

# Pretreatment Communicator

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## **Department Notes**

Tom Shiflett, P.E. FDEP Pretreatment Coordinator



I am happy to announce that Andres Lastra has joined the pretreatment staff here in Tallahassee. Andres is replacing Randi Peddie and will be assuming responsibility for her programs. Andres recently received his Master's degree in Environmental Engineering from Florida State University. I wanted to let everyone know the two most recent EPA "Pretreatment 101" training webinars,

Overview Pretreatment Standards and Local Limits of now Development, are available at http://www.epa.gov/npdes/training. Since some program annual reports are due on February 1, 2012. I thought this would be a good time to discuss a few items. When submitting your annual report, please remember to include the signed pretreatment DMRs. Make sure to use the DMRs provided by the Department and do not modify the DMR. Your local DEP district office can provide you with the current pretreatment DMRs if you need them. Mail the annual report and DMRs to the pretreatment section in Tallahassee. The address is:

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# **Jawing About Mercury**

Where is EPA on Mercury?

By Kevin Shropshire, Environmental Specialist City of Orlando, Environmental Control Section



Dental Amalgam has been found to be a source of Mercury (Hg) in municipal

waste streams. As we learned from the Jacksonville

Electric Authority (JEA) representative at the May 2010 FIPA conference, possible dental amalgam regulations are in the future for EPA and FDEP. But how far along are they? Research into their websites reveals that EPA has planned on releasing effluent guidelines for the dental industry in 2011, effective 2012, but as of the date of this newsletter, EPA has yet to release said effluent guideline rules.

Currently in place is the December 2008, "Memorandum of Understanding (MOU) on Reducing Dental Amalgam Discharges," with the American Dental Association (ADA) and the National Association of Clean Water Agencies (NACWA). This program is to monitor the effectiveness of education & voluntary installation of dental amalgam removal devices. Both the ADA and NACWA websites have BMP listings for dental amalgam, these BMPs but are being followed? Times and Budgets are tight these days, and municipalities can only afford to enforce listed state & federal regulations.

Department Notes (cont from 1)

Florida Department of Environmental Protection Domestic Wastewater Section, Mail Station 3540 Bob Martinez Center 2600 Blair Stone Road Tallahassee, Florida 32399-2400

It is not necessary to send additional copies of the annual report or pretreatment DMRs to your local district office.

If you have questions about completing annual reports or your pretreatment program in general, please feel free to contact our pretreatment folks here in Tallahassee at (850) 245-8605The Department looks forward to working with you in 2012.

# Message from the President

#### FIPA is going to Hollywood!!!!!

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

By this time next year America will have completed another presidential election cycle. A little closer to home, FIPA held officer elections during the Fall Workshop in St. Augustine. The new board is the old board with the exception of the North Region Coordinator. You elected, Ms. Glabra Skipp of St. Augustine to fill the vacancy left by Linda Fielder.

I enjoy the satisfaction of organizing quality training events to meet the needs of



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# **Biodiesel By Products**

By Lex Wahl, Pretreatment Coordinator, Panama City



Many municipalities have adopted a fats, oils and grease programs to protect collection systems and prevent sanitary sewer overflows. You have heard of CORE, right? (FIPA's model Cooking Oil Recycling Effort.) This program, and others, are very well intentioned. On the surface recycling used cooking oil seems like a win-win program. Recycling keeps a good bit of fats, oil and grease out of wastewater collection systems ensuring that wastewater facilities are protected from products they cannot treat and all is well. Correct? Well, not so fast!!!

The purpose of this article is to address the primary application for which used cooking oil is collected, the production of bio-diesel fuel, and by products there from. Due to the escalating cost of petroleum based fuel biodiesel production has become in vogue both in large production facilities and as well as casual pastime for the backyard, do-ityourself mechanic. Bio-diesel is a renewable fuel that can be used in place of or in addition to petroleum based diesel fuel.

Bio-diesel manufacturing, in many cases, uses transesterification, which involves the mixing of natural vegetable oils or animal fats with an alcohol in the presence of a catalyst and is heated in a reactor (still) to produce biodiesel, and byproducts like glycerin.

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## **Mercury** (cont from 2)

A few cities, Jacksonville for example, have initiated a Best Management Practice (BMP) requirement for Dental facilities to go above & beyond the voluntary aspect and begin the regulated amalgam removal from their waste stream.

I have made contact with EPA in Washington D.C. and the proposed Dental Amalgam effluent guideline rule has been scheduled for release in the spring of 2012. I will update the organization when and if I receive any further updates from EPA. Until then, EPA encourages both dentists and dental students to employ the GRIT actions in their practices to prevent mercury pollution.

Directly from EPA's website:

The G.R.I.T. actions below highlight the American Dental Association's (ADA's) best management practices for amalgam waste.

- "G": Gray Bag It Discard amalgam wastes into a gray bag.
- "R": Recycle It Select a responsible dental amalgam recycler who can manage your waste amalgam safely from the list of recyclers below.
- "I": Install It Install an amalgam separator to capture up to 95% of the mercury going down the drain. This is the KEY to success.
- "T": Teach It Educate and train staff about the proper management of dental amalgam.

FDEP has their 2001 BMP for Scrap Dental Amalgam (2001) available online at: http://www.dep.state.fl.us/waste/quick\_topi cs/publications/shw/mercury/AmalgamBMPsB rochure.pdf.

EPA has their MUO available at: http://water.epa.gov/scitech/wastetech/gui de/dental/upload/2008\_12\_31\_guide\_dental\_ mou.pdf



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## Message from President (cont from 2)

FIPA members and member agencies. As we are in the beginning stages of planning the Spring FIPA event I am reminded it is not an easy job. Pressure builds in the last two before weeks everv certification course/workshop. Event organizers become frantic over all of the things that must be done. There are a lot of small details that when executed properly result in a smoothly operating program. That is what we strive for. We want each workshop/training course to be better than the last. We want to exceed your expectations every time. Save the date of April 13, 2012, for the Spring Workshop to be held in Hollywood, FL. More details will be posted on FIPA's web site as the final plans are made. Please email any round table questions that you would like to discussed at the workshop hear to fipasecretary@mail.com.

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## Wastewater Facility Spot Light-1

Panama City has two domestic wastewater facilities, St. Andrews and Millville

St. Andrews Wastewater Facility Spot Light:

Type of process,	Activated Sludge	
Maximum Design Flow Rate,	5 MGD	
Current Average Daily Flow Rate	e, 2.8 MGD	
Disinfection Process,	Chlorine	
Effluent Disposal,	Class III Marine	
(Surface water discharge, St, Andrews Bay)		
Residuals Dewatering Process,	Belt press	
Residual Disposal,	Land Application	
Quantity of Lift Stations,	119	
A Operators,	1	
B Operators,	2	
C Operators,	4	



#### **Biodiesel** (cont from 3)

According to Biodiesel Magazine the US glycerin market is overflowing. At one time glycerin fetched a price of 20 to 25 cents per pound. Thanks to biodiesel sellers are lucky to get 5 cents per pound for glycerin today.

There are a few other things you should know about glycerin. Although sometimes considered environmentally friendly and non-toxic a tremendous glycerin has biological oxygen demand. BOD concentrations of 4,500-to 35,000 mg/l have been observed. Glycerin acts as a Some plant operators surfactant. have reported poor clarifier performance as a result of the presence of glycerin. Due to the density and viscosity properties of glycerin WWFs may experience interference if enough glycerin finds its way into the collection system.

(Continues on page 5)

# Wastewater Facility Spot Light-2

Panama City's 2nd WWF, Millville

Millville Wastewater Facility Spot Light:

Type of process,	Activated Sludge
Maximum Design Flow Rate,	5 MGD
Current Average Daily Flow Rat	e, 2.2 MGD
Disinfection Process,	Ultra Violet
Effluent Disposal,	Class III Marine
(Surface water discharge, St, A	ndrews Bay)
Residuals Dewatering Process,	Belt press
Residual Disposal,	Land Application
Quantity of Lift Stations,	119
A Operators,	1
B Operators,	2
C Operators,	2



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# **Biodiesel** (cont from 4)

Operators that have been victimized by glycerin dumping complain of the inability to raise dissolved oxygen (DO) in the reactors during React/Fill cycles of Sequencing Batch Reactors and observe very little increase in DO during the React cycle. Operators also complain of a "white milky substance in the supernatant with some foaming." White, opaque coatings of film have been observed on the crystalline sleeves protecting Ultra Violet (UV) lamps which can render UV disinfection ineffective. The usual suspect, glycerin. Larger WWFs may never feel the effects of glycerin. Smaller plants like those featured under "Spot Light," are likely to feel the sting. 4

## Pretreatment Program Spot Light

City of Panama City Industrial Pretreatment Program Specifics:

Categorical Industrial Users	0
Non-categorical Industrial Users	0
Significant Industrial Users	2
Industrial Users	5
Full time program Employees	1

Status of adopting EPA's Streamlining Rule Change:

The City of Panama City is currently in the process of adopting EPA Streamline Rule Changes into the City's Sewer Use Ordinance.

Ordinance Specific Prohibition Changes: The City of Panama City has proposed the inclusion of glycerin as a specific prohibition in the City's Sewer Use Ordinance. The discharge of glycerin will be prohibited if approved by FDEP.



#### Message from President (cont from 4)

One area where I think we can focus more attention upon is that of including industrial users in our workshops. If you have noticed two industrial users spoke during the Fall Workshop. I believe that partnering with Industrial Users that are willing to participate in FIPA Workshops will make for more interesting topics of discussion and provide more meaningful and even entertaining presentations.

Remember that FIPA is your association. Workshop gatherings provide opportunities for you to network with your peers working in the same field as you. If you are struggling with some issue in your pretreatment program there is a good chance that someone else has struggled with a similar issue. Talk to others, explain your situation, and ask if they have ever dealt with this type of problem. FIPA brings everyone together to help one another!

I enjoy serving as FIPA President and being able to continue the great legacy of superior training, and environmental awareness that FIPA provides to environmental professionals. Thank you for your confidence and trust in me as President to operate the association in such a way to make it shine! I look forward to seeing everyone at the spring event in Hollywood.



#### **CORE Week**

CORE is excited to announce the first Semi-Annual Residential Cooking Oil Collection Competition!

The municipality that collects the most residential cooking oil during Environmental Education Week, April 15-21, 2012, will receive an award. The award will be presented to the winning municipality at a local Commission meeting. The winning municipality will also receive recognition at the Fall FIPA Workshop and two free workshop registrations. (Continues on page 6)

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#### **CORE Week** (cont from 5)

Submit your volume of used cooking oil collected during the week of April 15-21 to <u>fipasecretary@mail.com</u>. Volumes submitted must be received by April 25, 2012, in order to qualify for the competition. Resources are available to assist you with oil collection service providers in your area as well as guidance you can use to help you with setting up your event. CORE resources are available to you by visiting, <u>www.core.fipaonline.com</u>

# City Spot Light - Panama City

According to the city's website Panama City is operating its own cooking oil recycling effort geared for the production of biodiesel.

Panama City currently operates 8 used cooking oil recycling drop stations. The stations are located at:

1. Behind the old Bay County Library next to

#### City Hall

- 2. Texaco Station Junks Ave, & 23rd Street
- 3. Texaco Station Harrison Ave & 321
- 4. Texaco Station The Curve on Thomas Drive
- 5. College Texaco Station 15 St near G.C.C.C.
- 6. Bay County Health Department
- 7. Rege Hellets Auto Body 2014 W. 23rd Street
- 8. Panama City Generator and Alternator on

#### 11th Street



How the Panama City's Used Cooking Oil Recycling Program works:



1. Simply pick up an empty container from the top shelf of the Green Recycling Station.

2. Fill the container with used, "Plant Based Cooking Oil."

3. Bring your used cooking oil to a Green Recycling Station and place it on the bottom shelf.

4 Raise the recycling bar a notch by bringing your used cooking oil in the original container!

What are you waiting for? Start today. Just do it!

## TENTATIVE TRAINING DATES

- ✓ Industrial Pretreatment C B & A and FOG certification course dates, April 10 12, 2012
- ✓ Spring Workshop, Friday, April 13, 2012
- ✓ Location, South Florida (possibly Hollywood)