

### **North Carolina Waterworks Operators Association**

"Training Tomorrow's Water Professionals Today"

May 2014, Volume 17, Number 2

# GO WITH THE FLOW

The purpose of GO WITH THE FLOW is to keep you, the operator, informed of some of the training opportunities that are available for your certification needs (new and renewal). The Training/Meetings calendar will be updated quarterly as information about new training opportunities becomes available. Events may be scheduled by: NCWOA, NC Rural Water Association, NC AWWA-WEA, Public Water Supply Section, State Laboratory of Public Health, community colleges, and other sources. This newsletter may also contain information on new regulations, news from the Certification Board, and important need-to-know resource contacts.

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### **Operator's Spotlight**

Brenda Hicks, Boone WTP

Superintendent

In 1986, an operator's trainee position opened up at the Boone Water Treatment Plant. Brenda Hicks decided that she would apply and just see what happened. Hick's needed a better job at that time, as she was working three jobs just to pay the bills.

"I was driving a school bus, working as a checkout supervisor at Kmart, and cleaning houses at some ritzy developments here in Boone," she recalls. "There were a lot of applicants that put in for the job and I got chosen."

That was a blessing for Hicks, but not in the way one might expect. Obviously it allowed her to let the other three jobs go, but she had no idea that she had just launched a water industry career for herself that has now spanned 28 years. When she retires February 2015, unless some bubble bursts, she says, she will have served the Town of Boone for 29 years.

Boone produces 1.7 million GPD and Hicks says very little has changed at her water plant because it has clean water to start with.

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"Regulation of the water has been the biggest change," she says. "We have pristine water to begin with and we don't have any factories or anything contaminating our water."

Hicks worked her way up from operator trainee to the laboratory supervisor position by 2004. She holds A Surface and C Well Certifications for water treatment. In 2004, she became the WTP Superintendent after the retirement of Larry Isenhour. She describes Isenhour as being her greatest mentor, friend, and co-worker.

When Hicks launched this career for herself, she recalls that she realized very quickly when she began going to school to get her license that she was in a man's world.

"When I first started going to the schools, there weren't many women in the industry," she says. "When I was in the classroom, I might have been the third or fourth of four women in the entire class."

That didn't bother her a bit, as Hicks has an athletic side to her and a drive for a little competition. As a graduate of Watauga High School and former athlete there, Hicks has several adult sports that she regularly



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participates in, such as volleyball and softball. Her teams have won several division championships over the years. She recently took up snow skiing after the encouragement of 6 grandchildren and they think, "Nana is a pretty good skier."

She has a love for animals and she hopes to find work with a veterinarian in retirement to work with aging and injured animals. She says if she had the money to go to college after high school it would have probably been a veterinarian school. Hicks and her husband, Ronnie, own and care for 3 horses and just recently lost their prize Belgium work horse of 35 years.

"My husband actually uses our horses as work horses, gardening and farming," she says. "He's like a "type of Amish farmer."

Hicks became a member of the North Carolina Waterworks Operators Association (NCWOA) in 1987 and achieved Life Member status in 2012. Hicks commends the NCWOA for its dedication to educating operators across the state. She previously chaired the annual schools committee (2000-2002), was elected Western Section Secretary/Treasurer (2006-2008), and was awarded the NCWOA B Surface Operator of the Year (1989). To this day she remains active with the western section and attends every meeting. She is also an active member at the Antioch Baptist Church and is an avid flower gardener.

### **Operator's Spotlight** Julius Patrick, JUC WTP Superintendent

Julius Patrick began his water industry career with the City of Wilson in 1992 as its WTP operator. He stayed in that position for seven years before he transferred over to the Greenville Utilities Commission (GUC) in 1998 and has been there ever since. Patrick has been on a steady climb at GUC, moving from operator II in 1998 to operator III in 2000, relief operator in 2003, operations coordinator in 2011, and promoted to WTP Superintendent in 2012.

"I kinda just fell into the industry," says Patrick. "After high school I earned my Associate's Degree in Computer Technology and after a year of looking for a job in that field and not finding one, I just started looking for anything and there was a job opening for the City of Wilson."

Patrick says that at the time he applied for the operator's job he had no idea what he was getting himself into. He says that as he toured the plant, it overwhelmed him by the treatment process and the responsibilities of an operator.

"That really caught my attention," says Patrick. "An operator has to have integrity and work ethic because at that time, the operator was responsible for over 40,000 people in the City of Wilson. I realized that I would have a positive touch on the entire population there."

Patrick says that as he worked his way up the ladder at GUC, Cliff Strickland, operations coordinator and Ricky Langley, superintendent, encouraged employees to expand beyond operations and that really helped him develop. He enjoys working at GUC and says the staff is very close-knit and they help each other out.

"The GUC WTP staff knows the importance of their jobs," says Patrick. "We work as a team to make sure we are providing safe drinking water to customers every day. Many kudos goes out to my staff. They make my job a whole lot easier."

Patrick loves learning and is currently seeking a Bachelor of Science in Environmental Resource Management from California State University, Bakersfield. He is on tap to graduate in 2015. In 2010, he graduated Magna Cum Laude from Southern Arkansas University Tech with an Associates in Applied Science in Environmental Science and inducted into the Who's Who Among Students In American

Patrick is also very active in the North Carolina Waterworks Operators Association (NCWOA). He got actively involved in the association around 2006. He started in public relations for NCWOA and in 2015, will be its new president.

"Being involved with the Association not only fosters great relations, but helped me sharpen my leadership skills," says Patrick. "Being around great leaders in the industry kind of rubs off on you. I am always eager to go to the annual school because I always meet someone new. I really enjoy talking to the C-surface and C-well classes. I can truly say that the NC water industry is in good shape."

Patrick and his wife love to travel and his claim to fame came in 2003 when he won a showcase showdown on

> Treatment Award. This is the highest award a plant can achieve in the Partnership and OWASA is the first in the state to do so.

> > "We are the only plant in NC to have this in water treatment and are ninth in the nation," Loflin boasts. "That's a testament to the staff that is here"

Loflin has been a member of the North Carolina Waterworks Operator's Association (NCWOA) since 1991. He says the association has meant a lot to his career because of its education and networking efforts

"I can pick up the phone and call another water plant and ask what its doing and get help," Loflin says. 'That's a direct result of NCWOA and the opportunities it affords to meet other professionals in the industry."

Loflin is current treasurer for NCWOA and has served as past Public Image Chair, Chairman of the North Piedmont Section, Vice Chair of the North Piedmont Section, and Secretary/Treasurer for the section. He says his biggest accomplishment, other than being awarded NCWOA's Operator of the Year in 2011, was beating Chris Smith and Randy Hawkins out in the NCWOA slogan contest. Loflin penned "Training Tomorrow's Water Professionals Today."

"That's their pet peeve with me, is that I beat them out for that slogan," Loflin chuckles, which quickly turns into a hearty laugh. He loves to deliver a good ribbing and he has six more years in the water industry to do so before he turns his attention to his cows and hay.

**Operator's Spotlight** Ken Loflin, Water Supply & Treatment Manager at OWASA

When a person embarks on a new career path, it's probably safe to assume they say a little prayer that they in fact will like the career they have chosen. That certainly was the case for Ken Loflin, water supply and treatment manager for Orange Water and Sewer Authority



(OWASA). Loflin's father-in-law, from his first marriage, introduced him to the water industry in Siler City. There were two positions open, one at the wastewater treatment plant and a third shift operator's position at the water treatment plant. Loflin chose the operator position and to date, his career has spanned 24 years in the industry.

"I didn't think I would last this long when I started because I wasn't sure I would like it," says Loflin. "Now, I can't imagine doing anything different. I love my job and what I do and recognize the importance of what I do."

Loflin worked his way up from third shift operator to plant superintendent for Siler City before moving to OWASA. He has been with OWASA for the past 10

Universities & Colleges.

years and looks forward to the day he can retire and go to his other full time job. Loflin and his wife work a 164 acre family farm raising cows and growing hay.

"Water and farming are two full time jobs," he says. "I would like to go home and farm when I retire from the water industry."

Loflin loves both of his jobs and enjoys the day-to-day grind they each offer. Although OWASA is a fairly old plant in Carrboro, built in 1948 by the University of North Carolina at Chapel Hill, Loflin has been a part of a great conservation effort the university has been involved with developing. He says his plant services 85.000 customers with 22.000 service connections. but the water consumption is down to early 1990 levels.

"Even though we have had people come in, water demand has declined because the university has a big push to conserve water in all its facilities," Loflin says. "It uses conservation type toilets, shower heads, and faucets for this effort."

The university and the wastewater treatment plant also have a reclaim water system that allows the university to use the reclaimed water for many uses, like watering its athletic fields. Loflin is very proud to be a part of a successful conservation effort and to work with a staff of water industry professionals that strive for excellence.

Loflin says that OWASA joined the Partnership for Safe Drinking Water (PSW) in 2002 to take the first steps toward optimization. Nine years after joining, OWASA was awarded the Phase IV Excellence in Water



the "Price is Right" during a family vacation. Patrick won a car, a trip to Hong Kong, a bedroom suite, a home gym, and four, one ounce bars of gold.

"It was such an amazing experience," he says. "I really credit the win to my wife, Linda, who told me what to bid."

The Patrick's are such big fans of the show and just about every year they take their family trip to California and stand in line to participate. Even with all the glitter of California, Patrick, who was born and raised in Williamston, definitely has tar on his heels. He says North Carolina is in his blood and he takes great pride in the job at GUC and providing safe drinking water for the Greenville area. He says one would be hard-pressed to get him and his family out of the Tar Heel State.

### **Operator's Spotlight**

### Salisbury-Rowan Operators Accumulate 75 Years of Experience

The water plant operations staff for Salisbury-Rowan Utilities (SRU) is a dedicated group of individuals. They work together as one and have amassed 75 years of work experience. They each have their own area of expertise and share their talents with each other creating an environment that is a pleasure to work in. Each one individually is an exceptional operator and together they create a synergy that allows the group to be better than the individual parts. They work days, nights, weekends, and holidays and also cover for each other when annual leave is scheduled. They pull together when someone calls in sick or an emergency arises to make sure that the plant is staffed 24/7. Four of the operators were a part of the major change from a conventional plant to an Actiflo system. As with any change, there were many challenges that arose during this time frame. The operators worked together, on a daily basis, meeting challenge after challenge until the transition was completed. Throughout this several year transition period, good water quality was maintained. The operators at the Salisbury Water Treatment Plant have a passion to produce the highest quality water for the customers of Salisbury and the surrounding area. Together they have earned the Area Wide Optimization Award for the past two years. Six operators comprise the operations staff for Salisbury -Rowan Utilities.

Clint Mishak is a US Navy Veteran who has 23 years of service with SRU. Clint has a B-Surface Certification. He is very attentive to detail and notices when things change from a normal status. Because of his experience and eye for detail, Clint has been asked to train newly hired operators. He runs new operators through many scenarios that they may not experience while in training. Clint has experienced more power outages than other operators and always is able to get the plant back up and running while maintaining exceptional water quality. He is also asked to direct tours when he is on duty at the plant. Clint is a recipient of a Salisbury Customer Service Award for outstanding service while operating the plant when a major fire broke out in town.

David Barrier is a US Air Force Veteran who has 12 years of service with SRU. David has earned his A-Surface Certification. David has an exceptional memory and is very adept



at math. He has comprised a folder full of math problems beginning with typical C-Surface



Clint Mishak, Jeff Parker, and Darren Cox

problems dealing with square feet and working all the way up to A-Surface problems dealing with horsepower. The math problems are extremely helpful with getting operators ready to take the exams for the different levels of certification. His excellent memory allows him to recall things in the Sacramento Manuals that assist the other operators when trying to troubleshoot issues at the water plant. David always shows up for work early to look at the log book to see what has been happening since his last shift.

Gale Stroud left the water industry for a period of time, but kept her certification active. She had also worked for a larger municipality at one time. She has come back to



Salisbury and has been there for seven years. She has an A-Surface Certification and has recently passed the Process/Control Chemistry exam. Gale is an important part of the team and has earned the respect of her co-workers, being the only woman in an occupation that is dominated by men. Gale's experience at the larger municipality has been extremely valuable in assisting her at becoming a more proficient operator for Salisbury.

Jeff Parker has 15 years experience at the Salisbury Water Treatment Plant. Jeff is a Catawba College graduate with a degree in environmental sciences. He has earned his A-Surface Water Certification, C-Well Certification, and the Total and Fecal Coliform Certification. Jeff has been with Salisbury through the transition of the water plant from a conventional plant to an Actiflo System. Several of the other operators were also involved with this transition, which took several years to complete. During this transition many upgrades were completed with many inconveniences, making the operator job a real challenge. Jeff made the most of the transition period, learning as much as possible and asking a myriad of questions. His expertise in operation of the Actiflo is an asset to Salisbury and his fellow coworkers.

Darren Cox has 13 years experience with Salisbury. He began in maintenance and later transferred to operations. Darren has his A-Surface Water Certification, C-Well Certification, and most recently passed his Maintenance III exam on his first try. Darren does most of the maintenance work at the plant. He performs preventative and predictive maintenance on a lot of the water plant equipment. He is very adept at troubleshooting when equipment goes down without warning. He will be the first to admit that learning operations has made him better at understanding the maintenance aspect of the plant.

Henry Okiro

has just recently joined the Salisbury team, coming from a larger municipality. He had worked there for five years. Henry has an A-Surface certification along



with the Total and Fecal Coliform certification. Henry has earned the respect of his co-workers, seeing his adjustment of coming from a totally different culture. Henry is a very pleasant worker who enjoys producing quality water for the customers that Salisbury serves. Henry, being a former teacher, is able to share his wealth of knowledge with his co-workers.

These six operators represent different generations, genders, ethnic groups, and cultures. They have come together to create a family atmosphere and exemplify characteristics of what it means to be water treatment plant certified operators.

### The First 25 Years of NCWOA, 1939 - 1964

The early years of the waterworks industry in North Carolina was focused on providing safe drinking water. At the turn of the 20th century, chlorination was introduced to rid our drinking water of harmful bacteria that had caused serious illness and death among the citizenry of the United States. Many of the early leaders in the NC water industry lauded the important success of this early technology, but also recognized the need to continue to improve water treatment through new and innovative ways, therefore; they embarked on a journey to research water, build more modern treatment facilities, and train operators on how to properly maintain and operate them.

Around the same time, many organizations such as the NC AWWA, the University of North Carolina at Chapel Hill, Duke University, North Carolina State University, and the NC State Board of Health were very active in the development of rules and regulations to provide for public health protection. These groups were also in the thick of seeing that treatment facilities were built and maintained to produce the cleanest and safest potable water possible. While research was ongoing throughout the state's collegiate system to identify contaminants in drinking water and how to properly treat them, training for all water treatment personnel, especially operators, became an emerging aspect that industry leaders saw as a key to success for the crucial industry.

In 1939, a group of pioneering men came together and developed a written charter that formally organized the Association of Waterworks Operators after the NC Legislature denied passage of a senate bill that made certification for operators mandatory in NC. The goals of the new association were to encourage and elevate the status of all waterworks employees in North Carolina, assemble all waterworks operators into the new association, publish and work toward the approval of mandatory certification in North Carolina, provide training manuals for operators, and develop state and regional training schools in collaboration



Joe Stowe, 7<sup>th</sup> NCWOA President, and the first to be pictured in a yearbook in 1948.

with the state's universities and State Board of Health.

However, those early years of NCWOA would be marked with both world and local impacts. By September 1, 1939, the Germans were beginning an invasion of Poland and as a result, Britain and France declared war on Germany and so began World War II. The war effort greatly depleted the activity and membership goals of this new association. It wasn't until 1945, the end of the war, that the association's leaders began to get back on track and back to the business of its intended purpose. By 1946, they had published the association's first vearbook.

Key Components of the 1946 Yearbook

- Association Constitution, published in 1943, became a permanent part of the yearbook.
- Voluntary Plan for the Examination and Registration of Waterworks Operators in the State of North Carolina. This plan laid out the early rules for the examination and licensing of certified operators, and determined the education and years of experience levels for them.
- 111 NCWOA members
- 233 certified water operators in the state
- Membership fees were \$4.50 of which \$2.00 was the fee for membership and \$2.50 was an initiation fee that was only applied one time
- Featured the 1945 annual school program, who the instructors were, and who attended the school held at NC State University.

Between 1939 and 1964, a number of additional programs and activities would become inclusive in the routine business of the association such as, the formation of the Southeastern Section in 1957, the South Piedmont Section in May 1958, and the North Piedmont Section, July 1958. Each section was formed for the purpose to offer more regionalized training throughout the year. By 1959, all of the new sections would begin annual reporting and would play a big role in membership recruitment and training throughout each year. In those same years, the Executive Board would approve the "Operator of the Year" award. Landis water treatment operator, Billy Eugene Beavers, would become the first recipient of the award in that same year. Also, the Board of Examiners formed to administer the testing of operators wanting to get voluntary certification and by the time the first 25 years of the association had rolled around, the board reported that there were 679 certified operators in the state of North Carolina. In that time frame, North Carolina was one of only a few states that even had certified water operator programs in the country and NCWOA was the leader in that endeavor.



Other Association Accomplishments Leading Up to 1964

- The association's schools focused on new emerging contaminants and other threats to drinking water, like Atomic bombs, bacterial warfare, and other unknown enemies.
- Schools also focused on day-to-day operational techniques dealing with how to properly disinfect,
- coagulate, and filter drinking water.The State Board of Health introduced monthly reporting of
- that data.
  In 1952, the State Board of Health published fluoridation regulations in the NCWOA yearbook.
- In 1961, the federal radiation standards were adopted and also published and printed in that yearbook.
- In 1962, when the US Department of Health, Education, and Welfare published the first drinking water standards, they were also published in the 1963 NCWOA yearbook.

By the end of 1964, with Harold Falls at the helm of NCWOA in its 25th year, a lot of action had been taken by this new association of waterworks operators. By the close of that year, the association would record a fund balance of \$5,131.85 in its treasury with a membership enrollment of



Harold Falls, 25<sup>th</sup> President.

411. Twenty-three of the original 34 chartered members would still be active on the role and 41 new operators would be certified that year. Reports were given that year by the Southeastern, North Piedmont, and South Piedmont sections, wherein the Northeast and Western sections were not yet formed. These new sections had set a changing tone that would allow all members the chance to become active in the leadership of the association. Unfortunately, W.S. Mckimmon, namesake of the McKimmon Center at NCSU and one of the founding fathers of NCWOA, would pass away late in 1964 and the 1965 yearbook would be dedicated to his memory. His passing prompted the board to vote that year to establishing honorary members and life membership designations.

One thing does stand out about the first 25 years of NCWOA. It was developed by the same people we now refer to as the Greatest Generation. They not only left us a legacy, but a long-lasting devotion to providing safe and reliable drinking water to the citizens of North Carolina. Our association is strong today because of their hard work and dedication to form this honorable association of waterworks professionals.

Some of The Founding Fathers of the Association

- Dr. H.G. Baity (UNC)
- Professor R. Bright (NC State College)
- L.I. Lassiter (State Board of Health & First president of NCWOA)
- H.F. Davis (Wallace & Tiernan Co.)
- Albert O. True (Greensboro)
  E H. Moss (Baleigh)
- E.H. Moss (Raleigh)
- E.M. Johnson (Raleigh)
- J.N. Leslie (Salisbury)
- Joe C. Stowe (Hamlet Water Company)
- R.S. Phillips (Durham)
- W.S. Mckimmon (State Board of Health)

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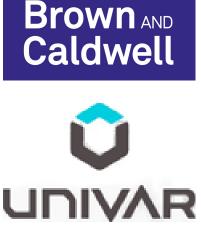












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### Notes From the NCWTFO Certification Board

### Continuing Education (Professional Growth) Requirements for Water Treatment, Distribution & Cross-Connection Operators - THE RULE

#### 15A NCAC 18D .0308 PROFESSIONAL GROWTH HOURS

(a) All certified operators shall complete six contact hours of Board approved training each year following the year of initial certification. The Board shall approve training if it determines that the subject matter of the training is relevant to water treatment facility operation, and to the professional growth of operators. Training providers shall submit an attendance roster to the Board after completion of the training event. Ultimately proof of professional growth hours is the responsibility of the operator. The roster shall contain the operator's certification ID number or the last four digits of the Social Security number.

(b) The organization providing the training shall give each participant a certificate or other proof of completion which includes the name of the provider, the provider's address, and contact person with telephone number. The proof of completion shall identify the name of the participant, the number of contact hours completed, the course name, the instructor's name, and the date of the training received. For in-house training, an instructor from outside of the organization shall provide the training. (c) The Board shall mail renewal notices to operators prior to the renewal date and shall state whether the Board has a record of their professional growth hours for the preceding year. If the Board does not have a record of professional growth for an operator, the operator must provide proof of the required six contact hours of training at the time of annual certification renewal.

History Note: Authority G.S. 90A-25.1; 90A-26; Eff. August 1, 1998; Amended Eff. November 1, 2008; August 1, 2004; August 1, 2000.

#### 15A NCAC 18D .0309 CERTIFICATION REINSTATEMENT

(a) An operator whose certification has expired may seek reinstatement within two years of expiration by paying any renewal fees in arrears, including late fees and either providing proof of continuing education for each calendar year as required in Rule .0308 of this Section, or passing another examination of that grade.

(b) Any person having a certification expired for more than two years or revoked shall apply to the Board for approval to be eligible for any further certification or reinstatement of certificate.

History Note: Authority G.S. 90A-25.1; 90A-26; Eff. August 1, 1998; Amended Eff. May 1, 2006; August 1, 2004; August 1, 2000.



Award in 1958 to Billy Beaver. Left to right W.S. McKimmon, Morris Tarlton, Billy Beaver, J.M. Jarrett, and W.R. Norton





## Workshop: From Field to Bench to Continuous Monitoring - Chlorine, pH, ORP, and DO for Drinking Water and Wastewater Applications

This workshop is designed to teach proper techniques of analyzing pH, DO, chlorine and ORP in each of the three situations: field, laboratory and continuous monitoring, in both drinking water and wastewater applications. The course objectives will be met by presenting the basics, incorporating practical applications of analytical techniques with "hands-on" experience with instruments on known and unknown samples. Instruments will be provided for hands-on practice, however; attendees have the option to bring their own instrument for pH, DO, chlorine and ORP to use in class.

8:00 - 8:30	Registration and Introduction	1:00 - 2:00	Hands-on Exercise 3: Chlorine	
8:30 - 9:15	The What, How, Where and Why of pH		Are you calibrating or verifying? Portable and lab instrumentation	
9:15 – 10:00	Hands-on Exercise 1: pH Portable, Laboratory and Online HQd meter and pH electrode sc200 and pH electrode (digital vs analog, pHD vs traditional) Other instrumentation to measure pH	2:00 – 2:15	Mystery sample CL17 setup and verification with portable instrument C110sc setup and calibration with portable instrument Break	
10:00 - 10:15	Break	2:15 – 2:45	<b>OR What?</b> What can ORP do for me?	
10:15 - 10:45	I Breathe Oxygen, but Dissolved Oxygen?		How do I do ORP?	
	Basics of DO Ways to measure DO How do you do DO in field, lab and online?	2:45 – 3:30	Hands-on Exercise 4: ORP HQd meter and ORP electrode Putting what we have learned all together	
10:45 - 11:45	Hands-on Exercise 2: DO		Sc200 and ORP electrode (digital vs analog)	
	HQd meter and LDO and LBOD electrodes Winkler Titration sc200 and LDO2	3:30 - 3:45	Final questions and Conclusion	
11:45 - 12:30	Lunch		(HACH)	
12:30 - 1:00	That Darn Chlorine! What specie do I want now?		CWOA	

### Registration form for From Field to Bench to Continuous Monitoring - Chlorine, pH, ORP, and DO for Drinking Water and Wastewater Applications

Please Print or Type – This class is v	worth 6 contact hours for DW	&/or WW Certification	S				
NAME (First, Middle, Last):			Nickn	ame (For Tag)			
SOCIAL SECURITY #:		_EMPLOYER:				_	
MAILING ADDRESS							
CITY:	COUNTY:		STATE:	ZIP:		_	
WORK PHONE:	Ext:	FAX:		EMAIL:			
NC WATER TREATMENT CERTIFICAT	E TYPE:ASBSCS	AWBWCV	V DWAD _	BD CD	DD CC/BF	None	
NC WATER TREATMENT CERTIFICAT	'E # (OPERATOR ID #):	NCWOA	MEMBER # :				
WASTEWATER CERTIFICATION #							
Cost & Location - Place a ch	eck next to the seminar	location where yo	u would like to	attend. Appli	cations must b	e received by July 21	
Cost: \$145.00 Locations:	August 5, 2014 – Hickory	/ August 6, 2	014 – Graham	August 7, 20	)14 – New Bern		
Please make checks payable to "NC mailed, faxed, or scanned but NOT						1 1 1	
<b>REFUNDS:</b> We will issue a refund (r in the same manner as payment. So be generated.							
<b>CONTACT HOUR INFORMATION:</b> Ea Facility Operators continuing education				,		n Board for Water Treatme	nt
CREDIT CARD PAYMENT							
Credit Card Type: Visa	MC AmEx Discove	r					
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Exp Date: Month Year	Security Code from back c	f Card	F	Phone: 252-764	I-2094 Fax: 25		
Cardholder's Signature:			ł	Email: cindy@no	cwoa.com		
If cardholder is other than attended To ensure that you receive the ema							

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### **NCWOA Seminars**

All NCWOA seminars listed on pages 7-8 are for 6.0 contact hours and are pre-approved by the NCWTFOCB for treatment and distribution operators. Many of the seminars will also qualify for 6.0 wastewater contact hours. Individuals that attend an entire seminar will receive a Certificate of Attendance for 6.0. Please see each individual seminar agenda or description for details. Registration form is available on page 9.

## Proactive Assessment and Implementation of Future Water Treatment Optimization Goals for Greensboro

#### May 21, 2014 in Greensboro (registration deadline is May 16, 2014)

8:00-8:30	Registration and Welcome	12:45 - 1:30	Greensboro SCADA Improvements -
8:30-9:15	Drinking Water Regulatory Update -		Pavol Segedy, Brown and Caldwell
	Eric Hudson, NC DENR	1:30 - 2:15	Charting a New Course for Greensboro's Residuals
9:15 - 1:00	UCMR Update and Impacts - Professor Detleff Knappe, NC State University		Management Program - Bill Dowbiggin, CDM Smith
10:00 - 10:15	Break	2:15 - 2:30	Break
10:15 - 11:00	Chlorine Dioxide Pretreatment - Pete D'Adamo, HDR	2:30 - 3:15	Protective Coatings for Water Treatment - David Van Zee, CMT Coatings
11:00 - 11:45	Filter Assessment and Backwash Optimization - Kelly Comstock, Brown and Caldwell	3:15 -4:00	Alternative Treatment and Gaining Approval - Tom Boyd, NC DENR
11:45 - 12:45	Lunch	4:00	Certificates awarded for 6 contact hours for DRINKING WATER and WASTEWATER certifications

### **Completing the Cycle: Sewer Collection and Water Distribution System Operations Techniques**

June 5, 2014 in Hendersonville and December 18, 2014 in Wilson

8:00-8:30	Registration and Welcome	11:00-12:00	Regulations that Impact Water Distribution
8:30-9:30	Inflow/Infiltration Reduction Program	12:00 1:00	Systems - Bill Conner, PWSS/DENR-Asheville Office
	(Regulatory Approach) - Chuck Cranford/	12:00-1:00	Lunch
	Jeff Manzel, DWQ/DENR	1:00-2:15	Flushing to Reduce Water Age and By-Products -
9:30-10:30	Flow Monitoring for Sewer Accountability - David		Tom Boyd, PWSS, DENR - Winston-Salem Office
	Lutz, City of Brevard and Wayne Miles, CDM Smith	2:15-2:30	Break
10:30-10:45	Break	2:30-3:30	Water Distribution System Quality Monitoring -
10:45-11:00	Water and Sewer System Maintenance		Brenna Cook, Laboratory Supervisor - Asheville
	Management System - Lee Smith, City of Hendersonville	3:30-4:00	Overview-What we have learned!
		4:00	Certificates awarded for 6 contact hours for DRINKING WATER and WASTEWATER certifications

### Very Small Groundwater Systems Seminar for Drinking Water Operators

August 19, 2014 in Burlington

#### 8:00 - 8:30 Registration

### 8:30 – 10:00 Rules and Regs Update/Regional Office Review for the VERY SMALL SYSTEMS

Regulations are a fact of the business. During this time, we will hear from personnel from the Public Water Supply Section on the issue as well as what's coming up in the future and how to improve compliance now.

10:00 - 10:15	Break
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### 10:15 – 11:15 Planning for the RIGHT NOW and the WHAT MIGHT BE!

Getting the MOST for the LEAST from your Operation & Maintenance Plan and Your Emergency Management Plan. We'll review both plans' purpose and how they can be beneficial to you in a real world setting. We'll also take time to review a couple to see if there are areas of improvement. Water systems are highly encouraged to bring a copy of their own plans as we hope to provide areas to improve and hopefully several systems will be willing to share their plans with the workshop so we can all learn ideals in order to improve our own. For the systems which have not developed the plans, you will also provide the framework to help them begin working and developing their own.

#### 11:15 – 12:15 Keeping YOU safe.

Health and safety topics as they relate to the Very Small System Operator. We are unique as VSS are usually a one person show, very limited budgets and usually not our only responsibility. We will review areas which we all can improve upon. It's not a matter of making safe water; it's a matter of making safe water as safely as possible!

### 12:15 – 1:15 Lunch – Provided on Site

#### 1:15 – 2:15 Getting the Most from our \$\$\$

Yes, water treatment is an art/calling/passion/gift and all those things; but it's also a business. Even if you don't sell the first gallon of water to a billed customer, there are records to keep, expenses to be paid, taxes to file and a host of money related matters.

2:15 – 2:30 Break

#### 2:30 – 4:00 Getting Testy!

Learning what field testing equipment is out there to use, when it should be used and how to get the most from the collected data. In other words, seeing if what we're doing is doing what we're seeing!

#### 4:00 Certificates awarded for 6 contact hours for DRINKING WATER certifications

### **NCWOA Seminars**

All NCWOA seminars listed on pages 7-8 are for 6.0 contact hours and are pre-approved by the NCWTFOCB for treatment and distribution operators. Many of the seminars will also qualify for 6.0 wastewater contact hours. Individuals that attend an entire seminar will receive a Certificate of Attendance for 6.0. Please see each individual seminar agenda or description for details. Registration form is available on page 9.

### 2014 Remote Lab Tech Day

August 27, 2014 in Winston-Salem, NC

August 27, 20			
8:00- 8:30	Registration & Welcome	12:00 - 1:00	Lunch - Provided on site
8:30 - 9:15	Using Colorimetric Methods with TNT Chemistries	1:00 - 1:45	Disinfection Bi-product (DBP) Discussion Panel
	for Wastewater Nutrient - Analysis/ Pam Moss, HACH	1:45 - 2:15	Pharmaceutical & Personal Care Products/ Endocrine Disrupting Compounds in Drinking
9:15 - 9:45	Test Methods for Pathogenic Bacteria -		Water and Wastewater - Speaker TBA
	Gina Kimble, City of Charlotte	2:15-2:30	Break
9:45 - 10:30	Algae, Algal Toxins and Aquatic Nuisance Plants - Mark Vander Borge, NC State University	2:30 - 3:15	Tour: Meads or Elledge Facility, Winston Salem
10:30 - 10:45	Break	3:15 - 4:00	Toxicity Testing for Drinking Water and Wastewater Facilities - Speaker TBA
10:45 - 11;15	Laboratory QA/QC, Control Charting and Root Cause Analysis - David Livingston, NC DENR	4:00	Certificates awarded for 6 contact hours for DRINKING WATER and WASTEWATER
11:15 - 12:00	Microscope Optimization and Practices - Jerry Pulsfort, JP Opitical		certifications
4			

### Maintenance Seminar: Be Proactive Rather than Reactive

October 28, 2014 in Longview

	-		
8:00 - 8:30	Registration & Welcome	1:30 - 2:15	Automation
8:30 - 9:15	Instrumentation Maintenance	2:15 – 2:30	Break
9:15 - 10:00	The Importance of Keeping Accurate Calibration/ Maintenance Records	2:30 - 3:15	System Maintenance: How an Effective Flushing Program Can Improve the Overall Health of Your System
10:00 - 10:15	Break		System
10:15 - 11:30	Pump and Motor PM	3:15 - 4:00	Well Maintenance
11:30 - 12:30	Lunch Provided on Site	4:00	Certificates awarded for 6 contact hours for DRINKING WATER and WASTEWATER certifications
12:30 - 1:30	Filtration		

### Rule Tool Box: Lead & Copper

November 13, in Durham

8:00 - 8:30	Registration	12:00 - 1:00	Lunch (provided)
8:30 - 9:00	PWS Section Regional Office Regulatory Update	1:00 - 1:30	Case Study: Conducting a CCT Study
9:00 - 10:00	Rule Requirements: Lead and Copper Monitoring and Notification	1:30 - 2:15	Case Study: Finding Out What Caused an Exceedance
10:00 - 10:15	Break	2:15 - 2:30	Break
10:15 – 10:45 10:45 – 11:15	Case study: New Source or Treatment Case Study: Significant Change and Revised	2:30 - 3:15	Rule Requirements: Water Quality Parameter Sampling
	Monitoring	3:15 - 4:00	Case Study: Studying and Adjusting Water Quality
11:15 - 12:00	Rule Requirements: Corrosion Control and		Parameters
	Treatment (CCT) Study, Installing Treatment	4:00	Certificates awarded for 6 contact hours for DRINKING WATER

### Additional Training Sponsored by NCWOA

Lab Tech Day May 6, 2014 in Raleigh

C-Level Math Review May 20, 2014 in Carthage Contact JD Monroe, (910) 947-5784

A 孝 B-Level Math Review May 21, 2014 inCarthage Contact JD Monroe, (910) 947-5784 Long Bacteriology Class July 29 – August 1, 2014 Contact Kristy, (919) 807-8756

Process Control Chemistry August 19–22, 2014 Contact Kristy, (919) 807-8756

NCWOA Annual Fall School September 22 - 26, 2014 in Raleigh Short Bacteriology Class November 5-7, 2014 Contact Kristy, (919) 807-8756

See August issue for more 2014 training events.

## North Carolina Waterworks Operators Association

SEMINAR REGISTRATION FORM Deadline for entry is receipt <u>at least 4 business days</u> before a seminar.

Space is limited - First Paid, First Accepted



Please	Print	or Ty	ype
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NAME (First, MI, Last):				Nickname (Fo	or Tag)			
SOCIAL SECURITY #:	EMPLOYER	:						
MAILING ADDRESS								
CITY:	_COUNTY:			STATE:	Z	ZIP:		
WORK PHONE:	Ext:		FAX:					
EMAIL ADDRESS:								
NC WATER TREATMENT CERTIFICATE # (OPERATOR ID #):		NCWOA ME	EMBER # :					
NC WATER TREATMENT CERTIFICATE TYPE:ASBS NC WASTEWATER CERTIFICATION # (OPERATOR ID #):					CD	DD CC	/BF	None
NCWOA MEMBER PRICE IS \$55.00 (Must put your	INDIVIDUAL NO	WOA memb	ership numb	er on the line a	bove to qu	ualify)		

**NON-MEMBER PRICE IS \$80.00** (\*Free 2014 NCWOA membership is included with this price. \*\* Free 2015 NCWOA membership included in this price.)

*Proactive Assessment and Implementation of Future Water Treatment Optimization Goals for Greensboro - May 21, 2014 in Greensboro	Cost \$
^*Completing the Cycle: Sewer Collection and Water Distribution System Operations Techniques - June 5, 2014 in Hendersonville	Cost \$
*Very Small Groundwater Systems Seminar for Drinking Water Operators - August 19, 2014 in Burlington	Cost \$
^*2014 Remote Lab Tech Day - August 27, 2014 in Winston-Salem, NC	Cost \$
^**Maintenance Seminar: Be Proactive Rather than Reactive - October 28, 2014 in Longview	Cost \$
**Rule Tool Box: Lead & Copper- November 13, in Durham	Cost \$
^**Completing the Cycle: Sewer Collection and Water Distribution System Operations Techniques - December 18, 2014 in Wilson	Cost \$

### Registration information for future seminars will be available in the August issue of Go With the Flow.

Please make checks payable to "NCWOA" or "North Carolina Waterworks Operators Association". We do NOT accept Purchase Orders. Credit Card payments may be mailed, faxed, or scanned but NOT called in. A confirmation letter/receipt and map will be mailed to each attendee once full payment is received.

**REFUNDS:** We will issue a refund (minus a \$20 administrative fee), if the refund is requested, in writing, at least 7 business days prior to the event. Refunds will be made in the same manner as payment. Substitutions may be made. Please inform us, as soon as possible, of substitutions so that the appropriate certificates of attendance may be generated.

**CONTACT HOUR INFORMATION:** Each of the seminars are worth 6 contact hours and have been PRE-APPROVED by the NCWTFO Certification Board for Water Treatment Facility Operators continuing education hours. "Proactive Assessment", "Completing the Cycle", "Remote Lab Tech Day", and "Maintenance Seminar" have also been pre-approved by the Wastewater Commission for 6 hours.

### **CREDIT CARD PAYMENT**

Credit Card Type: Visa	MCAmExDiscover		
Name on Credit Card:			PLEASE SEND APPLICATION AND PAYMENT TO: Cindy Gall, NCWOA Administrator
Credit Card Number:			PO Box 4519 Emerald Isle, NC 28594
Exp Date: Month Year	Security Code from back of Card _		Phone: 252-764-2094 Fax: 252-764-2095
Cardholder's Signature:			Email: cindy@ncwoa.com
	ee, what email address should the CC receipt be ailed receipt, please add cindy@ncwoa.com to		
NCWOA USE: Amount:	Ск#	E S	Processed:

### North Carolina Waterworks Operators Association MEMBERSHIP APPLICATION

MISSION STATEMENT: To provide knowledge, skills & educational opportunities for drinking water professionals; develop working relationships with other water treatment organizations; project a positive image and communicate the importance of safe drinking water.



### **Membership Application**

### **NEW OR RENEWAL MEMBERSHIP APPLICATION – ANNUAL DUES ARE \$20.00 FOR 2014**

First Name:	Middle Initial:	Last Name:		
Nickname: Social Security #:		If Renewal, what is your NCWOA Member #:		
YOUR Individual Operator Certification #: (Issued by NCW	/TFOCB)			
Certificate(s) Held:				
A-Surface B-Surface C-Surface	A-WellB-Well	C-WellD-Well		
A-Dist B-Dist C-Dist D-Dist	t Cross-Connection			
None Yet You are not an Operator & do no	ot plan to become Certified			
PLEASE SELECT YOUR PREFERRED ADDRESS (This	is where confirmations & m	embership info will be sent.)		
Home Address:				
City:	State Zip	County:		
Employer Name:				
MAILING Address:				
City:	State Zip	County:		
number, and membership expiration date.	Flow? Postal Delivery			
CREDIT CARD PAYMENT		PLEASE SEND APPLICATION AND \$20 PAYMENT TO:		
Credit Card Type: Visa MC AmEx	_ Discover	Cindy Gall, NCWOA Administrator PO Box 4519		
Name on Credit Card:		Emerald Isle, NC 28594 Phone: 252-764-2094		
Credit Card Number: Fax: 252-764-2094 Email: cindy@ncwoa.com				
Exp Date: Month Year Security Code from	n back of Card			
Cardholder's Signature:				
If cardholder is other than member, what email address To ensure that you receive the emailed receipt, please ad				
NCWOA USE: Amount:	СК#	E S Processed:		
Page 10 NCWOA ~ Go With The Flow				

### **Committee Members**

### 2013-2014 Executive Committee

#### President

Chris Smith Fayetteville Public Works Phone: (910) 223-4708 Email: chris.smith@faypwc.com

#### **First Vice-President**

Julius Patrick Greenville Utilities Phone: (252) 551-1561 Email: patricje@guc.com

### Second Vice-President

Jeff Isley City of Concord Phone: (704) 920-5723 Email: isleyj@concordnc.gov

#### Secretary

Michelle Clements The East Group Phone: (252) 758-3746 x 131 Email: michelle.clements@eastgroup. com

### **Finance Committee**

Board Director: Randy Hawkins

Ricky Langley (Chair) Randy Hawkins Chris Smith Ken Loflin Julius Patrick Jeff Isley

#### Professional Development Committees

Board Director: Julius Patrick

#### Seminars

Pam Moss (Co -Chair) Julia Cavalier (Co-Chair) Dyk Luben (Distribution Track) Carlton Smith (Small Systems Track) Diane Williams Tim Bishop Gary Visser Jim Adams Vance Brooks Tony Mencome Treasurer Ken Loflin OWASA Phone: (919) 537-4232 Email: kloflin@owasa.org

#### Past President Randy Hawkins City of Charlotte – Franklin WTP Phone: (704) 948-6954 x 224 Email: rhawkins@ci.charlotte.nc.us

**Chair – Board of Examiners** Carlton Smith PWS – FRO Phone: (910) 433-3300 Email: carlton.smith@ncdenr.gov

### Chair - Public Image

Kathy Gatlin Univar Phone: (704) 996-7825 Email: kathy.gatlin@univarusa. com

### Chair – Nomination Committee

Leslie Carreiro City of Asheville – North Fork WTP Phone: (828) 271-6105 Email: Icarreiro@ashevillenc.gov

### Chair – Western Section

Sam Molinas Broad River Water Authority Phone: (828) 286-0731 Email: smolinas@ncbrwa.com

#### Chair – North Piedmont Section Steve Pope Piedmont Triad Regional Water Authority Phone: (336) 382-2373 Email: spope@ptrwa.org

### Chair – South Piedmont Section

**Public Image** 

**Committees** 

Frank Ffird

**Ricky Langley** 

Julius Patrick

Kristin Lee

Kyle Smith

Tom Boyd

Pat Irwin

Paul Judge

Roy Lowder

**David Tawes** 

Victor Quick

Gary Davenport

Michael MUII

Paul Hamrick

Ken Loflin

Mike Bell

Kay Willis

Sam Molinas

Member Services

Pam Gibbons (Co-Chair)

Bessy Farmber (Co-Chair)

Board Director: Kathy Gatlin

Paul Judge PWS - MRO Phone: (704) 235-2123 Email: paul.judge@ncdenr.gov

### Chair – Southeast Section

Roy Lowder Phone: (910) 279-9351 Email: roylowder@gmail.com

#### **Chair – Northeast Section**

Pat Irwin Currituck County Phone: (252) 232-6061 Email: pat.irwin@currituckcountync. gov

### **Distribution Officer**

Kyle Smith Neuse Regional Water & Sewer Authority Phone: (252) 939-6277 Email: kyle.smith@nrwasa.org

### Operator of the Year Award

Randy Hawkins (Chair) PWS Representative - TBA Mark Townsend

### Leadership

### Committees

Board Director: Jeff Isley

#### Nominating

Leslie Carreiro (Chair) Sam Molinas Pat Irwin Paul Judge Roy Lowder

#### Rules

Tommy Overby (Chair) Mack Edmisten James Fuller Ricky Langley Jay Van Hoose Marty Wilson

### Lee Latham Vinod Korategere Tom Harden Brian Wilson Jay Van Hoose Bill Conner Annual Schools

Allan O'Briant

**Ricky Langley** 

Dail Booth

Sandra Bradshaw (Co-Chair) Mark Hahn (Co-Chair) Lee Kiser Blair Murray Chris Smith

#### Lab Analyst

Chris Goforth (Co-Chair) Chris Johnson (Co-Chair) Bernadine Wardlaw (Co-Chair) Jeff Isley Sandra Bradshaw Patricia Quinichett Cindy Gall Dustin Guyer

### Section Meetings

If your facility would be interested in hosting any of these meetings, please contact your section chair listed above. To see who you have been missing at the section meetings, check out the section meeting button on our website at www.ncwoa.com!

Northeast	Southeast	North Piedmont	South Piedmont	Western
6/12/14 Greenville Utilities	4/29/14 Sanford	5/22/14 Reidsville	6/26/14 Shelby	5/20/14 Boone
8/14/14 Kill Devil Hills	8/12/14 Chatham County	8/21/14	8/7/14	7/10/14 Waynesville
10/9/14 City of Kinston	10/8/14	10/22/14	10/23/14	10/2/14 Nebo
12/11/14 Nags Head				

Steve Beale Jesse Chadwick Gina Kimble Chris Johnson Elizabeth Meyer

#### **Board of Examiners** Carlton Smith (Chair)

**Ricky Langley** Julius Patrick Victor Quick **Heather Adams** Adam Waters Mark Hahn Chris Smith Jay Van Hoose Rani Holland Tommy Overby **Randy Hawkins** Jeff Carlisle Ken Loflin Dail Booth Paul Judge Pat Irwin

Cindy Gall, Administrator N.C. Waterworks Operators Association PO Box 4519 Emerald Isle, NC 28594 PRST FIRST CLASS U.S. POSTAGE PAID Mailed from Zip Code 56601 Permit No 71

### **Important Phone Numbers & Websites**

Main Phone # for Certification Board	919-707-9040	www.ncwater.org/?page=61
Jessica Godreau, PWS Section Chief	919-707-9078	
Linda Raynor, Compliance Services Branch	919-707-9095	
Robert Midgette, Operation Branch	919-707-9088	
Jay Frick, PWS – Protection & Enforcement Branch	919-707-9102	
Bethany Goodwin, PWS – Consumer Confidence Reports	919-707-9079	
Public Water Supply Offices:		www.deh.enr.state.nc.us/pws
Central Office	919-707-9100	
Asheville	828-296-4500	
Mooresville	704-663-1699	
Winston-Salem	336-771-5000	
Raleigh	919-791-4200	
Fayetteville	910-433-3300	
Washington	252-946-6481	
Wilmington	910-796-7215	
NC State Laboratory of Public Health	919-733-7308	
SDWA Hotline	800-426-4791	
EPA SDWA Website		www.epa.gov/safewater
EPA Microbial & DBP Data from Drinking Water Systems Website		www.epa.gov/enviro/html/icr
NC Waterworks Operators Association (NCWOA)	252-764-2094	www.ncwoa.com email: cindy@ncwoa.com
NC Rural Water Association	336-731-6963	www.ncrwa.com
NC AWWA-WEA	919-784-9030	www.ncsafewater.org