiphonage can produce a backflow condition, typically resulting in contamination of the potable water system. There have been several significant reported backflow events within Arkansas during the past few years. Some of these are described below:

## July 2004, BACKFLOW OF CHILLER SYSTEM WATER IN A LARGE COLLEGE CAMPUS:

A large college campus in Arkansas reported red water coming from many of their drinking fountains and faucets. College personnel determined the color was from red dye that was used to locate leaks in the campus chiller and hot water system. Along with red dye, this water also contained corrosion inhibitors. The source of the contamination was determined to be a cross-connection between the potable water system and a hot water make-up line that was connected to the potable water system with no backflow prevention device. The normal water pressure in that building was about 50 psig, whereas the pressure in the chiller water system was often 80-90 psig. This pressure differential provided the force for the backflow event at this cross-connection. Further investigations by college personnel and ADH Engineering personnel found many of the same type cross-connections at other buildings throughout the college campus. Since then that campus has maintained a cross-connection control program that has involved a rigorous program of piping and connection surveys, and the installation of many backflow prevention devices.

June, 1991, BACKFLOW FROM A CHICKEN HOUSE WITH ANTIBIOTICS: Customers of a small town's public water system reported their concern at the unusual coloring of their water. Inspection by ADH personnel found that the water system had been contaminated with backflow from chicken houses. This particular backflow water came from a customer who had an auxiliary well connected to the chicken house plumbing. The water was being used to

administer antibiotic solutions to the chickens. There was no backflow preventer installed at the customer's service connection to the public water system.

Most chicken houses administer a variety of chemicals to their animal stock. These could have severe effects on people who are sensitive to the drugs and chemicals. Installation of a proper backflow preventer would have prevented the event and was the appropriate correction at this site.

## May 1998, BACKFLOW OF HERBICIDE INTO PUBLIC WATER SYSTEM:

Customers of a PWS complained of chemical taste and discoloration. Investigation determined that a low pressure event for the water system mains caused a backsiphonage event from a farm. The farm operated a chemical tank located inside a building that was on a hill. The tank was being filled from a garden hose attached to an unprotected hose bib. The low pressure event in the water system provided the pressure difference needed to siphon fluid from the tank into the public water mains. The fluid was Trifluralin, trade named **Treflan**. That water service was disconnected, and a "No Drink Order" was issued for the affected area of the water system, and the affected portions of the water system flushed until sample analysis showed levels substantially below recommended levels for long-term exposure.

A properly installed backflow preventer or properly designed air gap would have prevented this backflow event from occurring.

## May 1989, FLAMMABLE GAS IN WATER SYSTEM:

The manager of a large municipal public water system notified the ADH that several businesses and residences had burned, and that there seemed to be flammable gas in their water lines. Several toilets were reported to have exploded and water from the fire hydrant outlets was reported to burn if ignited with a lighter. The ADH advised a "Do Not Use" order and directions to begin flushing. ADH personnel and the plumbing inspector proceeded to the city to assist in investigating the situation and collect samples. The ADH laboratory and associated personnel were mobilized to receive samples.

The gas entrained in the water was mainly propane. The local supplier of natural gas was removed as a possibility, as there was no 'rotten egg' smell, peculiar to commercially supplied natural gas (by the odorant added to help detect leaks and escaping gas). City personnel noted that a local company routinely conducted work to rehabilitate rail tank cars. Investigation by the city fire marshal and plumbing inspector identified a rail tank car with markings to indicate that it contained LP gas. The car was still pressurized, had hoses connected to it with quick-disconnect couplings, and the water lines nearby still contained significant amounts of gas.

That water customer's service connection had no backflow prevention devices installed.

SEPTEMBER 2012, DENTIST OFFICE BACKFLOW EVENT: The ADH Engineering Section office was contacted by the operator of a small town's public water system with a request for assistance with a recent backflow event. The water system operator reported that several customers had complained of air in their water lines. All of these customers were on one particular branch of that water system piping. The water operator investigated the situation and quickly determined that the air was originating from a dentist's office. The water operator discontinued water service to the dentist office, contacted the ADH Engineering district Environmental Specialist, and then notified the owner of the situation and reason for the shut-off. Initial investigation by the water operator showed that there was no backflow prevention assembly installed on this service. The business owner was notified that a backflow prevention assembly must be properly installed and tested before water service could be continued. The ADH Engineering Section sent a letter to the town's water operator and to the mayor supporting this action. An onsite meeting with the water operator, business owner, ADH District Engineer, Cross Connection Control Engineer and District Plumbing Inspector confirmed the lack of a backflow preventer.

The business owner had a Reduced Pressure (RP) assembly installed and tested. A local plumber inspected the office's piping and discovered that a vacuum pump had been improperly connected to the building's plumbing. The piping problem was corrected and no further issues have been reported.

AUGUST 2014 FARM PIPING PESTICIDE BACKFLOW, The ADH Engineering staff was contacted by a concerned water system customer. A farm in Arkansas allowed pesticide chemicals to back-siphon into the farm's service lines. No chemicals entered the public water system distribution piping, but the farm's private residence plumbing was flooded with fairly concentrated pesticide. The low-pressure event was caused by a brush-hog tractor, operated almost a mile from the backflow site. The tractor ran over a piece of re-bar and drove the metal rod almost 3 ft. down, straight into a water main. A farm employee dropped a hose into a chemical mix tank when he left the tank, "... to go check on the water problem..." There was no backflow preventer or air gap installed on this service, which allowed this to occur.

Note that every one of the backflow incidents described above would very likely not have occurred had proper cross-connection control programs been implemented, with either a properly designed air gap or a properly installed and tested backflow preventer.

Within the past three years, the ADH Engineering Section has been contacted for assistance with multiple cross-connections, such as:

- Uncontrolled connections to large chemical feed tanks from fire hydrants; Livestock watering tanks with no backflow prevention.
- Poultry production facilities connected to a PWS with no backflow prevention
- Uncontrolled connections to a building products facility (a softwood sawmill).

In summary, a typical Cross-Connection Control Program (CCCP) should include the following four elements:

- 1) A CCCP Ordinance or Regulation. This is an ordinance, regulation, resolution or bylaw that has been approved by the water system governing body or owner.
- 2) A list of commercial and industrial customers. Develop and maintain a list of all Commercial and Industrial customers.
- 3) Inspections of commercial and industrial sites. Survey and/or inspect every commercial and industrial customer on the water system. Keep this information filed, and updated with future inspection results every 5 years for connections with no or low-hazard connections, and every 3 years for high-hazard connections.
- 4) Backflow prevention assembly installation and testing. For Commercial and Industrial customers which during the inspections and surveys are determined to need backflow prevention, an approved backflow prevention assembly (e.g. an RP or Double Check (DC)) or air gap shall be installed, tested within 10 days of installation and annually thereafter. A copy of the test report, signed by a licensed tester, shall be kept on file at the water system office. For more information about backflow protection and Cross-Connection Control Programs see the ADH web site [www.healthyarkansas.gov](http://www.healthyarkansas.gov) In addition, a search for "cross connection" provides links to many useful documents, listing of licensed backflow assembly testing and repair technicians and backflow prevention reference materials.

Also, contact your ADH Engineering Section district engineer, ADH Engineering Section district environmental specialist, any ADH Engineering Section engineering supervisor, or the ADH Engineering Section Cross-Connection Control Program Engineer for more information or assistance to public water system personnel, advice, forms, more detailed written materials, training, field inspections or troubleshooting.

# EPA Issues Strategic Plan for Managing Algal Toxin Risks

Jeff Stone, P.E., Director

During November 2015, the Environmental Protection Agency (EPA) issued the document titled “Algal Toxin Risk Assessment and Management Strategic Plan For Drinking Water” (The Plan). This document is in response to Public Law 114-45 enacted by Congress during August 2015. That law required EPA to develop and submit to Congress a drinking water algal toxin risk management plan within 90 days. The plan is clearly written in a manner intended to satisfy the requirements of Public Law 114-45.

The Plan is organized into eight sections which are:

- 1) Algal Toxins and Their Human Health Effects
- 2) Health Advisories
- 3) Factors Likely to Cause Harmful Algal Blooms
- 4) Analytical Methods
- 5) Frequency of Monitoring
- 6) Treatment Options
- 7) Source Water Protection Practices
- 8) Cooperative Agreements and Technical Assistance

Each of these sections indicates activities that EPA has completed, is ongoing, and is planned in the future. In this document, EPA indicates that, with regard to health advisories of algal toxins, they will determine if adequate information exists to issue health advisories for additional toxins not covered in the original EPA advisory.

Several appendices provide reference information including an appendix that presents stakeholder input. In this appendix, stakeholder input can be found from the Association of Metropolitan Water Agencies, the American Water Works Association, and several state and local organizations.

The Plan can be downloaded from the internet at the following address: <http://www2.epa.gov/sites/production/files/2015-11/documents/algal-risk-assessment-strategic-plan-2015.pdf>

# Funding Available for Fluoridation Equipment Repair or Replacement

Lindy Bollen, Jr., DDS  
Director, Office of Oral Health

The Office of Oral Health has funding to assist public water systems in need of upgrading existing fluoride equipment. To qualify for a sub-grant, please submit your request on letterhead stationary that details what you intend to upgrade along with an quote of equipment, materials, etc. Once the request is received and reviewed you will be notified of approval and a contract will be drawn up.

Your municipality will pay for the original purchase to initiate the process. Once the project is completed and you have submitted all forms including paid receipt, the ADH will reimburse for the amount stipulated in the contract.

This is a golden opportunity to improve your water fluoridation system so please take the time and effort to follow up. For more information, contact Dr. Lindy Bollen at [lindy.bollen@arkansas.gov](mailto:lindy.bollen@arkansas.gov) or phone 501-280-4111. This grant cycle expires on September 30, 2016.

## Staff News:

The Engineering Section welcomes Lester Bradshaw as the new Engineer Technician. Lester



previously worked for over twenty years at Bradshaw Roofing, his family-owned business. His new duties include water quality monitoring for EPA’s regulated and unregulated contaminants.

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

The Arkansas Drinking Water Advisory and Operator Licensing Committee (Committee) held its quarterly meeting on October 8, 2015, in Lonoke, Arkansas. Committee members present were: Dr. Findlay Edwards, P.E., Committee Chair, University of Arkansas; Tim Shaw, Community Water System; Stacy Cheevers, Beaver Water District; Roger Moren, Sardis Water Association; Bradley Scheffler, City of Piggott; Aaron Benzing, P.E., Hawkins Weir Engineers and Jeff Stone, P.E., Executive Secretary, Arkansas Department of Health (ADH). ADH staff present were Reginald Rogers, Deputy General Counsel, Martin Nutt, Training and Certification Officer, and Ida Hampton, Administrative Specialist. Guests present were Randy Harper, Arkansas Environmental Training Academy (AETA); and Dennis Sternberg, Arkansas Rural Water Association (ARWA). The Committee reviewed and approved the July 9, 2015 Committee meeting minutes.

## **Old Business**

Stone updated the Committee on the Engineering Section's efforts to implement the SDWA Revised Total Coliform Rule (RTCR) that becomes effective April 2016. Stone stated the Section had received EPA's official letter delegating to Arkansas primary enforcement of the rule (Primacy). He noted the Section, along with ARWA, had attended an EPA sponsored RTCR training, that the Section was offering educational training to PWS's through presentations at annual conferences, district meetings, and newsletter articles. Staff is also continuing to provide one-on-one training sessions with operators as we unofficially require systems to meet the Rule's main change from an MCL to requiring all coliform positive samples to have a Level 1 Assessment to determine why the sample was positive and e-coli present samples requiring a greater depth Level 2 Assessments. The Section envisions when the RTCR is implemented the PWS will be responsible for Level 1 Assessments and the Section will perform Level 2 Assessments.

Nutt provided the Committee a final update on the 2015 License Renewal effort. He provided a list of operators that had not renewed their licenses. He indicated that all licenses not renewed were invalid, and could be reinstated until June 30, 2016 without being required to retest. He stated the district staff was addressing PWS noncompliance due to operators overlooking their renewal. He stated one last renewal reminder would be provided by publishing the provided list of non-renewed operators in the Fall 2015 newsletter.

## **New Business**

Stone requested input from the Committee in reference to utilizing digital media to publish the Section's quarterly newsletter indicating possible publication and postal cost savings, additional graphics could easily be incorporated, and the ability to increase timeliness of the newsletter's delivery. The Committee provided significant input, both positive and negative. With a strong Committee concern that if a switch was made, it should begin with a hybrid paper/digital concept, and slowly transition to digital. Stone concluded by thanking all for their many insightful comments.

Nutt provided the Committee with a copy of the combined AETA, ARWA, and ADH 2016 Mandatory Training Schedule for their review. He thanked Sternberg and Harper for making adjustments in their original schedule to eliminate significant overlaps in the schedule. He stated that a combined schedule would be provided all new license applicants and would be available on the Section's website. (see page 12 for listing)

Nutt reviewed the 2016 exam session schedule. He noted exam sessions would again be scheduled in six locations, in each quarter of the year, with exams sessions the first two Fridays in March, June, September and December, with two additional exam sessions in Hot Springs at the conclusion of the AWWWEA Conference (May) and ARWA Conference (September). He then reminded the Committee that the computer based exam capability was available to bridge the time gaps for critical needs or for preferred exam times.

Nutt reviewed a provided equivalency chart comparing the Association of Boards of Certification Professional Operator Certification Program and the Arkansas Water License Program. Nutt indicated the two program's match up well and that when they did not ABC had the more stringent requirements. He recommended all ABC Professional Operator certificates be considered equivalent to their respective Arkansas

Licenses and allow Arkansas Licenses be issued to ABC Certificate holders once the holder completed the Arkansas PWS Compliance Course. The Committee then discussed the purpose and use of the ABC Professional Operator certification. The Committee concluded with Cheevers making a motion to accept the equivalency chart, Benzing provided the second, and the motion passed.

### **Committee Reports**

The Committee received a report from Stone addressing the Engineering Section's budget and PWS Supervision activity. He discussed the Section's present spending capability, noted that future budget needs would result in a need for additional new revenue or a reduction in services provided to PWS's. In his Program report, he noted that Thomas Johnson, the Section Cross Connection Control Engineer, was nearing completion of an update of the backflow prevention program tester certification exam. Stone then addressed problems occurring within the Section due to staff turnover, stating the hardest hit area was within the sampling program with a rash of samplers leaving. He indicated sampling was a critical function and that other Section staff was being utilized to meet the quarterly sampling schedule. He reviewed the Section's efforts to hire sampling staff, answering questions as to their duties, education requirements, and pay. Stone concluded by addressing the critical issue of delayed bacteriological sample result reporting. He reported he was meeting with agency managers and the laboratory director, stressing the completely unacceptable turnaround times and he hoped reporting times would return to acceptable levels.

Nutt started his License report by reviewing the normally provided spreadsheet detailing individual exam session performance and overall passage rate information. He noted the exams passage rates had marginally improved. He stated when he asked exam candidates if they had access to manuals that he was surprised at the number that did not have access or had not studied available manuals. He concluded by stating he was convinced that candidates who are actively involved when attending the required training and who heavily augment those courses with considerable study of any available manuals significantly improved their opportunity to pass the license exam.

Nutt in his enforcement effort report provided a handout to the Committee detailing enforcement actions taken. He indicated Deer Run Water Company was under administrative order and moved to that level rather quickly because the operator violations are now a federal treatment technique violation for "no qualified operator" which has mandatory public notice requirements. If the notice is not issued it is a second violation. This accrues enforcement "points" twice as fast. Nutt stated Hartford was under a Consent Order which is near it compliance deadline which if exceeded has an administrative penalty due and payable. He then explained Ward Mobile Home Park was under a Board of Health order to secure a new source of water from a public water system. This action when completed would eliminate the Park as a PWS. Sparkman was also at the Warning of Administrative Order, in part, due to other SDWA violations. He concluded the report by noting the list of systems that presently do not have a licensed operator, noting several of them were because their operator did not list the system in their renewal documents which the district staff was addressing.

Nutt in his General Program Update informed the Committee the program continued to be fully staffed. The Program has been very busy with large June and September exam sessions workload while processing the 2015 licensing renewal that was in full swing at the same time. He stated that all were progressing but applications and exam results processing times had been slower than usual. He concluded by reporting the exam registration has been going fairly well but still had a wrinkle or two in the September exams sessions.

Harper provided attendance data for their training. Reporting for July to September 2015, the Academy conducted 78 classes, with 1368 training hours, provided to 722 students. Classes reported to ADH were 41 courses, with 736 training hours, provided to 470 students. He reported their 2016 Training Schedule was being published, should be mailed out by the end of the month, and it had 82 ADH reported classes scheduled.

Sternberg provided copies of ARWA written quarterly training report, and asked if there were any questions in reference to the report. He stated their training calendar was at the printer, he hoped to mail it by the end of November, and it would be posted on their website. He reported ARWA had received a renewal on their EPA Training and Technical Assistance contract, which included another cut in funding, and noted membership fees help cover the funding losses. He concluded by announcing their long term contract water trainer, Ron Hickerson, had retired and they were looking for a replacement.

### **Other Business**

The Committee confirmed next meeting date for January 14, 2016 and adjourned the meeting.

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

Community & Nontransient Noncommunity Public Water Systems, July - September, 2015

AHTD MARION COUNTY	BMCL 8	GILLHAM REGIONAL WATER	Bmon 7, 9
ALTHEIMER WATERWORKS	Bmon 7	GILLHAM WATERWORKS	Bmon 7, 9
ADC IZARD COUNTY	BMCL 7	GILMORE WATERWORKS	PN 7
ASP QUEEN WILHELMENA	DBPR 7, 8, 9	GRANGE-CALAMINE WATER	Bmon 8
ASP MOUNT MAGAZINE	PN 7	GREAT LAKES CHEMICAL SOUTH	BMCL 7
ASP MOUNT MAGAZINE	DBPR 7, 8, 9	HAMPTON WATERWORKS	Bmon 9
AUTUMN ACRES MHP	BMCL 8	HARMONY GROVE WATER	PN 9
BEN LOMOND	PN 7	HARTFORD WATERWORKS	OperLic 7, 8, 9
BEN LOMOND	Bmon 8	HARTFORD WATERWORKS	Bmon 9
BEN LOMOND	OperLic 9	HARTFORD WATERWORKS	PN 7
BENTON-WASHINGTON REG PWA	BMCL 7	HERMITAGE WATERWORKS	BMCL 7
BIGGERS BLUFF	PN 9	HUGHES COMMUNITY WATER ASSOC	BMCL 9
BLUE MOUNTAIN	DBPR 7, 8, 9	HUGHES WATERWORKS	BMCL 8
BODCAW RURAL WATER	Bmon 7	HWY 4 24 WATER ASSOC	DBPR 7, 8, 9
BODCAW RURAL WATER S	DBPR 4, 5, 6	KIBLER WATER SYSTEM	Bmon 9
BRANCH WATERWORKS	DBPR 7, 8, 9	LAKE BULL SHOALS ESTATES WATER	BMCL 9
BRUNNER HILL WATER	Bmon 8	LAKE CHICOT WATER	DBPR 7, 8, 9
BUENA VISTA-OGEMAW WA	DBPR 7, 8, 9	LAURELWOOD	BMCL 8
CALICO ROCK	BMCL 7	HOMEOWNERS ASSOC	
CALICO ROCK	Bmon 8	LEE COUNTY WATER	DBPR 7, 8, 9
CASA WATER	DBPR 7, 8, 9	LEWISVILLE WATERWORKS	Bmon 8
CAVE SPRINGS	Bmon 9	LINCOLN WATERWORKS	Bmon 8
CHICOT JUNCTION WATER	DBPR 7, 8, 9	LINCOLN WATERWORKS	BMCL 7
CLARKSVILLE	BMCL 8	LITTLE RIVER COUNTY RDA	DBPR 7, 8, 9
CLEARWATER PAPER	BMCL 9	MAMMOTH SPRING WATER	Bmon 8
COAL HILL	Bmon 8	MILLTOWN-WASHBURN	DBPR 7, 8, 9
CORNING	Bmon 7	MONTGOMERY CO	DBPR 7, 8, 9
COTTON PLANT	PN 8	REGIONAL PWA	
COTTONSHED	OperLic 9	MONTROSE WATERWORKS	Dmon 7, 8, 9
COTTONWOOD WATER	Bmon 7	MONTROSE WATERWORKS	DBPR 7, 8, 9
COY WATERWORKS	PN 8	MOUNT IDA WATERWORKS	PN 9
DANVILLE WATERWORKS	TMCL 8	NASHVILLE RURAL WATER	DBPR 7, 8, 9
DEER RUN WATER	OperLic 7, 8, 9	NE YELL COUNTY WATER	BMCL 8
DEER RUN WATER	PN 8, 9	OZARK WATERWORKS	Dmon 7, 8, 9
EAST LOGAN CO RURAL	DBPR 7, 8, 9	PALESTINE WATER ASSOC	Bmon 9
EAST MONROE CO WATER	DBPR 7, 8, 9	PARKDALE WATERWORKS	Bmon 8
EASTSIDE HOMEOWNERS	BMCL 8, 9	PARON-OWENSVILLE WA	DBPR 7, 8, 9
EMERSON WATERWORKS	Bmon 8	PARON-OWENSVILLE WA	PN 9
FOUKE WATERWORKS	Bmon 7	PFEIFFER WATER	Bmon 8
FOUKE WATERWORKS	OperLic 9	PICKENS WATERWORKS	Bmon 9
FOUKE WATERWORKS	Dmon 8	POTTSVILLE WATER	Bmon 8
FOUKE WATERWORKS	GWRmon 7		

SOUTH PIKE CO WATER	DBPR 7, 8, 9
SOUTHWEST ARKANSAS	DBPR 7, 8, 9
SPARKMAN WATERWORKS	OperLic 8, 9
STAR CITY WATERWORKS	BMCL 7
SUBIACO ACADEMY	TMCL 7, 8
TEXARKANA WATER	DPBR 7, 8, 9
TEXARKANA WATER	Tmon 9
TRI-COUNTY WATER DD	DBPR 7, 8, 9
TYRONZA WATERWORKS	BMCL 9
WALKER WATER ASSOC	PN 7
WALNUT HILL WATER	DBPR 7, 8, 9
WARD MHP	Bmon 7
WARD MHP	BMCL 8
WARD MHP	OperLic 7, 8
WASHINGTON WATER AUTHORITY	DBPR 7, 8, 9
WEST MEMPHIS	BMCL 8
WHELEN SPRINGS WATER	PN 7
WIEDERKEHR VILLAGE WA	TMCL 8, 9
WILLISVILLE WATERWORKS	BMCL 8
WILMOT WATERWORKS	PN 9
WILMOT WATERWORKS	DBPR 7, 8, 9
WINTHROP WATER ASSOC	PN 8
WIRE ROAD WATER	DBPR 7, 8, 9

**KEY:** Bmon = Bacti Monitoring; BMCL = Bacti MCL; CCR = Consumer Confidence Rule; Dmon = Disinfection By Product Rule Monitoring; DBPR=Disinfection By Product Rule MCL or Treatment Technique; GWRMCL=GWR Treatment Technique; GWRmon= GWR Monitoring or Reporting; PN = Public Notice Rule 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; 7 =July 2015,, 8 = August 2015, 9 = Sept 2015

# Arkansas Water Works & Water Environment Association

## Annual Conference and Short School May 1 – 4, 2016

**Hot Springs Convention Center  
Hot Springs, Arkansas**  
[www.awwwea.org](http://www.awwwea.org)

Attendance at the conference can earn you up to 16 contact hours of directly applicable water license training credit for full participation in the conference. The conference is expected to consist of two full days of training with six sessions each day providing 12 concurrent training topics per session. Typically, no training topic is repeated. The exhibit hall Sunday afternoon through Tuesday morning will have water industry related companies displaying their products.

The Conference will track attendance credit hours by scanning your conference badge barcode at stations Monday and Tuesday with a morning and afternoon scan. You must scan each morning and afternoon to receive full credit.

If you are working on Mandatory Training courses for exam purposes, the conference through Arkansas Environmental Training Academy will offer the AETA Basic Water Math course on Monday and the AETA Applied Water Math course on Tuesday. The ADH Public Water System Compliance course will also be offered on Tuesday. You must register for the conference through AWWWEA and the training provider to attend the courses. All mandatory courses start at 8:00 a.m. and end at 5:00 p.m., with an opportunity to enjoy the conference lunch buffet. Attendance of the entire course is required to receive a course completion certificate. License Exams will be held Wednesday at 9:00 am at the convention center.

**Water Operator Licenses Issued  
Sept. 1, 2015 through Nov. 30, 2015**

<b>NAME</b>	<b>LICENSE</b>	<b>WATER SYSTEM NAME</b>
BELL BILLY	T - I	NAT CTR FOR TOXOLOGICAL RES
BENJAMIN MARCUS	D - III	CENTRAL ARKANSAS WATER
BLACKWELL THOMAS	D - VSS	ULM WATERWORKS
BROWN KYLE	D - III	BENTONVILLE WATER UTILITIES
CORNETT JUSTIN	D - III	BENTON WATERWORKS
DUBOSE JOSHUA	T - II	BEEBE WATERWORKS
FARLER DOUGLAS	T - IV	MAUMELLE WATER MANAGEMENT
FITZHUGH COY	D - III	BENTON WATERWORKS
FLUMM JUSTIN	T - II	PRAIRIE GROVE WATERWORKS
HARRIS BRUCE	T - IV	MONTICELLO WATER DEPARTMENT
HELGESTAD JUSTIN	D - III	BELLA VISTA P.O.A.
HOLT CHARLES	T - IV	BELLA VISTA P.O.A.
HOWK KENNETH	T - IV	BATESVILLE WATER UTILITIES & PFEIFFER WATER AUTHORITY
HRDLICKA KYLE	T - II	HOT SPRINGS UTILITIES
LEWIS JUDY	D - IV	BENTON COUNTY WATER AUTHORITY 4 & 5
LEWIS STEVE	D - IV	BENTON COUNTY WATER AUTHORITY 4 & 5
LOWREY MICHEAL	D - II	BALD KNOB WATERWORKS
MCJUNKIN JEREMY	D - III	GENTRY WATERWORKS
MCKAMIE ROBERT	D - I	STAMPS WATERWORKS
MCRAE JODY	T - II	DEQUEEN WATER WORK
NAPIER JOSHUA	T - IV	BENTON-WASHINGTON REGIONAL PWA
NELSON BYRON	D - IV & T - IV	JONESBORO WATER SYSTEM
OWENS SEAN	D - IV	CENTRAL ARKANSAS WATER
PLOTZ CHRISTOPHER	D - II & T - II	BATESVILLE WATER UTILITIES
POSEY BILLY	D - III	MENA WATER DEPT
RAMSAY ALLISON	T - II	TULIP - PRINCETON WATER ASSN
SEATON TIMOTHY	T - III	LONOKE WHITE PUBLIC WATER AUTH
STUART MICHAEL	T - IV	HEBER SPRINGS WATER SYSTEM
TALAMANTEZ JUSTIN	D - II	RIVIERA UTILITIES
TURNER KAEDON	D - II	EAST LOGAN CO RURAL WATER

## 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.

### WATER LICENSE EXAM SESSION NOT HELD END OF MOST COURSES.

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

Mandatory Course Name	Start Date	Ending Date	Time	CITY	LOCATION	SPONSOR
Basic Water Treatment	1/4/2016	01/18/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	1/12/2016	01/12/16	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ARWA
ADH PWS Compliance	1/13/2016	01/13/16	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ADH
Applied Water Math	1/14/2016	01/14/16	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ARWA
Basic Water Distribution	1/18/2016	02/01/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Distribution	1/19/2016	01/21/16	8:00 AM	Blytheville	Cotton Boll Technical Institute, 155 and HWY 148	AETA
Intermediate Water Distribution	1/19/2016	01/21/16	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Basic Water Math	1/26/2016	01/26/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
Basic Water Treatment	1/26/2016	01/28/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Applied Water Math	1/27/2016	01/27/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
ADH PWS Compliance	1/28/2016	01/28/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	ADH
Intermediate Water Treatment	2/1/2016	02/14/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	2/9/2016	02/09/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Water Treatment	2/9/2016	02/11/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
ADH PWS Compliance	2/10/2016	02/10/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Applied Water Math	2/11/2016	02/11/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Intermediate Water Distribution	2/15/2016	02/29/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	2/16/2016	02/16/16	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Applied Water Math	2/17/2016	02/17/16	TBA	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
ADH PWS Compliance	2/18/2016	02/18/16	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	ADH
Basic Water Treatment	2/23/2016	02/25/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	AETA
Advanced Water Distribution	2/23/2016	02/25/16	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Basic Water Distribution	2/23/2016	02/25/16	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ARWA
Advanced Water Treatment	2/29/2016	03/14/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	3/1/2016	03/01/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Applied Water Math	3/2/2016	03/02/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
ADH PWS Compliance	3/3/2016	03/03/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	ADH
Basic Water Distribution	3/8/2016	03/10/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
Basic Water Math (Afternoon Class)	3/14/2016	03/17/16	8:00 AM	Little Rock	TBA (Contact AETA)	AETA
Advanced Water Distribution	3/14/2016	03/28/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	3/15/2016	03/15/16	8:00 AM	Bono	Bono Community Center, 100 Woodland Trail	ARWA
ADH PWS Compliance	3/16/2016	03/16/16	8:00 AM	Bono	Bono Community Center, 100 Woodland Trail	ADH
Applied Water Math	3/17/2016	03/17/16	8:00 AM	Bono	Bono Community Center, 100 Woodland Trail	ARWA
Intermediate Water Treatment	3/22/2016	03/24/16	TBD	Little Rock	TBA (Contact AETA)	AETA
Basic Water Math	3/28/2016	04/11/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Intermediate Water Treatment	3/29/2016	03/31/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Water Treatment	3/29/2016	03/31/16	TBA	Blytheville	Cotton Boll Technical Institute, 155 and HWY 148	AETA
Basic Water Math	4/5/2016	04/05/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	AETA
Applied Water Math	4/6/2016	04/06/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	AETA
ADH PWS Compliance	4/7/2016	04/07/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	ADH
Applied Water Math	4/11/2016	04/25/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Intermediate Water Treatment	4/12/2016	04/14/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	AETA
Basic Water Math	4/12/2016	04/12/16	8:00 AM	Arkadelphia	Recreation Center, 2555 Twin Rivers Drive	ARWA
ADH PWS Compliance	4/13/2016	04/13/16	8:00 AM	Arkadelphia	Recreation Center, 2555 Twin Rivers Dr.	ADH
Applied Water Math	4/14/2016	04/14/16	8:00 AM	Arkadelphia	Recreation Center, 2555 Twin Rivers Drive	ARWA
Intermediate Water Distribution	4/19/2016	04/21/16	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ARWA
Intermediate Water Distribution	4/25/2016	04/27/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	AETA
Basic Water Math	5/2/2016	05/02/16	8:00 AM	Hot Springs	AWW&WEA Conf, HS Convention Center	AETA
Basic Water Treatment	5/2/2016	05/16/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Applied Water Math	5/3/2016	05/03/16	8:00 AM	Hot Springs	AWW&WEA Conf, HS Convention Center	AETA

Mandatory Course Name	Start Date	Ending Date	Time	CITY	LOCATION	SPONSOR
ADH PWS Compliance	5/3/2016	05/03/16	8:00 AM	Hot Springs	AWW&WEA Conf, HS Convention Center	ADH
Basic Water Distribution (Night)	5/9/2016	05/25/16	TBA	Fort Smith	Fort Smith Utilities, 3900 Kelly Hwy	AETA
Intermediate Water Treatment	5/10/2016	05/12/16	8:00 AM	Blytheville	Blytheville Waterworks, 1301 June Gosnell Dr	AETA
Advanced Water Distribution	5/10/2016	05/12/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Water Distribution	5/16/2016	05/30/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Advanced Water Treatment	5/17/2016	05/19/16	8:00 AM	Little Rock	TBA (Contact AETA)	AETA
Intermediate Water Distribution	5/24/2016	05/26/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
Advanced Water Treatment	5/24/2016	05/26/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Intermediate Water Treatment	5/30/2016	06/13/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Intermediate Water Distribution	5/31/2016	06/02/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Intermediate Water Treatment	6/7/2016	06/09/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
Intermediate Water Distribution	6/13/2016	06/27/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Advanced Water Distribution	6/20/2016	06/22/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	AETA
Basic Water Math	6/21/2016	06/21/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
Applied Water Math	6/22/2016	06/22/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
ADH PWS Compliance	6/23/2016	06/23/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	ADH
Advanced Water Treatment	6/27/2016	07/11/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Distribution	6/28/2016	06/30/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	ARWA
Basic Water Treatment	6/28/2016	06/30/16	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	AETA
Basic Water Distribution	7/5/2016	07/07/16	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
Advanced Water Distribution	7/11/2016	07/25/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
ADH PWS Compliance	7/12/2016	07/12/16	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	ADH
Basic Water Distribution	7/12/2016	07/14/16	8:00 AM	Mtn. Home	Charles R Newton Emer Serv Trng Center, Midway	ARWA
Basic Water Math	7/13/2016	07/13/16	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	AETA
Applied Water Math	7/14/2016	07/14/16	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	AETA
Intermediate Water Treatment	7/19/2016	07/21/16	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	AETA
Intermediate Water Distribution	7/26/2016	07/28/16	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Intermediate Water Distribution	7/26/2016	07/28/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	ARWA
Basic Water Math	8/1/2016	08/15/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	8/2/2016	08/02/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
ADH PWS Compliance	8/3/2016	08/03/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Applied Water Math	8/4/2016	08/04/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Applied Water Math	8/15/2016	08/29/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Advanced Water Distribution	8/16/2016	08/18/16	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Basic Water Math	8/23/2016	08/23/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	AETA
Intermediate Water Distribution	8/23/2016	08/25/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Applied Water Math	8/24/2016	08/24/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	AETA
ADH PWS Compliance	8/25/2016	08/25/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	ADH
Basic Water Treatment	8/29/2016	09/12/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Intermediate Water Treatment	8/30/2016	09/01/16	8:00 AM	Lowell	Beaver Water Dist, 301 N Primrose Rd	AETA
Basic Water Math	9/6/2016	09/06/16	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
Applied Water Math	9/7/2016	09/07/16	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
ADH PWS Compliance	9/8/2016	09/08/16	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	ADH
Basic Water Distribution	9/12/2016	09/26/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Treatment	9/20/2016	09/22/16	8:00 AM	Camden	AR Env Training Academy, 4615 Spellman Road	AETA
Basic Water Distribution	9/27/2016	09/29/16	8:00 AM	Rogers	TBA (Contact AETA)	AETA
Intermediate Water Treatment	10/3/2016	10/17/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	10/4/2016	10/04/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Applied Water Math	10/5/2016	10/05/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
ADH PWS Compliance	10/6/2016	10/06/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	ADH
Basic Water Math (Afternoon Class)	10/10/2016	10/13/16	8:00 AM	Little Rock	TBA (Contact AETA)	AETA
Advanced Water Distribution	10/11/2016	10/13/16	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	ARWA
Intermediate Water Distribution	10/17/2016	10/31/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Intermediate Water Distribution	10/18/2016	10/20/16	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	AETA
Basic Water Treatment	10/25/2016	10/27/16	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Advanced Water Treatment	10/31/2016	11/14/15	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	11/1/2016	11/01/16	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	AETA
Applied Water Math	11/2/2016	11/02/16	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	AETA
ADH PWS Compliance	11/3/2016	11/03/16	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	ADH
Basic Water Math	11/8/2016	11/08/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA

Mandatory Course Name	Start Date	Ending Date	Time	CITY	LOCATION	SPONSOR
Intermediate Water Treatment	11/8/2016	11/10/16	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
ADH PWS Compliance	11/9/2016	11/09/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Applied Water Math	11/10/2016	11/10/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Advanced Water Distribution	11/14/2016	11/28/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Advanced Water Distribution	11/15/2016	11/17/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Advanced Water Treatment	11/15/2016	11/17/16	8:00 AM	Little Rock	TBA (Contact AETA)	AETA
Intermediate Water Distribution	11/29/2016	12/01/16	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Basic Water Math	12/5/2016	12/19/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Applied Water Math	12/5/2016	12/19/16	TBD	Internet	<a href="http://www.sautech.edu/aeta/schedule.aspx">http://www.sautech.edu/aeta/schedule.aspx</a>	AETA
Basic Water Math	12/6/2016	12/06/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	AETA
Advanced Water Treatment	12/6/2016	12/08/16	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Applied Water Math	12/7/2016	12/07/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	AETA
ADH PWS Compliance	12/8/2016	12/08/16	8:00 AM	Jonesboro	Operations Facility, 105 W Johnson Ave	ADH

The most current and complete Mandatory Training Schedule with location information is available at <http://www.healthy.arkansas.gov/eng/autoupdates/oper/mandtrngall.htm>

## Free Water License Exam Manuals Are Now Available To All Water Systems Regardless of Size

Originally, the Engineering Section of the Arkansas Department of Health purchased water operator reference manuals with the intended purpose of helping small water systems assist their water operators with exam preparation. The small water systems have not fully utilized the manuals. We are now making these manuals available to any water system without regard to the service population of the system. The manuals will be available until the limited supply is exhausted. The intent remains the same, which is to help a water system maintain properly licensed water operators.

The manuals, see table below, are provided to the water system, not the individual operator.

Reference Manuals Provided OpCert Grant 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
Manage For Success, by CSU Sacramento	\$49.00
Utility Management, by CSU Sacramento	\$29.00
Water System Security: A Field Guide by American Water Works Assn	\$65.00
Operator Certification Study Guide by American Water Works Association	\$59.00
Total Value of Set	\$398.00

\* Manual provided if system is required to have treatment-licensed operators.

To receive the manuals, a simple request from the water system to the Water Operator Licensing Program by phone at (501) 661-2623 or email at [ADH.Water.Licensing@arkansas.gov](mailto:ADH.Water.Licensing@arkansas.gov) is all that is required. Please be prepared to provide a street address for shipment.

All manuals are the current edition, except for the Water Treatment Plant Operation, Volume II, Fifth Edition; the sixth (2015) edition is now being published. Each CSUS manual has an available CSUS sponsored self-paced correspondence course utilizing the manual. The courses are an additional exam preparation resource.

## WATER OPERATOR LICENSE EXAMINATIONS SCHEDULE

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

**You must register for the exam 45 days in advance.** To register on the internet go to [www.healthy.arkansas.gov/eng](http://www.healthy.arkansas.gov/eng) and click on Operator Certification, then select Register- Water License Exam. To register by e-mail provide name, license exam desired, exam session site, and exam date in an email addressed to [ADH.Water.Licensing@arkansas.gov](mailto:ADH.Water.Licensing@arkansas.gov). You may register by phone with the Water Licensing Program at (501) 661-2623. Call (501) 661-2623, ask for Water Licensing Program.

Listed below are the dates and locations of examination sessions as scheduled, as of **January 1, 2016**. All Treatment and Distribution exam grades will be available at the sessions. Acceptable photo identification (Drivers License or equivalent) will be required to sit for an Exam. Cell phones, pagers and other electronic communication devices are not allowed. Non-Programmable calculators are allowed in exam sessions.

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

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

**Remember, you must register for the exam 45 days in advance. Application for License is not registration for an exam** 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 manuals/materials. Credit for the mandatory Certification Training Courses must be obtained before taking an exam. Copies of your training documentation must be provided when registering for an exam or provide documentation of its attendance by the exam session.

Return Service Requested

PRINTED ON RECYCLED PAPER

AWW&WEA District Meetings  
 See also the Division's web site [www.healthylarkansas.com/eng/](http://www.healthylarkansas.com/eng/) for updates.

DATE	TIME	CITY	LOCATION	SPONSOR
<b>February 2016</b>				
4	5:30 PM	Fort Smith	Golden Corral	Western District, AWW&WEA
4	5:00 PM	TBA	TBA	Central District, AWW&WEA
10	8:30 AM	Decatur	City Municipal Bldg.	Northwest 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	5:30 PM	Caldwell	Catfish Island	Eastern District, AWW&WEA
16	5:00 PM	Monticello	Cowboys	Southeast District, AWW&WEA
18	12:30 PM	Jonesboro	Western Sizzlin	Northeast District, AWW&WEA
TBD				
<b>March 2016</b>				
3	5:00 PM	TBA	TBA	Central District, AWW&WEA
3	5:30 PM	Fort Smith	Columbus Acres Picnic	Western District, AWW&WEA
9	8:30 AM	Rogers	Southside Church of Christ	Northwest District, AWW&WEA
10	5:30 PM	West Memphis	Dog Track	Eastern Central District, AWW&WEA
10	5:30 PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
10	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	North Central District, AWW&WEA
15	5:00 PM	Crossett	Fiesta Linda	Southeast District, AWW&WEA
17	12:30 PM	Jonesboro	Wild Hog BBQ	Northeast District, AWW&WEA
TBD				
<b>April 2016</b>				
7	5:00 PM	TBA	TBA	Central District, AWW&WEA
7	5:30 PM	Fort Smith	Golden Corral	Western District, AWW&WEA
13	8:30 AM	Lincoln	Community Center	Northwest District, AWW&WEA
14	8:30 AM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
14	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	North Central District, AWW&WEA
15	10:30 PM	Jonesboro	CWL Service Bldg.	Northeast District, AWW&WEA
No Meeting Scheduled				Eastern District, AWW&WEA
No Meeting (State Conference)				Southeast District, AWW&WEA
TBD				
				Southwest District, AWW&WEA