



# PRETREATMENT COMMUNICATOR

April 2006, Volume 11 Issue 1

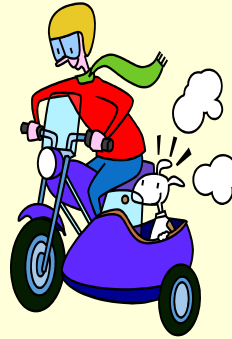
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## COORDINATOR'S DESK

Bob Heilman, P.E.  
FDEP Pretreatment Coordinator

We all know how the saying goes, "I've got some good and some bad news. I'll give you the bad news first so we can move right on to the better things.

It is with some sadness that I must report that **Marc Harris**, one of our pretreatment engineers, will be leaving the pretreatment program for a promotional opportunity. Marc has been with the pretreatment program for just over four years and has been instrumental in dealing with several important issues. One of the most notable tasks that Marc has taken on is the complete updating of the Local Limits Information Development System (LLIDS). Unfortunately, the release of the revised version of LLIDS had been delayed due to a number of reasons. However, Marc has assured me that the revised LLIDS will be complete within the next couple of weeks; maybe even before he officially takes on his new responsibilities on May 1. In any event, he will continue to be responsible for its completion and for any debugging after the LLIDS Beta testing is complete. We are very sorry to see Marc leave the pretreatment program, but we are happy for his promotion. Fortunately, Marc will still be with the Department and only one floor above if we need him. If you would like to congratulate Marc, or give him a piece of your mind for leaving ☺, I'm sure he'd be glad to hear from you. His email address will remain: [marc.harris@dep.state.fl.us](mailto:marc.harris@dep.state.fl.us). His pretreatment programs have been redistributed between Dawn Templin and Sam Jenkins. If Marc was the pretreatment contact for your program, please email me to find out who is your new DEP contact. Other news that was first thought to be good may not be as good as we originally thought. I'm referring to the recent "streamlining" revisions to 40 CFR 403. It appears that the revisions to the existing regulation may not have the significant administrative reduction that was intended. There are several sections of the regulation that were meant to reduce the administrative burden on the Control Authorities (CA), the Industrial Users, and the Approval Authorities. However, many of these perceived "improvements" to the regulation actually result in a fair amount of effort to get to the desired result. In fact, some of



the optional changes to the regulation require more work than leaving things status quo. Many of the revisions will cause a CA to rewrite several sections of its sewer use ordinance, enforcement response plan, and perhaps even the program implementation procedures. Some of these program modifications may be considered substantial program

modifications in accordance with Rule 62-625.540, F.A.C. This will not only impact your workload, but the Department's as well. Therefore, you should begin reviewing the revised regulation to determine which, if any, revisions would be in your particular best interest. As we revise the State rule to reflect the changes to the Federal regulation, we will want your feedback as to which of the optional revisions you would like in the State rule. We only have to adopt the required changes (Continued on page 3)

## GREASE INTERCEPTORS; GOING WITH THE FLOW

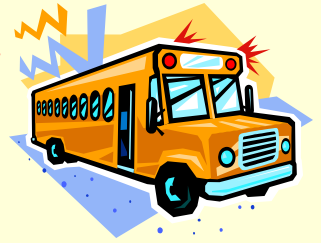
Janet DeBiasio  
City of St. Petersburg

Throw out the formula with the number of seats in a restaurant, hours of operation and whether the restaurants are located next to the highway, etc. as written in the Florida Plumbing Code. This is a misleading formula on the true and effective sizing of a grease removal device. Consider this example, a 200 seat restaurant located near a highway; open 18 hours per day, using china or a dishwasher would need a 5,600 gallon interceptor. If they used paper plates, the size would be 2,250 gallons for the interceptor. Using a flow-based formula, an 800 gallon size interceptor would be needed to effectively retain grease. There is a huge difference in size and cost between these two tanks.

So how does one know how to size and when to recommend a trap or an interceptor? First of all, the (Continued on page 3)

## TRAINING OPPORTUNITIES

April 25-28	WEF/EPA Introductory, Intermediate, and	Pittsburgh
July 11-14	Advanced IP Topics	Salt Lake City
	<a href="http://www.wef.org/ConferencesTraining/TrainingProfessionalDevelopment/Workshops/">http://www.wef.org/ConferencesTraining/TrainingProfessionalDevelopment/Workshops/</a>	
Sep. '06	FIPA Workshop	Tallahassee
	FIPA Voluntary C & B Certification Course	
Sep. '06	WEF FOG Management	Chicago
Oct. 4-6	NACWA IP Coordinator's & Pollution Prevention Workshop	New Orleans
	<a href="http://www.nacwa.org/meetings/">http://www.nacwa.org/meetings/</a>	



## A MESSAGE FROM THE PRESIDENT

Dan Parnell  
FIPA President



First, I'd like to thank **Andy Johnson** for his tremendous leadership as president of FIPA. Our association has grown greatly in the past two years.

We've hosted our first joint conference with a sister organization, the FWEA, and taken full reign of the Industrial Pretreatment voluntary certification program (both huge successes). As a matter of fact, the "C" class in Broward Co. in March had 38 participants and 38 newly certified Pretreatment professionals.

### **Congratulations to the inaugural class of FIPA U!**

Kassandra Barnes and her crew did a nice job of providing the facilities and refreshments for the first combined class and workshop. Hosting a meeting has now grown from a 1.5 day event to 4 days; accompanied by the additional coordination and stress. If you get a chance please thank our hosts at Broward Co. for their hard work. The coming year will provide more challenges

(hopefully none of these will deal with the weather) as we prepare for the next workshop/certification class in Tallahassee this September. Both the "B" and "C" courses will be offered, while the "A" course will be ready for the first workshop in 2007.

Help is always needed with curriculum development, classroom instruction, and the newsletter. FIPA is a member driven organization and we all benefit when members take active roles. I'm not trying to turn this into a "Ask not what FIPA can do for you, but what you can do for FIPA" moment, but I know that the quality of our organization is directly related to the level of participation of our members. Please pitch in to help when you can.

Starting in June, you'll see a new look to the FIPA website ([fipaonline.org](http://fipaonline.org)) as we move to a new webmaster. Thanks to **Walt Smyser** for his years of webmaster service.

## KEEPING YOUR COOL IN THE FLORIDA HEAT

Randall Greer  
City of Melbourne

One of the challenges of sampling in Florida is maintaining proper temperature (4°C) in automatic samplers when the ambient temperature starts to sizzle. Even filling the base of most portable samplers with as much ice as they can hold is no guarantee a complete meltdown will not occur before you return 24 hours later on a sweltering Summer day.

One easy and inexpensive way to maximize the "ice life" and maintain proper sample temperature is to insulate the sampler with a custom sampler solar blanket made from Reflectix® Insulation.

Reflectix® is basically a double layer of bubble wrap with (Continued on page 4)

## CONGRATULATIONS TO THE 2006-07 FIPA BOARD OF DIRECTORS

President:	Dan Parnell
Vice President:	Mark Mathis
Secretary:	Kim Oullette
Treasurer:	Kassandra Barnes
North Regional Coordinator:	Barbara Graham
Central Regional Coordinator:	Janet Debiasio
South Regional Coordinator:	Anthony Livio
Past President:	Andy Johnson

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@iea.com](mailto:parndp@iea.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



Typical under the sink trap

**(Coordinator, Continued from page 1)**

to be in compliance with our NPDES delegation agreement.

Does anyone have a facility making biodiesel yet in their service area? Well, if you don't you just may have one soon. We are getting a fair amount of inquiries about such facilities locating in Florida. If you do have such a facility, I have more bad news. We have had several discussions between other states, EPA regions and EPA head quarters regarding the classification of a biodiesel facility. Because this process involves a chemical reaction and not an extraction, the word we're getting is that it should be classified under 40 CFR 414, Organic Chemicals, Plastics and Synthetic Fibers ( the dreaded OCPSPF). While this is preliminary, it looks like EPA is convinced that this is the proper classification. Stay tuned.

Finally let's get to the good news. Congratulations are in order for a number of individuals in the industrial and pretreatment arena. Congratulations to **Mark Mathis** who is the recipient of the 2005 FWEA Albert B. Herndon Award for pretreatment and to **Khalid Hasna** from Arizona Chemical, Corp. who received the 2005 FWEA L. L. Hedgepeth Award for industrial operations. Please be thinking about the 2006 nominees for these awards which will be due by the end of the year.

I would also like to congratulate all the 2006 FIPA officers for their willingness to step forward to lead this organization. The Florida Industrial Pretreatment Association is becoming a formidable organization. It appears that FIPA has proven itself as an organization with a specific purpose and a desire to improve the pretreatment programs in Florida. I look forward to working with FIPA in the coming year to provide training and information to the pretreatment community. Finally, I want to congratulate **Dr. John Parnell**, for being the first recipient of the so named FIPA John Parnell Pretreatment Award. Without Dr. Parnell's dedication and tenacity to formalize the FIPA, we would still be a rather "rag tag" group of pretreatment folks without any real credibility. It's been my distinct pleasure to work with Dr. Parnell in formalizing this organization and we should all be grateful for the effort he put forth to get us on the map. Thanks John!

**(Flow, Continued from page 1)**

definitions of grease trap and grease interceptor provided by the International Plumbing Code (IPC) 2003 edition provide an easy distinction of when passive grease interceptors or traps are appropriate. It is based on flow rates. Flow rates >50 GPM a grease interceptor is used while small capacity trap may be used for rates <50 GPM.

**Calculate Flow Rate**

One needs to know the maximum expected flow rate of all fixtures where grease laden waste is expected to be discharged to a grease removal device (GRD). Using the Plumbing and Drainage Institute (PDI) criteria for flow rates, measure all sinks associated with the GRD and calculate capacity at 75% full. [I.E. Length X width X height X 0.75 = Max capacity.] Typically, a sink or fixture is seldom filled to capacity because dishes, pots and pans displace 25 percent of the water. Where dishwashers are used, determine what the GPM rating is and add it to the calculation. Keep in mind that hand sinks and mop sinks can be a major source of grease in the kitchen.

**Grease Interceptor**

If the flow rate is >50 GPM, then an interceptor is required and the next step is to determine the size of the interceptor. No flow control device is needed for interceptors but some jurisdictions have established retention times in city code. If a 24 minute retention time is desired, a 1,200 gallon tank is needed for 50 GPM flow rate. In Florida, the minimum interceptor allowed by FL Plumbing Code is 750 gallons, therefore if this size tank was installed for a 51 GPM flow rate, the retention time would be 15 minutes under these flow conditions.

Both the International Plumbing Code and the Florida Plumbing Code do not specify retention time, however; studies have shown that between 8 and 24 minutes retention time is needed to achieve the most separation of gray water when soaps and detergents are mixed with the (Continued on page 4)

**Congratulations to**

**Mark Mathis,  
Ft. Pierce Utilities  
For winning the 2005  
Albert B. Herndon Award  
and  
Khalid Hasna,  
Arizona Chemical Corp.  
For winning the 2005  
LL Hedgepeth Award**





(Flow, Continued from page 3)

### Retention Time

wastewater. Both PDI and the Florida Plumbing Code state that the minimum grease retention capacity for interceptors and traps shall be at least two times the flow-through rate. This means the retention capacity of the GRD is exceeded when the grease and solids is greater than 33% of the tank.

### Grease Trap

If flow rate is  $\leq 50$  GPM, then a trap is allowed and the sizing determined by manufacture's instructions, PDI or ASME criteria. Generally, a one minute retention time is the minimum limitation. In most cases this requires the use of a flow control device to achieve the proper flow thru rate for the size trap installed. For example, a 25 GPM/50 pound trap needs a 25 GPM flow control device. According to PDI the flow through rate or sink size capacity should not exceed 50 gallons in this example, as PDI has determined that the drain time would take longer than 2 minutes. Keep in mind, the grease would separate in the sink during that 2 minute period and kitchen staff would be frustrated by the slow drains. This often leads to staff removing the flow control device to increase the flow rate and decrease the drain time. Flow control devices are required with grease traps regardless of the flow rate because it controls surges, provides for air entrainment and prevents the retention time from being less than one minute. Air entrainment helps to accelerate the separation of the grease from the gray water.

### When size is a problem

In small kitchens with tight spaces however, it may not be possible to fit a full size trap under the sink. A smaller size trap may be used with a properly sized flow control device. The location of the flow control device is also particularly important when the trap is recessed in the floor, as any blockage occurring at the flow device could not be easily accessed for unclogging. Issues also become complicated when an existing FSF has a trap and the flow rate is greater than 50 GPM. Multiple traps can be used for each fixture.

### Who is responsible for sizing?

The Florida Plumbing Code gave the authority to the Plumbing Official to determine the size, location and type of GRD; therefore Grease Management Program inspectors do not make the determination on proper sizing of a GRD. The Grease Management Program's responsibility is to determine that the GRD is maintained and operated properly. If it is undersized, it can't be operated properly and the Grease Management Program staff will issue violations to the FSF until the violations are resolved by either increasing the cleaning frequency or increasing the size of the GRD. For more information regarding grease traps and interceptors, I highly recommend reading the International Plumbing Code Commentary 2003 edition, PDI's Guide to Grease Interceptors Eliminating the Mystery and the PDI G101 standard.



Insulated sampler: ready for take off!

### (Cool, Continued from page 2)

a reflective coating on each side. Depending on the mode of installation, this incredible product can block up to 97% of radiant heat. Blocking the radiant heat from the hot Florida sun is key to maintaining ice longer. Diagrams and plans are not required, just a roll of 48" x 25' Reflectix®, a roll of aluminum AC tape, and a pair of big scissors or a sharp knife.

1. Roll the Reflectix® around the sampler and overlap by about 3" and make a mark for a straight cut, or use the bubbles on the insulation as a guideline for cutting.
2. Cut the 'sampler cozy blank' from the roll of Reflectix® and form a loose ring around the sampler (you may wish to put padlocks on the hasps to provide a "working" sampler diameter).
3. Using 2 small pieces of the ac tape to hold the overlapped edges together, form a cylinder that can be easily slid on and off the sampler, but is not too loose.
4. Measure the diameter of the sampler cover and the amount of Reflectix® that extends above the sampler and trim your 'sampler cozy blank' so the height equals the sampler height plus about 80% of the diameter.
5. Place the 'sampler cozy blank' around the sampler and cut several slits in the top of the cylinder to facilitate folding the material over the top of the sampler (pretend you are wrapping a present). You can trim out some of the top pieces for better fitting/folding, but be sure to overlap the sections for better insulation.
6. Tape all the seams with the ac tape after you are satisfied with the fit of the sampler cozy and you are done.

Not only will your samples be cooler, the sampler now looks more like a space probe than a sampler (and you can dress it up with a NASA sticker and an old antenna for kicks.)

By the way, the scrap of Reflectix® you trimmed off can be fashioned into drink coolers for water bottles, or you can form a ring around the interior of the 4  
sampler base for even more insulation.