



ARKANSAS DRINKING WATER UPDATE

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ENGINEERING SECTION – DEPARTMENT OF HEALTH

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Water Fluoridation Training To Be Offered By the Arkansas Department of Health

Glenn Greenway, P.E.

A one and one-half day (12 hours of water license renewal credit) class room and hands-on school will be held concerning water fluoridation on March 14 and 15, 2012 and will be held at the ARWA Training Center in Lonoke. This training will focus on the benefits of water fluoridation and the proper methods for implementing a water fluoridation program. Hands-on training will include the use of different testing instruments and chemical feeders. Attendance of both days of the school is recommended and encouraged. However, partial attendance of specific topics or a portion of each day will be allowed with partial credit given (less than 12 hours training).

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

The Engineering Section of the Arkansas Department of Health will present this course at no charge to the participant. We request that you pre-register for this training by calling or e-mailing Glenn Greenway at 501-661-2623 or glenn.greenway@arkansas.gov Class size will be limited to 35 students. Depending upon interest, additional training schools may be planned. Listed below is a preliminary agenda.

DAY ONE

<u>Time</u>	<u>Subject</u>
8:30-9:00	Registration
9:00-10:00	Overview of Regulations, Changes
10:00-11:00	Fluoride Chemicals
12:00-1:00	Lunch
1:00-4:00	Feeder Rate Calculations and Calibration

DAY TWO

8:00-8:15	Registration
8:15-9:15	Fluoride Reporting
9:15-10:30	Fluoride Test Methods
10:30-12:00	Fluoride Analysis

Fluoridation Regulations Progressing

The public comment period for the proposed changes to the Arkansas Department of Health's Rules and Regulations Pertaining to Public Water Systems has concluded. The proposed changes to these regulations were required as a result of Act 197 of 2011 that required fluoridation by systems that treat water and supply 5,000 or more people.

Numerous comments were received via e-mail, letters, and during the public hearing held on October 14, 2011. The comments ranged from objection to fluoridation based on perceived health issues, the mandatory nature of the requirements of Act 197, and some comments were received of a more technical nature concerning the proper elements of a fluoridation program.

The Engineering Section of the Arkansas Department of Health was tasked with summarizing the comments that were received during this process. The summary was completed on October 29, 2011 and forwarded to management. The summary can be viewed and downloaded from the ADH website at

<http://www.healthy.arkansas.gov/aboutADH/Pages/RulesRegulationsProposed.aspx>

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Robert Hart Departs From The Arkansas Department of Health



A long-time leader in the Arkansas Department of Health's drinking water program, Robert Hart, Director of the Engineering Section, departed after 31 years of service. Prior to his final day of employment, a luncheon was held on September 29th so that staff and management could express their appreciation for his long years of service and dedication to the safe drinking water program.

A plaque describing his service and the Agency's appreciation was presented to Mr. Hart by Dr. Paul Halverson, Director of the Arkansas Department of Health and State Health Officer. Dr. Halverson also presented to Mr. Hart a framed letter of appreciation, signed by Governor Mike Beebe. A sheet cake decorated with the office motto "Water is Life" was enjoyed following the luncheon.

Mr. Hart remains active in the drinking water industry. As mentioned in a previous newsletter article, Mr. Hart has taken a position as Technical Services Officer with Central Arkansas Water Utility.

Stone and Jones Assume New Positions

Effective November 7, 2011, Jeff Stone, P.E. has assumed the role of Director of the Engineering Section. Jeff has 25 years of experience in the Engineering Section and has previously served in the positions of Chief Engineer, Engineer Supervisor, and District Engineer. Jeff is licensed as a Professional Engineer in the state of Arkansas.

Lance Jones, P.E., will be assuming the duties of Chief Engineer. Lance has 19 years of experience in the Engineering Section and has previously served in the roles of Chief/Technical Support, Engineer Supervisor, and Technical Support Engineer. Lance is licensed as a Professional Engineer in the state of Arkansas.

There will be other position changes as the organization refills the Chief/Technical Support position and eventually all empty positions are refilled. During this period of transition, the Engineering Section will make every effort to ensure that service to the regulated community and the citizens of Arkansas is maintained without interruption.

Regs

On November 15th, 2011, the proposed changes to the regulations were reviewed by the joint Senate and House Committee on Public Health Welfare and Labor. On December 14th, 2011, the proposed changes were reviewed by the Administrative Rules and Regulations Subcommittee of the Arkansas Legislative Council. Next, the proposed changes will be placed on the Agenda for the January 2012 meeting of the Board of Health.

Needs Survey Update

Teresa Lee, P.E.

A special thank you goes out to the water systems that helped with completion of the 2011 Drinking Water Needs Survey and Assessment. All of your efforts allowed us to meet our deadline and are greatly appreciated. The Survey, when finalized by EPA, will determine Arkansas's allotment of the capitalization grant Congress awards to the states each year as part of the Drinking Water State Revolving Fund program. States can use this federal capitalization grant money to set up an infrastructure funding account for financial assistance to eligible water systems. A portion of the fund may also be used for source water protection, wellhead protection, capacity development, and operator certification programs.

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.

Stage 2 D/DBP Rule: Federal Regulation and State Policy Breakdown

Christine Kirkendoll, E.I.

NOTE: This is the first article in a series providing detailed information on the Stage 2 Disinfection By Product Rule requirements, compliance issues, and available assistance.

The Stage 2 Disinfectant and Disinfection Byproduct Rule (S2DBPR) will affect ALL community (CWS) and nontransient –noncommunity (NTNC) water systems in the State. The S2DBPR established new criteria for determining compliance with the maximum contaminant levels (MCL) for total trihalomethanes (TTHM) and haloacetic acids (HAA5), added a new operation evaluation level (OEL) and evaluation report requirement, and new criteria for site selection and monitoring frequency.

The MCL for TTHM and HAA5 is still 80 µg/L and 60 µg/L, respectively. Each monitoring site must be in compliance with the MCL for both TTHM and HAA5 calculated as a locational running annual average (LRAA). The LRAA is calculated by averaging the results of all the samples collected at a single site within a quarter and then averaging the quarterly averages for the last four quarters at that same site. LRAA calculations will only include results of samples collected after the system's compliance monitoring start date. Systems that apply a chemical disinfectant such as chlorine will be required to be in compliance with the MCLs for TTHM and HAA5 calculated as a system-wide running annual average (RAA) until a LRAA can be calculated. A RAA is calculated by averaging the results of all the samples collected at all the sites within a quarter and then averaging the quarterly averages for the past four quarters.

The S2DBPR also established a new operation exceedance level (OEL) and evaluation report requirement. The OEL is calculated using results for the last three quarters of compliance monitoring. The site average of the current quarter is multiplied by two and added to the site averages of the two previous quarters. The sum is then divided by four. An OEL will be calculated every quarter beginning the third quarter following the start of compliance monitoring. If the OEL exceeds either the TTHM or HAA5 MCL an operation evaluation must be conducted to determine the possible cause(s) for the exceedance. A report must be submitted to the State within 90 days of notification of the results that caused the OEL exceedance. The OEL exceedance is not a violation of the rule; but if the required evaluation and subsequent report are not completed a monitoring and reporting violation will be issued. The operation evaluation must include an examination of storage tank operations, excess storage capacity, flushing, source changes, source water quality changes, and treatment changes or problems that may contribute to DBP formation. The evaluation must also include an examination of steps that could be considered to minimize future exceedances. If a system knows what caused the exceedance, they may request the State to allow a limited scope evaluation. Supporting documentation for conclusions drawn from the evaluation will need to be included with the report.

The S2DBPR also established new criteria for developing a DBP monitoring plan. The S2DBPR requires that at least 75% of the sites in a monitoring plan be remote. The S2DBPR uses the population served and type of source to determine the number of sites. Each system is required to have a copy of their monitoring plan on file. If you do not have this monitoring plan contact Jack Wilson of the Engineering Section.

The S2DBPR established new criteria for monitoring frequency. The S2DBPR requires systems which monitor quarterly to monitor approximately every 90 days. A system may stray from the 90 day frequency for emergencies such as main or tank repair or nitrification control measures. Scheduled flushing, tank and treatment plant maintenance will need to be scheduled around the 90 day frequency. The S2DBPR requires systems which monitor annually or less frequently to monitor in the quarter when the highest DBP levels are expected to occur based on historical data.

S2DBPR compliance monitoring start dates will vary between 2012 and 2014 depending on the population served by the water system or its supplier. The very first systems will begin compliance monitoring April 1, 2012 while some systems will not begin compliance monitoring until October 1, 2014. (See the table on page 4)

Water systems which are undertaking capital improvements to comply with the S2DBPR and do not believe they will meet the compliance deadline need to submit a request for an extension as soon as possible; we ask that such requests be made at least 180 days prior to the system's compliance monitoring start date. The term of an extension cannot exceed two years. In the event that an extension request is approved, compliance monitoring will begin on the compliance monitoring start date established by the S2DBPR. Compliance with the MCL will be based on a system-wide RAA of all compliance monitoring sites during the duration of the extension. Compliance with the MCL based on a LRAA of each site will be determined using results from samples collected beginning the first quarter following the completion of construction or the term of the extension, whichever is earlier. Response to an OEL exceedance will be delayed until after the third quarter following the completion of construction or the term of the extension, whichever is earlier.

For further information regarding the Stage 1 and Stage 2 DBP Rules contact Christine Kirkendoll of the Engineering Section.

Implementation Timeline for 2DBPR

	Extension Request Submittal	Compliance Monitoring Start Date	First OEL Calculated	First LRAA Calculated*
Systems Serving \geq 100,000‡	1-Jan-12	2nd Qtr 2012	4th Qtr 2012	1st Qtr 2013
Systems Serving 50,000 to 99,999	1-Apr-12	4th Qtr 2012	2nd Qtr 2013	3rd Qtr 2013
Systems Serving \leq 49,999	1-Apr-13	4th Qtr 2013	2nd Qtr 2014	3rd Qtr 2014
Systems Serving <10,000 and conducted Crypto monitoring	1-Apr-14	4th Qtr 2014	2nd Qtr 2015	3rd Qtr 2015

* A system may receive a violation of the MCL calculated as a LRAA before the 4th quarter following the start of compliance monitoring if the MCL would be exceeded regardless of the following quarters' data.

‡ Population of the largest system in the combined distribution system.

Submitting Bacteriological Samples: Proper Procedures

Lance Jones, P.E.

Submitting water samples for bacteriological analysis is an important and regular activity for every water system. Accurate and timely results are critical to ensuring compliance and identifying any issues which may impact the water quality.

As most are aware, following proper sample collection procedures are important to ensuring the water being sent to the laboratory is representative of the water in the distribution system. Equally important is following proper procedures regarding the documentation (sample collection form) and handling of the sample from the point of collection to the delivery to the laboratory.

In order for the samples to be analyzed, they must be received and have the analysis process started within 30-hours of collection. Samples that are collected and submitted via the ADH courier or a private next-day shipper (USPS, UPS, Fed-Ex, etc.) on the same day are received by the ADH Laboratory on the next day. Many of these samples are approaching the 30-hour time limit and any delay with processing the sample due to issues with the collection form or sample condition may risk the sample being rejected.

These delays can be avoided by ensuring the proper submission process is followed.

1. Complete the sample collection form with the required information. Time, Date, Site ID, purpose, etc. If this information is incomplete or illegible, the sample may be rejected.
2. Place the completed sample collection form around the bottle and place inside the shipping container. If multiple samples are included in the same container, a rubber band may be used to ensure the form and corresponding sample bottle remain together.
3. Don't use white-out (liquid or tape) on the sample collection forms. If a mistake or typo is made on the form, either use the strike-through method or use a new form to submit with the sample. For the strike-through method, place a single line through the incorrect data, enter the correct data and include your initials.
4. Use a ball-point pen. Ink from porous point pens (felt) often smears if the form gets wet and may make the data illegible.

See **Bottles** page 6

Focus on Security: Common Elements of a Computer Security Program

Jeff Stone, P.E.



All public water systems, with few exceptions, now rely on computers to conduct their normal business operations which can include billing, communications, data storage, etc. Some utilities, if involved in operating treatment plants, now use computers to operate water pumps, perhaps feeders, as well as monitoring the distribution system via SCADA systems. Utilization of computers has increased the efficiency of water system business operations and is a great tool. However, it is important to note that use of computers introduces risk to the utility by way of either malicious attack, accidents or disasters.

The level of risk that a water system is exposed to varies depending upon the extent to which the utility utilizes computers, how interconnected the computers are, whether or not internet access is allowed, how many people have access to the systems, and how data is stored. It is important to note that even small water systems that only utilize computers for record keeping and billing are vulnerable to malicious attack or accident that could result in data and software loss.

Some water systems in Arkansas have on occasion reported to this office that their computer data has been destroyed either by system failure or malicious attack. In the case of malicious attack, disgruntled ex-employees are commonly cited as the cause. This has on occasion resulted in a water system losing the treatment plant monitoring data that it had stored on a computer.

It is therefore necessary for water system management to remain vigilant in their efforts to minimize these risks. This article discusses some of the common elements found in computer security efforts and focuses on those elements that apply to all water systems, even the ones only using computers for billing and data storage.

DATA BACKUP: Data backups should be regularly performed. Depending upon the importance of the data, daily or, at a minimum, weekly data backups are appropriate. The backup data should be regularly tested to ensure that it is in fact recoverable data that can be relied upon. Back up data should be typically stored on media that is completely separate from the computer system such as data CD or portable storage, etc. It is important to keep in mind that data stored on a magnetic based medium will degrade over time and become unusable. Data stored on a physical based medium such as a data CD or DVD is much more permanent. This back up data should be stored in a separate secure location. Management should also periodically review data backup procedures to ensure that all important data is being backed up.

PHYSICAL SECURITY: Computers should be located in areas that are not easily accessible to outsiders. Especially in the case of water treatment plants, locks should be changed following employee turnover and especially when there are concerns regarding disgruntled ex-employees. Standard operating procedures should stress locking of doors and windows when facilities are not staffed and computers should be equipped with anti-theft devices. If a utility is large enough to be utilizing a Local Area Network (LAN) server, the server should be located in a separate more secure location, typically a separate locked room controlled by the LAN administrator.

VIRUS PROTECTION: Anti-virus software should be installed on all computers and a routine or automatic procedure should be in place to update the anti-virus software. Anti-virus software should be configured to check all mediums such as data storage CDs, emails, internet downloads, etc. Frequent updates of the anti-virus software are critical since new threats are continually arising and circulating especially via the Internet. Staff should be trained concerning the basic techniques that minimize risk of virus attack such as: not opening suspicious email attachments from unknown senders, minimizing use of jump (flash) drives from unknown sources, and shutting down computers that are suspect until a system check can be performed.

Focus on Security: continued

DISASTER RECOVERY: Management should be familiar with the resources, procedures, and time required for important computer systems to be restored following a disaster either of malicious origin or accidental in nature. Is a spare computer system available? Where can replacement equipment be quickly purchased? Where are the backup media that will be used to restore the system? What are the restoration procedures? Will outside technical assistance be required and how will that assistance be obtained? These are questions that management should ask before an incident occurs.

PASSWORD MANAGEMENT: Use of strong passwords, that are changed regularly, are key to protecting a computer system both from hacking via the internet as well as helping to prevent unauthorized use internally. It is easy to let complacency take over with regards to password management but there have been many examples of malicious conduct occurring that could have been prevented by greater diligence with respect to use of strong passwords.

DEDICATED USE SYSTEMS: Many water systems are large enough to have more than one computer system involved in their utility operations. It may be wise to isolate critical computer systems so that if one system is lost the overall loss to the utility will be partial rather than complete. Systems that are utilized for internet access (purchasing, e-mail, etc.) are at greater risk for computer virus attack so these systems may need to be isolated from systems used for critical operations such as operational control, billing, etc. Isolation can either be physical or virtual as in the case of an internet "firewall".

SOFTWARE SECURITY PATCHES: This may be one of the most overlooked issues with regards to computer system security. Hackers are keen on finding and exploiting vulnerabilities of operating systems and software. In response, software companies routinely issue software updates aimed at fixing these vulnerabilities and thus preventing attacks. It is important to routinely take the time to allow the software updates, from the legitimate trusted source, to be downloaded and installed.

REMOTE CONNECTIONS: Modern SCADA operating systems typically allow for operators to log-in remotely and make changes to the operation of the water system. Whenever it is possible for an authorized employee to log in, it is also possible for a vandal or disgruntled ex-employee to log-in also. Water system management must ensure that access is monitored and controlled so that only authorized log-in is allowed. Similar to the need to occasionally change the locks on a building, it is necessary to over time change computer authorizations so that only the appropriate personnel have access. Management should also ensure use of strong and regularly changed passwords, use encryption systems, and perhaps consult with an outside computer systems specialist to ensure that the security protocols are up to date with current practice and technologies.

SECURITY AWARENESS: For any security management plan to work effectively, the employees involved will need to be trained concerning appropriate practices and protocols. All employees must maintain awareness of security issues on a day to day basis.

Bottles continued

5. Don't write anywhere on the bottle or place labels or tape on the bottle. These interfere with the accuracy of the test. The writing and labels obstruct the view of the sample in the bottle and may also interfere with the fluorescence detection. If the laboratory cannot verify the sample results, the sample will be rejected. Writing on the expiration label will result in the sample being rejected.
6. Don't write or place any labels on the bottle cap. The cap is used by the lab to write the laboratory sample number for tracking the sample through the analysis process. Writing and labels which interfere with the processing of the sample will result in rejection of the sample.
7. If it is necessary to place identification on the sample, please only use masking tape or a sticky-note on the bottle cap only. Do not use any other tape or labels which are not easily removed or would leave a residue on the bottle cap. These should be removed prior to delivery to the laboratory.

Consumer Confidence Reporting for 2011

Tyrone Tidwell

As required by EPA's Consumer Confidence Report (CCR) Rule, each year by July 1st all community water systems in Arkansas must submit a water quality report to their customers and the Arkansas Department of Health. The required method of delivery to customers is based on the retail population served by the water system. By October 1st of each year, the systems must also provide the State with certification that the report was appropriately distributed to customers, and that the information contained in the report was correct and consistent with compliance monitoring data previously submitted to the State. Systems that sell water to other systems are required to provide their consecutive systems with applicable CCR data by April 1st of each year, so that those systems have time to prepare their own reports. New community water systems must meet all requirements of the CCR Rule by July 1st after the first complete calendar year of operation. Systems are required to maintain copies of their CCRs for 3 years, and deliver copies of the report upon request.

The Consumer Confidence Report should contain information on the quality of drinking water the water systems deliver to their customers. The consumers can use this information to make informed decisions about their water usage. The report can be particularly important for people with health conditions that make them more susceptible to the health effects of drinking water contamination.

If you would like to learn more about composing your water system's Consumer Confidence Report, you may attend one of the CCR training sessions presented at the Health Department in Little Rock. They will be conducted on Thursday, March 15th and Thursday, April 5th, from 10:00 – noon. For more information, or to register for the training, please call Tyrone Tidwell at 501-661-2623 or e-mail at tyrone.tidwell@arkansas.gov

A letter containing information on how to request the Engineering Section staff to complete your water system's 2011 CCR will be mailed in January. If you do not receive a letter and would like us to prepare your water system's CCR, or if you have questions about your water system's Consumer Confidence Report, please contact Tyrone Tidwell or Doug Dawson at 501-661-2623.

Staff News:



Doug Dawson has joined the Engineering Section as an Environmental Specialist and will be working with Transient Non-Community water systems and will help in preparing Consumer Confidence Reports. Doug has a B.S. in Biology specializing in Fisheries and Wildlife Management from UALR and has previous experience in the wastewater field.



Evelyn Kort has rejoined the Engineering Section as a Geologist and will be working in the Wellhead Protection and Source Water Protection programs. Evelyn has a B.S. in Geology from Long Island University and a M.S. in Geology from Texas A & M. Evelyn has previous experience with ADEQ where she worked in the Ambient Groundwater Program, has previous experience with ADH drinking water program and has worked as an environmental consultant.



Darcia Routh – pronounced “dar-sha ruth” has joined the Engineering Section as a Geology Supervisor and will coordinate the Wellhead Protection and Source Water Assessment programs. Darcia is registered as a Professional Geologist in the state of Arkansas. Darcia has a B.S. in Geology from the University of Oklahoma and M.S. in Geology from the University of Iowa. Darcia has previous experience in regulation (ADEQ), in teaching (LSU), and private industry (an exploration geologist with Shell Oil).



Ashley Wiedower has joined the Engineering Section as a District Engineer. Ashley will be working in District 9 covering six counties in North Central Arkansas. Ashley is certified as an Engineer Intern in the state of Arkansas. Ashley has a B.S. in Biological Engineering from the University of Arkansas at Fayetteville and is scheduled to receive a Master's Degree in Food Science in May of 2012.



Taylor Brown has joined the Engineering Section as a Water Quality Engineer and will be working with Transient Non-Community water systems and will assist the Lead and Copper program. Taylor has a B.S. in Civil Engineering and a Masters of Architecture from the University of Illinois. Taylor is licensed as a Professional Engineer in Arkansas and Arizona and is licensed as an Architect in Arizona. Taylor's experience includes design of utility infrastructure and geotechnical and forensic analysis.

Drinking Water State Revolving Loan Fund Applications

Teresa Lee, P.E.

The time has come for the Arkansas Department of Health to begin receiving applications for the 2013 Drinking Water State Revolving Fund (DWSRF). Applications were mailed to all qualifying water systems in December, and the deadline for submission is April 13, 2012.

This year 20% of the Fund is designated for green project grants. Examples include projects to improve energy or water efficiency. Principle forgiveness loans of up to 30% will be available to disadvantaged communities. Projects submitted for consideration do not have to be restricted to those substantially ready for design or construction. If you envision a project within the next few years, we encourage you to go ahead and submit your application now. If you have any questions or need an application, please contact Teresa Lee at (501) 280-4128 or Teresa.Lee@arkansas.gov.

Major Monitoring, MCL, Treatment Technique, & Licensing Violations

Community & Nontransient Noncommunity Public Water Systems July – Sept., 2011

ADC-CUMMINS UNIT MAINT	BMCL 8	PARTHENON WATER ASSOCIATION	BMCL 8
ALTHEIMER WATERWORKS	BMCL 8	PARTHENON WATER ASSOCIATION	Bmon 9
BEDFORD FALLS	Bmon 9	PIGGOT WATERWORKS	BMCL 8
BEULAH GROVE WATER	Bmon 9	PLAINVIEW WATER DEPARTMENT	TMCL 7
BOWSER WATER ASSN	BMCL 7	PLAINVIEW WATER DEPARTMENT	Bmon 8
BOYDELL WATER ASSN	Bmon 8	PORTIA WATERWORKS	BMCL 7
BULL SHOALS WATER	BMCL 9	POYEN WATERWORKS	BMCL 8
CABOT WATERWORKS	BMCL 9	RECTOR WATERWORKS	Bmon 7
CARROLL-BOONE WATER DIST	Bmon 8	SALINE CO WW SS PFB	Bmon 9
DENNING WATERWORKS	Bmon 9	SDM WATER ASSOCIATION	RMCL 7,8,9
DIAMOND CITY WATER	Bmon 8	SDM WATER ASSOCIATION	FMCL 7,8,9
DIAMOND CITY WATER	Bmon 8	SEVIER CO WATER ASSOCIATION	DMCL 7,8,9
FRANKLIN-SEBASTIAN PWA	Bmon 8	SHANNON HILLS WATER DEPT	BMCL 9
GREENBRIER WATERWORKS	DMCL 7,8,9	SOUTH MOUNTAIN WATER ASSN	RMCL 7,8,9
GREENWAY WATERWORKS	Bmon 7	STARKEY'S MOBILE HOME PARK	BMCL 7
GREENWOOD WATERWORKS	DMCL 7,8,9	SYLVAN SHORES SD WATERWORKS	Bmon 7
GREENWOOD WATERWORKS	Bmon 8	TALL OAKS MHP	IMCL 7,8,9
HOSANNA HEIGHTS WATER	BMCL 8	TALL OAKS MHP	BMCL 8
HOSANNA HEIGHTS WATER	Bmon 9	TUCKERMAN WATERWORKS	Bmon 9
IMBODEN WATERWORKS	BMCL 9	TYRONZA WATERWORKS	BMCL 8
JAMES FORK REGIONAL WATER DIST	DMCL 7,8,9	ULM WATERWORKS	BMCL 9
JASPER WATERWORKS	Bmon 9	WALDO WATERWORKS	Bmon 8,9
LAKEVIEW-MIDWAY PUBLIC WATER	Bmon 8	WALDO WATERWORKS	OperLic 8
LOCUST BAYOU WATER ASSOCIATION	BMCL 9	WALDRON WATERWORKS	DMCL 7,8,9
MAGAZINE WATERWORKS	BMCL 7	WALKERVILLE WATER ASSOCIATION	BMCL 7
MAYFLOWER WATERWORKS	DMCL 7,8,9	WESTERN GROVE MUNICIPAL WATER	Bmon 9
MILLTOWN-WASHBURN WATER USERS	BMCL 7	WHEATLEY WATERWORKS	BMCL 7
MORNING STAR WATER	FMCL 7,8,9	WILLIFORD WATERWORKS	BMCL 8
MOUNTAIN PINE WATERWORKS	OperLic 9		
MT SHERMAN WATER ASSOCIATION	RMCL 7,8,9		
MURFREESBORO WATERWORKS	DMCL 7,8,9		
NORTH HOWARD RURAL WATER ASSOC	BMCL 9		
NORTH JACKSON CO WATER ASSN	Bmon 9		
OGDEN WATERWORKS	Bmon 9		
OIL TROUGH WATERWORKS	Bmon 9		
O'KEAN WATERWORKS	BMCL 9		
OLA WATERWORKS	Bmon 7		
OLD UNION WATER ASSOCIATION	DMCL 7,8,9		

KEY: Bmon = Bacti Monitoring; BMCL = Bacti MCL; Dmon = Disinfection By Product Rule Monitoring; DMCL=Disinfection By Product Rule MCL or Treatment Technique; GWRMCL=GWR Treatment Technique; GWRmon= GWR Monitoring or Reporting; Tmon = SWTR Major Monitoring; TMCL = SWTR Treatment Technique; SWTR= Failure to Filter; RMCL = Radiochemical MCL; FMCL = Fluoride MCL; IMCL=Inorganic Chemical MCL; SMCL = Synthetic Chemical MCL; OperLic = Operator Licensing; 7=June, 8=August, 9=September

Monitoring Indicates Crypto Threat Lower Than Thought

(Note: This article appeared December 13, 2011, AWWA Streamlines, and is reprinted here with the permission of AWWA.)



American Water Works
Association

At a stakeholder meeting Dec. 7 on the Long-Term 2 Enhanced Surface Water Treatment Rule (LT2), the US Environmental Protection Agency presented preliminary data suggesting that *Cryptosporidium* is less prevalent in drinking water supplies than anticipated by the current rule.

The data come from the initial round of monitoring under LT2. The meeting was held to review LT2 monitoring requirements prior to the second round of monitoring required by LT2 and to evaluate the LT2 in the next Six-Year Review cycle.

USEPA requested input from stakeholders on one specific issue: requiring analytical method improvements that would increase average oocyst recovery by 20 percent—from 40 percent to 60 percent. Based on source water conditions, some samples would be much more significantly affected than others.

“Pursuing changes to LT2ESWTR construct is akin to pulling a thread on a sweater in that changing one aspect of the rule rapidly impacts other elements of the rule construct in a cascade of interwoven dependencies,” said Alan Roberson, AWWA director of regulatory relations. “For example, the change in the analytical method offered by EPA could result in an increased likelihood a water system would be required to install treatment based on the second round of monitoring and thus raise the question of whether bin boundaries [i.e., thresholds for additional treatment] should be shifted.”

USEPA presented preliminary, summary statistics from the LT2 first-round monitoring, most significantly:

- More water treatment plants had all non-detects than anticipated, with 51 percent of water treatment plants (WTPs) reporting no detection.
- The average concentration of oocysts was 0.016 rather than 0.053 oocysts/L as anticipated.
- Additional data show there were more non-detects and conversely fewer detects than anticipated (93 percent of samples were non-detects).
- Fewer source waters than anticipated had mean concentrations greater than 0.075 oocysts/L — meaning that no additional treatment is required.
- As system size decreased, smaller systems were more likely to observe oocyst levels greater than 0.075 oocysts/L.

One agency conclusion is that the lower level of observed occurrence appears to be real and not due to a systematic change in recovery. The agency has not decided how it will determine whether any changes are needed in the rule.

During the stakeholder meeting, USEPA pointed out several aspects of LT2ESWTR requirements:

- The current LT2ESWTR second round monitoring requirements do not provide for submittal of grandfathered data.

- The current LT2ESWTR treatment requirements do not specifically address what a system will have to do if Round 2 monitoring finds a lower level of *Cryptosporidium* oocysts in a water treatment plant's source water that would place a water treatment plant in a lower treatment regimen.

AWWA and other stakeholders brought up important concerns to be addressed:

- Consider either dropping Round 2 monitoring or modifying the monitoring in a way that provides more value to water systems and informs health risk reduction.
- Identify opportunities to reduce costs where possible.
- Genotype positive samples, which would be informative.
- Consider improved accuracy of the analytical method and the implications for treatment requirements, if USEPA is going to pursue improved oocyst recovery.

USEPA intends to release a redacted dataset from the Round 1 monitoring, but officials did not say when it will be released and what data will be withheld.

"AWWA will need to elicit additional discussion of LT2 Round 1 data analysis," said Roberson.

The agency anticipates a meeting in the spring of 2012 to discuss uncovered finished water storage and other LT2ESWTR topics.

Utilizing OpCert Training Fund

Provided By USEPA OpCert Training Fund

The OpCert training fund covers registration fees, meals, and lodging for mandatory courses for water license exams, backflow tester and backflow specialist courses. Registration fees are eligible for AETA environmental health and safety courses, and utility management courses. Registration fees only are eligible for ARWA courses concerning cave in protection, and confined spaces.

When registering for eligible training courses, a few simple extra steps are needed to take advantage of the USEPA OpCert Training Assistance Fund. The course must be an approved OpCert course, the individual attending the course must be an operator (volunteer or paid) for a Community, or Non-Community Non-Transient Public Water System serving fewer than 3300 persons and an overnight hotel stay must be justified.

Please contact the training providers listed below to determine your eligibility and to register for eligible courses utilizing the fund (a very simple process). You should register well in advance of attending a course. The latest listing of courses can be found on the internet at: www.healthy.arkansas.gov/eng/autoupdates/oper/opcertlinks.htm

Contact information for the two eligible trainers is:

AR Environmental Training Academy – Contact Letitia Rusch – (870) 574-4551 – lrusch@sautech.edu

AR Rural Water Ass'n – Contact Sharon Wakefield – (501) 676-2255 – info@arkansasruralwater.org

Free Exam Study Manuals: If you are an operator for an eligible system, a complete set of exam reference manuals may be available, free of charge. Please contact the Water Licensing Program at (501) 661-2623 to receive the manuals.

Study Shows Increase in Monitoring Equipment in Calibration

Austin Lee, EI, CPE Engineer

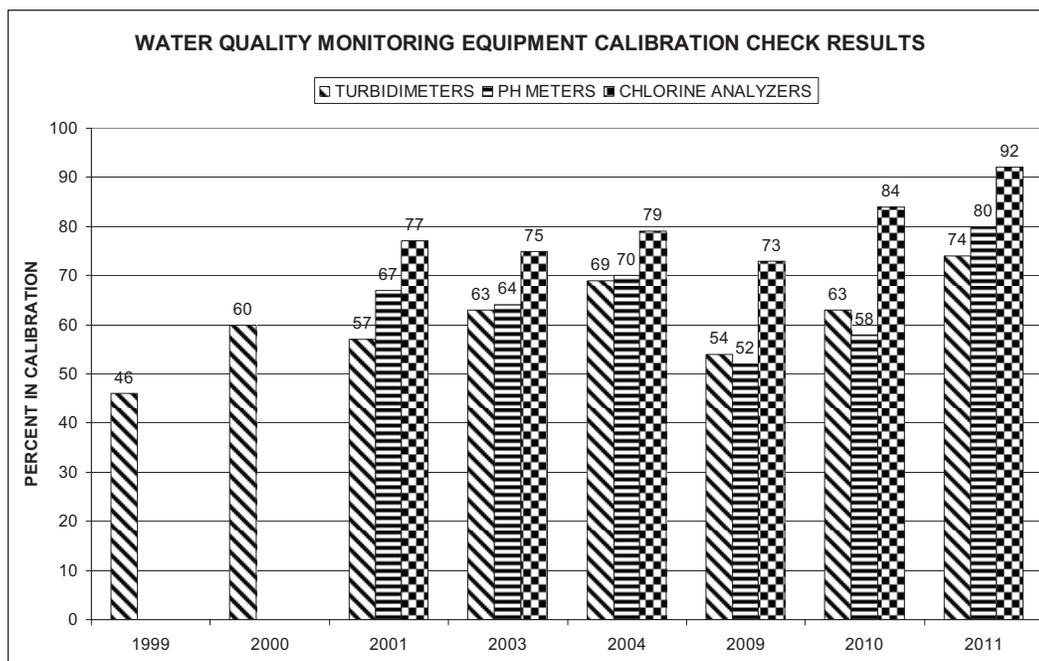
Results from the previous three consecutive years of calibration checks on water quality monitoring equipment have shown a steady increase in the percentage of equipment in calibration. This summer two undergraduate engineering students, Maegan Moon and Andrew Mainer, at the University of Arkansas, Fayetteville, were hired by ADH as summer interns with job duties that included checking the calibration of turbidimeters, pH meters, and chlorine analyzers at surface water treatment facilities around Arkansas. These instruments assist facilities in monitoring their performance and documenting compliance with federal regulatory requirements.

The future goal is to find at least 95% of water quality monitoring equipment to be in calibration. Of the 48 systems that were surveyed, 74% of turbidimeters, 80% of pH meters, and 92% of chlorine analyzers were found to be in calibration. Calibration guidelines were set by ADH or EPA.

Of the 340 turbidimeters checked at 48 systems this summer, 74% were in calibration. Each system's turbidimeters were compared with an ADH portable unit which was calibrated each week. The majority of turbidimeter manufacturers advertise their equipment as being accurate within $\pm 2.0\%$. The unit was considered in calibration when comparing the onsite unit with the ADH unit if the measured turbidity difference between the units was 0.050 NTU or less when the turbidity was less than 0.50 NTU, or it was 10.0% or less for water greater than 0.50 NTU. For differences between 10.0-20.0%, the unit was determined to be out of calibration with differences greater than 20.0% considered significantly out of calibration. Fifteen percent of turbidimeters were determined to be out of calibration while eleven percent were significantly out of calibration. Turbidimeters have been checked intermittently in eight of the previous 11 years by summer interns ranging in 46-74% in calibration.

There were 48 systems with 65 pH meters surveyed which resulted in 80% in calibration. As with the turbidimeters, a portable pH meter from ADH which was calibrated at each system was compared with the onsite unit. The meter was considered in calibration when the difference between meters was 0.25 pH units or less. When the difference was 0.25-0.50 pH units, the meter was out of calibration while greater than 0.5 pH units was determined to be significantly out of calibration. Twelve percent of pH meters were not considered in calibration where as eight percent were significantly out of calibration. The pH meter checks have been performed intermittently in six of the last 11 years with 52-80% considered in calibration.

Chlorine residual measured with an ADH portable digital colorimeter was compared with 98 chlorine analyzers at 48 systems this summer with the conclusion that 92% of colorimeters were in calibration. For chlorine residual less than or equal to 0.70 ppm, a difference less than 0.10 was in calibration, of 0.10-0.20 was out of calibration, and of greater than 0.20 was significantly out of calibration. For residuals between 0.70-1.70 ppm, a difference less than 15% was in calibration, of 15-30% was out of calibration, and of greater than 30% was significantly out of calibration. For residuals greater than 1.70 ppm, a difference of less than 0.25 was considered in calibration, of 0.25-0.50 was out of calibration, and of greater than 0.50 was significantly out of calibration. Two percent of chlorine analyzers were out of calibration while six percent were significantly out of calibration. Similar to pH meters, chlorine analyzers have been checked intermittently six of the last 11 years ranging in 73-92% in calibration.



Report Of The Arkansas Drinking Water Advisory and Operator Licensing Committee

A. Martin Nutt, Training and Certification Officer

The quarterly meeting of the Arkansas Drinking Water Advisory and Operator Licensing Committee was held on October 12, 2011 in Lonoke, Arkansas. Committee members present were: Scott Borman, Committee Chair, Benton Washington RPWA; Terry House, Committee Chair Elect, Grand Prairie Bayou Two PFB; Matthew Dunn, P.E., Crist Engineers, Inc.; Tim Shaw, Community Water System; and Jeff Stone, P.E., Executive Secretary, Arkansas Department of Health (ADH). Member absent were Susan Merideth, P.E., Jonesboro City Water and Light; and Findlay Edwards, P.E., University of Arkansas. ADH staff & guests present were: Reginald Rogers, Attorney, ADH; Martin Nutt, Training and Certification Officer, ADH; Ida Hampton, Administrative Specialist, ADH; Gary Oden, SAU Tech for the Arkansas Environmental Training Academy; Jeremy Rowe, AETA; and Dennis Sternberg, Arkansas Rural Water Association.

The Committee's first order of business was the appointment of Jeff Stone, ADH Director of Engineering, as the Executive Secretary of the Committee replacing Robert Hart. The Committee welcomed Stone to the Committee.

Standing Business

The Committee reviewed and approved the minutes from the July 13, 2011 meeting. The Committee did not have a High School Waiver request to address.

Nutt presented an Update Report for the SDWA OpCert Operator Training Grant. The report provided a spreadsheet outlining spending over the past 18 months, noting that last years spending had been approximately \$200,000, with a remaining balance of approximately \$311,000. The grant has another 18 months and most of the grant should be spent by the end of the grant. The Committee authorized Nutt to address changes in the grant workplan to help assure the grant is fully spent.

Sternberg updated the Committee on the cost and uses for mobile training trailers. He noted at a recent National Rural Water Association meeting he had the opportunity to tour the Colorado and South Dakota trailers. Both Associations valued their equipped trailers at approximately \$100,000. The Committee continued to support the idea of the trailers but questioned whether the grant could support the purchase. Borman requested ARWA and AETA get together and combine what it would take for the mobile training facilities that would work for both parties and provide the Committee with a more complete proposal.

Nutt requested the Committee review the "SDWA Operator Certification Expense Reimbursement Grant Report" and provide their comments to him. He then highlighted certain sections of the report.

Nutt provided the Committee with a preliminary combined schedule of 2012 mandatory training for AETA, ARWA, and ADH. He stated efforts were ongoing to eliminate scheduling overlaps where possible and thanked the two trainers for their efforts.

Old Business

Nutt reviewed the previous meeting's hearing in reference to Denny Caples appeal of his denied license renewal. Nutt provided the Committee with a formal document providing the findings of fact and conclusions taken by the Committee to deny the appeal. Nutt requested the Committee review it before authorizing Borman to sign it. The Committee then agreed with the signing of the document, with Nutt stating he would forward the document and a copy of the hearing's transcript to Caples. He expected this would conclude the matter.

Nutt addressed the 2011 Water License Renewal cycle. He stated in mid May 2011, 3,608 renewal invoices were issued. This represented about 2,300 individual license holders. He stated that presently 3,229 renewals had been submitted, 379 renewals had not been submitted, approximately 15 renewals needed to be processed and that 24 renewals were being held pending additional training documentation.

Stone provided the Committee an update on the Fluoridation Law and the progress of PWS Regulation changes to implement it. (Please see related articles in this newsletter on this topic.)

New Business

Nutt requested the Committee review the "SDWA Operator Certification OpCert Guidelines Report" and provide their comments to him. He stated EPA utilizes the report to determine if the Section was continuing to meet the Federal OpCert Guidelines. He then highlighted several sections of the report.

Nutt then addressed several matters concerning the Association of Boards of Certification. He confirmed the Committee still requested the newest Committee member to attend ABC's Annual Conference in January 2012 and then obtained Shaw's consent to attend. He addressed changes ABC was making to become ANSI/ISO/IEC 17024 accredited, noting that changes in the Arkansas license exams, primarily the conversion to ABC's standardized exam, may become necessary. ABC is seeking the accreditation to increase the validity of their license exam products.

Committee Reports

Stone provided a Section Director's report. He reviewed the Drinking Water Program's funding sources, which include service fees, the EPA PWS Supervision Grant, the EPA SRF set-aside funds, State General Revenue funds, and the CDC Fluoridation grant. The budget for the Section and the drinking water program's ADH laboratory costs total to around \$9,000,000 dollars. He then reviewed the status of the Section Director's position, noting he and Lance Jones had divided the Director's duties while the position was being filled. He noted the position closed for applications today and that the selection process should progress quickly.

Nutt, in his Training & Certification Officer's Report, called the Committee members attention to the exam pass/fail spreadsheet handout. He specifically addressed a new total line, showing performance of exams post the implementation in April of the 2011 version exams. He noted some slippage in pass rates in the very small representative pool that he hopes would be self-healing with a larger pool of examinees over time.

Nutt reviewed a licensing Enforcement Report and noted that the Crabapple Point Water System difficulty in complying had been negated when their status as a Community PWS was changed to a Transient Non-Community PWS, which eliminated the requirement for a licensed operator.

Nutt provided a license program update. He noted that Heather Parker-Foster, Training Coordinator, resigned in mid-September and the process to fill the position had started. He indicated that turnaround times for processing exams and licenses were taking longer due to ABC exam grading turnaround times being longer. He noted that the program was participating in ABC's "Go Green" efforts and had started receiving the grading reports by email, eliminating the two-day delivery time for graded exams.

Rowe provided AETA's report. He stated AETA's training calendar was awaiting AETA Director Harper's approval and would provide Nutt a copy of the final schedule when available. He reported AETA lost an EPA Brownfield training grant and AETA was looking for additional sources of money.

Sternberg provided ARWA's training report. He passed out an attendance handout of ARWA Water Classes from January through September 2011. This handout included all ARWA Conferences, Expo's, and Water Training Classes. The total number of Water Operators in attendance for all functions was 1,938. He reported the ARWA Board decided to raise membership rates at their meeting on October 13, 2011 and will be looking at fee-base training or a yearly training assessment fee. Sternberg stated ARWA lost two EPA grants and one USDA grant. This resulted in two trainer/TA providers and a part-time clerical staff being laid off.

With no other business, the Committee set its next meeting date for Wednesday, January 11, 2012. The meeting received and passed a motion to adjourn.

Arkansas Water Works & Water Environment Association Annual Conference and Short School

**April 29 to May 2, 2012
Hot Springs Convention Center
Hot Springs, Arkansas**

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 consists of two full days of training with six sessions each day providing 12 concurrent training topics per session. The exhibit hall Sunday afternoon through Tuesday morning will have water industry related companies displaying their products.

The Conference will be tracking 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 Basic Water Math course is on Monday and either the Applied Water Math course or the ADH Public Water System Compliance course is on Tuesday. You must register for the conference to attend the courses. They begin at 8:00 each morning and end at 5:00 each afternoon, with a shortened lunch break. Attendance of the entire course is required to receive a course completion certificate.

Water Operator Licenses Issued

August 1, 2011 through November 30, 2011

LICENSEE NAME	GRADE/TYPE	WATER SYSTEM NAME
ADAMS BRADLEY	D - II	HELENA WATER SEWER
ALEXANDER JEFF	D - II	LONG LAKE WATER ASSOCIATION
BALL DAVID	T - I	FREEDOM WATER ASSOCIATION
BENDER JAMES	D - IV	BUFFALO ISLAND REG WATER DIST
BIRTCHEER BRIAN	D - III	BENTONVILLE WATER UTILITIES
BLACK NEAL	T - IV	MENA WATER DEPT
BRYANT JAMES	D - IV	EL DORADO WATERWORKS
BRYANT TERRY	D - IV	CENTRAL ARKANSAS WATER
CANNON TIMOTHY	T - II	CAMDEN WATERWORKS
COPLIN TIMOTHY	D - III	HOT SPRINGS UTILITIES
CORNELISON JOHNNY	D - III	HOLIDAY ISLAND WATERWORKS
CURTIS BRUCE	T - IV	MADISON CO WATER FACILITIES BD
DAVIS CHARLES	D - VSS	CONWAY CO REGIONAL WATER DIST
DELGIORNO GABRIEL	D - I & T - II	NO WATER SYSTEM PROVIDED
DOUGLAS BILLY	T - III	DEVALLS BLUFF WATERWORKS
EARLEY ARTHUR	T - I	BISCOE WATERWORKS
FRALEY KENNETH	T - IV	WYNNE WATERWORKS
GARDNER MICHAEL	D - III	MC CRORY WATERWORKS
GILES MISTY	D - I	JACKSONVILLE WATERWORKS
GOLDEN CHRISTOPHER	D - VSS	COMMUNITY WATER SYSTEM
GOSNELL RONALD	T - III	PYATT WATERWORKS
HALE GREGORY	T - IV	HOSANNA HEIGHTS WATER
HAMILTON JAMES	D - IV	LONOKE WATERWORKS
HARVEY KENNETH	T - II	SEARCY WATERWORKS
HENDRIX MATTHEW	T - II	NO WATER SYSTEM PROVIDED
HOOPER LARRY	D - II	SHUMAKER PUBLIC SERVICE CO
HOUSTON JEFFREY	D - III	KEISER WATERWORKS
HOWARD DANNY	D - II	BALD KNOB WATERWORKS
KELLEY JIM	T - I	MADISON CO WATER FACILITIES BD
LANGLEY RICK	D - III	LOST BRIDGE VILL WAT-SEW DIST
LEE RICKY	D - II & T - II	LONOKE WATERWORKS
LEROY DENNIS	D - IV	MENA WATER DEPT
MCANELLY MICHAEL	D - IV	ST FRANCIS RIVER REG WATER DD
MCCOY CLETUS	D - I	SILOAM SPRINGS WATERWORKS
MCENTIRE CODY	D - I	BALD KNOB WATERWORKS
MCPHERSON ROBBIE	T - III	OPPELO WATER DEPARTMENT
MEEKS HERSCHEL	D - I	BEAVERFORK VOLUNTEER FD WSD
METCALF PAUL	T - IV	BATESVILLE WATER UTILITIES
MILAM ROY	T - II	PFEIFFER WATER AUTHORITY
MOORE GREGORY	T - IV	BLACK ROCK WATERWORKS
MORRIS RANDY	D - II	PLAINVIEW WATER DEPARTMENT
NEWCOMB CHRISTOPHER	T - I	MARION COUNTY REG WATER DIST
NORBURY KENNETH	D - IV	KIMZEY REGIONAL WATER DISTRICT
O'CONNOR JOHN	T - II	CROWLEYS RIDGE WATER ASSOC
OMARI NAEEM	D - I & T - I	LAKE CITY WATERWORKS
		BARLING WATERWORKS
		DEQUEEN WATER WORK
		GILMORE WATERWORKS

Water Operator Licenses Issued (continued)

August 1, 2011 through November 30, 2011

LICENSEE NAME	GRADE/TYPE	WATER SYSTEM NAME
PAUL RUSTY	D - IV	DOTA PUBLIC WATER AUTHORITY
PAYNE BRADLEY	D - III	CENTRAL ARKANSAS WATER
PAYNE DAN	T - IV	CLINTON WATERWORKS
PETERSEN LUCAS	D - IV	PLEASANT VIEW WATER FAC BOARD
PHILLIPS CODY	D - III	FAYETTEVILLE WATERWORKS
PHIPPS ANDREW	T - IV	BENTON-WASHINGTON REGIONAL PWA
REAMS VERNON	D - I	HIGHFILL WATER DEPARTMENT
REARDON COREY	D - III	GRAVETTE WATERWORKS
REEP TENAY	D - IV	WARREN WATERWORKS
		CORINTH VALLEY WATER SYSTEM
		SW WARREN WATER ASSOCIATION
RICHARDSON JOHN	D - II	ROCK MOORE WATER AUTHORITY
ROBINSON RONNIE	D - IV	JACKSONVILLE WATERWORKS
SCHLINKER TERRY	D - IV	SPRINGDALE WATER UTILITIES
SETTLEMOIR KARLA	T - I	ASHDOWN WATERWORKS
SILVA ANTHONY	D - I	EUREKA SPRINGS WATERWORKS
SIMON WILLIAM	T - I	PARKIN WATERWORKS
SMITH JR JAMES	D - III	SEARCY WATERWORKS
STROTHER RODEY	D - III	MENA WATER DEPT
SULLIVAN STEPHEN	D - IV	CENTRAL ARKANSAS WATER
TAYLOR MARLON	D - III	GRANGE-CALAMINE WATER ASSOC
THOMAS RICK	D - IV & T - III	CARROLL-BOONE WATER DISTRICT
TIPTON COLON	T - I	ENGLAND WATERWORKS
TROTTER RICKEY	D - IV	SHANNON HILLS WATER DEPT
TURNER JEREMY	D - IV	SEARCY WATERWORKS
TYSON JON	D - II	HAMBURG WATERWORKS
WAGNER JACOB	D - III	PEA RIDGE WATERWORKS
WARD ERICK	D - III	SILLOAM SPRINGS WATERWORKS
WEIGE JAY	D - IV	N GARLAND CO REG WATER DIST
WHITE KAREN	D - IV	CENTRAL ARKANSAS WATER
WOLFINBARGER ROBERT	D - III	HOLIDAY ISLAND WATERWORKS

Got a Question?

The main purpose of this newsletter is to be a source of information to the water system operators and managers in the state of Arkansas. What better way than answering questions submitted directly from water operators and managers? Anyone wishing to submit a question can e-mail their question to jeffery.stone@arkansas.gov or call at 501-661-2623.

Question: What license is required if your water system fluoridates?

Answer: Fluoridation is a chemical treatment process (chemical addition) and a treatment license is required. The specific grade of treatment license that is required is determined by the existing licensing regulations that take into account the population served and if any physical treatment processes are also utilized (<http://www.healthy.arkansas.gov/aboutADH/RulesRegs/operregs.pdf>).

Question: Will a water operator of a system that fluoridates be required to attend the ADH fluoridation training?

Answer: No, neither the water operator licensing regulation nor Act 197 of 2011 (the law that requires fluoridation) requires the water operator to attend fluoridation training. The ADH is conducting fluoridation training for the benefit of water operators that are involved in fluoridation. Attendance is encouraged but not required. The time spent in fluoridation training will be credited as direct contact hours for the purposes of water license renewal.

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>January 2012</u>				
5	5:00PM	Conway	First Church of the Nazarene	Central District, AWW&WEA
5	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
11	9:00AM	Bentonville	Clarion Inn	Northwest District, AWW&WEA
12	5:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
12	5:00PM	Batesville	to be announced	North Central District, AWW&WEA
12	5:30PM	Hickory Ridge	to be announced	Eastern District, AWW&WEA
17	6:30PM	Monticello	Cowboys	Southeast District, AWW&WEA
19	12:30PM	to be announced	to be announced	Northeast District, AWW&WEA
26	6:00PM	Texarkana	The Ole Feed House	Southwest District, AWW&WEA
<u>February 2012</u>				
2	5:00PM	to be announced	to be announced	Central District, AWW&WEA
2	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
8	9:00AM	Decatur	Municipal Building	Northwest District, AWW&WEA
9	5:30PM	Wynne	Kelly's Restaurant	Eastern District, AWW&WEA
9	5:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
9	5:00PM	Batesville	to be announced	North Central District, AWW&WEA
16	12:30PM	to be announced	to be announced	Northeast District, AWW&WEA
21	6:00PM	Kelso	Kelso Baptist Church	Southeast District, AWW&WEA
23	6:00PM	Nashville	Carter Day Training Ctr.	Southwest District, AWW&WEA
<u>March 2012</u>				
1	5:00PM	to be announced	to be announced	Central District, AWW&WEA
1	6:30PM	Fort Smith	Golden Corral	Western District, AWW&WEA
8	5:00PM	Russellville	Western Sizzlin	AR Valley District, AWW&WEA
8	5:00PM	Batesville	to be announced	North Central District, AWW&WEA
8	5:30PM	Caldwell	Catfish Island	Eastern District, AWW&WEA
14	9:00AM	Rogers	Rogers Activity Center	Northwest District, AWW&WEA
15	12:30PM	to be announced	to be announced	Northeast District, AWW&WEA
20	6:30PM	Crossett	Country Vittles	Southeast District, AWW&WEA
22	6:00 PM	Camden	The River Woods	Southwest District, AWW&WEA