

Water system owner responds quickly to contamination event

Cross-connection incident in southwest Idaho sickens 5 residents

In June of this year an alert water system, in a southwestern Idaho community, hand-delivered boil water advisory notices to about 120 customers after water testing indicated the presence of coliform bacteria in the drinking water of two subdivisions.

An unprotected cross-connection

The bacterial contamination of the system's drinking water was caused by an unprotected "cross-connection." The cross-connection in this particular situation was a physical connection (piping) between the drinking water system and a pressure irrigation system interconnection.

The standard practice in such a situation is to install a backflow assembly, which prevents the backflow (or reversal) of contaminated water back into a drinking water system through the cross-connection. In this case, the landscape contractor for the irrigation system *did* install a backflow prevention assembly, but it was installed improperly and the untreated water was mixed into the system's treated drinking water.

Although the tests detected *E. coli* bacteria, the irrigation water may have exposed residents of the subdivisions to multiple contaminants beyond the original test results. Consequently, the local district health department advised physicians to test ill residents for *Campylobacter*, *Giardia*, and *Cryptosporidium* in addition to *E. coli*.

Boil water advisory lifted

With the source of the contamination (i.e., the improperly installed backflow assembly) discovered and isolated, the water system flushed the mains and the distribution system. After flushing and chlorinating, and when tests on the water samples taken from the subdivisions did not contain any bacterial contamination, the boil water advisory was lifted.

In lifting the advisory, however, the water system advised residents to flush their internal plumbing thoroughly before using the water and to consult a licensed plumber to ensure that appliances, including ice makers, water softeners, and filtration systems were free of any bacteria.



Lawn irrigation systems are one of the common causes of cross-connections.

According to district health department officials, five people became ill as a result of the cross-connection incident: 4 cases of *Campylobacter* infection and 1 case of *Giardia* were reported.

Cross-connection event serves as a reminder

Fortunately, the water system owner already had a plan of action in place in case of a potential contamination event. The system's quick response was carried out systematically; DEQ was promptly notified; there was open communication with the public; and the owner's actions prevented more customers from becoming ill.

This incident serves as a reminder to owners of all public drinking water systems to be prepared for contamination events before they happen. Cross-connections are generally unintentional, but backflows due to cross-connections are serious plumbing problems that can cause sickness and even death.

As a public drinking water system, it is important to educate your customers about the problem of cross-connections in the home, the importance of backflow prevention assemblies, and the requirement for annual testing (the home owner pays) by a certified backflow tester.

Cross-connections/backflow incidents are common

Cross-connections/backflow incidents are very common occurrences. Many cross-connections, however, go unnoticed or are not recognized as potential threats to health and safety. The U.S. Environmental Protection Agency (EPA) estimates that 90% of all backflow events go unreported.

At the time that this newsletter was going to press, there were two additional cross-connection incidents under investigation in the state’s northern Panhandle Region. As more information becomes available related to these or other cross-connection incidents, we will include them in future newsletters.

For more information

Remember, the Idaho Rules for Public Drinking Water Systems, Section 58.01.08.552.06 (<http://adm.idaho.gov/adminrules/rules/idapa58/0108.pdf>) require that all community water system must implement a cross-connection control program.

For more information, see DEQ’s factsheet, “Cross-Connection Control Programs” at www.deq.idaho.gov/water/assist_business/pws/dw_cross_connection_fs.pdf. ■

* Definition of Terms

Cross-connection: A cross-connection is any actual or physical connection between a drinkable water supply and an unapproved water supply or other source of contamination.

Backflow prevention assembly: A set of mechanical components that prevents the reverse flow of undesirable materials and contaminants back into the treated drinking water system.

Drinking Water Watch Update

Idaho Drinking Water Program Public Water System - Switchboard			
Rules	Tools / Data	Forms / Information	System Class / Licensing
Idaho Drinking Water Rules - IDAPA 58.01.08	CCR Report Tool	Newsletters	System Classification Requirements
CFR 40 Parts 136-149	Monitoring Schedule	Plans and Specifications	Operator Licensing Info
	Source Water Assessment Reports	Public Notification Templates	Become an Operator for Hire
	Drinking Water Watch	Sanitary Survey Form	Search for an Operator

DEQ has updated its Public Water System Switchboard with a new button entitled “Drinking Water Watch” (www.deq.idaho.gov/Applications/SDWISReports/pws_index.cfm). The DWW button allows systems to view information that is stored in the Idaho Safe Drinking Water Information System. By entering any water system name into DWW, you can review the system’s sample schedules, coliform and non-coliform sample results, lead/copper sample results, violation and enforcement actions, site visits, and much more.

For questions regarding any of the information found in Drinking Water Watch, please contact your local drinking water compliance officer. ■

Funds available to reduce energy use

Energy Efficiency and Conservation Block Grant Program (EECBG)

The Energy Efficiency and Conservation Block Grant Program (EECBG) is a U.S. Department of Energy program, funded under the American Recovery and Energy Resources Act, and in Idaho is administered by the state’s Office of Energy Resources (OER).

EECBG provides funds to units of local and state governments, and Indian tribes to develop and implement projects to improve energy efficiency and reduce energy use and fossil fuel emissions in their communities.

Idaho has received a total allocation of \$9,593,500, a portion of which will be allocated as direct grants to the ten largest cities and counties in the state. All other cities and counties will be eligible for competitive block grants with each city or county being eligible for up to \$100,000. Local businesses and nonprofit organizations with proposed projects can apply to a city or county for block grant funding.

Water/wastewater projects may qualify

The list of energy saving activities eligible for funding is extensive. However, specifically for water and wastewater entities the U.S. Department of Energy states “EECBG funds can be used to increase energy efficiency in and reduce total energy consumption of wastewater treatment facilities, and for projects that increase energy efficiency or reduce energy use in the management or provision of water services to the public.” These water/wastewater projects could include facility energy audits and retrofits, including weatherizations.

OER will announce submission dates for proposals

Idaho’s OER is collaborating with the Association of Idaho Cities (AIC) and the Idaho Association of Counties (IAC), which will act as the outreach and proposal collection channels.

The associations will begin accepting project proposals from member cities and counties when the Request for Proposals (RFP) submission date is determined and announced by OER. Cities will submit their project proposals to the AIC and counties to the IAC.

Check the OER website for information updates at <http://www.energy.idaho.gov/stimulus/>, or you may contact EECBG’s Gary Grayson at 208-287-4901. ■

Attention Drinking Water Operators

New rule changes from the Drinking Water/Wastewater Board

In May 2009, the State Legislature approved changes to the Rules of the Board of Drinking Water and Wastewater Professionals (IDAPA 24.05.01). If you are an applicant seeking a license or are a current drinking water or wastewater operator license holder, these changes may affect you. The four section changes to the Board of Drinking Water and Wastewater Professionals Rules are listed below:

■ **150.05. Lack of Activity.** Applications on file with the Board where an applicant has failed to respond to a Board request or where the applications have lacked activity for twelve (12) consecutive months shall be deemed denied and shall be terminated upon thirty (30) days written notice unless good cause is established to the Board.

■ **300.01. b. Examinations for All Types and Classes.** The examination for all types and classes of licensure shall be validated and provided by the Association of Boards of Certification (ABC). The American Backflow Prevention Association (ABPA) backflow assembly tester examination is also approved for backflow assembly tester licensure.

■ **300.02. a. Operator-In-Training License.** Each applicant for an Operator-In-Training License must have

a high school diploma or GED (General Educational Development) certificate and pass the Class I exam or pass the very small water system exam.

■ **300.02. b. To Qualify for a Very Small Water System License.** To qualify for a Very Small Water System license an operator must have a high school diploma or GED and one hundred (100) hours of acceptable operator-in-training experience at a water system and complete an approved six (6) hour water treatment or chlorination course and an approved six (6) hour water distribution course.

Questions? For questions regarding the new rule changes, contact the Idaho Bureau of Licensing (IBOL) at ibol@ibol.idaho.gov or 208-334-3233. The Water/Wastewater Board contracts with IBOL to provide services to the board and to applicants seeking or holding water and wastewater licenses.

If you contact IBOL, reference your license or registration number, or an appropriate case number. For general information and forms regarding licensing for water and wastewater operators, contact the Board at <https://secure.ibol.idaho.gov/IBOL/BoardAdditional.aspx?Agency=427&AgencyLinkID=920&Bureau=WWP&BureauLinkID=45>. ■



From U.S. Department of Homeland Security

Water/wastewater pandemic influenza planning guidelines available

Public health experts warn pandemic influenza poses a significant risk to the United States and the world – only its timing, severity, and exact strain remain uncertain. The U.S. Department of Homeland Security (DHS) has prepared a guidance for critical public and private infrastructure and businesses for the development of pandemic emergency plans.

The Pandemic Influenza Preparedness, Response, and Recovery Guide for Critical Infrastructure and Key Resources serves as one of the practical tools DHS has developed for contingency pandemic planning. For the complete guide, see www.ready.gov/business/_downloads/pandemic_influenza.pdf.

For water and wastewater utilities specifically, DHS has developed an “annex” or attachment (to the complete guidance cited above) entitled *Water and Wastewater Sector Pandemic Influenza Planning Guidelines*.

This nine-page water/wastewater attachment serves as a preparedness checklist and outlines the actions drinking water/wastewater utilities should take in planning for an influenza pandemic (*to download, see www.cwpaa.org/swinefluepidemicinfo.pdf or DEQ’s web site at www.deq.idaho.gov/water/prog_issues/drinking_water/information_pws.cfm*).

Utilities not prepared for the possibility of a pandemic flu may find themselves without the necessary staff, equipment, or supplies to provide continued service to the public. For example, consider the adverse consequences to fire departments, hospitals, and other vital institutions that rely on an uninterrupted water supply.

Additional guidances are available from www.Flu.gov. For example, see *Preparing for the Flu: A Communication Toolkit for Businesses and Employers* at pandemicflu.gov/professional/business/toolkit.html. ■

Training Schedule

Class/Sponsor	Location/Date
Water I & II Licensure Review (BE) - W	Nampa, 09/01-02/09
Sampling Plan Development (BE) - W	Nampa, 09/03/09
Collections I & II Licensure Review (BE) - WW	Coeur d'Alene, 09/09-10/09
IRWA Mini-Conference (IRWA) - W/WW	Worley, 09/16-18/09
Simplified Water/WW Analysis (BE) - W/WW	Twin Falls, 09/22/09
Simplified Water/WW Analysis (BE) - W/WW	Idaho Falls, 09/24/09
Leak Detection (BE) - W	Caldwell, 09/29/09
Biological Nutrient Removal (BE) - WW	Paul, 09/30/09
Leak Detection (BE) - W	Paul, 10/01/09
Water Optimization (BE) - W	Sandpoint, 10/13/09
Membrane Technologies (BE) - W/WW	Sandpoint, 10/14/09
SCADA (BE) - W/WW	Coeur d'Alene, 10/15/09

Class/Sponsor	Location/Date
Wastewater III & IV Licensure Review (BE) - WW	Boise, 10/27-28/09
Cross Connections Basic (BE) - W/WW	Caldwell, 11/03/09
VSWS Licensure Review (BE) - W	Nampa, 11/14/09
Water I & II Licensure Review (BE) - W	Jerome, 11/17-18/09
Crew Leader (BE) - W	Jerome, 11/19/09
Water Treatment (BE) - W	Boise, 12/08-09/09

*(BE) = Brown Environmental, Inc.
(IRWA) = Idaho Rural Water Association*

For further information, contact the following:
Brown Environmental, Inc. 1-800-543-4358
 or for the Boise area, 1-208-465-5725.
 Web site: www.idahooperatortraining.com/
Idaho Rural Water Association 1-800-962-3257
 or 1-208-343-7001, Fax: 1-208-343-1866.
 E-mail: irwa@idahoruralwater.com.
 Web site: www.idahoruralwater.com/training.aspx



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