

## Highlights

- ITLA Quarterly Meeting Notice
- Regulatory Update
- MWRA Update



# ITLA

*The Newsletter of  
Independent Testing  
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## **Message from the President**

*By Chris Wakefield*

Change is good. That statement is used all the time when change is necessary and people are trying to justify a change, but it generally is true. Change for us in the world of environmental laboratories is usually dealing with methods, regulations, equipment, and time. We're all used to changes, but time, doesn't that fit in with the first three? As I view the concept of time these days, there is just not enough of it. Especially in one day.

ITLA is an organization that distribute information about our industry. I think it performs well and it is driven by the ITLA executive committee. I have come to appreciate the efforts of the executive committee who spends a great deal of their personal time and resources in the continual maintenance and striving forward of ITLA. People such as Bob Bentley and Mike Delany who stay on top of the regulation issues and religiously contribute to the newsletter. Then there is Steve Hartman who takes care of tracking membership, financial

issues and making arrangements.

Dan Falcone and Laurel Stoddard both have great insight to many of our issues discussed as so with all past president's I have worked with such as Kevin Braga, Jim Occhialini and again Bob. All people with great ideas and the same commitment to try to better ITLA for their membership. Without these individuals, ITLA would probably not exist.

Now, back to the concept of time. I've met with other laboratory organizations and have contemplated several ideas in the respect of saving time such as decreasing the number of meeting per year or possibly combine a meeting with other organizations on an annual basis. Also considered is relying more on the internet with network conferencing. Some of these ideas may happen. I have concluded that ITLA is doing its job at representing the laboratory community and keeping all members informed and up to date with regards to our lab industry. To try and decrease ITLA activities as a function of time would be at the cost of the

## **Quarterly Meeting**

Wednesday, December 10, 2008, Marlborough Courtyard by Marriott in Marlborough, MA  
**Feature Presentation:** "Overview of Laboratory Design Concepts" *Jim Todero, Alpha Analytical*

membership and I find this unacceptable. So, change is good and it may happen to some degree with ITLA, but it will not be at the cost to our membership. Finally, I ask again that you, our members, become involved either at our meetings or through our e-mails to address your concerns. Remember, ITLA is your organization.

## MWRA Items

By Mike Delaney, [mdelaney@mwra.state.ma.us](mailto:mdelaney@mwra.state.ma.us)

### Update On MWRA TRAC.IS and LIMS

MWRA's new Pretreatment Information Management System (PIMS), formerly known as TRAC.IS, went live in August. This commercial, off-the-shelf system was configured to address MWRA's unique needs for enhanced data management capabilities in the MWRA's Toxic Reduction and Control section. Labs using the eSMART system to report industrial self-monitoring discharge data were informed in July that this transition to a new electronic reporting system was imminent. For additional information, contact Alice Chang, Data Management Supervisor, (617) 305-5621, [alice.chang@mwra.state.ma.us](mailto:alice.chang@mwra.state.ma.us). Thank you again for your cooperation with this switch to the new reporting system. We hope you find it easy to use and an improvement in the data submittal process.

MWRA's Lab is working closely with its new LIMS vendor, LabWare ([www.labware.com](http://www.labware.com)). The Go Live date for the new LIMS is scheduled for early 2009. This will occur in two phases with the three drinking water microbiology labs first, followed by everything else three months later. We will begin using eDEP in early 2009.

### No Pharmaceuticals in MWRA Drinking Water

There are no pharmaceuticals in MWRA drinking water. The following information, available at <http://www.mwra.com/04water/html/pharmaceuticals.htm>, is provided to help people in our service area and around the country understand how pharmaceuticals can end up in drinking water or elsewhere in the environment.

### A National Issue

In early March 2008, the Associated Press broke a

story about traces of pharmaceuticals found in some of the nation's water supplies. The AP reporters compiled the results of tests from various water systems around the country and identified 36 pharmaceutical compounds. These compounds are not regulated by the EPA and water suppliers do not normally test for them.

### MWRA Test Results

The Massachusetts Water Resources Authority did not expect to find any in the water supplied to 50 communities in eastern and central Massachusetts because the source reservoirs are so well protected and because the ozone treatment provided at the John J. Carroll Water Treatment Plant would be effective at destroying many of them if they were present.

To ensure that these assumptions were true, MWRA did test the water. The results confirmed that there were not traces of pharmaceuticals in the water MWRA delivers.

MWRA used a laboratory that was able to test for a well-rounded selection of 31 pharmaceuticals, hormones and potential endocrine disrupting compounds. Samples were taken both before treatment (raw water) and after treatment (finished water). All of these compounds were "non-detects" in the finished water samples.

The testing included the most prevalent of those compounds:

#### PHARMACEUTICALS:

Acetaminophen  
Caffeine  
Carbamazepine  
Fluoxetine  
Gemfibrozil  
Ibuprofen  
Iopromide  
Sulfamethoxazole  
Trimethoprim

#### HORMONES:

Estradiol  
Estrone  
EthylEstradiol  
Progesterone  
Testosterone

## ENDOCRINE DISRUPTORS:

2,6-Di-tert-butylphenol  
4-Methylphenol  
4-Nonylphenol  
Alpha Chloradane  
Bis Phenol A (BPA)  
Carbaryl  
Chlorpyrifos  
DEET  
Diazinon  
Dieldrin  
Methylparathon  
Phenol  
TDCPP  
Triclosan  
Triphenyl Phosphate  
Tris (2-Butoxyethyl) Phosphate\*  
Tris (2-Chloroethyl) Phosphate

Note that the testing for these compounds is very sensitive.

### **What is Being Done**

MWRA is working with other water and wastewater agencies as well as state and federal officials to keep pharmaceutical compounds called PPDCs and EDCs (pharmaceuticals/personal care products and potential endocrine disrupting chemicals) out of drinking water and wastewater.

Almost all other water systems take their supply from rivers and lakes into which wastewater is discharged. The principal source of many of the trace amounts of pharmaceutical chemicals found in those supplies is from wastewater. MWRA's protected watersheds have NO wastewater discharges into the reservoirs or tributaries. Any area within the MWRA watershed which has dense enough development to require sewers has those sewers pumped to a treatment plant OUTSIDE the watershed.

In 2005, MWRA began treating the water at the new John J. Carroll Water Treatment Plant, using a state of the art ozonation system. In addition to providing excellent disinfection, and improved taste and clarity, ozone is a powerful oxidant. While MWRA does not expect that tests will show any pharmaceutical compounds in its source water, it is reassuring that recent

research indicates that the type of ozone disinfection process currently being used by MWRA is effective at oxidizing and destroying these types of compounds.

### **How Pharmaceuticals Can Enter the Water Environment**

One source for pharmaceutical compounds in the environment is wastewater. While MWRA has not found pharmaceutical compounds in drinking water, they are in wastewater. Any natural or artificial chemical excreted by people or dumped into sinks, toilets and other drains will enter the wastewater stream.

### **MWRA'S Wastewater Stream**

In the MWRA system, wastewater is treated at the Deer Island Wastewater Treatment Plant, located on the Massachusetts coast. After treatment, the wastewater is discharged through a 9.5-mile long tunnel into Massachusetts Bay, far from drinking water supplies.

### **Wastewater Regulations**

The MWRA treats wastewater according to state and federal regulations. The US EPA does not regulate drugs in wastewater discharge, and only some of EDCs (such as herbicides and pesticides) are regulated. However, if there are environmental effects, MWRA would want to know about them, and would work with scientists and regulators to devise strategies to cost-effectively protect the environment. MWRA and many other wastewater agencies have been concerned about this issue, and are working to understand the implications of the presence of pharmaceuticals and to reduce them at the source.

### **What Can You Do To Help?**

Consumers can help reduce levels by properly disposing of any excess drugs. Our advice - don't flush unneeded drugs down your toilet. Instead, double bag them in plastic and put them in the trash. If you are concerned that someone may find the drugs in your trash, try adding used coffee grounds or cat litter to the plastic bag. Visit the Office of National Drug Control Policy for further information.

### **What are Other Government Agencies and Water Systems Doing?**

Water systems around the US have been researching the pharmaceuticals issue, primarily through the water industries' cooperative research foundation.

MWRA is an active member of the American Waterworks Association Research Foundation (AwwaRF), a member-supported, international, nonprofit organization that sponsors research to enable water utilities, public health agencies, and other professionals to provide safe and affordable drinking water to consumers. Many of the analytical methods used to detect PPCPs at very low levels were developed by AwwaRF funded research, and much of the data on the presence of PPCPs in drinking water came from AwwaRF studies. MWRA, with the University of Massachusetts and 14 other water systems, is participating in a new AwwaRF study (<http://www.mwra.com/04water/html/pharma/awwa.pdf>) on how various treatment techniques destroy or alter PPCPs.

The American Waterworks Association (AWWA) has also taken an active role in working with EPA and Congress to evaluate if there is a health risk associated with PPCPs in drinking water and how the issue should be approached. Testimony ([www.awwa.org/files/GovtPublicAffairs/AWWA2008FlyinTestimonyPharmaceuticals.pdf](http://www.awwa.org/files/GovtPublicAffairs/AWWA2008FlyinTestimonyPharmaceuticals.pdf)) from the hearing on April 15, 2008 before the Senate Environment and Public Works Subcommittee on Transportation, Safety, Infrastructure Security, and Water Quality helps set the context for understanding the issues.

The MassDEP ([www.mass.gov/dep/toxics/stypes/ppcpedc.htm](http://www.mass.gov/dep/toxics/stypes/ppcpedc.htm)) has also been actively looking at a wide variety of issues related to PPCPs for several years.

While the EPA has not yet issued drinking or wastewater standards for PPCPs, and does not yet require testing for them, they have been engaged in research on fate, transport, occurrence, and health and ecological effects for several years. (US EPA PPCPs web site: <http://www.epa.gov/ppcp/>)

Information from a June 2005 Northeast Waste Management Officials Association' (NEWMOA): <http://www.newmoa.org/prevention/chemicalspolicy/workshops/pharmaceuticals.cfm>), workshop hosted with the Lowell Center for Sustainable Production, and the EPA-New England on pharmaceuticals and the environment for Massachusetts environmental and public health professionals.

## Visit our Web Page for More Information

Check us out at [www.mwra.com](http://www.mwra.com). We have a wealth of information for both the public and for experts on our water and wastewater activities. This includes monthly updates on drinking water quality testing, information on lead, our most recent Consumer Confidence Report, and many technical reports associated with the Deer Island Treatment Plant and our extensive Harbor and Outfall Monitoring program.

## Regulatory Update

By Bob Bentley, [bob@h2otest.net](mailto:bob@h2otest.net)

### Rapid Confirmation of E. coli in drinking water

As indicated in the last newsletter, at the September 9, 2008, Laboratory Advisory Committee meeting, MassDEP/WES offered a proposal "Require Rapid Confirmation of *E. coli* in Potable Water by Laboratories Certified for SM 9222B" and solicited comments from LAC members. The Independent Testing Laboratory Association (ITLA), submitted comments on behalf of its members for consideration by MassDEP in mid-October. We understand that DEP is working on responses to our comments.

Note: If implemented, this will have a major impact on your laboratory operations if you are confirming the presence of E. coli through the use of EC-MUG.

### eDEP

There is, unfortunately, little else that is new. The promised upgrades seem to be moving along at a slug-like pace.

### Perchlorate

You probably heard that two towns had perchlorate

calendar

#### Dec. 10, 2008

ITLA Quarterly Meeting  
Marlborough, MA  
9:00 a.m. - 12:00 p.m.

#### July 19-21, 2009

NY/PaAAEL Annual  
Convention & Exposition  
Location - Lancaster, PA

# ITLA Quarterly Meeting

**Wednesday, December 10, 2008**  
**Marlborough Courtyard by Marriott**  
**75 Felton Street**  
**Marlborough, MA 01752**  
**Phone: (508) 263-9146**

**9:00 a.m. Meeting Begins**

**9:15 a.m. Committee Reports**

Secretary	Technical
Newsletter	Lab Advisory
Election	Membership
Ethics	Treasurer
Regulatory	By-laws

**9:30 am Hardware and Software Services**

*Ernie Kershner, HSS*

HSS is owned by Ernie Kirschner (who worked in the analytical service group of then Hewlett-Packard between 1978 – 1998). HSS specializes in service & sales of new Agilent GC/MS instrumentation, including support of legacy GC/MS systems.

**9:55 am Northern Scientific**

*Dave Dore, Northern Scientific*

Northern Scientific is a small business serving instrumentation in the chemical and metallurgy industries. Founded in 1992 we have successfully served the industry for U.S., Canadian and South American businesses for over 15 years.

**10:20 am Break**

**10:45 am Overview of Laboratory Design Concepts**

*Jim Todero, Alpha Analytical*

Process efficiencies within the laboratory not only depend on the updating and execution of the methods, but also the layout of the laboratory. Each area

within a lab building performs a specific function to generate the final product. The sample flow path through the lab is critical to the laboratory's efficiency resulting in increasing production and revenues. Other topics to be discussed will be clean rooms and hood designs. Mr. Todero has over 30 years of experience designing labs and consults in lab design throughout the United States.

**12:00 am Meeting Adjourns**

**Update  
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exceedances in their drinking water back in early September. The LCO reviewed the laboratory's results and agreed with the values. However, on subsequent review by both the LCO and the laboratory, it was determined that these may have been false positive results. Although no decision was announced, it appears that some additional confirmation may be required in the future.

For all of these, stay tuned!!! We will be able to update you at our upcoming meeting with news from the December Lab Advisory Committee. If you know of other regulatory issues or have any other items we should be watching, please contact me or any member of the Executive Committee.

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### **Food for Thought**

The real measure of your wealth is how much you'd be worth if you lost all your money

Bernard Meltzer (1914-) American Law Professor

To give real service you must add something which cannot be bought or measured with money, and that is sincerity and integrity.

Donald A. Adams, Rotarian and business leader

There aren't any rules to success that will work unless you do. Author unknown