Pretreatment Communicator

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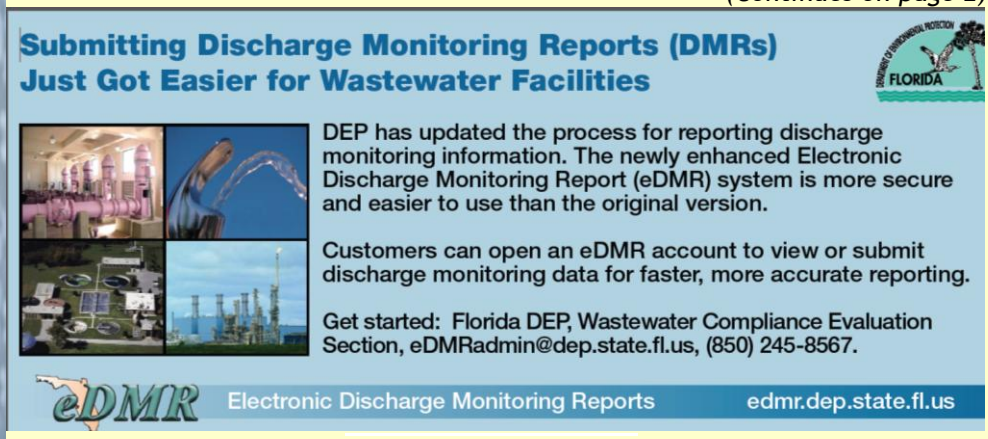
Department Notes

Tom Shiflett, P.E.
FDEP Pretreatment Coordinator

Recently, the pretreatment section began using an electronic postal delivery system, called "epost", to send documents such as inspection and annual report letters. Future correspondence will arrive via the epost system using the email address epost.bwfrdom@dep.state.fl.us. If you receive an email from the epost system, please follow the instructions in the body of the email. Letters previously sent by certified mail now require a confirmation email from the recipient to verify receipt.

For those who have not heard, DEP has updated the process for reporting discharge monitoring information, including pretreatment DMRs.

(Continues on page 2)



Inside This Issue

FIPA Sponsors

"Resomation", the "Green Alternative" to Burial or Cremation

By John Parnell, Ph.D
President Pretreatment Solutions, Inc.

"Green Alternative" new products and procedures span a wide range of human activities a new process of human bio-cremation called "Resomation" by its founder Mr. Sandy Sullivan, a Scotsman who has been developing the equipment to perform this procedure since 2007. The "Resomator" (see photo) consists of a large stainless steel chamber which can be sealed pressure tight by a large door. The deceased's body is wrapped in a silk shroud and is slid into the chamber head first.

According to Mr. Dean Fisher, previously at Mayo Clinic , once the body is in the sealed chamber, it is immersed in up to 500 liters of water mixed with around 15 to 20 liters of potassium hydroxide for a period of up to 3 hours. *(Continues on page 3)*

Department Notes (cont from 1)

The newly enhanced Electronic Discharge Monitoring Report (eDMR) system is more secure and easier to use than the original version. Customers can open an eDMR account to view or submit discharge monitoring data for faster, more accurate reporting.

To get started please contact: Florida DEP, Wastewater Compliance Evaluation Section, eDMRadmin@dep.state.fl.us, (850) 245-8567. Additional information on the eDMR system is available online at http://www.dep.state.fl.us/water/wastewater/wce/edmr/.

We have had several programs ask about the required frequency of local limits evaluations. According to 62-625.600(16) F.A.C "All control authorities shall provide to the Department a written technical evaluation regarding the need to revise local limits. At a minimum, the evaluation shall be provided within 180 days following permit issuance or reissuance…" Please be aware there are factors that may require local limits be evaluated more frequently. We plan to discuss this topic in more detail during the October Workshop.

If you have questions about your pretreatment program, please feel free to contact the pretreatment staff here in Tallahassee at (850) 245-8605. We look forward to seeing everyone at the October Workshop.

Message from the President

"An ounce of prevention is worth a pound of cure!"

By Athena Parslow, Senior Environmental Specialist City of Orlando, Environmental Control Section

No Florida wastewater facilities will ever be able to prevent wet weather flows. Keeping the collection system tight can greatly reduce the infiltration of storm water into sanitary waster systems. While slip lining aging gravity lines can get expensive consider the alternative. What about the operational cost of all the lift station pumps that deliver infiltrated storm water to your wastewater facility?

Although pumps are rated in gallons per minute when looking at power consumption and work done we convert gallons to pounds. The pounds to gallons ratio for water is 8.34:1. That is 8.34 pounds per gallon. An average lift station with a 6 ft diameter wet well having an operating range of 8 ft will contain 1,691 gallons at a weight of over 14,000 lbs. If we add pumps rated for 100 gallons per minute it will take a little over 16 minutes per pump down cycle.

(Continues on page 4)

Resomation (cont from 2)

A steam coil running though the unit generates heat which raises the temperature to 150°C, and a recirculation pump creates a whirlpool effect that helps the body to dissolve. All DNA material, tissue, muscle, hair and nails inside the unit dissolve. All that is left at the end are bone remains and a sterile liquid.

The bones are removed from the vessel and are placed under a heat lamp overnight to dry. The bones are very brittle, sterile and white, as they are reduced to pure calcium phosphate. A cremulator is used to grind the bones to a fine white powder which is used as the human remains. Advantages over normal cremation include a reduction of mercury emissions, less energy requirements (smaller carbon footprint) and the possibility of reuse of prosthetic devices such as titanium knee joints.

The resultant fluid appears soapy and contains no organics as detected by Methods 624, 625 and 608, and minimal (microgram) amounts of heavy metals. The COD is high due to the presence of long chain fatty acids which do not separate like normal O&G compounds but are picked up by the 1664A analysis. It is hoped to expand more on these analyses in a discussion at the next FIPA meeting.

Wastewater Facility Spot Light

City of St. Augustine
Wastewater Treatment Plant:

Treatment Process,	*Complete Mix Activated Sludge*
Maximum Design Flow Rate,	*5 MGD*
Current Average Daily Flow Rate,	*2.5 MGD*
Disinfection Process,	*Peracetic Acid*
Effluent Disposal,	*Class III Marine (Surface water discharge, Matanzas River)*
Residuals Disposal,	*Class B Land Application*
A Operators,	*3*
B Operators,	*1*
C Operators,	*5*
Qty Industrial Users,	*3*
Qty Significant Industrial Users,	*2*
Qty Categorical Industrial Users,	*1*
Qty Restaurants In FOG Program,	*200*

Award Nominations

FIPA is accepting award nominations through September 15, 2012, in the following award categories. The Heilman award is an outstanding pretreatment program award.

The Parnell award is presented to an individual recognized by peers as having made significant contributions through participation in workshops, writing articles, teaching certifications courses or other contributions to pretreatment programs in Florida.

Award nomination forms are available at the FIPA website at fipaonline.com.

Message from President (cont from 3)

Now if all that water is domestic or pretreated industrial wastewater everything is fine. However, if we find that a parking lot storm drain is tied into the collection system served by this lift station that introduces a wet weather inflow of 100 gallons per minute lift station performance will suffer to say the least.

Prevention measures done in dry weather are the only real answers to collection system inflow and infiltration. Smoke testing can help identify storm drain connections to the wastewater system.

Gravity system cleaning, grouting and video recording can help utilities tighten up the collection system to reduce inflow volume.

It is difficult to know how big a problem is until it is measured. Rain gauges located at lift stations equipped with SCADA or telemetry systems can help pinpoint areas in the collection system troubled by storm water. Such equipment is enables utilities to quantify I&I problems. It is only after the magnitude of the problem is known that a corrective action plan can be implemented.

When it comes to wastewater whether it be the collection system, pretreatment or the treatment plant remember that we are all on the same team!

Pretreatment Program Spot Light

City of St. Augustine Industrial Pretreatment Program Specifics:

Categorical Industrial Users	1
Non-categorical Industrial Users	3
Significant Industrial Users	2
Industrial Users	3
Full time program Employees	1

St. Augustine adopted EPA's Streamlining Rule Change in October 2011.

TRAINING DATES

- ✓ Industrial Pretreatment C B & A and FOG certification course dates, October 9 - 11
- ✓ Spring Workshop, Friday, October 12, 2012
- ✓ Location, Safety Harbor Resort and Spa

CORE Week Winner!

(Photo left, Glabra Skipp, right, George Lemax)

The next time you see Glabra Skipp of the City of St. Augustine congratulate her on winning the first semi-annual Residential Cooking Oil Collection Competition during CORE week, April 15-21, 2012. Glabra's hard work resulted in collecting over 16 gallons of Residential Cooking Oil in St. Augustine. A plaque was presented to Glabra during a meeting of the St. Augustine City Counsel early in the June.