

Compiled by WWD Associate Editor Elizabeth Lisican

Dennis Leeke



Contaminant Concerns

Staying on top of research and testing methods

Emerging water contaminants like endocrine-disrupting compounds (EDC) and pharmaceutically active compounds have received much attention in recent years. Dennis Leeke, UL's business manager of the Global Water Business, offered WWD Associate Editor Elizabeth Lisican an update on the current situation.

Elizabeth Lisican: What types of testing services does UL offer municipalities?

Dennis Leeke: UL offers comprehensive, certified drinking water analytical services for Safe Drinking Water Act (SDWA) compliance in 48 states and Puerto Rico. Additionally, UL offers services to detect a broad array of unregulated contaminants, commonly referred to as contaminants of emerging concern. UL also offers certifications that treatment chemicals and water infrastructure components such as pipes, valves, pumps and coatings used by public water supplies meet applicable ANSI standards for health effects.

Lisican: Does UL have any recently updated testing methods to report?

Leeke: UL announced two new methods this summer for analyzing emerging contaminants: L222 and S190. L222 streamlined and consolidated existing in-house methods (L200, L211, L220 and L221) used for the analysis of nearly 30 of the most frequently studied and detected EDCs and pharmaceutical and personal care products. S190 streamlines the analysis of selected semi-volatile organic compounds, including sterols, phosphate flame retardants, fragrances, phenols and pesticides. The methods increase the options to public water supplies for monitoring contaminants of emerging concern.

Lisican: Please explain some contaminants of emerging concern and why they should be on the radar of the wastewater treatment industry.

Leeke: Many emerging contaminants such as EDCs and pharmaceutically active compounds are thought to enter the environment through excretion, bathing and the disposal of medications in sewers and septic tanks, trash and landfill runoff. These compounds tend to dissolve easily in water and do not evaporate at normal temperatures and pressures. These compounds are of concern in

drinking water as, one, they are designed to interact with cellular receptors at low concentrations to induce specific biological effects. Any potential side effects on human health are poorly understood. Two, they have been detected in wastewater treatment plant effluent, surface water and groundwater as well as drinking water. Three, conventional water treatment systems are not specifically engineered or equipped to remove these compounds and their removal efficacy is largely unknown.

The most commonly detected compounds (detected in over 20% of the samples analyzed by UL) include:

- Caffeine (coffee, tea, soda);
- Nicotine (tobacco products);
- DEET (insect repellent)
- Carbamazepine (mood stabilizer)
- Continine (metabolite of nicotine);
- Estrone (estrogen hormone, birth control medication);
- Gemfibrozil (cholesterol-lowering drug);
- Galazolide (synthetic fragrance used in cosmetics, cleaners and perfumes); and
- Paraxanthine (metabolite of caffeine).

Lisican: How is UL working to keep up with both the research on the contaminants and the analytical technologies?

Leeke: It is important to note that these compounds are generally being detected in the low parts-per-trillion range, which are extremely low concentrations, and it is only due to advancements in analytical technologies that we are now able to detect these compounds at the levels they are occurring.

UL is one of the few laboratories in the nation that has both invested in the analytical equipment needed and developed methods to quantify these compounds at these levels. UL also participates in the EPA's [U.S. Environmental Protection Agency] Unregulated Monitoring Rules and is currently validating methods for the upcoming UCMR3. [WWD](#)

Dennis Leeke is business manager for UL Global Water Business. Leeke can be reached at dennis.j.leeke@us.ul.com or 574.472.5501.

Elizabeth Lisican is associate editor of *Water & Wastes Digest*. Lisican can be reached at elisican@sgcmail.com or 847.391.1012.

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EPA Sets New Limits for Blue Plains Wastewater Discharges

To help improve water quality in the Potomac River and the Chesapeake



Bay, the EPA has reissued an operating permit for the Blue Plains Advanced Wastewater Treatment Facility.

The permit reduces the amount of nitrogen the plant can discharge by 3.8 million lb each year—a 45% reduction. The five-year renewal of a Clean Water Act permit calls for DC Water (the District of Columbia Water and Sewer Authority) to reduce nitrogen discharges from 8.5 million to 4.7 million lb each year by upgrading its facility.

Valparaiso, Ind., Wins 'Big Green Idea Contest'

The Valparaiso, Ind., City Utilities Water and Water Reclamation



Department has just been named the winner of the 1st Annual Big Green Idea Contest, sponsored by municipal technology provider Cartegraph.

The entry shared the success of several efforts aimed at continuous environmental improvement. The Water Department described how historic hydrant information was converted from paper to electronic format, helping preserve and sustain vital data, develop proactive inspection and maintenance schedules and extend the service life of hydrants. The Water Reclamation Department outlined how it uses technology to eliminate paper, reduce fuel consumption and save time.

Seneca, Mo., Receives \$6.6 Million for Wastewater Improvements

The Missouri Department of Natural Resources



has awarded Seneca a \$4.2-million state direct loan and \$2.4 million in grants to improve its wastewater treatment system.

The wastewater treatment system improvement project will include construction of a new mechanical wastewater treatment facility adjacent to the existing lagoon facility. The new facility consists of an influent lift station, flow equalization basins, mechanical bar screen, manual bar screen, grit chamber, grit removal system, two aeration basins, two clarifiers, two aerobic digesters, an ultraviolet disinfection system, cascade aerator and all appurtenances.

PA DEP: New Wastewater Treatment Standards in Effect

New wastewater treatment standards for total dissolved solids (TDS), which will apply to gas



well drilling wastewater, and that protect aquatic life and drinking water

supplies, are now in effect and enforceable, Pennsylvania Environmental Protection Secretary John Hanger announced.

The combination of TDS rule and the new rule requiring 150-ft buffers for Pennsylvania's approximately 20,000 miles of high-quality streams give waters in the state the strongest legal protection in history.

Pee Dee Electric Implements Meter Data Management System

Pee Dee Electric



Cooperative, Darlington, S.C., is implementing Aclara's Meter Data Management System and ENERGYprism customer engagement software to meet growing consumer interest in household energy management.

Nearly 30% of Pee Dee Electric's 30,000 residential and commercial members already pay bills or access energy consumption details online. Aclara's solution aims to simplify the process of accessing billing and usage information.

Mission Communications Announces New Ownership

The Mission



Communications senior management team of Forrest Robinson and Dave Barringer has purchased the stock from Mission founder John K. Collings and his brother, Jeffrey Collings.

John Collings is stepping down from his post as president and Jeffery Collings is stepping down as national sales manager. Robinson is Mission's new president. Robinson has been the general manager of Mission for the past four years. Barringer will continue in his role of vice president of engineering. He has been with the company for more than 10 years.

Black & Veatch Appointed to Barwon Water's Technical Services Panel

Black & Veatch has been appointed to Barwon



Water's Technical Services Panel. The panel consists of six engineering companies that will provide a range of services to Barwon Water, Victoria, Australia, for water, wastewater and recycled water treatment assignments until July 2013. Barwon Water is Victoria's largest regional urban water corporation, providing services to more than 275,000 people across 8,100 sq km.

Networking News

Godwin Pumps announced the appointment of Per Ohstrom as its vice president of worldwide marketing and business development.

David Maurstad was named national director of water policy and planning at PBS&J. [WWD](#)

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