

Water Lines



Featured Article:

Upcoming Changes to Chlorine Residual Monitoring

By: Latricia Lord, Bureau of Safe Drinking Water

The Bureau of Safe Drinking Water (BSDW) recently conducted numerous training sessions regarding changes to how Chlorine Residual measurements should be collected. An additional video conference training session was scheduled in conjunction with Tigren, Inc. on June 15th.

If you were unable to attend one of these training sessions here is a brief overview.

Due to recent questions from the EPA regarding the primacy package submitted by BSDW for the Disinfectant/Disinfection Byproducts Rule, we are implementing new requirements for how Chlorine Residual measurements are obtained.

Why is this important?

Chlorine Residual results must be obtained in a manner consistent with Laboratory Methods, specifically SM 4500 Cl-G. Since the holding time of Chlorine is considered immediate (within 15 minutes) by the EPA and cannot be analyzed within that time frame by a Nevada Certified Laboratory, water system samplers are performing this analysis in the field. Therefore, these field procedures must follow a written Standard Operating Procedure and can only be obtained after an Initial Demonstration of Capability is performed by each sampler. Field Colorimeters were developed to comply with Method 4500 Cl-G and are acceptable for compliance reporting. However, they are factory calibrated and the calibration can shift over time. Utilizing these procedures will help ensure your data is legally defensible, if ever required.

What will you have to do differently?

1. Utilize an EPA approved Colorimeter that meets Method 4500 CL-G criteria with a wavelength of 490-530 nm and a light path of >1 cm. (Note: Color Wheels do not meet these criteria)
2. Develop and implement a Standard Operating Procedure (SOP).
3. Perform an Initial Demonstration of Capability (IDC).
4. Utilize Secondary Standards to verify the calibration of your Colorimeter(s).

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Why do you need a Standard Operating Procedure (SOP)?

A Standard Operating Procedure ensures consistency when a process is performed and provides a format that is easy for all operators or samplers to follow. Furthermore, it reduces the possibility of human error by providing specific guidelines for employees to follow. The BSDW has developed an SOP Template that can be tailored to fit each water system and it is available on our website at www.ndep.nv.gov/bsdw/forms.

What is an Initial Demonstration of Capability (IDC)?

An Initial Demonstration of Capability is utilized to confirm each operator can properly perform a particular procedure. It should be performed initially upon implementation of your Chlorine Residual SOP and subsequently with any significant change (i.e. new instrument, new operator, new standards). The IDC procedure is listed step-by-step in Section 6 of the SOP Template created by BSDW. An accompanying Excel Spreadsheet Tool has also been devised by BSDW for documenting the completion of the IDC and is available on our website at www.ndep.nv.gov/bsdw/forms.

What are Secondary Standards and why are they important?

Secondary Standards are available from the manufacturer of your Colorimeter(s) and come with a Certificate of Analysis from the manufacturer. They are utilized to perform the Initial Demonstration of Capability procedure and to routinely check the accuracy of your colorimeter. The Certificate of Analysis is used to obtain the Known Concentrations of the gel standards in each Colorimeter your water system utilizes for compliance purposes. Most Secondary standards are temperature sensitive and should not be exposed to extreme temperatures. The SOP is utilized to outline your water system's procedures for these requirements.

What should you do with you SOP and IDC once you've completed them?

Keep them on file for review during a Sanitary Survey. Our office and the County Health Departments will be checking for these items during Sanitary Surveys and failure to implement any procedure will be noted as a Significant Deficiency.

Please feel free to contact the Bureau of Safe Drinking Water with questions on these requirements and procedures at 775-687-9521.

The Spigot Q & A:

Focus on Alternative Treatment



1. Treatment of waste water may include all of these processes *except*:
A. Sedimentation B. Flotation C. Disengagement D. Biological Treatment
2. Which word means 'disease-causing'?
A. Susceptible B. Pathogenic C. Sterilization D. Pathologic
3. The purpose of a primary clarifier in wastewater treatment is to provide a detention time to allow suspended solids to settle. The typical primary clarifier is designed to provide:
A. 0.5 hour of detention time B. 1.5 to 2.0 hours of detention time
C. 2.5 to 3.0 hours of detention time D. 3.0 to 5.0 hours of detention time
4. Living organisms (such as bacteria) are an important part of the wastewater treatment cycle and should not be destroyed.
A. True B. False
5. The media used in a trickling filter:
A. Should be tightly packed B. Is designed to increase flow speed
C. Provides a surface area for biological slime D. Should be non-porous
6. Activated sludge processes remove solids by filtration.
A. True B. False



Answers to the Spigot questions

1. C, 2. B, 3. B, 4. A, 5. C, 6. B

Kerri. K., *Operation of Wastewater Treatment Plants*, Vol 1, California State University, 1998

**The Spigot is prepared by Crystel Montecinos, Environmental Consultant for Tigren, Inc.
You can contact her at 775-240-1396.*

NDEP BSDW Enforcement Report

By: Jennifer Carr, P.E., Chief, NDEP Bureau of Safe Drinking Water

Over the past year or so, I've contemplated doing an article about Public Water System (PWS) enforcement actions that the Nevada Division of Environmental Protection (NDEP) Bureau of Safe Drinking Water (BSDW) has undertaken. The report you are about to read relates a story about a Community PWS that was putting public health at risk. We had to take aggressive action, ultimately shutting it down by Court Order. As many of you know, the BSDW strives to work with you to achieve compliance with the drinking water laws and regulations using many tools, rather than initiating formal enforcement that incorporates fines and penalties. However, if these other tools and mechanisms fail, formal enforcement becomes necessary.

Background:

The Em Ber Mobile Manor PWS was built by Bert and Emma Van Komen in the mid-70's. Over time, this Community PWS grew to include a combination of "stick-built" and mobile homes in Churchill County that were rented by the PWS Owner. The wells were impacted by naturally occurring radionuclides and arsenic. As the safe drinking water laws changed, the BSDW worked with the Van Komens toward plans for treatment, until they decided to retire and sell the water system. In 2006, development was booming and a new Owner purchased the system with a plan to re-construct the neighborhood and eventually annex it into the City of Fallon (conveniently located across the street). However, just a couple short years later, re-development in Nevada was no longer flourishing and the Owner's plans began to slow down.

BSDW staff worked with the new Owner, who had voluntarily taken over a Bilateral Compliance Agreement that was in place to protect public health and put the PWS on a path to compliance. Bottled water was being provided to residents due to a well water arsenic concentration of 280 ug/L (versus a standard of 10 ug/l) and gross alpha at 24 pCi/L (versus a standard of 15 pCi/L). As time passed and the economy worsened, so did the

compliance status of the water system. Eventually, even the Contract Operator quit.

In late 2009, winter was hitting hard and unoccupied, unheated, mobile home units began to experience line freezing and breakage. The BSDW received repeated reports from residents of system pressure loss and "beautiful ice sculptures" forming from abandoned units. The integrity of the system was lost and remaining elderly residents, as well as a family with very small children, were put at further risk of exposure to bacterial contamination.

The Finding of Alleged Violation and Order:

By January 2010, the BSDW had no choice but to issue a Finding of Alleged Violation (FOAV) and Emergency Order. The list of violations was long, and at the time of issuance included the following:

- Failure to comply with the Primary Drinking Water Standard for Arsenic;
- Failure to comply with the Primary Drinking Water Standard for Gross Alpha;
- Failure to monitor for arsenic and gross alpha (2 counts);
- Failure to monitor for routine total coliform (6 counts);
- Failure to collect and report required repeats for a TC+ result;
- Failure to publish a Consumer Confidence Report (2 counts);
- Failure to provide bottled water (10 months);
- Failure to renew the annual permit to operate or pay the fee;
- Failure to maintain a Certified Operator (7 months);
- Failure to provide quarterly public notice of the arsenic and gross alpha MCL violations (2 counts); and
- Failure to provide public notice for failure to monitor in accordance with the regulations (2 counts).

It is important to note that the list of violations continued to accrue while these activities remained un-addressed and each violation subjected the PWS to an administrative fine of up to \$2,500 per day per violation. The starting “day” for calculation of fines began when each violation occurred. The State also had the authority to pursue Civil Penalties up to \$5,000 per day per violation; in addition to each instance being a criminal misdemeanor with each day of each violation being a separate offense. Administrative fines alone were in the millions when calculated in March 2010.

The Emergency Order required the Owner to:

- Arrange to resume bottled water delivery within 6 days;
- Turn off supply valves to vacant units to eliminate freezing and loss of water, within 6 days;
- Provide the BSDW with a plan for compliance or proper shutdown and abandonment, within 14 days;
- Contact the BSDW to schedule an appearance of a PWS representative at a Show Cause Meeting to provide their perspective on why the BSDW should not impose administrative fines or initiate action in district court, within 14 days; and

Additional requirements were listed if the Owner chose to continue operation.

The Owner failed to respond to the BSDW and the NDEP filed a Complaint for Injunctive Relief in District Court. The Complaint asked the Court to prohibit the Owner from operating the PWS, and sought both Administrative Fines as well as Civil Penalties.

Court Hearing and Conclusion:

The hearing took a bit of a turn that the NDEP had not anticipated. During presentation of testimony, a question arose as to whether or not the Owner could simply disconnect all but five or six of the stick-built units that he wanted to continue to rent. The Owner argued that severing all but those connections would eliminate the NDEP’s authority

to regulate the water coming from the system. As documented in Court filings, the Owner admitted that he did not intend to take any corrective action to bring the PWS into compliance; and the NDEP demonstrated that the PWS posed an immediate threat to public health and safety. The NDEP argued that Nevada Revised Statutes (NRS) Section 445A.015 provides that “every owner, agent manager, operator, or other person having charge of any waterworks furnishing water for public use [shall not] knowingly permit any act ... whereof the purity or healthfulness of the water supplied shall become impaired”. Furthermore, per NRS 445A.015, a person who knowingly provides impure or unhealthy water is guilty of a gross misdemeanor.

A Temporary Injunction from the Court allowed the NDEP, with the physical and technical assistance of Nevada Rural Water Association, the authority to “assess and inspect the well” and “cap the pipe as a temporary fix” until the Court ruled on a permanent injunction. Upon receiving the Temporary Injunction, the BSDW verified that all the tenants of the properties had vacated prior to shutting the system down. Field work was then conducted to prevent the well from operating and supplying water that was unsafe for human consumption.

In the follow-up Order from the Third Judicial District Court, it was stated:

“[The Owner] is permanently enjoined from operating the [PWS] until such time he brings the system into compliance with the regulations and requirements set for public water systems. If [the Owner] converts or modifies the water system so that it is no longer a [PWS], he is nevertheless enjoined from operating the [PWS] until such time he brings the system into compliance with state and federal standards regarding the distribution of water for public use.”

Stay Tuned - the case is not closed because NDEP’s Fines and Penalties have not been settled due to complications of the Bankruptcy Court. However, the Em Ber Mobile Manor Public Water System remains inactive to this day.

The Breakpoint Curve

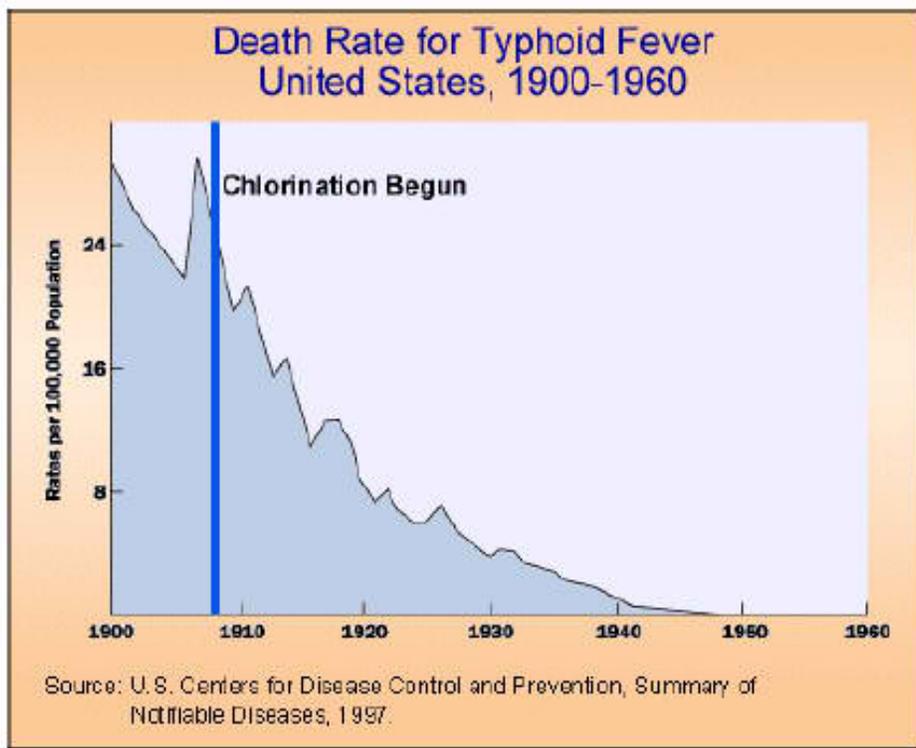
By: Andy Andersen, Nevada Rural Water Association

As most of you know, I am a strong proponent of disinfection – specifically, continuous chlorination. I do know that if your system is well run and problem free, you believe you don't have to disinfect but I'd sure like to change that. If nothing else, call continuous chlorination an insurance policy for your system.

Now, I am not going to bore you with chemical formulas or any of that stuff – there's plenty of really good material on the internet and in books that can do a much better job than I could ever hope to. All I want to do is simplify this – probably to a point at which many will take me to task. Oh well, I stand by my motto – KISS (explanation not necessary).

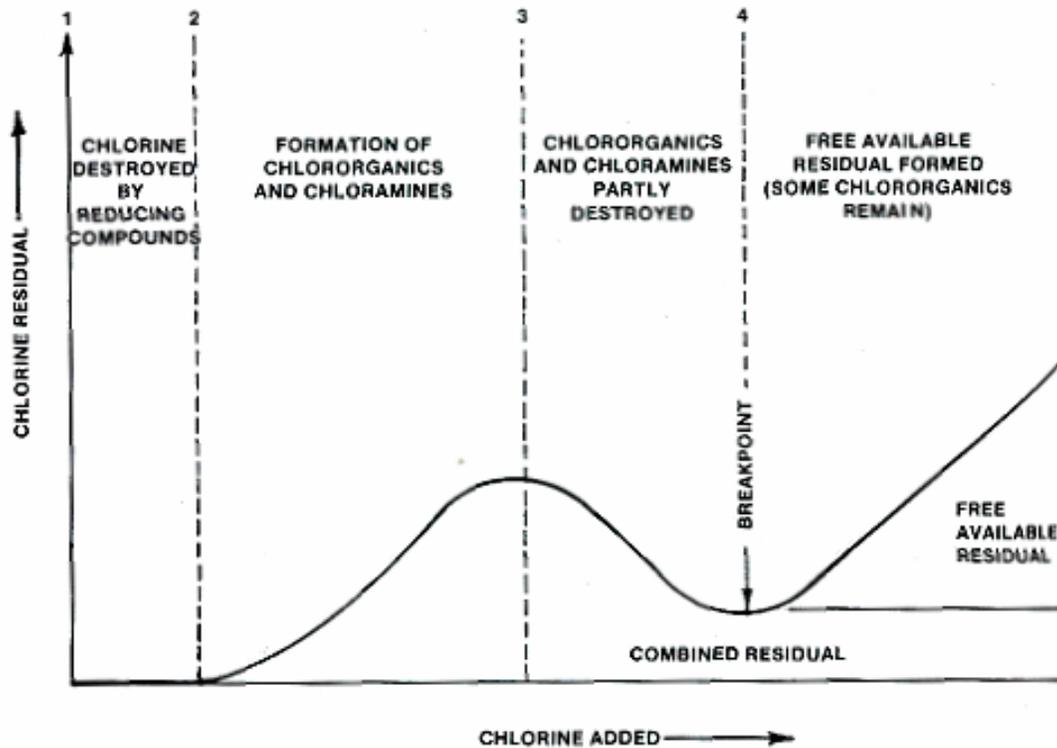
Why disinfect?

That should be evident. Disinfection reduces and destroys pathogenic bacteria. Check out this chart:



Speaks volumes, doesn't it? It's your job as a water operator to protect public health.

So, what happens when you put chlorine into the water? Well, here's another chart:



Notice that the horizontal axis reflects the amount of chlorine added and the vertical axis reflects the measured chlorine residual.

Between points 1 and 2, notice that as chlorine is added there is no residual. Here is where the chlorine is reacting with, and is being consumed by, any reducing agents found in the water (iron, hydrogen sulfide, etc).

Adding more chlorine brings us between points 2 and 3. Here the chlorine is reacting with naturally occurring ammonia (from the amino acids in proteins) and organics in the water. Chloramines are being formed which can be utilized as a disinfecting agent (Monochloramines). Systems that purposely form monochloramine will be adding ammonia, and using combined residual is a topic in itself. Nearly all groundwater systems are trying to form a Free Available Chlorine residual. Let's stick to that.

On the curve, adding even more chlorine takes us between points 3 and 4. Here we see the formation of, and destruction of, the Dichloramines and Trichloramines. Although there are still

Cont' The Breakpoint Curve

some weak disinfection properties, it is this portion of the curve that is most responsible for those “swimming pool” taste and odor complaints. We need to get past this part of the curve.

The addition of more chlorine takes us to point 4. This is breakpoint which means enough chlorine has been added to satisfy the chlorine demand – the chlorine has reacted with all reducing agents, organics and ammonia. In groundwater the chlorine demand is usually very low, so the curve shown above is the result of the first one or two ppm (or less), of chlorine added.

Finally, adding more chlorine to move us past point 4 results in the formation of hypochlorous acid in direct proportion to the amount of chlorine added. Here is where we want to be. Here is your Free Available Chlorine residual (Free Chlorine Residual) – here is your insurance policy.

BUT – caution is necessary. Chlorine also combines with the naturally occurring organics and forms disinfection byproducts (TTHMs and HAA5s). These disinfection byproducts have MCLs. Specific sampling locations and sampling times dependent upon your system parameters apply. Also, the amount of chlorine that you can add is regulated. There is a MRDL (Maximum Residual Disinfectant Level) which is 4.0 ppm for chlorine or chloramines. This is a Total Chlorine Residual (not just Free Chlorine Residual). If your groundwater system requires large amounts of chlorine (more than 4.0 ppm) when practicing breakpoint chlorination, then further investigation is certainly needed and you may find it necessary to utilize Monochloramines as your disinfectant (points 2 to 3). For more information on disinfection byproducts, I encourage you to review the Stage 1 (and now Stage 2) D/DBPR. If your system disinfects, you must sample for these contaminants and also accurately measure and report the disinfectant residual at the time and place of sampling.

Now, for those of you who do practice breakpoint chlorination, I want to draw your attention to point 4 and beyond. Notice that SOME stuff still remains. Not everything is oxidized and destroyed, which means for those systems that look for a minimum detectable residual (0.01 ppm), I would expect customer complaints of chlorine tastes and odors (“swimming pool”). Too much chlorine? No, not enough. Those compounds have not been fully destroyed and you need to add more chlorine. My suggestion is to practice at least a 0.5 ppm Free Chlorine Residual with a preference closer to 1.0 ppm Free Chlorine Residual.

If you happen to be one of the two systems I am aware of that utilizes Monochloramines as your disinfectant, then look again at the curve – point 3. Now you need to carefully control the amount of chlorine added since you can easily pass point 3 where the “swimming pool” tastes and odors become prevalent.

OK, I promised simplicity. Hope this helps somewhat with your understanding of what happens when you put chlorine in your water. I'll say it again: I highly encourage the practice of continuous chlorination (read – disinfection) for all water systems for obvious reasons. If you have any questions on disinfection and can't find the answers anywhere, feel free to ask.

Updates and Announcements

Water Operators: Contact Hours & CEUs

Obtaining Contact Hours and Continuing Education Units (CEUs) is a crucial requirement for every Water Operator that works in the State.

Education programs provide Water Operators the opportunity to improve their understanding of the Drinking Water Industry. For example, Water Operators can choose to enter the areas of Water Distribution, Water Treatment, Water Quality, Backflow, Management, etc. It also allows Water Operators to further develop their skill levels. By improving their skills, they will be better prepared to provide and protect safe drinking water for everyone. In addition, they will become more familiar with new developments in their field as technology and regulations change.

When Water Operators are looking for continuing education options, they should check the NDEP Bureau of Safe Drinking Water's Calendar of Events for approved contact hour classes for certification renewal. The NDEP requires Grade 3 and Grade 4 operators to take courses from International Association of Education Training (IACET) authorized providers or accredited colleges.

Wastewater Exam dates for 2012 & 2013:

Exam date: 9/20/12

Deadline - 8/20/12

Exam date: 12/20/12

Deadline - 11/20/12

Exam date: 3/21/13

Deadline - 2/21/13

Exam date: 6/20/13

Deadline - 5/20/13

Exam date: 9/19/13

Deadline - 8/19/13

Exam date: 12/19/13

Deadline - 11/19/13

Wastewater Operators Certified



The following wastewater professionals passed their Wastewater Treatment, Laboratory, Collection, Industrial Waste Inspector, and Nevada Plant Maintenance exams in December 2011, March 2012 and April 2012.

WASTEWATER TREATMENT GRADES

Grade 1: Brianne Accola, Peter Baratti, Steven Catola, Shane Horton, Stephen Hughes, Bradley Huza, Luis Ibarra, Bill Lutsch, Richard Madden, Frank Needham, Jennifer Pereos, Zoltan Revay

Grade 2: Anna Bell, Joseph Groves, Bradley Huza, Jake Jacobson

Grade 3: Andrew Marshall

NEVADA WASTEWATER LABORATORY ANALYST:

Grade 3: Jason Rivera

NEVADA COLLECTION

Grade 1: Peter Baratti

Grade 2: Cedric Wheaton

Grade 3: Larry Selk

NEVADA INDUSTRIAL WASTE INSPECTOR

Grade 2: Jeffrey Martin

NEVADA PLANT MAINTENANCE

Grade 1: Steve Bennett, Paul Bledsoe, Dave Brant

Grade 2: Paul Bledsoe, Dave Brant, Ralph Clendenen

Grade 3: Albert De Los Santos

Water Operators Certified



The following water professionals passed their Water Treatment and Water Distribution exams in March 2012.

Water Distribution Grades:

Grade 1: Curtis Baker, Aaron Collier, Michael Conely, Robert Cummings, Steven Hampton, Adam Hayes, Bradley Huza, Andrew Les, Peter Lumos, Timothy McCandlish, Timothy Millis, William Mundy, Bobby Patterson, John Patterson, Chad Payne, Ginger Peppard, Larry Proctor, Robert Rios, Ernest Sinaly, James Weidemann, James Woodward

Grade 2: Javier Alvarez, Jeffrey Bloom, Marty Christensen, Bruce Gordon, Russell Holmes, David Jones, Jim Kerr, Daniel Kistler, Jared Secondine, Nick Shakespear, Christopher Skvarna, Wayne Vanassche, Charlie Wells

Grade 3: Jeffrey Anderson, Brian Gibbs, Steven Hubele, Kelly Joe Reyna

Grade 4: Thomas Gardner, Mitchell McGlynn, Keith Ristinen

Water Treatment Grades:

Grade 1: Roger Borda, Kiley Bradshaw, Christopher Carter, Dean Cernick, Ole Chavez, Elizabeth Clemens, Stephen Hughes, Bradley Huza, Kevin Olsen, Chad Payne, Ginger Peppard, Tahnee Praiswater, Scott Schoenfeld, Jared Secondine, John Williams, Rebecca Williams

Grade 2: Daniel Bevan, Ryan Kolda, Bryan Moss, William Pace, Mark Russo, Brain Watkins

Grade 3: Michael Boney, M. Brandon Gardner, Mitchell McGlynn

Grade 4: Keith Ristinen

TRAINING CALENDAR FOR 2011

July 20, 2012 - GIS Mapping

9:00 am to 12:00 pm by Tatiana Zehl
Contact: NvRWA at 775-841-4222
frontdesk@nvrwa.org or visit
<http://www.nvrwa.org/> and click on training

August 17, 2012 - Fire Hydrants

9:00 am to 12:00 pm by Lindstrom & Aldrich
from American Flow Control
Contact: NvRWA at 775-841-4222
frontdesk@nvrwa.org or visit
<http://www.nvrwa.org/> and click on training

Sept 12 & 13, 2012 - NvRWA 2012 Fall Conferences

Riverside Resort, Laughlin Nevada
Contact: NvRWA at 775-841-4222
frontdesk@nvrwa.org or visit
<http://www.nvrwa.org/> and click on training

Sept 21, 2012 - Backflow / Cross Connection

9:00 am to 12:00 pm by Tim Buxton from
B & L Backflow
Contact: NvRWA at 775-841-4222
frontdesk@nvrwa.org or visit
<http://www.nvrwa.org/> and click on training

Oct. 19, 2012 - Pumps

9:00 am to 12:00 pm by Larry Hopkins from
Gormann-Rupp
Contact: NvRWA at 775-841-4222
frontdesk@nvrwa.org or visit
<http://www.nvrwa.org/> and click on training

Nov. 9, 2012 - Hot Tapping Pipes

9:00 am to 12:00 pm by Pak Hughes from
Western NV Supply & Steve Staudy from Romac
Contact: NvRWA at 775-841-4222
frontdesk@nvrwa.org or visit
<http://www.nvrwa.org/> and click on training

Dec 7, 2012 - Regulation Update

9:00 am to 12:00 pm by Andrea Siefert & Kerry
Schmelzer from NDEP
Contact: NvRWA at 775-841-4222
frontdesk@nvrwa.org or visit
<http://www.nvrwa.org/> and click on training
Check out ongoing Training from RCAC at:
<http://www.rcac.org>

Ongoing On Site - Various Management, Board, Wastewater and Water Topics, at your request - NvRWA

Contact: Bob Foerster at 775-841-4222

Upon Request: Instructor-Lead CSUSac
Courses: Distribution or Treatment, 6 - 8
weekly trngs. Contact NvRWA for details and to
schedule. Gain the approved post-secondary
training while preparing for your exams. Also
offering water and wastewater classes powered
by SunCoast Learning Systems. Water Courses
have been approved for recertification hours.
Visit the NvRWA web page and select the
SunCoast Learning target: <http://www.nvrwa.org/>
Contact: Bob Foerster at 775-841-4222

*send us your email address to get on the
announcement list.

NDEP Bureau of Safe Drinking Water - training calendar for approved classes:

<http://ndep.nv.gov/dwo/main/calendar.html>

Nevada Section of the American Water

Works Association. Visit the web site
www.ca-nv-awwa.org for many more education
opportunities

**Check out ongoing Wastewater Training from
NWEA at:** <http://nvwea.org/>

Change of Mailing Address Requested

Operator Certification Administrators have noted that a number of certificates are being returned to the State, because Operators have not updated their mailing addresses after moving. Operators are asked to promptly notify the State when they have changed addresses.

Please contact Nan Paulson at 775-687-9447 or npaulson@ndep.nv.gov

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STATE OF NEVADA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF FINANCIAL ASSISTANCE
901 SOUTH STEWART STREET SUITE 4001
CARSON CITY NV 89701
RETURN SERVICE REQUESTED

Water Lines

Summer 2012

NV Water and Wastewater Operator's Forum Members:	Training Contacts
<p>Bob Foerster, Chair 775-841-4222 NvRWA - nvrwa@pyramid.net</p> <p>Harvey Johnson, Chair 775-832-1289 Incline Village GID - Harvey_johnson@ivgid.org</p> <p>John Hulett 775-954-4612 Washoe Co Water Resources - Hulett@washoecounty.us</p> <p>Cameron McKay, 775-588-3548 Kingsbury GID - cam@kgid.org</p> <p>Dale Johnson 775-738-6816 Elko Co Public Works - djohnson@elkocountynv.net</p> <p>Dave Johnson 702-567-2051 Southern NV Water Authority - dave.johnson@snwa.com</p> <p>Lynn Forsberg 775-738-6816 Elko County Public Works - lforsberg@elkocountynv.net</p> <p>Tom Georgi 702-822-8026 Las Vegas Valley Water Dist - Thomas.Georgi@lvvwd.com</p> <p>Mike Ariztia 775-673-2220 Sun Valley GID - mariztia@svgid.com</p>	<p><i>University of NV, Reno - CABNR & Cooperative Extension</i> UNR videoconference classes for water system operators and managers are available in most communities. Call Crystel Montecinos at: 775-240-1396 or email at: xtelle@aol.com</p> <p><i>Community College of Southern Nevada Wastewater Water Technology Program www.cleanwaterteam.com</i> LeAnna Risso at 702-668-8487 or LRiso@cleanwaterteam.com</p> <p><i>WWET Training in Clark County - www.wwet.org</i> Training for water treatment and distribution system operators, wastewater treatment and collection system operators, and other professionals in these fields. Contact Jeff Butler 702-258-3296</p> <p><i>State of Nevada Water Certification Exams</i> Exam applications and fees are due to the State Bureau of Safe Drinking Water 45 days before exam dates. A proctor will contact examinees to schedule testing. Contact: Ron Penrose at 775-834-8017 for information about the exam dates. Additional information call: 775-687-9527 or http://ndep.nv.gov/bsdw/cert_home.htm</p> <p><i>Nevada Water Environment Association - www.nvwea.org</i> Jennifer McMartin (775)465-2045 or jenniferm@nvwea.org</p> <p><i>Nevada Rural Water Association</i> Please send requests for training to www.nvrwa.org or contact staff directly at 775-841-4222</p>