

Summer 2012  
Volume 5, Issue 1

## New Approach to Operator Certification Exams

Ohio EPA's operator certification program is improving its process to provide examinations more often and in more locations. We are investigating the ability to provide computer-based testing. Currently, we provide written testing to approximately 2,400 operators in 12 classifications of water and wastewater each year. The exams are given twice a year (spring and fall) in Columbus.

Several challenges were identified when developing exam expansion plans, including identifying appropriate testing sites, addressing the limited size of our existing question sets, ensuring continued exam validity, providing district office staff to assist, and increasing costs. We compared the prospects of the Agency doing everything or contracting with a third-party organization like the Association of Boards of Certification (ABC).

Continuing to hold our own exams would allow us the ability to control costs; however, we would have the disadvantages of our limited question sets, costs to ensure validity, and difficulty providing computerized exams. Contracting with a third party would be relatively quick and easy and would allow for computerized examinations; however, the costs and contract considerations are drawbacks.

After weighing the options, we constructed an approach which combines the best of everything evaluated. This approach creates a program where organizations apply to Ohio EPA to become approved exam providers. Once approved, the exam provider would be able to offer tests to any qualified individual wishing to become certified in the state of Ohio.

This new approach increases the convenience for us and operators by offering examinations more often and at more locations throughout the state, implementing computerized testing, putting the responsibility for documenting validity in the hands of the third party provider, and

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## 2012 FALL EXAM DEADLINES AND DATES

### Wastewater:

Aug. 9 - Application due

Nov. 7 - Exam

### Water:

Aug. 10 - Application due

Nov. 8 - Exam



## FOR MORE INFORMATION

Call the operator  
certification hotline at  
1-866-411-OPCT (6728)  
or visit

[www.epa.ohio.gov/  
ddagw/opcert.aspx](http://www.epa.ohio.gov/ddagw/opcert.aspx)

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## LEAD CONTENT AND LEAD LEACHATE LIMITS

During the recent five-year review of Administrative Code (OAC) rule 3745-83-01 (Operational Requirements), Ohio EPA received an inquiry regarding implementation of upcoming changes for lead content and lead leachate limits. Rule 3745-83-01 incorporates lead and lead leachate requirements (in part) by reference to NSF Standard 61 (2010 version).

Lead content requirements are contained in the federal Safe Drinking Water Act (SDWA), and mirrored in the Ohio Revised Code (ORC). The SDWA requires components installed or repaired by a public water system to be “lead-free.” The SDWA was recently amended to enact a change that takes effect on January 4, 2014, in which the definition of “lead-free” will change from 8 percent to a weighted average of 0.25 percent for pipe, pipe fittings, plumbing fittings and fixtures.

NSF Standard 61, Section 3.5 requires that components meet the SDWA definition of “lead free,” and annex G contains the evaluation procedure for determining the weighted average. U.S. EPA has indicated that it is in the process of working through all of the issues associated with the new “lead-free” requirements. Additional detail may possibly be included in the Lead and Copper Rule – Long-Term Revisions.

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DDAGW determined that further revisions to the rule are not necessary at this time; however, Ohio EPA will need to pursue revision to the ORC by January 4, 2014, to be consistent with the federal definition of “lead-free.”

Lead leachate limits, on the other hand, are established in NSF Standard 61. The 2010 version of the standard contains Annex F, which indicates that the lead leachate limits will be lowered with an implementation date of July 1, 2012. NSF expects to issue a revised standard around July 1, 2012, which will incorporate this lowered limit into the main body of the standard. DDAGW updated the rule-by-reference to the 2010 version of the standard, and will likely revise the rule again when the standard becomes available. In the meantime, the lowered lead leachate limits in Annex F will be considered recommendations, leaving PWSs time to exhaust any existing inventory of components that will not meet the lower limit.

Other revisions to the rule provide clarification that chemicals and components must be certified by an ANSI accredited organization (not just determined to “meet” NSF). The rule applies to installation of NSF-certified components, with a provision that the director can require replacement of components already in place if determined they pose a risk. OAC rule 3745-83-01 is available at [www.epa.ohio.gov/ddagw/rules.aspx#ch83](http://www.epa.ohio.gov/ddagw/rules.aspx#ch83).

## COMMON TREATMENT DEFICIENCIES AT SMALL WATER SYSTEMS

Ohio EPA conducts sanitary surveys at least once every three years at community public water systems (PWS) and once every five years at non-community PWSs. The purpose of a sanitary survey is to evaluate and document the capability of a water system's source, treatment, storage, distribution, operation and maintenance, and management. Each of these may favorably or adversely impact the ability of the system to reliably produce and distribute water that meets drinking water standards.

This article is the second installment in a series of articles to help small water systems identify the most common problems found during a sanitary survey or other investigatory site visit conducted by Ohio EPA staff. The first article focused on source water (well) deficiencies ([www.epa.ohio.gov/portals/28/documents/pws/spigot122111web.pdf](http://www.epa.ohio.gov/portals/28/documents/pws/spigot122111web.pdf)). This article will focus on some of the more common treatment equipment deficiencies which are found during inspections of small water systems. Future articles in this series will cover distribution deficiencies and other topics.

**Backwash discharge lines:** If you have a softener or a pressure filter, you backwash your equipment to clean and replenish the media. The waste that is produced when you backwash discharges into a floor drain or another pipe, which carries the waste to where it will be treated. If the pipe carrying the backwash wastewater from your treatment equipment is too close to, or even inserted into, the drain or pipe that carries the waste to treatment (see Figure 1), you could end up with back-siphonage.



*Figure 1. Potential for back-siphonage*

This could occur if the pipe carrying the waste to treatment backs up and the wastewater is siphoned back into your drinking water treatment equipment, contaminating your treatment equipment with whatever waste the pipe is carrying. **Solution:** Ensure there is a sufficient air gap between the backwash waste pipe and the floor drain or the pipe conveying the waste to treatment to prevent back-siphonage (see Figure 2).



*Figure 2. Sufficient air gap*

**Softener tanks, cover, and salt:** Softener brine tanks should be kept in sanitary condition. The brine solution should be kept free of dirt and insects. **Solution:** The best way to accomplish this is to completely cover the brine tanks with an appropriately fitting lid.

*Continued on next page*

### COMMON TREATMENT DEFICIENCIES

*Continued from page 3*

The lid should not be over- or under-sized and should be kept in place on top of the tank. Also, the brine tank should not be overfilled such that the lid does not fit snug on the tank (see Figure 3).

All substances, including salt, added to the drinking water in a public water system must conform to standards of the “American National Standards Institute/National Sanitation Foundation” (ANSI/NSF). This is to ensure it is a quality product that will not introduce contaminants into the drinking water.

**Solution:** Ensure the ANSI or NSF symbol can be located on the bags of salt you use or ensure your salt supplier can provide you with documentation from the salt manufacturer that it is ANSI or NSF certified.



*Figure 3. Brine tank*

**Cartridge filters:** Over time, cartridge filters will become clogged with iron or other minerals from your source water. When clogged, the filters become a breeding ground for bacteria. **Solution:** Ensure filters are replaced in accordance with the manufacturers’ specifications or even more often, depending on the quality of your source water.

**General maintenance:** Water treatment equipment should be accessible and cleaning solutions and other non-drinking water chemicals and materials should be kept away from the equipment. If treatment equipment is not accessible for Ohio EPA staff to inspect during a sanitary survey, it will not be accessible to the water treatment operator for routine maintenance or during an emergency. Likewise, non-drinking water chemicals stored in close proximity to treatment

equipment can be an invitation for a mix-up or, even worse, intentional vandalism (see Figure 4). **Solution:** Keep clutter and non-drinking water chemicals and equipment away from drinking water treatment equipment. Preferably, these items should be stored in a different room.

For more information on sanitary surveys for small water systems, see *Preparing for a Sanitary Survey for Small Public Water Systems* at [www.epa.ohio.gov/portals/28/documents/pws/PrepSurvey.pdf](http://www.epa.ohio.gov/portals/28/documents/pws/PrepSurvey.pdf) or contact your local Ohio EPA district office.



*Figure 4. Clutter near drinking water equipment*

## LEARN FROM EACH OTHER

You mean, I have to report it all?

The Operator of Record for I-Didn't-Know PWS reported routine lead and copper monitoring results to Ohio EPA, as required on their monitoring schedule. (The system was on a triennial monitoring schedule.) On form number 5105, the PWS reported 10 samples were taken and analyzed. The results of the 10 samples were below the action level for lead. The action level for lead is no greater than 0.015 milligrams/liter in more than 10 percent of the samples collected.

Ohio EPA also received the results from the laboratory and noted 12 samples were analyzed, not 10 as reported by the system. The 2 sample results not reported would have caused the PWS to exceed the lead action level, as the system reported the 10 lowest values of the 12 samples taken and analyzed. It appeared as if the PWS picked

which samples to report.

After verifying with the laboratory that the data was not mis-reported, Ohio EPA issued a notification to the system for failing to report all results collected and analyzed, and for exceeding the lead action level.

Questions about whether or not to report samples should be directed to your Ohio EPA district office inspector.

For more information, please see the lead and copper rules at [www.epa.ohio.gov/ddagw/rules.aspx#ch81](http://www.epa.ohio.gov/ddagw/rules.aspx#ch81) (rules 3745-81-80 to 3745-81-90) or contact Kenneth Baughman at (614) 644-2752.

*Have a hard-learned lesson you would like to share with others? Submit it to Susan Baughman at [Susan.Baughman@epa.ohio.gov](mailto:Susan.Baughman@epa.ohio.gov).*

## RULE-MAKING ACTIVITIES

Below is a brief summary of recent and upcoming rule changes. For more details, including notice of opportunities to comment on draft rules, sign up for our electronic mailing list, or visit us on the web at [www.epa.ohio.gov/ddagw](http://www.epa.ohio.gov/ddagw).

### *Recently adopted*

- Operator Certification: minor revisions (effective February 23, 2012)
- Miscellaneous rules: operational requirements; backflow prevention; plan approval; updates to references of more recent versions of ANSI/NSF Standards 60 and 61 (effective April 19, 2012)

### *In the Works*

- Operator Certification: new rules for exam providers (draft rules open for comment until August 15, 2012)
- PWS Definition: clarify definition of a PWS and Source Designation (draft available Summer 2012)

**Answer Place**

Have questions?  
Need help?  
Click here to visit  
the Answer Place.

### DEAR ANSWER PLACE:

I heard a water plant is supposed to have an emergency response plan. Is this true?

- Operator Bob

### DEAR OPERATOR BOB:

Yes, every community public water system in Ohio is required to draft and maintain a response plan, or what Ohio EPA calls a contingency plan. Rule 3745-85-01 of the Ohio Administrative Code requires every community system to review and revise the plan as necessary and at least annually. You can find all requirements on contingency plans at [www.epa.ohio.gov/ddagw/rules.aspx](http://www.epa.ohio.gov/ddagw/rules.aspx).

- Answer Place

### HAVE A QUESTION FOR ANSWER PLACE?

Ask a question at <http://ohioepa.custhelp.com>

## OHIO EPA'S SPIGOT NEWS

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Drinking and Ground  
Waters

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## NEW APPROACH...

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eliminating the need for a contract. Unfortunately, with the new approach there is the potential for higher examination costs for the operators.

In order to implement the approved exam provider approach, Ohio EPA recently changed our statutory language authorizing us to charge approved exam providers an application fee and an annual fee. Additionally, it allows us to create a simplified certification fee for operators who have passed a third-party examination. Draft rule language was made available for interested party review on July 16, 2012 and will be open for comments until August 15, 2012. We anticipate proposing these rules for adoption in Fall of 2012.

This new rule will include a provision that allows us to withdraw approval for an approved exam provider which fails to adhere to the requirements and also to invalidate exam scores submitted by such provider.

State-sponsored exams will continue to be held twice per year in order to give operators the choice of the computerized approved exam-provider exam or the traditional state examination. Our hope is to eventually eliminate the state-sponsored exam and rely solely on the examinations provided by the approved exam provider.

## 24-HOUR EMERGENCY HOTLINE

For emergencies occurring after 5 p.m. or on a weekend or holiday, please call Ohio EPA's emergency hotline at (800) 282-9378

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## FIFTY YEARS OF FLUORIDATION

Three water systems in Ohio celebrated their golden anniversary of community water fluoridation by receiving a National Fluoridation "Fifty Year Award" at the 2012 National Oral Health Conference. The City of Bowling Green (Wood Co.), the City of Wellston (Jackson Co.) and Indian Hill (Hamilton Co.) all began fluoridation in 1961.

The Association of State and Territorial Dental Directors (ASTDD), the American Dental Association (ADA), and the Centers for Disease Control and Prevention (CDC) annually recognize hundreds of water systems that have continuously fluoridated for 50 years in the United States. Awards were forwarded to the Ohio Department of Health, Bureau of Community Health Services & Patient Centered Primary Care in June 2012. Presentations are scheduled in each of these communities.

The effectiveness of water fluoridation has been documented in scientific literature for over 65 years. Even in an era with widespread availability of fluoride from other sources, studies prove fluoridation continues to be effective in reducing tooth decay by 20-40%.

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