



PRETREATMENT COMMUNICATOR

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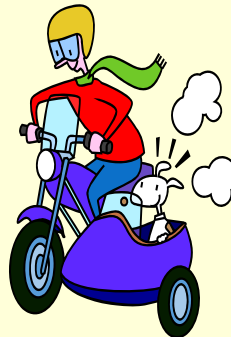
COORDINATOR'S DESK

Bob Heilman, P.E.
FDEP Pretreatment Coordinator

I'm sure most of you know by now that Governor Crist has appointed Mike Sole as the new Secretary of the Department of Environmental Protection. Mike has been with the Department for some time and has served in various technical and administrative positions. I believe that with Mike's technical background and experience, he will bring some needed change to the Department. Along with the appointment of a new Department Secretary, there are usually other new appointments within the Department. This time is no different. For example, the previous Water Resource Management Division Director, Mimi Drew, has been elevated to Deputy Secretary of the Department. Replacing Mimi Drew is Janet Llewellyn as Division Director. Ms. Llewellyn in turn has appointed one new Deputy Division Director and is considering a second appointment. The vacated positions resulting from these appointments will result in additional appointments made to replace a couple of Bureau Chiefs.

You're probably wondering what effect these changes may have on the State of Florida Pretreatment Program, right? Well, my hope is there will be no direct effect on this program from all this reorganization. However, at this point it's too early to tell. I believe we've got a fairly smooth running program in this state. I have even heard rumblings to the effect that Florida's pretreatment program is a model for other states. If that is true, then much of the credit goes to you all; the program coordinators and staff.

I have said this many times before, but for the sake of repetition, even though the pretreatment program is a regulatory program requiring Department oversight, we are basically in the same business. In fact, approved pretreatment programs are in essence operating the same as the DEP by issuing discharge permits, conducting compliance inspections of facilities, and if necessary, taking appropriate enforcement action against violators. The only difference is that your permits regulate pollutants prior to entering your wastewater system; whereas the



Department regulates what is leaving your wastewater systems. Your cooperation in implementing a high quality pretreatment program makes our job easier. I appreciate the level of cooperation we've received in the past and look forward to that continuing relationship. I think by now most of you know what we expect and are doing your best to comply with

our requirements. Those of you who are new to the program might have some catching up to do, but please remember that we're not only here as regulators, but as a technical resource too. I suggest you take advantage of that when you experience problems or have questions.

Keep up the good work you're doing. We hope each program will take advantage of the training opportunity the Department is co-sponsoring with EPA on June 13-14 in Jacksonville (see page 3 for details).

PREPARING FOR IMPACT: RESPIROMETRY AS AN ASSESSMENT TOOL FOR PRETREATMENT

James Radich
RespirTek

Respirometry is the science of measuring the respiration of microorganisms in a wastewater system by the indirect measurement of one or more physical parameters that are indicative of oxygen demand. Respirometry has been used throughout history in the application of wastewater treatment to make assessments about the nature and capability of the microorganisms effectiveness at degrading a particular industrial waste stream or pollutant. The modern respirometer provides extraordinary capabilities through its flexibility and sensitivity to minute oxygen demands or gas productions. Wastewater treatment operations worldwide, whether (Continued on page 3)

TRAINING OPPORTUNITIES

Apr. 14-17	FL Water Resources Conference http://www.fwrc.org/	Orlando, FL
Apr. 30 - May 1	Local Limits and Specialized Pretreatment Training http://www.wef.org/ConferencesTraining/TrainingProfessionalDevelopment/Workshops/Local+Limits+and+Specialized+Pretreatment+Training.htm	Atlantic City, NJ
May 23-24	WEF Management of FOG http://www.wef.org/ConferencesTraining/TrainingProfessionalDevelopment/Workshops/ManagementofFOG.htm	St. Louis, MO
Jun. 13-14	EPA Tri-State Pretreatment Conference www.fipaonline.com	Jacksonville, FL
Jul 29 - Aug 1	WEF-Industrial Water Quality Conference http://www.wef.org/ConferencesTraining/Conferences/SpecialtyConference/Industrial.htm	Providence, RI
Oct. 13 & Oct. 14	TREEO – FDEP SOP Field Sampling Training http://www.treeo.ufl.edu/course.aspx?c=2314&p=14	Gainesville, FL



A MESSAGE FROM THE PRESIDENT

Dan Parnell
FIPA President



While February in Sarasota proved to be a little chilly, Pretreatment was received warmly. The 2007 Winter Workshop and Certification Course was one of our most well attended events.

Manatee and Sarasota worked very

hard to co-host our first trip to Southwest Florida. A special thanks to Manatee County's **Jeff Goodwin** and **Martin Richmond** as well as Sarasota County's **Teri Stabler**, **Dave Cash**, **Verne Hall**, and **Jim Lamancusa** and their respective staffs.

With EPA and DEP hosting a Summer workshop emphasizing Categorical Industrial Users in Jacksonville, FIPA's involvement is limited. Please be sure to send any registration documents to the address listed on the forms, not the FIPA address. When you get a chance thank **Bob Heilman** of FDEP for lobbying the EPA to get this informative workshop in Florida. On the evening of June 13, FIPA and Anheuser-Busch will co-host a social at the Brewery's Hospitality Room for all workshop participants. Details on the social will be sent in the near future.

FIPA events for 2007 will conclude in Orlando in October or November with Certification Courses, Fall Workshop and FIPA Board elections.

If you have been wondering about LLIDS 2, FDEP has been working with FIPA Vice President **Mark Mathis** of

Ft Pierce Utilities to finish the project.

With our association's growth, we've been experiencing some growing pains. The increased administrative duties has placed an increasing burden the Board of Director's, which are volunteer positions. To meet the ever growing needs of our organization, FIPA will be looking for an individual to take on the administrative duties in a paid position. This will give members one point of contact for all training and registration needs. Because this will be a paid position look for FIPA fees to increase slightly. But I think the value the administrative position will give to members and the Board will be well worth the small increase in fees. Hopefully, everyone has changed your FIPA website bookmarks to www.fipaonline.com. **Steve Howe** of the City of Orlando has been maintaining that site as our web master.

Congratulations to **Dr. John Parnell** who was awarded the first FIPA lifetime membership award for his years of service to the Pretreatment community.

If you have any questions or comments concerning the direction of FIPA, please contact me or any of the Board of Directors.

FIPA Voluntary Certification Course Instructors

Thanks to the following FIPA members for their continued dedication to pretreatment education:

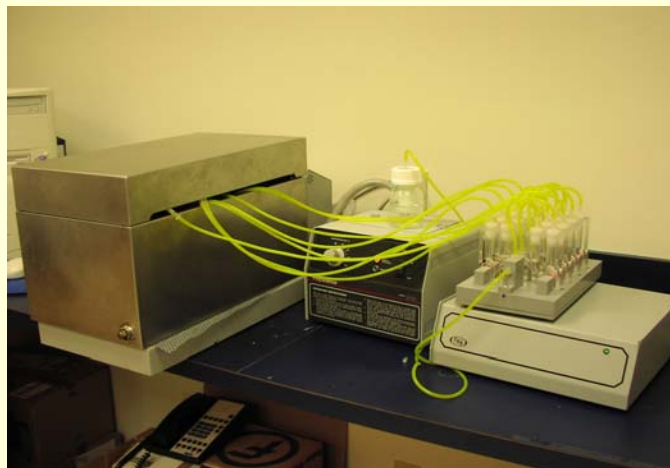
Randy Greer Mark Mathis
Dan Parnell Paul Salerno

The **Pretreatment Communicator** is a semi-quarterly production of the Florida Industrial Pretreatment Association (FIPA). The **Pretreatment Communicator** encourages participation from its readers and any other individuals interested in pretreatment in the State of Florida. Please submit any comments, ideas, or articles to Pretreatment Communicator c/o Dan Parnell, 21 W. Church St. T-8, Jacksonville FL 32202 or email to parndp@jea.com. The Pretreatment Communicator reserves full editorial rights to all submissions. FIPA assumes no responsibility for the statements or opinions expressed in this newsletter. Views and information contained in this newsletter are those of the authors and do not necessarily reflect those of FIPA.
Editor – Dan Parnell

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public, private, municipal, or industrial, can benefit from respirometric testing prior to receiving a new waste stream in the treatment facility; one of respirometry's key applications.

Wastewater treatment plants are important for the very survival of the human race in a society that places such a demand on potable water supplies. Therefore, the viability and efficiency of these facilities that recycle wastewater via a brilliant use of microorganisms and retention time must remain high to sustain the very fabric of our modern world. With more and more emerging pollutants of concern (of domestic and industrial origin) being introduced into the wastewater treatment facility; it is advantageous to observe the affect these pollutants have on the plant microbes. Respirometry provides a direct measurement of the respiration of the microorganisms in response to the presence of a pollutant of interest relative to a control. With the high costs and impact associated with wastewater facility upsets, it becomes highly economical and sensible to "do the homework" prior to the introduction of a new compound to the facility. Pretreatment coordinators presently do most of this homework prior to the discharge of a new compound from an industrial user. With the commercialization of respirometric testing and the development of the modern respirometer, assessments on the impacts



Bench Top Respirometer

EFFLUENT GUIDELINE UPDATE

The EPA is required to identify industries which may be discharging toxic or non-conventional pollutants on an on-going basis. Once identified, the EPA establishes national technology-based regulations for these industries. These regulations may apply standards for direct (discharge to surface waters) or indirect (discharge to the POTW) dischargers.

When the standards apply to indirect dischargers they are called pretreatment standards. In 2004, the EPA identified two new industries to consider for effluent guideline development: Drinking Water Treatment facilities (DWTF) and Airport Deicing Operations. For obvious reasons, this update will concentrate on DWTF.

Where is the Drinking Water Treatment rule now?

In February 2007, the EPA sent surveys to over 600 public water systems nation wide. The survey collects data on technical, financial, and environmental factors. Data will be used to determine if guidelines are warranted.

When should we know something?

September 2007 is EPA's deadline to make a decision.

What are possible actions EPA could take?

- Not to establish effluent guidelines
- Establish effluent guidelines for both direct and indirect dischargers
- Establish effluent guidelines for only direct dischargers

If your POTW is currently receiving wastewater from a DWFT, this is a rule worth following. Depending on ownership, there is the potential that your pretreatment program may be regulating your municipality or authority. For more information visit the EPA website at:

<http://www.epa.gov/waterscience/guide/dw/#survey>

EPA/FDEP TRI-STATE PRETREATMENT CONFERENCE

When: June 13 & 14
Where: Jacksonville, FL
Cost: **Free!**

Topics to be covered:

- Streamlining
- Application of Categorical Standards
 - Metal finishing
 - Metal forming
 - OCPSF
 - Transportation equipment cleaning
 - Centralized waste treatment
- Production based standards
- Pollution Prevention – CIUs
- Inspection Procedures

FIPA Social Event on the evening of June 13th at the Anheuser-Busch Brewery Hospitality room.

Registration documents can be found on the FIPA website: www.fipaonline.com

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of new compounds on the wastewater treatment facility biomass can be provided with a quick turnaround. Pretreatment assessments remove uncertainty and minimize assumptions regarding the affect of a new compound on the plant.

For example, an electronics company was preparing to introduce a new compound to the process wastewater effluent discharged to the local receiving facility due to changes in the manufacturing process. The company decided to test the treatability of this new compound with the POTW's biomass and influent via respirometry. A testing protocol was established whereby several concentrations of the new compound were tested with the mixed liquor suspended solids (MLSS) from the treatment plant. Figure 1 shows the results of the test.

As is illustrated in Figure 1, the increase in respiration corresponding with the increase in concentration of the compound indicated the microorganisms recognized the chemical compound as a substrate for growth. The new compound positively impacted the treatment respiration, with no apparent toxicity effect shown in the testing. The company had successful negotiations with the Pretreatment program due to a) the nature of the compound and its treatability characteristics and b) the willingness of the company

to provide an honest approach in proactively seeking out independent testing to determine the best route for handling the new waste stream in its process.

Perhaps respirometry testing offers even more assistance to the pretreatment coordinator when suspected toxicity or inhibition is suspected. Based upon the example in Figure 1, in a toxic result the respiration would decrease with increasing pollutant concentrations. Respirometry can also be useful in local limit evaluations to determine POTW specific inhibition levels when calculating allowable headworks loadings (AHL) for various pollutants of concern.

All in all with the advent of the modern respirometer, and the movement of the respirometer from the university setting to the more commercial setting, quick and cost-effective testing can be provided on the front-end of a potentially damaging discharge. Testing can be performed and reported in as little as 72 hours. All parties involved gain advantage from the proactive assessment by protecting their own interests and stockholders, and ultimately, the increasing demand placed on our finite water supply. As time and civilization move forward, the less we will be able to afford upsets and inefficiency in treatment processes.

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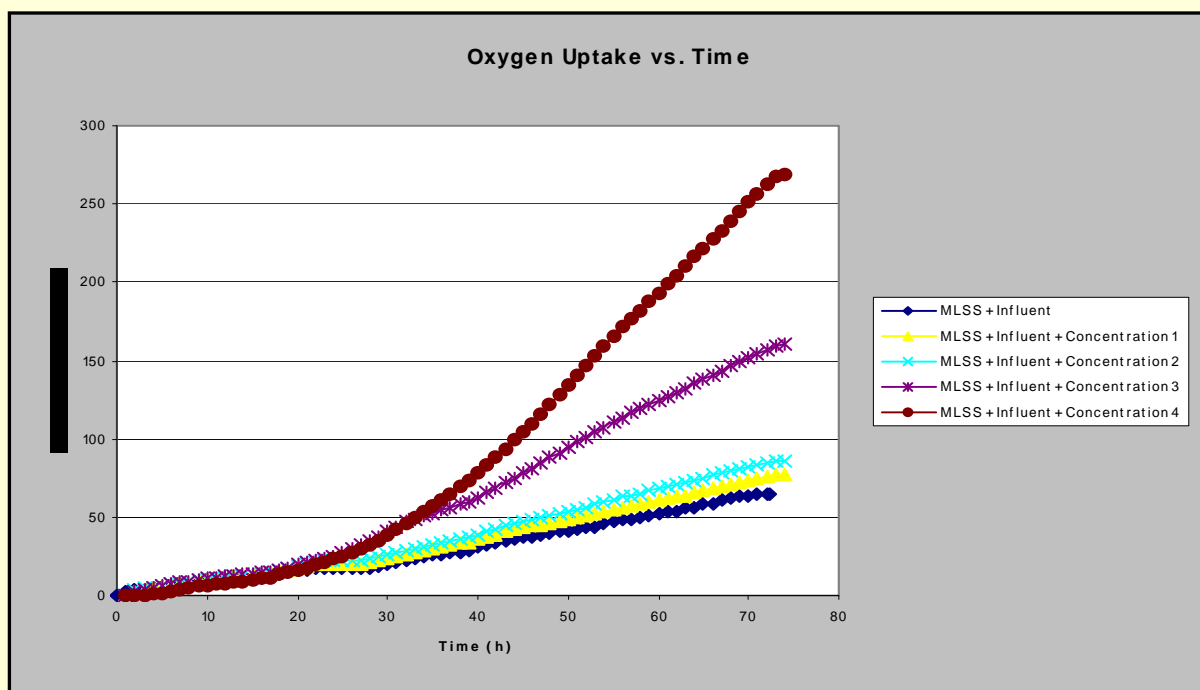


Figure 1-Oxygen Uptake Respirogram

Illustrating Impacts of industrial pollutants on treatment plant respiration through oxygen uptake