

Connecticut H₂O Operator

A Newsletter for Certified Operators

The Connecticut Department of Public Health Drinking Water Section

Volume 2 Issue 4

December 2006

Inside this Issue

Sanitary Survey Process	2
Procedure Changes: Water Main Project Reviews	3
Chief Operator Responsibilities	3
Connecticut's Mutual Aid Agreement Initiative	4
Notification Requirement to Protect Sensitive Drinking Water Source Areas	5
Picture Quiz	5
New Storage Tank Technical Guidelines	6

CONNECTICUT DEPARTMENT OF
PUBLIC HEALTH

Keeping Connecticut Healthy
www.dph.state.ct.us
Governor M. Jodi Rell
Commissioner J. Robert Galvin, M.D., M.P.H.

**To Report a Water-
Related Emergency...**

CALL (860) 509-7333

(M-F 8:30a.m.-4:30p.m.)

OR...

CALL (860) 509-8000

(After Hours)



Attention All Operators!

Legal Contact. To be or not to be. That is the question!

By: Kathleen Pacholski, Environmental Analyst 2,
Monitoring, Reporting & Enforcement Unit

A fairly common misconception held by some certified operators is that, because they are overseeing the water system operations for a public water system (Company) and, in some cases may also be acting as its Administrative Contact (AC), they can also act as a Legal Contact (LC) for the Company. That is not the case. There is a clear distinction between the two, and operators need to be aware of the difference.

The key is the word "legal." The AC is one who, when granted permission by the Company, can handle administrative matters on behalf of the Company that do not involve legal issues. In order to act as a LC, an individual must have the legal authority to act on behalf of the Company. This authority includes, but is not limited to, authority to enter into and sign legally binding contracts and documents on behalf of the Company, to address legal issues that come before the Company, and to act as an Agent of Service for the Company. The Agent of Service has the legal authority to accept summonses and writs (written court orders to perform or cease to perform specific actions), as well as any and all legal documents formally submitted to the company. Some examples of a LC are an owner, partner, president of an association, chair of a board of trustees or a Connecticut attorney.



Operators should be aware that there can be serious consequences for acting in the capacity of a LC without proper legal authority. For example, a Notice of Violation and Civil Penalty/Final Order provides the Company with the opportunity to request a hearing to appeal the Order. The request, however, *must* be made within a specified timeframe and *must* be made by someone with the legal authority to do so. Operators do *not* have the authority to request the hearing or appear before the Department. An operator may serve as a witness for the Company, but only a Connecticut attorney, owner, partner, or other legal representative of the Company may *represent* the Company before the Department. Motions and requests filed by an operator will be considered improper filings and may result in a denial and a lost opportunity to appeal. Please contact Kathleen Pacholski of the Monitoring, Reporting and Enforcement Unit at 860-509-7333 if you have any questions.

NOW AVAILABLE ONLINE:

**Sale of Excess Water and Source Abandonment Permit Applications
are now available on our Website!**

<http://www.dph.state.ct.us/BR5/Water/DWD.htm>



Sanitary Survey Process

By: Steve Messer, Supervising Sanitary Engineer, Implementation & Response Unit

CERTIFIED OPERATORS: Do you ever feel like you are caught in the middle of a no win situation when your owner or manager receives a sanitary survey report from the Drinking Water Section (DWS)? If you do, try to look beyond the violations and infrastructure deficiencies and take in the big picture. The sanitary survey is the first line of defense for regulatory public health protection and is valuable technical assistance that you, as a public water system (PWS) certified operator, can use to evaluate and improve your PWS infrastructure. Sanitary surveys are conducted every three years for Community PWSs and every five years for Non-Community PWSs. I strongly urge you, as the PWS operator, to take full advantage of your scheduled visit and spend as much time as you feel necessary with the DWS engineers/analysts to ensure you are doing everything you can do to protect the health of the clients you serve.

The Implementation & Response Unit (IRU) within the DWS Compliance Section is responsible for sanitary surveys at all Community and Non-Community PWSs. The IRU will assess the violations at all PWSs and assist these systems in recognizing the corrective measures that need to be made to achieve compliance. IRU roles and responsibilities are as follows:

COMMUNITY

David Cooley-Lead
Cindy Sek
Mandy Smith

NON-TRANSIENT NON-COMMUNITY

Ryan Tetreault-Lead
Rob Kokoszyna

TRANSIENT NON-COMMUNITY

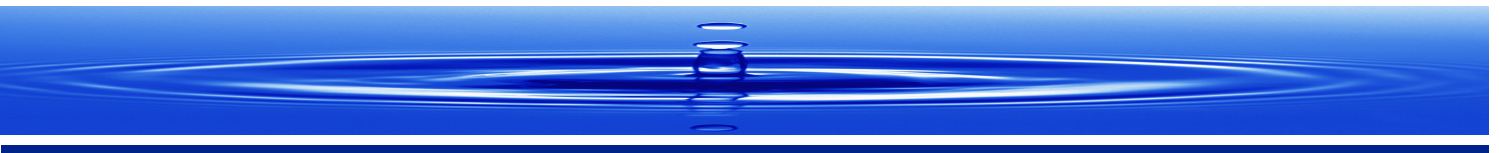
Henry Adams-Lead

IRU staff members will always invite the certified operator through the PWS owner or administrative contact to a scheduled state conducted sanitary survey. It is strongly recommended that the certified operator participate in the state conducted sanitary survey process, as the operator must be instrumental in assisting the system in achieving compliance. Minimally, a certified operator must be aware of the type and location of all sources of supply, any potential sources of pollution that could impact the water supply, treatment units and their operation and storage facilities. Certified operators must be knowledgeable of all State and Federal PWS regulations to ensure compliance. These regulations can be found on the DWS web site, <http://www.dph.state.ct.us/BRS/Water/DWD.htm>. IRU staff will make referrals when necessary to the DWS Operator Certification Program regarding operators who lack this capacity.

The identification of regulatory violations and infrastructure deficiencies at your PWS by DWS engineers or analysts further allows the operator the ability to convey to the PWS manager or owner the need for additional support in the form of personnel or financing to correct the situation. Failure to correct violations promptly will not only increase the personal liability of the PWS operator and owner, it will also result in formal enforcement action that may include civil penalties. Moreover, uncorrected violations could impact public health.

It is the IRU's primary mission to work cooperatively with all PWS owners and certified operators and provide technical assistance to correct violations and bring a PWS into regulatory compliance. Our unit can be of great assistance to you in achieving compliance for your PWS and you will find the team members to be very knowledgeable and professional. Please do not hesitate to call us at (860) 509-7333 for assistance with your PWS; we are here to help you.

Please consider joining myself and other DWS staff across Connecticut in early 2007 to learn more about how you can prepare for sanitary surveys as part of the Basic Operator Training Classes. Presentations on sanitary surveys will be given by DWS staff and it would be a perfect opportunity for you to learn more about the process and to present any questions or concerns you may have regarding the sanitary survey process. Please check the DWS' website regularly for upcoming information. I look forward to meeting you there and discussing what assistance can be provided to you as the certified operator or owner of a PWS.



Procedure Changes: Water Main Project Reviews

By: Tom Chyra, Sanitary Engineer 3, Capacity Review and Standards Unit

Public Act No. 06-98 went into effect on October 1, 2006 regarding the review and approval of distribution water main extensions and replacements. The new law exempts the review and approval prior to construction of routine water main extensions and replacements that do not involve the construction or expansion of pumping stations, storage facilities, treatment facilities, or sources of supply. For these routine types of water main projects, it is recommended that public water systems utilize the Water Main Design and Construction Guidelines posted on the DWS web page at: <http://www.dph.state.ct.us/BRS/Water/DWD.htm>. The Department must still review and approve any federally or state funded projects that may include water mains prior to construction, such as DWSRF or STEAP grant projects. For these types of projects that have water main components and require an approval from the Department, the applicant must complete a Water Main Application, which can also be found on the DWS webpage shown above. Please contact Tom Chyra of the Capacity Review and Standards Unit at (860) 509-7333 with any questions.



Chief Operator Responsibilities

By: Bill Sullivan, Sanitary Engineer 2, Operator Certification Program

Every Community and Non-Transient Non-Community Public Water System (PWS) shall designate a “Chief Operator” for each of its treatment plants, distribution systems and/or small water systems. The Chief Operator must be certified at or above the plant or system’s class level. An operator, certified at any class level, can be designated as the chief operator of a small water system. The Chief Operator must be in “direct responsible charge” of the treatment plant, distribution system and/or small water system. The operator’s “direct responsible charge” of a treatment plant, distribution system or small water system is defined by the Regulations of Connecticut State Agencies to mean “an active, daily responsibility” of the treatment plant or system. The nature of this “daily responsibility” is based on the requirements of the system. The responsibilities of the Chief Operator are, in part, based on the PWS’s regulatory requirements. An example of this would be completing and submitting the “Treatment Effluent Monitoring and Reporting Form” for a system with treatment. All operators in direct responsible charge and any operators making process control/system integrity decisions about water quality and quantity that affect public health shall be certified at or above the plant or system’s class level or certified as a conditional, limited or provisional operator. In the event the Chief Operator is not available, the PWS shall place an operator, who is certified at or above the plant or system’s class level, in direct responsible charge of the treatment plant, distribution system or small water system.

The designated “Chief Operator” is responsible for making all operational decisions (process control/system integrity) about the quality or quantity of water being served, that affect public health. Therefore, it is essential that the Chief Operator be closely familiar with the systems that they operate. Making the required decisions, especially in the case of contract operators, necessitates good communication between the operator and the owner of the PWS. The Drinking Water Section (DWS) has encountered violations which may have been avoided if the PWS had heeded the Chief Operator’s recommendations in correcting sanitary deficiencies. Chief Operators should document and be able to substantiate their recommendations (water quality monitoring, system improvements, etc.) based on regulatory requirements and industry standards. PWS owners must communicate with the Chief Operator any actions that may affect the quality and quantity of water being served. The contract agreement between a PWS and its Chief Operator should not limit the decision making capability of the Chief Operator. These agreements should allow the Chief Operator to have an “involved approach” to the operation of the system as opposed to those agreements that only require the Chief Operator when issues arise. PWS owners must work with their Chief Operators so that the regulatory responsibility of decision making by the Chief Operator is satisfied.

Specific information regarding the duties and responsibilities of a Certified Small Water System Operator and the duties and responsibilities of Certified Class I and Class II Water Treatment Operators can be found on the DWS’s webpage at <http://www.dph.state.ct.us/BRS/Water/DWD.htm>. Also a “Best Practices Guide”, developed by the EPA on the roles and responsibilities for both operators and PWS owners can be found at <http://www.epa.gov/safewater/smallsys/ssinfo.htm>. Operator Certification Program staff are available to answer your questions at (860)509-7333.

Connecticut's Mutual Aid Agreement Initiative

By: Scott Szalkiewicz, C.H.E.S., Health Program Supervisor, Programs Unit



There were many lessons learned from the multi-state response to the four hurricanes that hit Florida in 2004, and more specifically the effects of Katrina on the Gulf Coast. One lesson learned is vital for state drinking water programs to recognize. Understanding and developing mutual aid agreements is now critical in preparing for any disaster response and recovery need. To the 36 coastal municipalities that stretch from Greenwich to North Stonington on 618 miles of Connecticut shoreline, that need is extremely apparent to 24 of those towns served by Community Public Water Systems providing water to approximately 1,184,514 people.

Beginning in 2007, the Connecticut Department of Public Health will be holding regional meetings and workshops with the state's larger public drinking water systems, independent contract certified operators, technical assistance organizations and other identified first responder stakeholders. The goal is to establish a framework and mechanism of mutual aid when needed for any disaster response or recovery need. The voluntary intrastate mutual aid agreements will ultimately be developed to address the means for one drinking water party to provide personnel, equipment, supplies, facilities and/or services to a public water system during an incident. It will also define the joint and cooperative exercise powers common to the pact parties. An ideal system involves effective and easily activated mutual aid agreements addressing liability, workers' compensation, and equipment damage in mutual aid incidents. This type of system however, as in national Emergency Management Assistance Compact (EMAC) program, is not commonly seen for drinking water infrastructure.

For the drinking water industry there is still a need to raise mutual aid to the same level of detail and urgency that is comparable to EMAC agreements for the traditional first responders. We have made the first step in advancement towards launching this initiative by receipt of a letter of support from one of the states leading water industry representatives the CT Section of the American Water Works Association (AWWA), stating that their board unanimously agrees to support our efforts with developing a voluntary mutual aid program amongst public water systems in the state. This would not have been possible without our continuing successes of stakeholder collaboration on, and education of, drinking water emergency and security preparedness, response and recovery. Major initiatives like our regional Water 101 and Law Enforcement 101 trainings, the Hurricane Preparedness and Recovery Conference for shoreline towns emergency preparedness coordinators, tabletop exercises, the numerous and ongoing Pandemic Influenza presentations, and the Drinking Water Emergency and Security Advisory Committee, which also serves as the FBI InfraGard Water Sector, have already brought these necessary partners together. In Connecticut, the development of binding mutual aid agreements is desirable and necessary to preserve and protect the health, safety, and welfare of its residents.

It is our challenge as a state drinking water program to lead this effort by holding these discussion meetings and subsequent planning workshops to address the mutual aid and assistance network creation. We will be using existing guidance like the AWWA white paper that provides guidance for creating and implementing a mutual aid and assistance program within any state or territory that does not already have one. We will also be looking closely at existing public water system mutual aid and assistance agreements implemented in California, Florida, Texas and Washington. While all models share some similarities, Connecticut will no doubt be producing its own unique voluntary network.

As the workshops begin to meet, there may be a need to establish a committee that meets on a regular basis. Trust and willingness to join and support the coalition will need to be increased as the initiative moves forward. As with any other Homeland Security initiative, an additional goal will then be to keep the interest high in the meetings and to continue to strengthen the ties of a developing partnership that will be timeless. Ultimately, it is the goal of this initiative to have facilitated the development of a mechanism for a rapid, short-term deployment of emergency support to restore critical operations at any affected public water system in Connecticut.

For more information on this Mutual Aid initiative and other emergency/security activity of the CT Department of Public Health, Drinking Water Section please contact us at (860) 509-7333.



Notification Requirement to Protect Sensitive Drinking Water Source Areas

By: Lori Mathieu, Supervising Environmental Analyst, Source Water Protection Unit

In order to protect sensitive source water areas that drain to public drinking water supplies, Public Act 06-53 of the CT General Statutes requires an applicant of either an inland wetland agency or a planning and zoning board to notify the CT State Department of Public Health (DPH), and the water company, when a proposed development is planned within a public water supply drainage area.

Connecticut’s public drinking water supply drainage areas cover appropriately 18 % of the state and impacts many towns, as shown in Figure 1. These drainage areas provide water to large capacity public drinking water supplies including all surface water reservoirs and shallow sand and gravel ground water wells. In 2003 the DPH Drinking Water Section (DWS) provided drainage area mapping to each chief elected official as a part of the source water assessment program.

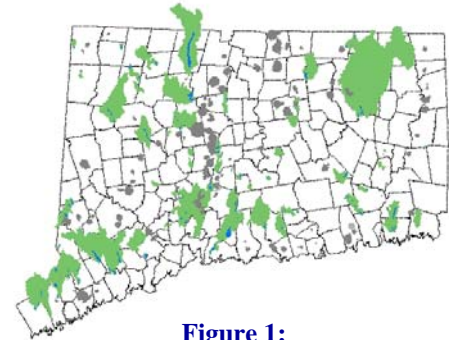


Figure 1: Public Drinking Water Supply Drainage Areas in CT

The DPH/DWS views this notification as a proactive step toward land developers recognizing the potential adverse impact that proposed projects can have on drinking water purity. It is our intent to continue to provide technical assistance to local town land use decision makers concerning development and management of these drainage areas.

If you have questions please contact Lori Mathieu or Laurie Giannotti at the DPH/DWS at (860) 509-7333, or log onto <http://www.dph.state.ct.us/BRS/Water/DWD.htm> for more information.

Picture Quiz



What’s wrong with this backwash picture? What Public Health Code violation, and sanitary problem, can you identify?

The photo shows a backwash line arrangement that does not meet the requirements of RCSA Section 19-13-B38a(b), RCSA Section 19-13-B45 and RCSA Section 19-13-B103. The backwash discharge line for the treatment system is directly connected to the sanitary sewer line which is prohibited by RCSA Section 19-13-B38 a(b) and RCSA Section 19-13-B45. This cross connection must be corrected by installing a physical air gap of at least one inch or twice the diameter of the backwash discharge pipe, whichever air gap is greater.

This sanitary sewer line has also clearly backed up, as evidenced by the toilet paper overflowing the sides of the receiving pipe. This presents additional health concerns. Operators should be aware discharging of backwash water to the septic system is prohibited by RCSA Section 19-13-B103 (Regulations and Technical Standards for Subsurface Sewage Disposal Systems). Backwash discharges are under the jurisdiction of the Department of Environmental Protection.

New Storage Tank Technical Guidelines

By: Tom Chyra, Sanitary Engineer 3, Capacity Review and Standards Unit

The Drinking Water Section has recently posted Storage Tank Design and Construction Guidelines on its web page, <http://www.dph.state.ct.us/BRS/Water/DWD.htm>. These guidelines are recommended procedures, except as required by regulations noted within the guidelines. Although the storage tank guidelines are primarily intended for the design and construction of new storage facilities, they are also a valuable resource for evaluating the sanitary conditions of existing storage tanks in service. For example, there is a section on appurtenances that provides useful information on the proper design of vents, hatches, overflows, etc. Water quality maintenance is one area of storage tank design that has received recent attention. Historically the emphasis has been on over sizing tanks with the “bigger is better” mentality. However, water quality problems may arise if the storage tank has very low turnover, which may result in stagnant water, bacteria growth, and loss of chlorine residual. These guidelines contain a section on water quality maintenance that provides some general guidance on what can be done to ensure proper mixing in a storage tank. Constructive comments from the water industry on the content of the storage tank guidelines are welcomed and may be considered for future revisions. Please contact Tom Chyra of the Capacity Review and Standards Unit at (860) 509-7333.



Training Registration Information



Since July 1, 2005, all training registrations have been completed on the Training Finder Real-time Affiliate Integrated Network (TRAIN). TRAIN is a training resource for professionals who protect the public's health. Visit the TRAIN web page, <https://ct.train.org/DesktopShell.aspx>, to create a free user account and view upcoming certified operator events.

Be sure to check out the DWS's web page, <http://www.dph.state.ct.us/BRS/Water/DWD.htm>, for the latest information on:

- ◆ Certified Operator Training
- ◆ Certified Operator Exam Dates
- ◆ Upcoming DWS Events
- ◆ What's New
- ◆ Current Topics
- ◆ DWS Program Pages

This newsletter was prepared by the DWS's Operator Certification Unit and Programs Unit. If you have any questions or would like to contribute to the newsletter, please contact Vicky Carrier or another OCP staff person listed below.

- Robert Rivard, P.E.- Supervising Sanitary Engineer- Program Supervisor
- William Sullivan - Sanitary Engineer 2- Operator Certification, Cross Connection Control
- Joseph Higgins - Engineer Intern- Cross Connection Control
- Oluseye Akinkunmi - Connecticut Careers Trainee- Operator Certification
- Carol Martin - Office Assistant

State of Connecticut
 Department of Public Health
 Regulatory Services Branch
 Drinking Water Section
 410 Capitol Avenue- MS #51WAT
 P. O. Box 340308
 Hartford, Connecticut 06134-0308
 Phone: 860-509-7333
 Emergency After-hours: 860-509-8000
 Fax: 860-509-7359

<http://www.dph.state.ct.us/BRS/Water/DWD.htm>

