

ANOTHER TOOL UNVEILED TO AID IN THE FIGHT AGAINST TERRORISM

by Kurt Putnam

A new advisory notification subscription service has been developed by the Oregon State Police Office of Public Safety and Security (OPSS). The OPSS advisory system is an outcome of the events of 9-11-2001 and is intended to help law enforcement agencies to communicate directly with various public and private critical infrastructures on matters of security. The OPSS was created upon the Governor’s direction to deal with terrorism and consists of a small number of State Police Officers assigned to multiple Joint Terrorism Task Forces that have direct communication with the newly formed National Office of Homeland Security.

If you would like to subscribe to this free service, please request a subscription form from Diane Weis at (503) 731-4010 or Email: diane.weis@state.or.us

According to Gregg Shankle, detective with OPSS, “It is imperative that we connect our various critical infrastructures in some kind of communication network that would allow us to contact key persons in specific critical infrastructures such as drinking water and report open source, non-classified potential threat information to those infrastructures, multiple sectors or all sectors.” Although currently a one - way system, the OPSS is presently designing a second-generation network that will enable two-way communication capability to allow key sector personnel to contact their local law enforcement agency to report unusual activities that may be terrorism related.

Kurt Putnam, RS, is in the Protection & Development Unit of the Drinking Water Program / (503) 731-4317 or kurt.d.putnam@state.or.us

PROGRAM UPDATE

by Dave Leland

Lots of new things to report, as always! See other articles on USEPA drinking water enforcement in Oregon, new water system projects, new EPA rules, and water system security.

New Administrator - Office of Public Health Systems

Please welcome my new boss, Gail Shibley, as OPHS Administrator! In addition to the drinking water program, Gail will oversee emergency medical services, health care licensure and certification, environmental services and consultation, and radiation protection. Gail served in the Oregon House of Representatives from 1991-97. She served as senior staffer for U.S. Representative Jim Weaver (1980-86), established and managed a key program in Portland’s Bureau of Traffic Management from 1990-96, and more recently served in the U.S. Departments of Transportation and Labor. Gail is a life-long Oregonian, as well as an Oregon “Duck” with a BA-Political Science. We in OPHS are looking forward to Gail’s new leadership for our Office!

After-Hours Emergencies

If you have a water system emergency after-hours and need to get in touch with us immediately, call the Oregon Emergency Response System (OERS) at 1-800-452-0311. They have a call-down list of

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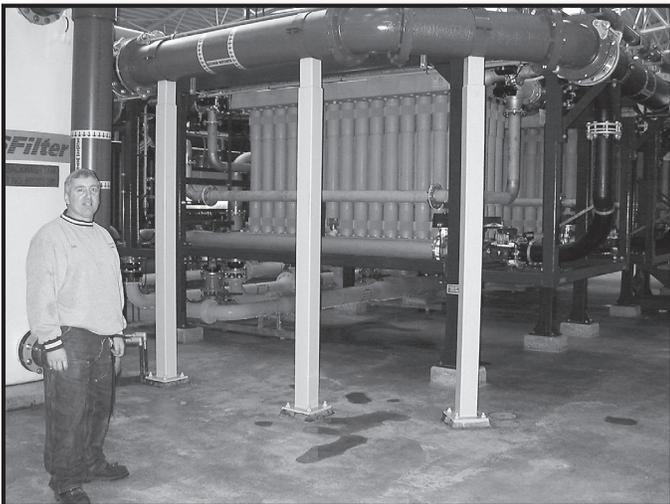
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CITY OF WARRENTON

by Kari Salis

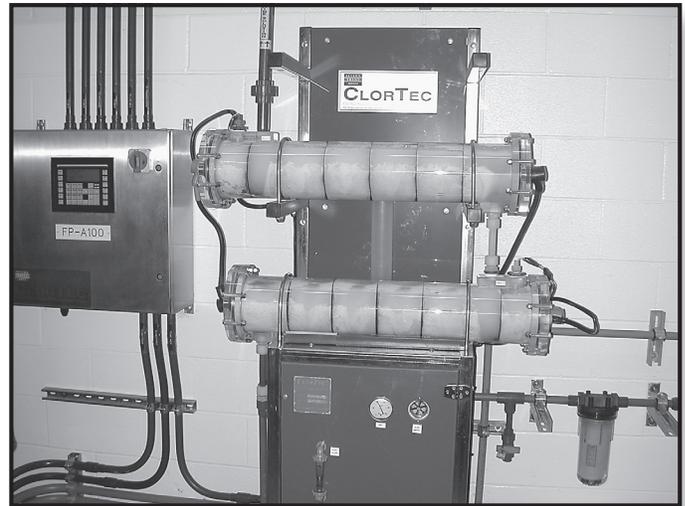
New Membrane Water Treatment Plant On-Line!

The City of Warrenton is located in the far Northwest corner of Oregon in Clatsop county and serves approximately 10,000 people. The City was one of only a handful of communities that hadn't yet complied with the Surface Water Treatment Rule requirement to install filtration. After much preparation and 15 months of construction, their new membrane filter, a US Filter Memcor 90M 10C (see photo), went on-line in September 2002. The plant has a capacity of 6 MGD, with room for expansion up to 9 MGD. With pre-settling, incoming turbidity is usually less than 1 NTU with a peak of around 10 NTU. The effluent turbidity is usually around 0.02 NTU. Particle counting for all size ranges is done continuously, with over 1000 counts/ml incoming and less than 3 counts/ml after the membranes. Integrity testing on the individual fibers using the pressure decay test is performed every 24 hours on the entire plant. The filters are automatically backwashed every 210 minutes, and use 1400 gallons per skid (there are 9 skids, each with 90 filters, and 20,000 membrane strands in each filter). Backwash water goes into a pond and then to a creek. A chemical cleaning with an acid wash must be done on the filters every 3-4 months. This solution is neutralized and sent to the pond and creek, so there are no sludge disposal issues.



Plant operator Bob Bingham and the membrane filter plant.

In addition to membrane filtration, the project also included a new ClorTec disinfection system (see photo), where sodium hypochlorite is generated on-site from sodium chloride (table salt) crystals and water. No handling of hazardous chemicals is necessary. An electrolytic cell provides the energy to convert the salt solution to a 0.8% sodium hypochlorite solution and hydrogen gas, which is vented to the atmosphere. Sodium Fluorosilicate is added for the oral health benefits, and Lime is added to counter the effects of the fluoride on the pH. "CT" requirements are met in the 3.5 Million Gallon clearwell just downstream of treatment.



On-site generated sodium hypochlorite system

The City is pleased with the membrane filter plant. It provides water of a very high quality and is much less labor-intensive than alternatives, giving operators more time for other tasks. The project, which cost a total of \$8.5 Million, was partially financed through the Safe Drinking Water Revolving Loan Fund. Membrane filters can also be used to retrofit a conventional plant, where the membrane filter canisters are installed in the empty filter bed and coagulation is discontinued. As the costs of membrane filtration become more competitive with other technologies, this may be a desirable option for systems looking into treatment upgrades to meet new and future requirements.

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RCAC WORKING WITH OREGON'S RURAL COMMUNITIES ON DRINKING WATER

by Swati Thomas

Are you a rural community that needs technical assistance on operating/managing your water system, or funding support for a drinking water project? The Rural Community Assistance Corporation (RCAC) can help you address a range of drinking water issues in your community. Formed in 1978 covering 12 western states including Oregon, RCAC is a non-profit organization that offers assistance to rural communities on drinking water and other issues.

Technical assistance providers covering the state offer help with a range of issues including financial management, rate setting, board training, and operation and maintenance issues. RCAC staff work in partnership with the community to first identify needs, and then through training and technical assistance help develop skills within the community to address water system issues. RCAC is also a Community Development Financial Institution (CDFI) which provides loan financing for projects and assists communities with submitting loan and grant applications to other funding agencies and organizations.

RCAC has been very active in Oregon. For example, RCAC provides ongoing support to Oregon communities including Glendale on management and finance, and Mt. Vernon on water conservation planning. RCAC is also currently assisting state agencies and other organizations in the planning of a series of workshops entitled "Solving Small Community Public Health and Environmental Issues." Organizations involved in the workshops scheduled for March and April 2003 include the Oregon Department of Human Services Drinking Water Program, Oregon Department of Environmental Quality (DEQ), Oregon Economic and Community Development Department (OECDD), and federal USDA Rural Development, as well as other organizations involved with providing training and technical assistance in Oregon. RCAC's role in this project will be to provide training on public involvement with rate setting, and offer access to resources for training and technical assistance.

(Continued on page 4)

SAFE DRINKING WATER REVOLVING LOAN FUND

by Dave Phelps

Each year the Safe Drinking Water Revolving Loan Fund offers a new round of financing for drinking water facility projects. The process begins now for eligible drinking water systems to submit a request for these funds that will be available in 2004. Drinking water systems should prepare and submit information about their drinking water projects on a *Letter of Interest*. A *Letter of Interest* is due May 9, 2003.

Who is Eligible: Public and privately owned Community and Nonprofit Non-Community water systems seeking low interest loan financing to upgrade a water system. Projects may be to plan, design, or construct drinking water facilities needed to increase public health protection and maintain compliance with drinking water quality standards. Your project can include the cost to add or improve security measures to protect drinking water facilities.

Community water systems are also eligible for loans up to \$100,000 for source water protection efforts to carry out elements of a Source Water Protection Management Plan.

Only projects submitted on the *Letter of Interest* are eligible for financing from the Safe Drinking Water Revolving Loan Fund.

Safe Drinking Water Revolving Loan Fund offers:

- Below market interest rates and 20-year terms
- 1% loans for financially disadvantaged and 30-year terms
- \$4 million maximum loan
- Adding or improving security of water facilities may be included with infrastructure and Source Water Protection projects.

Each project submitted on a *Letter of Interest* is rated using risk to human health, compliance, and financial affordability criteria.

To get a *Letter of Interest* form plus instructions or to see the project rating criteria:

- Go to website: www.dhs.state.or.us/publichealth/dwp
- Click on Safe Drinking Water Revolving Loan Fund, then
- Click on Letter of Interest or project rating criteria.

(Continued on page 5)

DISINFECTION BYPRODUCTS: READY OR NOT, HERE THEY COME

by Michael W. Grimm

Beginning in January 2004, many water systems will be sampling for disinfection byproducts. Up until now, only the large cities and water districts serving at least 10,000 people monitored for disinfection byproducts called trihalomethanes. But by 2004, any community or non-transient non-community water system that supply disinfected water to its customers will be monitoring for disinfection byproducts.

Fear not if you have never heard of a disinfection byproduct or have heard of them but still do not know what they are. Simply stated, disinfection byproducts are formed when chlorine and other disinfectants that are in the water for microbial protection combine with organic matter that is naturally present in water in various concentrations. The total regulated trihalomethane group is comprised of the following compounds:

- Bromodichloromethane
- Dibromomchloromethane
- Tribromomethane (bromoform)
- Trichloromethane (chloroform)

The regulated group of haloacetic acids is comprised of the following compounds:

- Monochloroacetic acid
- Dichloroacetic acid
- Trichloroacetic acid
- Monobromoacetic acid
- Dibromoacetic acid

These compounds are most likely to form out in the distribution system and are less likely to form at the source of supply (wellhead, water treatment plant, etc.). Since these compounds take time to form, it is thought that the most likely place to find these disinfection byproducts in the distribution system is where the oldest water is, or the location(s) of maximum residence time. The main health concern with disinfection byproducts is liver and kidney ailments and an increased risk of cancer.

A paired sample is actually two samples (one for TTHMs and the other for HAA5s). Also, when only paired sample is collected per year, that one paired sample must be collected during the time of warmest water temperature (generally mid-July through mid-September). All samples must be collected at the point of maximum residence time in the distribution system. A “plant” is defined as a well or wellfield, an aquifer, an entry point to the distribution system, or a water treatment plant. As of early 2003, an average price for

Water System Type	Monitoring Frequency
Surface Water: 500 to 9,999 population	1 paired sample per plant per quarter
Surface Water: 25 to 499 population	1 paired sample per plant per year
Groundwater: 10,000 or greater population	1 paired sample per plant per quarter
Groundwater: 25 to 9,999 population	1 paired sample per plant per year

analytical services for HAA5s is about \$150 per sample and about \$125 per sample for TTHMs. If you have any questions, please contact Mike Grimm at (503) 731-4317 or by e-mail at michael.w.grimm@state.or.us for technical assistance.

Michael Grimm, PE, is in the Protection & Development Unit of the Drinking Water Program / (503) 731-4317 or michael.w.grimm@state.or.us

RCAC WORKING WITH OREGON'S RURAL COMMUNITIES *(continued from page 3)*

In addition to providing training and technical assistance on drinking water issues, RCAC is also available to assist communities with other important issues including wastewater management, solid waste management, and affordable housing.

For more information see our website at www.rcac.org or contact:

- Swati Thomas, Rural Development Specialist, at (503)227-1562, stthomas@rcac.org
- Or, Chris Marko, Rural Development Specialist, at (503)228-1780, cmarko@rcac.org

Swati Thomas is a Rural Development Specialist with the Rural Community Assistance Corporation based in their Oregon field office / (503) 227-1562 or stthomas@rcac.org

OPERATOR CERTIFICATION

by Deb Weatherford

Distribution Grades 3 and 4 Proposed Rule Change

New additions to prerequisites for Distribution are in the rule change process. After passing the written comment period (comment deadline is 3/21/03), they are expected to be in place before the May exam. A high school diploma or GED is required for all levels.

Affecting **only Grade 3 and Grade 4 Distribution**, this change will allow an operator to substitute additional experience for post high school education. Added as a prerequisite for taking the exam will be:

- D-3 : 8 years of experience with 2-1/2 years of operational decision making, and
- D-4 : 10 years of experience with 3 years of operational decision making.

2003 Renewals Needing CEUs (Levels 1-4)

Several 2003 renewals were received without required, approved CEUs. 2003 CEUs will be accepted for these renewals. Send a copy of new CEUs, fees due, along with a copy of renewal or incomplete renewal letter to: DHS- Cashier, PO Box 14260, Portland OR 97293-0260. Late fees assessed are based on the date we receive the complete renewal. If complete renewal is received between 1/1/03 and 3/31/03, a late fee of \$10 is added. When received between 4/1/03 and 12/31/03, the late fee will be changed to a \$50 reinstatement fee. Please Note: **2003 CEUs used for 2003 renewals cannot be used again for another renewal!!!**

Hints for Exam Applications

1. Download the application from our website: www.dhs.state.or.us/publichealth/dwp/certif.htm
2. Use this checklist to double check the Affidavit of Employment:
 - Name and job title at the top?
 - *Full time or part time?
 - Dates of employment correct?
 - Treatment and Distribution Job Duties checked?
 - *Percentages filled in under Treatment and Distribution Job Duties?
 - *Job Description Type box checked?

DRINKING WATER RULES

Drinking Water Rules (333-061) were revised October 25, 2002, and they are available both in hard copy and on CD. Please call Marsha Fox at (503) 731-4899 for your copy.

- *Experience Type area completed?
 - Filtration endorsement completed (for FE exam)?
 - Statement of Authenticity area completed?
3. Send complete application, documentation of education and experience, and fee to Cashier: **(DHS – Cashier, PO Box 14260, Portland OR 97293-0260)**
 4. Get Exam Application in early!

**Areas most often not completed on Affidavit*

Deb Weatherford is in the Operator Certification Program of the Monitoring & Compliance Unit of the Drinking Water Program / (503) 731-4899 or deborah.a.weatherford@state.or.us

REVOLVING LOAN FUND *(continued from page 3)*

For questions about the Loan Fund or help with the *Letter of Interest* form, contact:

- Economic & Community Development Department @ 503-986-0122 for the Regional Team for your county
- Drinking Water Program @ 503-731-4899; or the Technical Assistance circuit riders:
 - Groundwater systems call Poage Engineering & Surveying, Inc., Tom Poage @ (541) 485-4505/toll free 1-888-485-4505.
 - Surface Water systems call HBH Consulting Engineers, Inc., Robert Bynum @ (541) 266-0355/toll free 1-866-266-0555, or Robert Henry @ (503) 670-0499.

Dave Phelps is in the Protection & Development Unit of the Drinking Water Program / (503) 731-4010 or daven.m.phelps@state.or.us

CONSUMER CONFIDENCE REPORTS (CCRs)

by Mike Patterson

Your Consumer Confidence Reports are due to your customers and to this office no later than **July 1, 2003**.

The CCR Certifications are due to this office on or before **October 1, 2003**. Please remember that you are certifying two things:

1. That you mailed/or delivered your CCRs to all your customers, and
2. That you certify that the information contained in the CCR is correct and consistent with the information previously submitted to the state.

The Certification form (Appendix D) can be obtained from our web site.

This is the fifth year that CCRs have been required and the following information/reminders should help you avoid some common mistakes.

Table of Detections:

- This table is to contain **only** those regulated contaminants that were detected in your drinking water. Listing everything you test for in this table is a violation of the CCR rule.
- The detections you list in the table stay in the table each year until you repeat that same test, then the new detections (if any) are listed and the “old” detections are removed. No data older than 5 years needs to be included in the table.

Source Water Assessments and/or Delineations: If either of these reports has been completed for your water system, they should contain specific information for you to add to your CCR. If this information is not specified in your report, please call Dennis Nelson at (541) 726-2587 to obtain it.

Arsenic Rule:

This rule states that a community water system with an arsenic detection above 0.005 mg/L, and up to and including 0.01 mg/L, must include in their 2002 CCR:

- A short informational statement about arsenic, using language such as: While your drinking water meets EPA’s standard for arsenic, it does contain low levels

of this contaminant. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing the arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such a skin damage and circulatory problems.

- You may write your own educational statement, but only in consultation with the Primacy Agency (the state).

Community water systems must include educational information when arsenic levels are between 25 and 50 parts per billion (ppb) and mandatory health effects language when systems violate the 50 ppb standard, which remains in effect until the new standard of 10 ppb replaces it on January 23, 2006.

To access your water systems testing data go to our website: www.dhs.state.or.us/publichealth/dwp and click on “**Data Online**”. For information regarding CCRs and other drinking water related topics, stay in the main website.

Computer templates: These software programs lead you, step by step, through the report. You provide needed information about your source, water test results, contact person, etc. and the software does the rest. Templates are available from: **Oregon Association of Water Utilities** (503) 873-8353.

EPA’s Safe Drinking Water Hotline: (800) 426-4791 is another good CCR information source.

Please mail your CCR and Certification to the following address:

Health Services/Drinking Water Program,
P.O. Box 14450, Portland, OR 97293-0450

Ron Hall is the new contact for CCRs. If you have any questions, please call him at (503) 731-4010.

Mike Patterson retired February 28, 2003. He was in the Monitoring & Compliance Unit of the Drinking Water Program

PROGRAM UPDATE *(continued from page 1)*

drinking water program staff and will contact the appropriate person, who will then promptly call you back. If you leave night/weekend voice mails on the program office phones, we won't get the message until the next business day.

Budget/Legislature

As you know, the 2003 Legislature got underway in January, and immediately tackled the daunting problems of the state general fund budget. Budget issues are multidimensional this time, with shortfalls to address in the remainder of the 2001-03 biennium, which ends in June, and a whole new budget to craft for the 2003-05 biennium. The Department of Human Services has occupied center stage in both debates, due to the large scope of the services and assistance the Department provides to vulnerable Oregonians. While the drinking water program is not included in the Department's program reductions now underway, all of us in state government are eliminating administrative costs at the direction of the Governor to help get through June, including management staff raises, purchases of furniture and capital equipment, memberships and subscriptions, out-of-state travel, state sponsored conferences and meetings, and color printing. We are also limiting in-state travel, so expect to see us in person less often for the near-term.

We are closely tracking two Legislative bills:

- 1) HB 2255 - Water system connection fee to support the drinking water program. A public hearing before the House Water Committee was held on February 18. The Department, USEPA, and the League of Women Voters supported the bill. The League of Oregon Cities, City of Portland, Special Districts Association of Oregon, and Central Oregon Cities opposed the bill. No action was taken on the bill.
- 2) HB 2448 - Direct lab reporting. This bill was introduced by Rep. Mark Hass and others in response to the 2001 Secretary of State drinking water program audit report. The bill requires drinking water laboratories to report public water system water test results to the Department and to the water supplier. The bill was assigned to the House Health and Human Services Committee. No hearing has been held.

Dave Leland, PE, is Manager of the Drinking Water Program / (503) 731-4010 or david.e.leland@state.or.us

OREGON MOBILE HOME PARKS EARN EPA DRINKING WATER COMPLAINTS

Federal agency seeks \$38,368 in penalties

The U.S. Environmental Protection Agency has filed complaints against two Oregon mobile home parks for failing to test and inform the public about the quality of their drinking water.

The EPA complaints seek a \$15,000 penalty against Apple Blossom Mobile Home Park and a \$23,368 penalty against the Caves Highway Mobil and RV Park located in Cave Junction.

The complaints follow compliance orders EPA issued last year at the request of the Oregon Department of Human Services after the water suppliers failed to comply with state drinking water program compliance actions. Both water systems were given ample opportunity to respond to the EPA orders by coming into compliance with the drinking water requirements. However, both systems failed to perform tests or inform the public.

According to Michael Cox, Manager of the EPA's Drinking Water Unit in Seattle, the EPA and Oregon agreed to share enforcement responsibilities against water suppliers who persistently violate the drinking water rules.

"Faithful and timely testing is crucial to making sure our water remains safe to drink," said Cox. "The state, counties, and EPA have made repeated efforts to ensure that these systems comply with the law, but sometimes it takes penalties to affect change. We hope that other public water systems see these actions as a clear message that we take drinking water protection very seriously.

"Although enforcement action can be taken by EPA, we prefer to encourage voluntary compliance with the State," Cox said. He suggested that Oregon water suppliers comply with the rules on time, or if they face a state action that they comply with that action as prescribed. Otherwise, they are likely to end up being pursued by the EPA."

Michael Cox is Manager of the Drinking Water Unit for USEPA Region X in Seattle/(206) 553-1893 or cox.michael@epamail.epa



Department of Human Services
 Drinking Water Program
 P.O. Box 14450
 Portland OR 97293-0450

**PERIODICALS
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TRAINING CALENDAR

CEUs for Water System Operators
 Check www.oesac.com for new offerings approved for drinking water

Cross Connection/Backflow Courses

Backflow Management Inc. (B)
 (503) 255-1619
 Clackamas Community College (C)
 (503) 657-6958 ext. 2388

Backflow Assembly Tester Course
 Apr. 7-11 Portland (B)
 June 9-13 Oregon City (C)
 June 23-27 Portland (B)

Backflow Assembly Tester Recertification

Apr. 2 Portland (B)
 Apr. 3-4 Portland (B)
 Apr. 4 Oregon City (C)
 Apr. 5 Oregon City (C)
 Apr. 10-11 Oregon City (C)
 May 2 Oregon City (C)
 May 3 Oregon City (C)

May 15 Portland (B)
 May 15-16 Oregon City (C)
 May 16 Portland (B)
 June 6 Oregon City (C)
 June 7 Redmond (B)
 June 12 Portland (B)
 June 13 Portland (B)
 June 19-20 Portland (B)
 June 20 Redmond (B)
 June 25-26 Oregon City (C)
 June 30 Portland (B)

Cross Connection Inspector Course
 Apr. 14-17 Oregon City (C)
 May 5-8 Redmond (B)
 June 2-5 Portland (B)

Cross Connection Inspector Update
 Apr. 16 Portland (B)
 Apr. 18 Oregon City (C)
 May 9 Oregon City (C)
 May 23 Redmond (B)
 June 6 Portland (B)
 June 18 Portland (B)
 June 19 Oregon City (C)

Water System Training Course

Department of Human Services
 Marsha Fox/(503) 731-4899
 April 16 Salem
 April 23 Clackamas
 April 30 Hillsboro
 May * The Dalles
 June * Coos Bay
 * *Dates to be announced*

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