

## Holiday Cheer



Being part of the USABlueBook family means more than just supporting water and wastewater professionals around the country, it means helping in the community where we work.

During this past Holiday season, USABlueBook employees “adopted” 50 children and 13 adults through the Salvation Army’s “Adopt-A-Family” and “Angel Tree” programs.

Our donations go to make the Holidays merrier for local families that might need a little help. Our associates also collected over 70 coats to donate to the homeless on the streets of Chicago.

I am proud to be part of a Team that understands it is important to give something back to the community.



**Bruce Kahn**

VP of Marketing and Merchandising



## News from the Field

### Water and Plant Security

Security at water and wastewater treatment plants has been a hot-button topic in our industry during recent years. Two threats of particular concern are terrorism and natural disasters. Reduce these threats by securing your plant and off-site water entry points.

#### To secure and monitor your plant:

- Install access control devices on all vital doors and cabinets.
- Install alarms that will go off when a problem is detected.
- Use motion lighting or all-night lighting to deter intrusion.
- Install a security camera package to see what is going on in real-time at your facility. Some packages let you monitor on- or off-site via the internet.
- Install an autodialer in conjunction with switches, sensors or camera packages to contact the proper people immediately if there is a facility intrusion.
- Use wireless communication packages, which don't require wires that can be cut, to communicate critical information.
- Install valve lockout devices to prevent or deter access to valves.
- Use signs to let people know that your facility is off-limits.
- Hire an on-site security guard to monitor your facility.

#### To secure off-site water entry points:

- Install hydrant locks to ensure only the proper use for fire hydrants.
- Add locking devices to the test cocks on exposed backflow preventers to ensure nothing can be injected into the water supply and that nobody can steal water.
- Cover and lock your exposed above-ground backflow devices or air release valves.
- Install manhole barriers or manhole cover locks to secure vulnerable equipment.
- Make sure your off-site lift stations and monitoring equipment are properly locked with access control locks, and that those areas are well lit with either motion lighting or all-night lighting.
- Use signs to inform people that an area is off-limits.

USABluebook offers a number of options to make your facility safer. Please contact our Technical Support staff to help you secure your facilities.



#### Useful websites with information to help you secure your plant:

<http://cfpub.epa.gov/safewater/watersecurity/guide/index.cfm>

<http://www.wef.org/ScienceTechnologyResources/WaterSecurity/>

<http://www.asce.org/static/1/wise.cfm>

<http://www.awwa.org/Resources/Content.cfm?ItemNumber=29824>

See <http://www.usabluebook.com> for more information on security products



## Go with the Flow

Confused by the variety of flowmeters out there? You're not alone. Here's a quick overview of some of the most common types of flowmeters found in treatment plants.

**Positive Displacement (PD) Water Meters** measure flow with a nutating disk or piston. They are highly accurate over a wide range of flow, but are not intended to operate at high rates for extended periods of time. Use in residential water services and other applications where there may be frequent low-flow conditions.



**Turbine Water Meters** are better for larger volumes of water. They have a higher capacity than PD meters of the same size, and can pass reasonable amounts of sand and sediment without damage.



**Insertion Paddlewheel/Turbine Water Meters** can be installed through a simple tap or tee in 1/2" to 30" pressurized pipeline flowing completely full, with relatively clean water. Typical uses are monitoring flow in a water treatment plant and distribution system.



**Insertion Magnetic Meters** measure the voltage generated by liquid flowing through a magnetic field in a completely full pipeline. The liquid may be clear, turbid, or contain suspended solids, but must have a minimum conductivity (µS/cm) specified by the manufacturer.



**Spool-Type Magnetic Meters** operate on the same principle as insertion magnetic meters, but are permanently installed in a flanged section of pipe.



**Transit Time Meters** have two transducers that are clamped to the outside of a pipe that send ultrasonic signals between each other. They measure the difference in the propagation of sound waves in the direction of flow in comparison to sound waves against the flow.



**Doppler Meters** use a sensor mounted on the outside of the pipe—perfect to measure the flow of difficult liquids such as wastewater, chemicals and viscous liquids. They measure the frequency shift in an acoustic signal reflected off of particles or gas bubbles. Uses include measuring raw waste, secondary sludge, low flows, and bi-directional flow.



**Area Velocity Meters** measure both head (depth of liquid) and flow velocity to determine the flow rate in a pipeline that is not completely full, or in an open channel. The sensor mounts inside the pipe or at the bottom of a rectangular channel.



**Ultrasonic Open Channel Flowmeters** typically measure the depth of water flowing through a flume or over a weir. The sensor is mounted above the water surface and bounces a signal off of the surface to measure the relative depth. The water depth correlates to a specific flow rate for the specific flume or weir configuration.



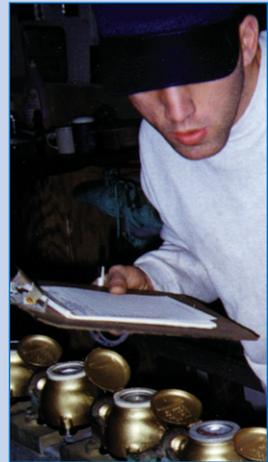
## Ask Don!

USABlueBook Technical Training Manager



## Water Audit—Accounting for Every Drop

A water audit is a means to track unbilled (also called “unaccounted for”) water throughout the system. Unbilled water is any water in the system for which you don’t receive compensation.



Possible causes include flushing and/or other maintenance issues, fire suppression, leaks, illegal connections and even inaccurate meters.

A basic water audit is simple to perform. Just divide the difference between total water metered and total water produced by the total water produced.

$$\frac{\text{Water Produced} - \text{Water Metered}}{\text{Water Produced}} = \text{“Unaccounted” Water}$$

This can give you a good indication of your “unaccounted for” water and inform you if a more in-depth study is required. The EPA recommends that a water system should not have more than 10% “unaccounted for” water.

A comprehensive water audit will show where the water is going and how much is being lost during each activity. By knowing this, you are able to plan for ways to recover the revenue lost from the “unaccounted for” water.

A comprehensive water audit is an involved process, and training and/or assistance is often needed. Don Van Veldhuizen, Technical Training Manager at USABlueBook, is available for help in this area.

Have a question for Don? Contact him at [dvanveldhuizen@usabluebook.com](mailto:dvanveldhuizen@usabluebook.com)



# BlueBits

News and Bits from **USABlueBook**

Look inside for:

- News from the Field
- Tech Talk
- Great People
- Break Time!



## Need a quick \$50?

Do you have an interesting or funny work story? Send it to us at [stories@usabluebook.com](mailto:stories@usabluebook.com). If we publish it, you'll receive a \$50 USABlueBook credit. Fame and fortune await you!

## Catalog # 119 coming in April!

Phone **1-800-548-1234** to reserve your copy of the latest and greatest USABlueBook catalog!

Call to update your information in January, and you will be entered in a drawing for a **FREE Garmin StreetPilot Global Positioning System!**

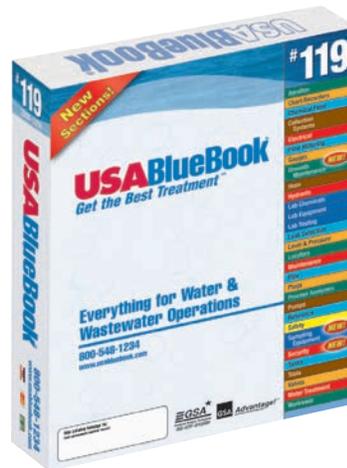


## 1 Calendar

### Upcoming Trade Shows

We'd love for you to visit us at the following tradeshow:

NY Water Environment Assn.	Syracuse, NY	Feb. 3 to 6
Evergreen RW of Washington	Yakima, WA	Feb. 5 to 7
MT RWA Annual Conference	Great Falls, MT	Feb. 20 to 22
Rural Water Assn. of Utah	St. George, UT	Feb. 26 to 29
Illinois RWA	Effingham, IL	Feb. 19 to 21
Pumper Cleaner	Louisville, KY	Feb. 28 to March 1
Minnesota RWA	St Cloud, MN	March 4 to 6



### Look for these new catalog sections and product lines:

**Grounds Maintenance:** Keep your grounds neat with blowers, mowers, saws, sprayers, trimmers and more.

**Sampling:** Our complete line of sampling equipment.

**Security:** Security cameras, lighting, autodialers, alarms, locks and more to protect your plant.

**Power Tools:** See our Tools Section for many new power tools from DeWalt, Bosch and other top brands.