

# Connecticut H<sub>2</sub>O Operator

The Connecticut Department of Public Health Drinking Water Section

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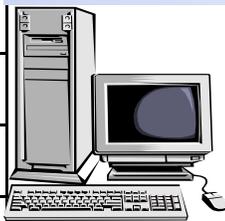
A Newsletter for Certified Operators

June 2005

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## Are You Onboard?



The Drinking Water Section (DWS) is currently using the Internet for transmitting all routine information important to your operations as a public water system (PWS). As a Certified Operator, you should check the DWS web page, <http://www.dph.state.ct.us/BRS/water/DWD.htm>, daily for updates.

The DWS web page provides a wealth of information on various public drinking water topics. Some of the information that can be found on the site includes:

- Water quality testing schedules
- Operator Certification
- Source Water Protection
- Emergency Preparedness and Response
- Applications
- Forms
- Reports
- Correspondence
- And much more!!

**Check out the DWS's web page today!!**

## Public Water System Notification Form

Public water systems are required to contact the DWS to report whenever the security of the system is threatened or suspicious activities are observed. A notification form to assist you in reporting security events and violations is available on the DWS web page: <http://www.dph.state.ct.us/BRS/Water/DWD.htm>. Using this notification form will help you confirm that you are in compliance with the reporting requirements, but it does not substitute reporting emergencies by telephone. Visit the DWS's web page for more details.



CONNECTICUT DEPARTMENT OF  
PUBLIC HEALTH

Keeping Connecticut Healthy  
[www.dph.state.ct.us](http://www.dph.state.ct.us)  
Governor M. Jodi Roll  
Commissioner J. Robert Galvin, M.D., M.P.H.

*"Certified Operators are the Department of Public Health's front line in maintaining the purity and adequacy of the state's public drinking water. A well-trained, committed and ethical operator workforce working to assure regulatory compliance is essential for the security and safety of our public supplies. I am grateful to the men and women who assist public water systems and the Drinking Water Section in serving the public."*

Gerald R. Iwan, PhD  
Section Chief

## Are You Doing All You Can to Ensure Compliance?

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



The Drinking Water Section has undergone some major structural changes over the past few years to promote consistency in the regulation of all types of public water systems (PWS). One of those major changes was the creation of the Implementation & Response Unit (IRU) within the Compliance Section. The IRU is responsible for assessing the cause of violations at Community and Non-Transient Non-Community PWSs and assisting these systems in recognizing the corrective measures that need to be undertaken to achieve compliance. IRU team members will assess systems' compliance and capacity by conducting and/or reviewing the results of sanitary surveys as required by the Regulations of Connecticut State Agencies (RCSA) and the Safe Drinking Water Act (SDWA). Violators of the RCSA and SDWA will be prioritized for state conducted sanitary surveys. IRU roles and responsibilities are as follows:

### COMMUNITY PWS

David Cooley (Lead)  
Cindy Sek  
Brian Salus

### NON-TRANSIENT NON-COMMUNITY PWS

Ryan Tetreault (Lead)  
Mandy Smith

### SURVEY QUALITY

Hank Adams

IRU staff members will always call a system's certified operator to alert the operator 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 sources of supply, any potential sources of pollution that could impact the water supply, treatment units and their operation, and storage facilities. All certified operators should be knowledgeable of all state and federal PWS regulations to ensure compliance. IRU staff will be making referrals to the DWS Operator Certification Program on operators who lack this capacity.



The mission of the IRU is to work with willing system owners and certified operators through technical assistance to correct violations revealed at water systems. The IRU will implement alternative actions, such as formal enforcement and possibly court action or take-over proceedings, to bring the public water system into compliance. Our unit can be of great assistance to PWSs in achieving compliance for their water system. Team members are very knowledgeable and professional. Please do not hesitate to call us at (860) 509-7333 for assistance with your PWSs.

**We are here to help you!**

## Certified Operator Renewal Requirements



By William Sullivan, Operator Certification Program (OCP)

The OCP provides the following series of questions and answers to assist operators in their understanding of the renewal process.

### Question 1. How many training hours must an operator complete for a renewal?

This depends on the certification class. The number of required training hours is depicted in the following table.

<u>Certification Class</u>	<u>Required Training Hours,</u>
Class I & Small Water System (SWS)	10 hrs.
Class II	20 hrs.
Class III & IV	30 hrs.

### Question 2. What courses can be used for the renewal of an operator's certificate?

A list of approved training providers and training courses can be found on the Drinking Water Section's (DWS) web page: <http://www.dph.state.ct.us/BRS/Water/DWD.htm>

Click on "Operator Certification" and then on "Certificate Renewal and Training Information" to get to these lists. The courses on the list of "Approved Training Courses" are those where the trainer has received individual approval for a particular course. All training hours (or equivalent approved hours) issued by an Approved Training Provider for drinking water training are accepted to meet the training renewal requirements. Keep in mind that courses must be appropriate in difficulty to the certificate level, as well as a topic relevant to a certificate type to count towards renewal. For example, Basic Water Math would be an appropriate course for a SWS operator, but would not be an appropriate course for a Class 3 Distribution or Class 4 Treatment Operator to take.

### Question 3. How often must an operator's certificate be renewed?

Operator certificates must be renewed every three years. At least two months prior to the expiration of a certificate the OCP will mail a renewal application to each operator whose certificate is about to expire. It is the responsibility of the operator to notify the OCP in writing of any change in their mailing address to ensure renewal applications reach the operator. The operator contact update form is available on the DWS's web page: <http://www.dph.state.ct.us/BRS/Water/DWD.htm>. Click on "Operator Certification" and then "Certified Operator Certificate and Contact Information" to get to the aforementioned application.

### Question 4. What paperwork is required for the renewal of a certificate?

Operators must send a completed, signed "Certified Operator Renewal Application," along with copies of the certificates, transcripts or other proof of completion received for the approved training courses they completed, to the OCP. This documentation must indicate the name of the course, the name of the training provider, the name of the operator and the number of training contact hours, CEU's or credits earned by the operator.

## Certified Operator Renewal Requirements (cont.)

### Question 5. How is the renewal process different for conditional operators?

A conditional operator is an existing operator that was certified by the Department of Public Health if they met certain conditions. Conditional operators must receive specific training prior to their first renewal date to qualify for renewal. They are allowed to count those training hours earned prior to the renewal cycle towards their first renewal. After the first renewal cycle conditional operators, like all other operators, must take their approved courses during the 3-year renewal cycle period in order for those training hours to count towards certificate renewal. In addition to the paperwork discussed in number four above, conditional operators must also submit a completed “Renewal Assignment Form,” to verify they are still in direct charge of the system(s) to which they had been certified.

### Question 6. Can a course taken prior to the certificate’s effective date be used for renewal of that certificate?

No. In order to count towards renewal, all approved training courses must be taken within the 3-year renewal cycle, that is the 3-year period prior to the certificate expiration date. For example, if a certificate is going to expire on January 1<sup>st</sup>, 2006, the approved courses for renewal must be taken and completed in the three years prior to that date, or between 1/1/03 and 12/31/05.

### Question 7. Can an operator, who has a treatment and distribution certificate, apply the training hours earned at a single course towards the renewal of the two certificates?

Yes, if the approved training course topic is taken within the renewal cycle and is appropriate for both certificate types. For example, Hydraulics would be appropriate for treatment, distribution and SWS renewal, but a specialized course such as “Hands on Jar Testing” is applicable to a treatment certificate but would not count towards the renewal of a distribution certification.

### Question 8. If the certificate expires, can it be renewed?

Yes. You may renew an expired certificate up to 6 months following its expiration by completing the required training, submitting the required certificates and resubmitting the Certified Operator Renewal Application. To become certified later than six months after the expiration date, an operator shall meet all current certification requirements including successful completion of an examination before their lapsed certification can be re-instated. In either case, the operator is NOT certified until the requirements are satisfactorily met.

### Picture Quiz

Does the drilled well inside the well pit at the center of the photo meet separating distance requirements to surface water? Note the geese at the edge of the pond.



## Project Submittals to the Drinking Water Section

By: John W. Czaja, Sanitary Engineer 3, Engineering Review



A public water system is mandated by regulations to obtain approval from the Department of Public (DPH) prior to the construction of a project that may affect the quality and quantity of water delivered to and within a system. These projects include but are not limited to new water systems, storage tanks, pump stations, chemical feed systems, filters, water mains, etc. The following will briefly outline the steps and information regarding the processing of a project with the DPH Drinking Water Section (DWS). This outline does not cover a process for the development of new system.

The first step that must be accomplished is the completion and submission of the proposed project to the DWS. The submission must include a 'Public Water System General Application For Approval Or Permit' which can be obtained from the DWS web page <http://www.dph.state.us/BRS/water/DWD.htm>. Along with the application, detailed plans and specifications are necessary. The plans at a minimum must show the components of the proposal and how it is to be incorporated into the existing system, with a site plan as warranted. The specifications have to provide at least details for materials/equipment to be used, chemicals if added to water, installation methods and disinfection procedures, as well as calculations and parameters used in sizing proposed system components.

An applicant, in conjunction with a consultant if used, must refer to and utilize the DWS's 'Guidelines For The Design of Public Water System Treatment, Works and Sources' and updated regulations, available on the DPH web site, in preparing the submission since these guidelines are used by DWS staff in reviewing a project for consideration of approval. All chemicals and system components that will be in contact with drinking water must meet ANSI/NSF 60 and 61 standards, therefore, verification of use of these chemicals or components need to be also identified in the submission. Additionally, if a project is to be constructed on water company land associated with a well or reservoir, a separate application to obtain a permit is required. Overall, the project submission must be accurate, detailed and complete in order to avoid delays in attempting to obtain the information necessary to conduct a sound review.

The DWS logs a project into a tracking database and assigns it to staff for review. Projects are reviewed in the order of date received with prioritization given to projects associated with systems with violations or under other DPH enforcement deadlines. If the necessary information is provided in the submission of the project and upon completion of the review by DWS staff, a written rejection or approval to construct the project is issued. As previously indicated, the DWS currently utilizes 'Guidelines For The Design of Public Water System Treatment, Works and Sources' in conducting a review of a project and to determine approval of the project for construction. New project Technical Standards along with applications are in the process of being developed and will be made available on the DWS web page. These Technical Standards will be made available in a draft form initially and interested parties will have an opportunity to review and comment on prior to finalizing.

## Mandatory Electronic Reporting of Water Quality

By: Christopher Roy, Sanitary Engineer 3 and Thomas Reed, Environmental Analyst 3



Electronic reporting and record keeping have a strong mandate in policy and law. Submission and storage of electronic data in lieu of paper documents greatly reduces the cost for both sender and recipient, improves data quality by automating quality control functions, eliminates re-keying, and greatly improves the speed and ease with which the data can be accessed by all who need to use it.

Therefore, in accordance with section 19-13-B102(h)(4) of the Public Health Code, effective January 1, 2006, all public water systems are required to submit through their certified contracted or in-house water quality testing laboratory all applicable water quality data electronically to the Drinking Water Section (DWS) in the format approved by the DWS.

An EDI Standard Operating Procedures Manual has been developed to assist in the development of an EDI program. It is not intended to be a computer programming manual due to the many different laboratory information management systems (lims) that are installed today. It is assumed that the person(s) working on this technology has a strong computer programming background. The manual describes and provides examples of the file structures that are required as well as specific data requirements that will insure accuracy and consistency.



Laboratories that are currently submitting water quality data to the DWS in the approved format can be found below. This is not an endorsement of any of the laboratories and is for informational purposes only.

### Laboratory

Aqua Environmental Lab  
Environmental Consulting Lab  
Fallon Water Analysis  
Hydro-Technologies  
Phoenix Environmental Laboratories, Inc  
Premier Laboratory, LLC  
Regional Water Authority

### Address/Phone

56 Church Hill Road Newtown, CT 06470; (203)270-9973  
1005 Boston Post Road Madison, CT 06443; (800)246-9624  
84 Walbridge Hill Road Tolland, CT 06084; (860)871-2529  
62 Bank Street New Milford, CT 06776; (860)355-8773  
587 East Middle Turnpike Manchester, CT 06040; (860)645-1102  
61 Louisa Viens Drive Dayville, CT 06241; (800)334-0103  
90 Sargent Drive New Haven, CT 06511; (203) 401-2700

Consultants that have experience in the design and implementation of EDI software/systems can be found below. This is not an endorsement of any of the consultants and is for informational purposes only.

### Consultants

Global Environmental Consulting  
Lablite, LLC  
Premier Laboratory, LLC

We look forward to working with you in reaching this goal. Please contact Tom Reed at (860) 509-7333 or tom.reed@po.state.ct.us with questions.

## Seasonal Water System Concerns

By: Cam Walden, Supervising Sanitary Engineer, Capacity Review and Standards Unit



Connecticut has many seasonal water systems. Seasonal systems typically depressurize and drain their water systems in the fall to prevent freezing over the winter months. Examples of seasonal water systems include campgrounds, youth camps, municipal recreational facilities, state parks and fairgrounds.

There are many unique concerns that seasonal systems face that other year round water systems do not. Some of the major areas of concern include:

- **Stagnation** of the water in the well(s) because they have not been used for an extended period of time. This can lead to a deterioration of source water quality.
- **Contamination** entering depressurized water system components such as tanks and water system distribution piping. These components are particularly susceptible to contamination as they are often left vented or open to the atmosphere during the off-season. A common deficiency (and frequently cited violation when Drinking Water Section field staff survey small public water systems) is the failure to have a properly screened and shielded vent on atmospheric storage tanks.
- **Vandalism** can be a problem as many wells are located in areas that do not offer adequate security or protection. You will note that the seasonal water system startup procedure you are being referred to at the end of this article recommends doing a thorough inspection of your water system as part of your annual startup procedures. This inspection should include items such as ensuring that your wells are fitted with adequate well caps, evaluating storage tanks and ensuring that the sanitary radius of the well has not been compromised (eg. ensuring that dumpsters or portable toilets are not located immediately adjacent to the well).
- The importance of **sampling water quality** well in advance of a seasonal water system's scheduled opening day cannot be overemphasized. The seasonal water system should sample far enough ahead of opening so that if a water quality issue such as the presence of total coliform bacteria is discovered, there is sufficient time to chlorinate the system again and resample (in the absence of a chlorine residual) to ensure that the problem has been eradicated. It is recommended that startup, disinfection and sampling occur a month in advance of opening day.

The seasonal water system startup procedure and the disinfection procedure are both available on the Department of Public Health Drinking Water Section web page at <http://www.dph.state.ct.us/BRS/Water/DWD.htm> under the "Information for Public Water Systems" tab on the left side of the page.

**Save the Date!****TRAIN** Connecticut

Starting July 1, 2005, all training and exam registrations must be completed on the TrainingFinder Real-time Affiliate Integrated Network (TRAIN). TRAIN is a learning 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.

Also be sure to check out the DWS's web page, <http://www.dph.state.ct.us/BRS/Water/DWD.htm>, for the latest information regarding certified operator training and exam dates. Dates are subject to change.

This newsletter has been prepared by the DWS Operator Certification Program (OCP). If you have any questions or would like to contribute to the newsletter, please contact Vicky Carrier or an OCP staff person listed below.

- Robert Rivard, P.E.– Supervising Sanitary Engineer- Program Supervisor
- Vicky Carrier, P.E. – Sanitary Engineer 3- Training
- William Sullivan– Sanitary Engineer 2- Cross Connection Control
- Joseph Higgins– Engineer Intern- Cross Connection Control
- 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>



Be Water Smart...Be Water Wise