



ARKANSAS DRINKING WATER UPDATE

RTCR Update

Lance Jones, PE, Chief Engineer

In a little under one year, the regulatory changes to the current Total Coliform Rule (TCR) will become effective for all water systems in Arkansas.

These changes are known as the Revised Total Coliform Rule (RTCR) and include several significant changes in the requirements that water systems must meet regarding the bacteriological quality of the water they provide to consumers. The RTCR is scheduled to become effective on April 1, 2016.

The Arkansas Department of Health (ADH), Engineering Section has submitted an application to EPA Region 6 to be the primacy agency for implementation of this regulation. The ADH, Engineering Section was granted interim primacy approval on February 25, 2015. Final approval is expected later this year.

As described in previous articles, the primary changes in the RTCR are to place more emphasis in public health protection by requiring water systems to correct sanitary deficiencies that contribute to the presence of coliform bacteria in the distribution system and a higher emphasis when the presence of E-Coli bacteria is detected.

In preparation for implementation of the RTCR in April 2016, the Engineering Section has developed forms to be used to conduct and document triggered Assessments and a notification and tracking process for the Assessments and any required corrective actions.

We are beginning to implement the Assessment process in parallel with the current total coliform MCLs. During the time leading up to the April 1 2016, effective date of the RTCR, the Assessments will be used as a training tool for both the water systems and Engineering Section staff to become familiar with the process. No RTCR violations related to Assessments will be issued in this training period.

The major change of the RTCR from the current TCR is the elimination of the MCL and MCLG for total coliforms. Under the current TCR, a total coliform MCL violation is issued when total coliform is detected in more than one water sample per month (or more than 5% of the samples when more than 40 monthly samples are collected). The issuance of the MCL violation requires the water system to conduct a public notice to consumers, but does not require a corrective action.

The RTCR keeps the same trigger levels for total coliforms, but instead of an MCL being issued, the water

system must conduct a Level 1 Assessment of the system to identify the cause of the total coliform positive samples and any associated sanitary defects. The system must submit the assessment report, including any corrective actions to address the sanitary defects to the State primacy agency for review within 30 days.

The Level 1 Assessment must include the following:

1. Inadequacies in sample sites, sampling protocol, and sample processing
2. Atypical events that may have affected distributed water quality or indicate that distributed water quality was impaired
3. Changes in distribution system maintenance and operation that may have affected or are affecting distributed water quality including water storage
4. An evaluation of source water quality and treatment changes or conditions that may affect distributed water quality, where appropriate
5. Existing water quality monitoring data

Water system operators are responsible for conducting triggered Level 1 Assessments. The Engineering Section staff will provide technical assistance as needed to help the system conduct the Assessment and complete the report. Any sanitary defects that are identified shall be corrected to protect water quality.

The RTCR also includes requirements for Level 2 Assessments which require the same elements of the Level 1 Assessments to be evaluated in more detail and will be conducted by Engineering Section staff in conjunction with the water system personnel. Level 2 Assessments are required under the following conditions:

1. More than one Level 1 Assessment is triggered in a 12-month period.
2. An MCL violation is issued for the presence of E-Coli in the distribution system. The ADH also requires a 'Boil Water Advisory' be issued when an E-Coli MCL is issued.

Failure to conduct the Assessments or correct identified sanitary defects will result in a treatment technique violation.

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(RTCR, Continued)

The monitoring requirements for the RTCR are essentially the same as under the current TCR for routine and repeat samples (samples following a total coliform positive result). However, the current requirement of collecting a minimum of 5 samples in the month following a total coliform positive sample will be removed.

Engineering Section staff will also be reviewing the Bacteriological Sampling Site plans for all public water systems over the next year. The purpose of this review is to verify that the site plans are up to date, effectively cover the customer service area of the water system and are adequate to meet the requirements of the RTCR. During this review, many systems may be required to modify or update their sampling site locations or site plan.

The Engineering Section will continue to provide training and updates for water systems regarding the RTCR requirements.

The Level 1 Assessment form and revised Bacteriological Sampling Site Plan form are available on the Engineering Section website under the Reports, Forms & Policies tab.

<http://www.healthy.arkansas.gov/eng>

More information regarding the details and requirements of the RTCR can be found at the EPA website:

http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm

Getting It Straight

Jeff Stone, Director

In the previous issue of the Arkansas Drinking Water Update (Winter 2014), an article concerning a Certificate of Excellence being awarded to the Organic Chemistry Unit, was mistakenly attributed to Ms. DeLois Manor and similarly an accompanying photo listed Ms. Manor as a member of the work unit. This article was written by Ms. Dorothy Ferguson of that work unit, and it is also Ms. Ferguson that is present in the group photo. I extend my apologies to both Ms. Manor and Ms. Ferguson, both of whom are part of the staff of the Arkansas Department of Health's Public Health Laboratory.

ARKANSAS DRINKING WATER UPDATE is published quarterly by the Engineering Section, Arkansas Department of Health to inform readers of issues and activities affecting this industry. Articles and information in the newsletter can be reproduced without restriction if credit is given for the source. Potential contributors of articles for the *UPDATE* and persons wishing to be added to the mailing list should contact the Section at the address listed on the last page.

Source Water Protection Substantial Implementation Status Update

Stephanie Burchfield, Source Water Environmental Health Specialist

We are pleased to announce the following public water systems achieved the Substantial Implementation Milestone since June 2014:

Buckner Waterworks
Burdette Waterworks
Outside Kingsland Water Association
St. Charles Waterworks
Prairie Grove Waterworks
Colt Water Association
Marion County Regional Water District
Tillar Waterworks
Calico Rock Waterworks
Gould Municipal Water-Sewer

Congratulations to these community public water systems on reaching the Substantial Implementation Milestone and for making the extra effort to protect their valuable drinking water sources.

Staff News:



The Engineering Section welcomes Trent Gephardt as the new District 1 Specialist. Trent graduated from the University of Arkansas at Little Rock in 2012. He received a Bachelor of Science in Biology, specializing in Wildlife and Fisheries Management. He also has a minor in Geology. Before joining the Engineering Section, Trent worked in retail management.

Should Oil & Water Mix?

Source Water Protection and Petroleum Transport

Darcia Routh, P.G., Source Water Protection

Already in 2015, two separate crude oil releases have resulted in downstream impacts and subsequent days without water for customers of public water systems in both Montana and West Virginia. Are your community and water system prepared to respond to such an event, if it happens in Arkansas?

At 10 AM on January 17, 2015, the Bridger Pipeline LLC 12 inch Poplar Pipeline ruptured beneath the Yellowstone River just a few miles upstream of the Glendive Montana, drinking water intake. Bridger immediately shut down the pipeline and began remedial activities. Initially Bridger estimated that 300-1200 barrels of crude oil were spilled; subsequently state officials estimate that up to 50,000 gallons spilled. Efforts to clean up the spill were hampered by cold weather and ice, and have postponed further work to remove crude oil from the Yellowstone River until later this spring when conditions improve. A petroleum sheen is visible for 90 miles downstream of the spill site, all the way to the confluence with the Missouri River in North Dakota.

Unfortunately, the crude oil made it to the water treatment plant, and finished water was found to contain up to 15 µg/L. of benzene, 3 times the National Primary Drinking Water Standard (MCL) for this known carcinogen and common constituent of petroleum. Glendive PWS added aeration and supplementary treatment with charcoal and activated carbon filtration of raw water to remove any dissolved or emulsified hydrocarbons. The Glendive PWS issued do not drink advisories on January 17, which remained in place until January 23, when the 6000 residents of Glendive were cleared to resume consumption.

The Bridger Poplar Pipeline that ruptured was built in 1967 and was last tested in 2012. The spill investigation documented that 120 feet of the 12 inch pipeline was exposed in the river bed at the site of the rupture. Previous surveys documented as-built burial of at least 8 feet. This was the second spill in less than 2 years into the free-flowing Yellowstone River in Montana. ExxonMobil paid a \$1 Million fine for contaminating 70 miles of riverbank in the 2011 spill near Laurel Montana.

On February 16, 2015, a CSX Train hauling 109 tank cars containing 3.1 million gallons of

Bakken Shale crude oil derailed in Mount Carbon, West Virginia. Nineteen tanker cars exploded and one landed in the Kanawha River, a source of drinking water for several communities downstream. The explosion and fires following the derailment led to the evacuation of hundreds of families and the closure of two nearby water treatment plants. Fortunately, no MCL violations occurred for either water system, so water service was restored in a few days.

What can be done to prepare for a pipeline or oil train derailment contamination event? Know the routes of pipelines and trains. If petroleum is moving through your source water protection areas / watersheds, you have a right and a duty to know about oil transport, including inspection, schedules, volume and constituents and emergency response plans of the respective operators.

Prepare current, comprehensive, and thorough contingency plans for your public water system. While wells are less likely to be contaminated by surface spills, a catastrophic incident involving fire may take out critical water infrastructure.

Use US EPA's Community-based water resiliency tool to assist in planning. The webpage is found [here: http://water.epa.gov/infrastructure/watersecurity/communities/index.cfm](http://water.epa.gov/infrastructure/watersecurity/communities/index.cfm)

Want to learn more? Plan to attend Darcia Routh's session at AWW&WEA 2015 Petroleum Transport: Risks to Public Health and Drinking Water on Tuesday, April 28, at 10:45 AM.



WV tanker derailment fire and river impact

Community Water Fluoridation

Seventy Years and Going Strong

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

As 2015 rolls in, Arkansas can be proud of recent accomplishments when it comes to fluoridation of community water systems. In the CDC's *Healthy People 2020* initiative, the projected goal was to improve the population being served by public water systems in Arkansas from 64.5% to 70.9%. To date, Arkansas has already achieved the 71% mark of people being served by community water fluoridation. By mid-year of 2016 that will change to a projected 81% of citizens receiving community water fluoridation (CWF). That will not only exceed the projected level for Arkansas to meet, it will actually surpass the national level established at 79.6% (*Healthy People 2020*).

How did Arkansas accomplish so much in such a short period of time? There were several factors that play into this success story. One of the keys was the passage of Act 197 during the 2011 General Assembly. This act required public water systems that served more than 5,000 people to maintain fluoride at recommended levels established by the Department of Health.

The purchase of equipment and supplies can be a financial burden to any community that now has this mandate before them. Original estimates called for \$500,000 for the completion of the entire project. Delta Dental Foundation of Arkansas (DDFA) stepped in to offer support to these communities through the issuance of grants to underwrite this expenditure. The estimates for taking on this task were a far cry from reality. However, DDFA did not back down one bit from their commitment to see this project through to completion. Since 2011, DDFA has granted just over 6.1 million dollars toward this statewide effort at improving oral health.

The following actions have occurred since the passage of Act 197 in 2011:

- Thirty-one of the thirty-four water systems have already submitted fluoride plans and

funding requests to the Delta Dental Foundation of Arkansas

- Fourteen water systems have completed construction and are on-line providing the benefits of fluoridated water to a total of 71% of Arkansas citizens.
- Eighteen water systems are in active construction and have completion dates specified.

Community water fluoridation has been heralded by the Centers for Disease Control and Prevention as one of the top ten public health services in the past century (CDC). By utilizing public water systems, it is one of the most economical methods to provide this preventive material to a large population. It is estimated that for each dollar spent to provide water fluoridation it will result in a savings of thirty-eight dollars in restorative services. Fluoridation is celebrating seventy years since it was first added to a public water system. In 1945, Grand Rapids, Michigan became the first city in the world to fluoridate its drinking water. After eleven years, dental decay rates dropped by more than 60%. It was this evidence that helped revolutionize dentistry by making dental decay a preventable disease.

Despite the known scientific benefits of fluoridation, there still remains some opposition to adding this to the public water supply. Arguments can range from the safety of the materials used to an invasion of individual choice.

Let's not overlook the advantages gained for the populous as a whole. This is a highly economical means of preventing tooth decay regardless of an individual's age, education level or socioeconomic status. With rising health care costs, fluoridation remains a preventative measure that provides the benefits at minimal cost. As far as safety is concerned, the Arkansas Department of Health ensures that the chemicals utilized in drinking water treatment, including fluoridation chemicals, meet the required certification according to National Sanitation Foundation Standard 60 (NSF 60). Standard 60 was developed to prevent potential harmful effects of any product added in the treatment, storage or distribution of water.

The maximum contaminant level (MCL) set by the EPA for fluoride is 4 mg/L. The level of fluoride in drinking water to provide the tooth strengthening effect is to be in the range of 0.6-1.2 mg/L, or less than one-third the EPA's MCL.

Proper amounts of fluoride work both while teeth are developing and every day after teeth have
(See Fluoridation, next page)

Water Infrastructure: Assessing Our Need

Teresa Lee, PE, Engineer Supervisor

Since 1998, Congress has allocated funds each year for the Drinking Water State Revolving Fund. Each state's allotment is based on the results of the Drinking Water Infrastructure Needs Survey and Assessment. This Survey, which is performed every four years, determines the relative infrastructure investment needs of the drinking water systems within each state. EPA selects a representative sample of water systems from each state for the Survey. Every large water system serving populations over 100,000 are required to be surveyed, and the remainder of the systems are selected based on a statistical sample of all medium sized systems, serving populations from 3,300 to 99,999. EPA recently selected 91 community water systems from Arkansas for the 2015 Survey.

Arkansas's allotment, based on the 2011 Survey results, is 1.53%. This means that Arkansas receives 1.53% of the total amount that Congress allocates for the Drinking Water State Revolving Loan Fund each year for four years beginning with 2014. Starting in 2018, Arkansas's allotment will be the percentage of need based on the 2015 Survey results. For example, in 2014, Congress allocated \$884,491,000 to the States, the District of Columbia, Puerto Rico, and US Territories. Of this amount, Arkansas received 1.53%, or \$13,534,000. Arkansas uses this allocation to fund the Drinking Water State Revolving Loan, but we are also able to use a portion of the money for "set-asides."

Currently these set-asides are used for technical assistance to water systems by our staff, LT2 monitoring, UCMR3 monitoring for large water systems, lab equipment and other capital purchases, program management, source water protection activities and Technical Assistance providers, such as our Magnolia-River Service's Small Systems Mapping Initiative and Arkansas Rural Water Association's Technical Assistance contracts.

In the next few weeks, we will contact you if your water system was one of the systems selected. In previous Surveys, the water systems were asked to fill out the Survey and return it to the Engineering Section for submittal to EPA. For the 2015 Survey, we are asking that you provide us with the information we need, such as capital improvement plans and distribution system inventory, so we can complete the Survey for you. We think this will save

the water systems time, as well as, provide a more accurate and comprehensive Survey.

For more information on the Survey or the Drinking Water State Revolving Fund, please contact Teresa Lee at (501) 661-2623

(Fluoridation, continued)

emerged into the oral cavity. Excess fluoride consumed during tooth development can result in a range of visible changes to the surface of teeth, usually detected as white spots called fluorosis. Only children under the age of eight are likely to develop this condition as that is the time while the anterior permanent teeth are developing.

Excess fluoride consumption can happen when children are left unsupervised to brush their teeth. Using too much paste and swallowing rather than expectoration increases the chance of fluoride ingestion. The severity of dental fluorosis depends on the dose (how much), duration (how long) and timing (when consumed) of fluoride intake. With proper supervision of children and only utilizing a small amount (size of a grain of rice) of toothpaste, these problems can be prevented.

Community water fluoridation is a most valuable public health measure because:

- Optimally fluoridated water is accessible to the entire community regardless of socioeconomic status, educational attainment or other social variables;
- Individuals do not need to change their behavior to obtain the benefits of fluoridation;
- Frequent exposure to small amounts of fluoride over time makes fluoridation effective throughout the life span in helping to prevent dental decay;
- Community water fluoridation is more cost effective than other forms of fluoride treatments or application.

It is through the combined efforts of Delta Dental Foundation of Arkansas, the Arkansas Department of Health, Office of Oral Health and the water operators in the field that we can all be proud of the accomplishments being made for a healthier Arkansas.

AVOID A DAY WITHOUT WATER: EPA's Community-Based Water Resiliency Tool

Darcia Routh, P.G.,

Is your community prepared for a day without water? Drinking water and wastewater utilities provide a valuable service in our communities. Many communities are not prepared for an interruption in these services and are unaware of the need to prepare for alternate methods to begin the process of building resiliency.

US EPA and the Department of Homeland Security want the public water utility sector to avoid a disruption in drinking water services. To that end, EPA has developed a new online tool to promote water security at the community public water system level.

The Community-Based Water Resiliency website describes this innovative approach to water security this way:

Water is essential to life, human health, and the economy. Communities rely on drinking water and wastewater to provide vital services. Hurricanes, tornadoes, aging infrastructure and intentional contamination are among the many challenges water and wastewater utilities face in an effort to operate uninterrupted. Resilient communities are better prepared to rapidly recover from water service interruptions because they have identified critical interdependencies and focused on building relationships between the water utilities and the communities they serve.

EPA's Community-Based Water Resiliency (CBWR) initiative aims to:

1. Increase overall community preparedness by raising awareness of water sector interdependencies and enhance integration of water sector into community emergency preparedness and response efforts; and
2. Increase preparedness and resiliency of drinking water and wastewater utilities by delivering tools and information to increase community collaboration and bolster security practices.

You can access the primary page for this initiative at:

<http://water.epa.gov/infrastructure/watersecurity/communities/index.cfm>

Once you have accessed the website, you will find:

- **A Day Without Water, a 3:38 minute video introduction to the CBWR tool**
- A quick link to download the CBWR tool

- Tabs for multimedia, resources, and training.
- An interactive poster on water sector interdependencies in PDF format.
- Pilot Lessons Learned and Recommendations

Pilot Lessons Learned includes discussion and resources for understanding interdependencies, response plans, emergency communications, alternative supply planning, and continuity of operations.

Avoid Using Insecticides or Herbicides Near Hydrants/Meters

Dennis Taylor, P.E, Engineer Supervisor

Some of us probably do it without even thinking much about it ... but we shouldn't because the practice is prohibited by ADH's "*Rules and Regulations Pertaining to Public Water Systems*". **We should never use insecticides or herbicides near Fire Hydrants or Water Meters or other water system infrastructure** as a method to control growing grass or insect infestations.

Section XIV (A) "*Sanitary and Safety Hazards*" of ADH's Rules and Regulations, states in part that, "The operating routine shall include necessary protective measures to detect and remove or destroy any contaminant of concern or regulation that might enter the distribution system."

Even though the focus of Section XIV (A) is the potential for contamination from sewage to the public water distribution system, the regulation applies to "any contaminant of concern", which clearly includes insecticides and herbicides readily available from most discount or farm supply stores. Such chemicals are commonplace and therefore may not be readily perceived as a threat if applied near a potential entry point to the public water supply, but that is not the case.

Water system maintenance (weed and grass control) of property and facilities including hydrants, meter boxes, tanks, pump stations, wells, reservoirs, etc., should be accomplished using mechanical means such as mowers and trimmers. Although more labor intensive, the water utility must not apply herbicides or pesticides on or immediately adjacent to waterworks infrastructure.

ADH also encourages all Arkansas municipalities and their Public Works Departments to adhere to this prohibition as well. This very simple practice represents a low-cost, responsible, and easy to implement administrative method to ensure continued protection of the public water supply.

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 January 6, 2015, in Lonoke, Arkansas. Committee members present were: Matthew Dunn, P.E., Committee Chair, Crist Engineers, Inc.; Dr. Findlay Edwards, P.E., University of Arkansas; Tim Shaw, Community Water System; Stacy Cheevers, Beaver Water District; Roger Moren, Sardis Water Association; Bradley Scheffler, City of Piggott; and Jeff Stone, P.E., Executive Secretary, Arkansas Department of Health (ADH). ADH staff & guests present were Reginald Rogers, Deputy General Counsel, Martin Nutt, Training and Certification Officer, and Ida Hampton, Administrative Specialist, ADH; Randy Harper and Jeremy Rowe, Arkansas Environmental Training Academy (AETA); and Dennis Sternberg, Arkansas Rural Water Association (ARWA).

Standing Business

Dunn called the meeting to order. The Committee reviewed and approved the minutes from the October 2, 2014 meeting. The Committee did not have a High School waiver to consider.

Old Business

Stone provided the Committee an update on the Sections implementation efforts for the Revised Total Coliform Rule (RTCR). He stated that Lance Jones, Chief Engineer, Engineering Section, was leading the Revised Total Coliform Rule (RTCR) implementation. Jones presently is completing the Section's "Primacy" package to be submitted to the Environmental Protection Agency (EPA). Each Safe Drinking Water Act adopted Rule requires each state to obtain EPA's approval to be the primary enforcement agent or primacy. The Primacy package is to address Arkansas method of enforcing the RTCR to obtain Primacy approval. Stone expects the package to be submitted in early February, meeting the Rules specified submittal deadline. With the Primacy package developed, the Section will begin the education process for staff and water system operators. The Section plans to begin "unofficially" implementing the Rule to educate water system operators and Section staff in its requirement, in particular the use of the assessments required when total coliform positive samples are determined. The assessments look for root causes for the positive samples rather than the present act of simple re-sampling. In the interim implementation period before the RTCR's April 2016 effective date, the present Total Coliform Rule will be the compliance standard, which will create extra work doing assessments and re-samples for positive samples. Stone concluded by stating he thought the RTCR would result in fewer public notices of non-compliance for water systems.

Nutt updated the Committee on the license exams and exam session changes. He reported since the changes were implemented on July 1, 2014, two rounds of paper exam sessions had been completed with most operators following the new registration guidelines and have accepted the reduced number of exam sessions. He noted a small number of operators were denied exam registrations after missing registration deadlines or were turned away at the exam site because they had not registered. The ABC Standardized exams were implemented July 1, 2015. The operators have had greater difficulty with the transition than was expected with exam passage rates suffering. He then discussed the need for operators to be better prepared for the exams and not depend solely on the mandatory training courses.

Nutt reported that the computer-based exams, offered through Applied Measurement Professionals Testing Centers had been fully implemented as a voluntary exam method, were being well received. He noted it is beneficial to operators in a time bind or affected by the paper exam registration process. Some operators are utilizing it to get immediate exam scores. He reported receiving minor negative feedback on the Little Rock site primarily related to its downtown location, with paid, somewhat inconvenient, parking, and site entrance in an alleyway. He stated he had discussed the site with AMP. He concluded by noting he felt the computer based exams were a positive for the program. Harper then suggested utilizing junior college testing centers, and after considerable discussion, Nutt stated he was not opposed to additional research and possible future use.

Nutt furnished the combined 2015 Training Calendar from ARWA, AETA, and ADH. Nutt indicated training course numbers, in particular ARWA's, were fewer than last years, as was expected because available grant training funds had decreased significantly for 2015. He then furnished the Committee the final 2015 Water Operator License Examinations schedule. He reminded them the paper exam sessions are in March, June, September, December and at the two annual conferences. Nutt concluded by noting the combined training schedule and exam schedule were on the ADH Engineering webpage.

New Business

Nutt requested the Committee review a suggested guideline chart for reciprocating North Dakota Certification Program water licenses to Arkansas. He stated the two states did not match up well but had determined possible ways to allow some North Dakota licenses to transfer to Arkansas. He then reviewed the details of those allowances. The Committee became concerned about the process with its large number of stipulations. The Committee led the discussion to focus on the one operator requesting reciprocity and what licenses he would be eligible to receive. Nutt stated he would be eligible to obtain a Very Small System Distribution License, if he could document equivalent training and attend the ADH PWS Compliance Course. Edwards, noting that Nutt had stated to his knowledge this was the first known request to reciprocate a license from North Dakota, motioned to grant this operator's request as stipulated by Nutt and table approval of the guideline until another request was received from North Dakota. The motion then passed.

Committee Reports

Stone in his Section Director's Report reported the Engineering Section is running smoothly. Plan reviews and sanitary surveys are being performed on schedule. The Sections challenges are the RTCR implementation, continued Disinfection and Disinfection By-Product Rule compliance, and completing the second round of cryptosporidium monitoring. Funding concerns continue with the Section expecting to either receive continuing or decreasing levels of funding. He then reviewed a winter newsletter article that addressed the Section's sources of funding and program costs.

Nutt, in his Training & Certification Officer's report, provided his traditional handout to the Committee concerning license exam results updated through the December 2014 quarterly exam sessions. Nutt reviewed the results noting passing rates on the recently implemented exams were not good. This led to an extensive discussion on available exam feedback and preparation tools, the quality of the exams and better ways for operators to prepare for the exams, in addition to the required courses. The discussion concluded by realizing the exam numbers are a very small sample of exam results to be drawing conclusions. Nutt then discussed the extensive procedure ABC follows in developing the license exam to ensure they are valid.

Nutt, in his enforcement effort report, provided a handout to the Committee detailing enforcement actions taken. Nutt explained his comments on the handout concerning the water systems listed and noted no system is in immediate jeopardy of an Administrative order or hearing. The worst system on the list, Beulah Grove Water Association, ceased to exist in December.

Harper, in the Arkansas Environmental Training Academy report, noted that he had budgeted out of reserves to maintain the previous year's level of 75 mandatory courses for 2015 but needed new funding to continue that level of training and he noted the calendar is available. Rowe provided the AETA's training report, stating the Backflow Program did 56 courses last year and trained 362 students, and last quarter offered eight courses with 34 students. The Water Training Program had nine training sessions last quarter including internet and trained 81 students, and last year had 64 classes and trained 576 students.

Sternberg, in the Arkansas Rural Water Association report, provided ARWA's printed quarterly training report. He noted their course numbers were already down due to the loss of Opcert training funds and a 30% loss in EPA technical assistance and operator training grant funds and fears it may be less next year. Sternberg stated ARWA was always looking for new funding sources. He concluded by announcing the Mueller Road Show would be at ARWA on April 15, 2015.

Other Business

The Committee confirmed their next meeting date for April 9, 2015 and concluded the meeting.

Mandatory Training Course Schedule

Most Current Listing is at: 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
Intermediate Water Distribution	04/07/15	04/09/15	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Basic Water Treatment	04/14/15	04/16/15	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	AETA
Applied Water Math	04/16/15	04/30/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	04/27/15	04/27/15	8:00 AM	Hot Springs	AWW&WEA Conf, HS Convention Center	AETA
ADH PWS Compliance	04/28/15	04/28/15	8:00 AM	Hot Springs	AWW&WEA Conf, HS Convention Center	ADH
Advanced Water Treatment	04/28/15	04/30/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Applied Water Math	04/28/15	04/28/15	8:00 AM	Hot Springs	AWW&WEA Conf, HS Convention Center	AETA
Basic Water Treatment	05/01/15	05/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Advanced Water Dist (Night Class)	05/05/15	05/20/15	TBD	Fort Smith	Fort Smith Utilities, 3900 Kelly Hwy	AETA
Basic Distribution	05/05/15	05/07/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Water Distribution	05/15/15	05/30/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Advanced Distribution	05/19/15	05/21/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Basic Water Treatment	05/19/15	05/21/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Intermediate Water Distribution	05/26/15	05/28/15	8:00 AM	Blytheville	Blytheville Waterworks, 1301 June Gosnell Dr	AETA
Intermediate Water Treatment	06/01/15	06/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	06/02/15	06/02/15	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Applied Water Math	06/03/15	06/03/15	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
ADH PWS Compliance	06/04/15	06/04/15	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	ADH
Basic Water Treatment	06/09/15	06/11/15	8:00 AM	Mtn. Home	Charles R Newton Emer Serv Trng Center, Midway	ARWA
Intermediate Water Treatment	06/09/15	06/11/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Advanced Water Treatment	06/16/15	06/18/15	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Intermediate Water Distribution	06/16/15	06/30/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Distribution	06/29/15	07/01/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Advanced Water Treatment	07/01/15	07/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	07/07/15	07/07/15	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ARWA
Intermediate Water Treatment	07/07/15	07/09/15	8:00 AM	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	AETA
ADH PWS Compliance	07/08/15	07/08/15	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ADH
Applied Water Math	07/09/15	07/09/15	8:00 AM	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	ARWA
Advanced Water Distribution	07/16/15	07/30/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	07/21/15	07/21/15	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	AETA
Applied Water Math	07/22/15	07/22/15	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	AETA
ADH PWS Compliance	07/23/15	07/23/15	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	ADH
Intermediate Water Distribution	07/28/15	07/30/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Basic Water Math	08/03/15	08/16/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Intermediate Water Treatment	08/04/15	08/06/15	8:00 AM	Mtn. Home	Charles R Newton Emer Serv Trng Center, Midway	ARWA
Basic Water Math	08/11/15	08/11/15	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	ARWA
ADH PWS Compliance	08/12/15	08/12/15	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	ADH
Applied Water Math	08/13/15	08/13/15	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	ARWA
Applied Water Math	08/17/15	08/31/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Advanced Water Treatment	08/18/15	08/20/15	8:00 AM	Lowell	Beaver Water Dist, 301 N Primrose Rd	AETA
Basic Water Treatment	08/25/15	08/27/15	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Basic Water Treatment	09/01/15	09/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	09/08/15	09/08/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Basic Water Math (Night Class)	09/08/15	09/11/15	TBD	Fort Smith	Fort Smith Utilities, 3900 Kelly Hwy	AETA
Applied Water Math	09/09/15	09/09/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
ADH PWS Compliance	09/10/15	09/10/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	ADH
Advanced Water Treatment	09/15/15	09/17/15	8:00 AM	Greers Ferry	Community Water System, 299 Lakeshore Drive	AETA
Basic Water Distribution	09/16/15	09/30/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Applied Water Math (Night Class)	09/22/15	09/25/15	TBD	Fort Smith	Fort Smith Utilities, 3900 Kelly Hwy	AETA
Intermediate Distribution	09/22/15	09/24/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Intermediate Water Distribution	09/22/15	09/24/15	8:00 AM	Rogers	Rogers Water Utilities, 521 S 2 nd St	AETA
Advanced Water Distribution	09/29/15	10/01/15	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Intermediate Water Treatment	10/01/15	10/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Advanced Water Treatment	10/06/15	10/08/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA

Intermediate Water Treatment	10/06/15	10/08/15	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
Advanced Water Distribution	10/13/15	10/15/15	8:00 AM	Springdale	Springdale Water Training Facility, 525 Oak Ave	AETA
Intermediate Water Distribution	10/16/15	10/30/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	10/20/15	10/20/15	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	AETA
Applied Water Math	10/21/15	10/21/15	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	AETA
ADH PWS Compliance	10/22/15	10/22/15	8:00 AM	Hot Springs	HS Transportation Depot, 100 Broadway Terrace	ADH
Advanced Water Treatment	11/02/15	11/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Distribution	11/03/15	11/05/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Intermediate Water Treatment	11/10/15	11/12/15	8:00 AM	Maumelle	Wastewater Plant Training Rm, 425 B Hyman Drive	AETA
Advanced Water Distribution	11/16/15	11/30/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Advanced Distribution	11/17/15	11/19/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
Advanced Water Treatment	11/17/15	11/19/15	8:00 AM	N Little Rock	CAW Maryland Complex, 1500 W Maryland Ave	AETA
Applied Water Math	12/01/15	12/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	12/01/15	12/15/15	TBD	Internet	http://www.sautech.edu/aeta/schedule.aspx	AETA
Basic Water Math	12/01/15	12/01/15	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
Applied Water Math	12/02/15	12/02/15	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	AETA
ADH PWS Compliance	12/03/15	12/03/15	8:00 AM	Fayetteville	Utilities Operations Center, 2435 S Industrial Dr	ADH
Intermediate Water Distribution	12/08/15	12/10/15	8:00 AM	Russellville	Tri-County Water, 5306 N Arkansas Ave	AETA
Advanced Water Treatment	12/15/15	12/17/15	8:00 AM	Camden	AR Env Training Academy, 100 Carr Road	AETA
Basic Water Math	12/15/15	12/15/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA
ADH PWS Compliance	12/16/15	12/16/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ADH
Applied Water Math	12/17/15	12/17/15	8:00 AM	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	ARWA

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

License Exam Procedures – A Primer

Martin Nutt, Training and Certification Officer

If you are an operator that needs to get your water license, what should you do first? The first step is to determine what licenses the public water system requires. Do you need a distribution, treatment, or both? What grade license(s) is required? The exams are designed to be taken lowest level first and build your way to the higher license level, so taking lower level exams may assist greatly in being successful at the higher levels.

After determining the license needed, determine what mandatory courses are required and map out an attendance plan. A schedule of all available courses (including Arkansas Environmental Training Academy, Arkansas Rural Water Association, and ADH sponsored courses) is available on the Engineering Section's webpage (www.healthy.arkansas.gov/eng). While visiting the webpage download available preparation aids, such as the exam Needs To Know, list of reference manuals, ADH PWS Compliance Summary, etc. Also, download a license application to start the license process with the Water Licensing Program.

When training is planned and while attending courses determine the best exam session that fits your needs, whether it's a paper quarterly exam or a computer based on-demand exam for an additional fee of \$64.00, and go back to the webpage and register for your exam. The paper based exam registration must be done 45 or more days prior to the exam session. Please remember, exam application and exam registration are two separate functions.

Then as you complete training courses please provide the licensing program a copy to document training attended. Only bring to the exam site identification documents, a non-programmable calculator, and knowledge to pass the test. You will be furnished needed pencils, scratch paper and exam documents. Please do not bring cell phones, beepers, or other electronic devices. You will be allowed three hours to complete the 50 (very small system license exam) or 100 question exam.

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 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. 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 **June 30, 2014**. 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
6/5/2015	4/21/15	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00 AM
6/5/2015	4/21/15	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
6/5/2015	4/21/15	Nashville	Carter Day Center, 200 Nichols Drive	9:00 AM
6/12/2015	4/28/15	Camden	AR Environmental Training Academy, 100 Carr Road	9:00 AM
6/12/2015	4/28/15	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00 AM
6/12/2015	4/28/15	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00 AM
9/4/2015	7/21/15	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00 AM
9/4/2015	7/21/15	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
9/4/2015	7/21/15	Mtn. Home	Baxter Co OEM Training Facility, 170 Dillard Dr, Midway	9:00 AM
9/11/2015	7/28/15	Camden	AR Environmental Training Academy, 100 Carr Road	9:00 AM
9/11/2015	7/28/15	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00 AM
9/11/2015	7/28/15	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00 AM
9/16/2015	8/2/2015	Hot Springs	ARWA Conference, HS Convention Center	9:00 AM
12/4/2015	10/20/15	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00 AM
12/4/2015	10/20/15	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM
12/4/2015	10/20/15	Nashville	Carter Day Center, 200 Nichols Drive	9:00 AM
12/11/2015	10/27/15	Camden	AR Environmental Training Academy, 100 Carr Road	9:00 AM
12/11/2015	10/27/15	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00 AM
12/11/2015	10/27/15	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 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.

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 when registering for an exam or provide documentation of its attendance by the exam session.

Important Exam Preparation Tools



Martin Nutt, Training and Certification Officer

The licensing regulations mandate an exam candidate take certain courses for each license exam. The courses are of significant assistance in preparing for the license exam. The courses in and of themselves are not designed, nor have adequate assigned length/time, to fully prepare a candidate for the exam. The classroom lectures require other sources of reinforcement. Discussed below are several available reinforcements.

A necessary and strong reinforcement is spending significant quality time studying the various industry recommended reference books. See Table 1 below for a list. If your utility does not provide manuals, invest in your career by purchasing the materials. Utilities serving a population less than 3300 may receive free manuals. See related article in this newsletter.

RECOMMENDED REFERENCE MATERIALS
All license grades for Treatment and Distribution Licenses:
Arkansas Rules and Regulations Pertaining To PWS (Contact ADH for Free Copy or www.healthy.arkansas.gov/eng)
Arkansas Public Water System Compliance Summary (Contact ADH for Free Copy or www.healthy.arkansas.gov/eng)
Water System Security, A Field Guide by AWWA
Manage for Success by CSU Sacramento; Office of Water Programs
Treatment Licenses Additional References - All Grades (I – IV)
Water Treatment Plant Operation, Volume I, by CSU Sacramento; Office of Water Programs
Water Treatment Plant Operation, Volume II, by CSU Sacramento; Office of Water Programs
Distribution Licenses Additional References - All Grades I – IV and Very Small System
Water Distribution System O & Maintenance, by CSU Sacramento; Office of Water Programs
Small Water System O & M, by CSU Sacramento; Office of Water Programs
Utility Management by CSU Sacramento; Office of Water Programs

(Table 1)

The correspondence courses available for the above CSUS manuals can be very beneficial in leading you through a methodical process of studying the manuals. In certain combinations, the correspondence courses can be utilized for meeting mandatory training requirements.

ABC also utilizes the American Water Works Association's *Principles and Practices of Water Supply Operations* (WSO) manuals as references for exam questions. It is strongly recommended that study time be spent with these manuals. More info on the WSO manuals is available at www.awwa.org. The AWWA Certification Study Guide questions follow the same style, and formatting as ABC exam questions.

The Association of Boards of Certification provides a Needs-To-Know (NTK) for each exam. The NTK provides information on what to expect on the exam. NTK and other resources for exam preparation can be found on this webpage: http://www.abccert.org/testing_services/default.asp. The NTK provides insights into the level of difficulty exam questions may be written. The exam questions are written around these three principals.

- Comprehension is the most basic level of understanding and remembering. Items written at the comprehension level require examinees to recognize, remember, or identify important ideas.
- Items written at the application level require examinees to interpret, calculate, predict, use or apply information and solve problems.
- Items written at the analysis level require examinees to compare, contrast, diagnose, examine, analyze, and relate important concepts and have the highest degree of difficulty.

The higher the exam grade level the more an exam utilizes application, and analysis level of knowledge. You must avoid preparing for the exam expecting only basic comprehension questions. Each exam will have application and analysis questions. The *AWWA Certification Study Guide* can help provide practice questions at comprehension, application, and analysis levels.

Water Operator Licenses Issued		
DECEMBER 1, 2014 THROUGH FEBRUARY 28, 2015		
LICENSEE NAME	GRADE/TYPE	WATER SYSTEM NAME
BAUGUS SHANNON	T - II	LITTLE RIVER WATER ASSOCIATION & KEISER WATERWORKS
COBB JARED	D - IV & T - IV	BEAVER WATER DISTRICT
CURTIS JIM	D - IV	CENTERTON WATERWORKS
DIXON GARY	D - I	LIBERTY UTILITIES
EARLEY ROBERT	D - IV	JONESBORO WATER SYSTEM
GOULD FRED	D - IV	MOUNTAIN TOP WATER ASSOCIATION
HENDERSON JAMES	D - I	ST. VINCENT INFIRMARY
HENDRICKS ROBERT	T - IV	CONWAY CO REGIONAL WATER DIST
HIGHTOWER JERRELL	D - VSS	FRANKLIN WATERWORKS
HOWK KENNETH	T - III	BATESVILLE WATER UTILITIES
JONES DARRELL	D - VSS	LAKE BULL SHOALS ESTATES WATER
JONES DUSTIN	D - I	CASS C C C
MARRS DANNY	T - I	TYRONZA WATERWORKS
MCDANIEL JIMMY	D - VSS	OIL TROUGH WATERWORKS
MCJUNKIN JEREMY	D - II	GENTRY WATERWORKS
OWENS SEAN	D - III & T - III	CENTRAL ARKANSAS WATER
RICHARDS ROYJOHN	T - II	AUGUSTA WATERWORKS
RUDOLPH TYE	D - I	HUNTSVILLE WATERWORKS
SIMONEAUX TODD	D - I	ST. VINCENT INFIRMARY
SIMPSON SAMANTHA	T - II	NAT CTR FOR TOXOLOGICAL RES
SLOAN KENTRELL	T - II	HOLLY GROVE WATERWORKS
STIVERS THOMAS	D - IV & T - IV	GRAND PRAIRIE BAYOU 2 P.F.B.
TANKSLEY JEFFERY	D - VSS	TANKSLEY APARTMENTS
THETFORD JOEL	T - I	FORREST CITY WATERWORKS
TURNER KELLY	D - II	LAKEVIEW MIDWAY PUBLIC WATER AUTHORITY
WOOD MICHAEL	D - II & T - II	CUSHMAN WATER SYSTEM

Water License Renewal Notice

Water Licenses renew this June 2015. It is time to review your training records to determine if you have sufficient hours to renew your license(s). You will need 24 contact hours of approved training, 12 of the hours must be approved as direct water operator training. The other 12 can be additional direct training or indirect training. No additional training is required to renew both a Distribution and a Treatment License. Some of your renewal training may be documented on the internet at: https://health.arkansas.gov/wa_engTraining/hours.aspx.

If after reviewing your renewal hours more hours are needed, you have several options for obtaining the needed hours. Several training opportunities are listed in this newsletter. This internet site can assist you in finding additional renewal training: <http://www.healthy.arkansas.gov/eng/autoupdates/oper/opcertlinks.htm>

Renewal documents will be mailed to the licensed operator's address of record in late May 2015. If this newsletter is addressed to you, then this is our address of record for your license. If needed, please immediately update your address. When received, please utilize the renewal invoice(s) to submit your renewal fee. It is critical to include the invoice(s), with your training documentation and fee payment, to ensure the fee is applied correctly to your account and your training documentation is available to review. Please remember, wastewater license renewals must be submitted to ADEQ.

The best method to document your training is to utilize the Record of Renewal Training Hours form printable from the above referenced renewal training attendance webpage. It is common for attended training available for license renewal to not be listed on the webpage. The form provides space to write in training attended but not shown on the webpage.

Please remember, this is your license, it is not your water system's responsibility to renew the license. Your system may be pro-active in assisting you in obtaining renewal training. Your system may also take the lead in submitting your renewal documents and fee(s). However, it is your responsibility to see that your license is renewed. It is your license to lose if not renewed.

Major Monitoring, MCL, Treatment Technique, & Licensing Violations

Community & Nontransient Noncommunity Public Water Systems, Nov - Dec. 2014

ADC CUMMINGS UNTT	Bmon 11	ELAINE WATERWORKS	Bmon 10
ALMYRA WATERWORKS	Bmon 10,11	FORDYCE RURAL WA	CCR 10
AMITY WATERWORKS	Tmon 12	FORDYCE WATER COMPANY	CCR 10
AMITY WATERWORKS	SWTR 12	FOUKE WATERWORKS	Bmon 10, 11, 12
ADC IZARD COUNTY	CCR 10	FOUKE WATERWORKS	CCR 10
ASP MT MAGAZINE	DBPR 10, 11, 12	FOUR MILE HILL WA	Bmon 12
AURELLE WATER SYSTEM	BMCL 11, 12	FRANKLIN WATERWORKS	BMCL 10
AUTUMN ACRES MHP	CCR 10	GILLHAM WATERWORKS	PN 10
BATTS-LAPILE WATER ASSOC	CCR 10	GILMORE WATERWORKS	CCR 10
BEAVERFORK VFD WSD	Bmon 11	GLEN ACRES	Bmon 10
BEEDEVILLE WATERWORKS	BMCL 10	HACKETT WATERWORKS	DBPR 10, 11, 12
BEN LOMAND WATERWORKS	BMCL 11	HARMONY GROVE WA	BMCL 10
BEN LOMAND WATERWORKS	Bmon 12	HOLIDAY ISLAND WATERWORKS	Bmon 10
BENTON-WASHINGTON REG PWA	BMCL 12	HOSANNA HEIGHTS WATER	BMCL 10
BEULAH GROVE WA	DBPR 10, 11	HOSANNA HEIGHTS WATER	GWR 10, 11
BEULAH GROVE WA	Bmon 10, 11	HOSANNA HEIGHTS WATER	PN 12
BEULAH GROVE	PN 10	HOUSTON WATERWORKS	DBPR 10, 11, 12
BIGGERS BLUFF DEVELOPMENT	CCR 10	HUMNOKE WATERWORKS	CCR 10
BIGGERS BLUFF DEVELOPMENT	DBPR 10	HUMNOKE WATERWORKS	Bmon 11
BIGGERS WATERWORKS	CCR 10	HWY 4 24 WATER ASSOC	DBPR 10, 11, 12
BLACK OAK WATERWORKS	CCR 10	HWY 82 WATER ASSOC	CCR 10
BLEVINS WATERWORKS	CCR 10	KEISER WATERWORKS	LCR 11
BLUE MOUNTAIN WATERWORKS	Bmon 10	LAKE BULL SHOALS ESTATES	Bmon 12
BLUE MOUNTAIN WATERWORKS	DBPR 10, 11, 12	LAKE CHICOT WATER ASSOC	DBPR 10, 11, 12
BODCAW RURAL WATER SYSTEM	DBPR 10, 11, 12	LAKESIDE WATER ASSOC	BMCL 10, 11
BONANZA WATERWORKS	Bmon 10	LAVACA WATERWORKS	BMCL 12
BRANCH WATERWORKS	BMCL 10	LEATHERWOOD ESTATES	CCR 10
BRECKENRIDGE-UNION WA	Bmon 10	LOCKESBURG WATERWORKS	Bmon 10, 11, 12
BRECKENRIDGE-UNION WA	CCR 10	MAGAZINE WATERWORKS	DBPR 10, 11, 12
BRINKLEY WATERWORKS	DBPR 10, 11, 12	MONTGOMERY CO PWA	DPBR 10, 11, 12
BUENA VISTA-OGEMAW WA	DBPR 10, 11, 12	MOUNT IDA WATERWORKS	DBPR 10, 11, 12
BUENA VISTA-OGEMAW WA	Bmon 11	NAIL-SWAIN WATER ASSOC	CCR 10
CALHOUN COUNTY WA	CCR 10	NAIL-SWAIN WATER ASSOC	BMCL 10
CARROLL-BOONE WATER	Bmon 12	NEW LONDON WATER ASSOC	BMCL 11
CENTRAL PUBLIC WA	BMCL 11	NORTH CARBON CITY WA	Bmon 10
CHAMBERLYNE COUNTRY CLUB	CCR 10	NORTH HOWARD RWA	CCR 10
CHERRY HILL PFBD	BMCL 11	NORTH HOWARD RWA	DBPR 11, 12
CHICOT JUNCTION WA	DBPR 10, 11, 12	NSC INTERNATIONAL	Bmon 11
CHRISTIAN MINISTRY ACADEMY	Bmon 12	NSC INTERNATIONAL	PN 11
COLLINS WATER ASSOC	CCR 10	PARIS WATERWORKS	CCR 10
COMPTON WATERWORKS	CCR 10	PARKIN WATERWORKS	Bmon 10
CONCORD WATER & SEWER PFB	CCR 10	PARON-OWENSVILLE WA	TMCL 11
COTTON PLANT WATERWORKS	CCR 10	PENDLETON-PEA RIDGE WA	CCR 10
COTTONSHED WATERWORKS	DBPR 10, 11, 12	PERLA WATER ASSOC	BMCL 10
COTTONSHED WATERWORKS	Bmon 10	PLAINVIEW WATER DEPARTMENT	BMCL 10
DECATUR WATERWORKS	Bmon 11	PORTLAND WATERWORKS	CCR 10
DELL WATERWORKS	BMCL 10	QUINN WATER ASSOC	Bmon 12
DERMOTT WATERWORKS	CCR 10	REDHILL WATER ASSOC	Bmon 10
DOGWOOD WATER ASSOC	Bmon 11	ROSSTON WATER DEPARTMENT	Bmon 10
EAST MONROE COUNTY WU	DBPR 10, 11, 12	SILOAM SPRINGS WATERWORKS	SWTR 11
EAST MONROE COUNTY WU	CCR 10	SOUTHWEST ARKANSAS WS	DBPR 10, 11, 12
		SOUTHWEST ARKANSAS WS	PN 12

**Arkansas Water Works & Water
Environment Association
Annual Conference and Short School
April 26 – 29, 2015 — Hot Springs, Arkansas
www.awwwea.org**

The conference consists of two (2) full days of training. Each day has six (6) training sessions with multiple concurrent training topics offered each session. 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 up to 16 contact hours of directly applicable water license training credit. 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 is 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 a shortened lunch break. Attendance of the entire course is required to receive a course completion certificate.

**ARWA Annual Technical Conference &
Exhibition**

**September 13 - 16, 2015– Hot Springs, Arkansas
www.arkansasruralwater.org**

The conference consists of two (2) full days of training. Each day has four (4) training sessions with multiple concurrent training topics offered each session. 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 up to 16 contact hours of directly applicable water license training credit. 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.

No mandatory water training courses for exam purposes are offered during this conference. License Exams will be held Wednesday at 9:00 am in the convention center.

SPADRA GOOSE CAMP WA	CCR 10
SPARKMAN WATERWORKS	Bmon 10
STRAWBERRY WATERWORKS	GWR 10
STRONG WATERWORKS	BMCL 11, 12
TRI-COUNTY WATER DISTR DIST	DBPR 10, 11, 12
UNITED WATER ASSOC	CCR 10
WABBESEKA WATERWORKS	CCR 10
WABBESEKA WATERWORKS	Bmon 11
WALKER WATER ASSOC	Bmon 11
WARD MHP	CCR 10
WARD MHP	BMCL 10, 12
WARD MHP	Bmon 11
WEST MEMPHIS WATERWORKS	BMCL 10
WILLIFORD WATERWORKS	CCR 10
WILMOT WATERWORKS	CCR 10
WILSON GUN SHOP #2	Bmon 10, 11
WILTON WATERWORKS	CCR 10
WILTON WATERWORKS	DBPR 12
WINTHROP WATER ASSOC	Bmon 11
WINTHROP WATER ASSOC	PN 11

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; 10 = Oct, 2014, 11 = Nov 2014, 12 = Dec 2014

**Arkansas Water & Wastewater
Managers Association
Annual Meeting
July 15 - 18, 2015
Chateau on the Lake – Branson, MO
www.arkwwma.org**

The conference consists of three (3) days of manager focused training. Each day has a morning training session. The conference is approved for up to 10 contact hours of directly applicable water license training credit. No mandatory water training courses for exam purposes or license exams are available.

Return Service Requested

PRINTED ON RECYCLED PAPER

AWW&WEA District Meetings
 See also the Division's web site www.healthyarkansas.com/eng/ for updates.

DATE	TIME	CITY	LOCATION	SPONSOR
<u>May 2015</u>				
				Western District, AWW&WEA
No May Meeting				Central District, AWW&WEA
7	5:00 PM	TBA	TBA	AR Valley District, AWW&WEA
14	5:00 PM	Russellville	Western Sizzlin	North Central District, AWW&WEA
14	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	Eastern District, AWW&WEA
14	5:30 PM	Stuttgart	Civic Center	Northwest District, AWW&WEA
No May Meeting				Southeast District, AWW&WEA
19	5:00 PM	Watson Chapel	Water Shop	Northeast District, AWW&WEA
21	12:30 PM	Piggott	Piggott Country Club	Southwest District, AWW&WEA
28	6:00 PM	Arkadelphia	Western Sizzlin	
<u>June 2015</u>				
4	5:00 PM	TBA	TBA	Central District, AWW&WEA
4	6:00 PM	Fort Smith	Columbus Acres Picnic	Western District, AWW&WEA
10	8:30 AM	Green Forrest	Green Forrest Middle School	Northwest District, AWW&WEA
11	5:30 PM	Wynne	Kellys	Eastern Central District, AWW&WEA
11	5:30 PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
11	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	North Central District, AWW&WEA
16	5:00 PM	Warren	Western Sizzlin	Southeast District, AWW&WEA
18	12:30 PM	Pocahontas	Beverly's	Northeast District, AWW&WEA
25	6:00 PM	Foreman	Community Center	Southwest District, AWW&WEA
<u>July 2015</u>				
2	5:00 PM	TBA	TBA	Central District, AWW&WEA
2	5:30 PM	Fort Smith	Golden Corral	Western District, AWW&WEA
8	8:30 AM	Pea Ridge	Pea Ridge Emergency Services	Northwest District, AWW&WEA
9	8:30 AM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
9	5:00 PM	Pleasant Plains	Tadpole's Catfish Barn	North Central District, AWW&WEA
9	5:30 PM	Marvell	Activity Center	Eastern District, AWW&WEA
16	12:30 PM	Paragould	Couch's	Northeast District, AWW&WEA
21	5:00 PM	Yorktown	Country Club Village	Southeast District, AWW&WEA
23	6:00 PM	Eldorado	Water Utility Mtg. Room	Southwest District, AWW&WEA