PRETREATMENT Communicator

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Coordinator's Desk

As of this writing, I haven't found a replacement for Gary Millington, who left this program in February. I have been doing "double duty" as a result of Gary's absence. To help relieve some of the demand on the program being short one inspector, I have asked Divina Ruiz to assist in some of the inspections/audits. Those programs where Divina and I have already been were very helpful and encouraging to Divina. Even after we find a replacement for Gary, we may continue to have Divina in the field more often. Don't be surprised if you find her at your door in the future.

In April, the State of Florida Pretreatment Program had the privilege of hosting the Annual Region IV/State Pretreatment Coordinator's Workshop. This year's workshop was attended only by EPA and the regulators from the other Region IV states, with the exception of Alabama and Mississippi. The main focus of the workshop was to exchange information and discuss how the states, as Approval Authorities, conduct oversight of their respective state approved pretreatment programs. It was a very informative and interesting meeting. We also had a presentation on the status of the Silver CMP in Jacksonville and a discussion on Florida's volunteer pretreatment certification program.

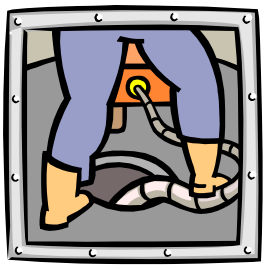
A representative of EPA Headquarters was also present at the workshop to discuss the current activities of EPA in Washington. As many of you already know, the pretreatment streamlining has been put on "temporary hold" so EPA personnel can decide on how to

(See **Coordinator**, page 4)

Grease ... Has it Slipped Through the Cracks?

by Bob Heilman
Florida Department of Environmental Protection

Grease from restaurants and other food processing facilities has been a problem for wastewater utilities for many years. As grease coagulates and congeals in collection systems and lift stations, the effectiveness of the collection system is reduced. To control the discharge of grease from various establishments, either grease traps or interceptors have been installed on the sewer lateral leaving the facility. Unfortunately, many of the grease collection devices have been severely undersized or inadequately maintained, resulting in direct discharge of grease into the municipal collections system. Sewers with minimal slope or small lift stations are often the first to experience problems due to grease blockages or clogs. Blockages in the sewers or pump failures in lift stations, due to grease accumulation, often result in sanitary sewer overflows (SSOs). These SSOs can have adverse effects on human health, aquatic life, or the environment.



This article discusses what is being done to regulate or control the grease discharges to public utilities and what may need to be done to gain control of the problem.

AGENCY RESPONSE

The auditing of collection systems have shown varying levels of controls are implemented across the nation to deal with this problem. One obvious solution is to properly size and maintain the grease traps and interceptors. However, historically these devices have not been regulated by any specific entity, so the design specifications are often left up to the local utilities and vary from municipality to municipality. Note, the

Florida Department of Health (DOH) does have specific requirements for the sizing of grease traps and interceptors connected to on-site sewage disposal systems. State regulatory agencies do not always have authority to enforce the proper preventative maintenance of these units. The high profile of the grease problem has caused many groups to begin looking at what can be done to control the situation.

Wastewater Utility Response

Utilities control the grease discharges to their collection through various methods. Grease control can be either reactive or proactive. Those reactive programs respond to instances of pump station clogs, sewer blockages, or sewage backup. Grease may accumulate until it backs up into the generator's facility or the utility may identify the facility as the cause of a problem in the collection system. Many times these are the only reasons the trap or interceptor is pumped. The facility causing the problem can be billed for the services to clean and repair the lift station or sewer to recoup the utilities' cost.

Several utilities require regular maintenance of grease removal appurtenances. There are many variations of this proactive approach. Some utilities specify a frequency for cleaning. Some have regular inspection programs and require pumping based on the trap's condition. Some leave it up to the owner to determine the frequency but require that pumping logs or records be kept at the facility. Still others issue permits and require regular sampling and monitoring of the discharge from the trap to determine compliance with local discharge limitations. The essence of a proactive approach is developing an enforceable sewer use or grease trap ordinance that has "teeth" in it to ensure compliance. More public utilities are developing this key element to gain control of the grease discharge problem.

Many utilities have also instituted a "surcharge program" for the treatment of high strength wastewater. When a grease trap is not properly maintained, its discharge usually contains a high biochemical oxygen demand (BOD) and a high total suspended solids (TSS) concentration. Both BOD and TSS are typical surcharge parameters. Therefore, the facility with a trap in need of maintenance, located in an area with a surcharge program, may be billed for its wastewater strength above the normal domestic levels. The surcharge program can be an effective incentive for facilities to adequately maintain their traps to reduce their monthly sewer billing.

Federal Response

The Environmental Protection Agency (EPA) Region IV office, in conjunction with the Water Environment Federation, has developed a grease control training program. The training program is tailored for each municipality, depending on the extent of the grease problem, and emphasizes several options to control oil and grease (O&G), including enforcement of local limits and proper interceptor sizing, developing maintenance programs for the industrial users, public education programs, or a combination of these activities. Any grease control strategy should be implemented under the umbrella of the pretreatment program. The training stresses good communication between the municipality's pretreatment, wastewater operation, and collection system staffs to determine the magnitude and options to address the grease problem.

The new "SSO Rule," by EPA, anticipated for proposal in May 2000, will accelerate the grease control program by requiring Capacity, Management, Operation and Maintenance (CMOM) plans for proper collection system management and maintenance. The plans require public utilities with surface water discharges to have adequate staff, adequate legal authority, sufficient monitoring programs, proper maintenance programs, emergency response plans, and capacity evaluation and assurance plans to reduce or eliminate SSOs.

State Response

The Florida Department of Environmental Protection (FDEP) Pretreatment Program has also been concerned with the regulation of grease. A "Grease Survey" was developed and sent to all of Florida's approved pretreatment programs, via the January 2000 issue of the *Pretreatment Communicator*. The survey included several questions about what the control authorities were doing to control the grease discharges into their collection systems. The results of the survey have been tabulated and are available upon request. Although many pretreatment programs have O&G local limits, very few programs enforce them consistently.

The FDEP has also selected the grease issue as one of its environmental problem solving candidates. A committee is being formed to consider the options of controlling the grease discharge problem in an effort to reduce the SSO problem. However, this may prove to be redundant, due to the activities already discussed as well as the activities outlined below.

The State of Florida Building Commission is currently rewriting the Florida Building Code. A specific section of the building code is dedicated to the sizing of grease traps and interceptors. Additionally, a Plumbing/Gas Technical Advisory Committee (TAC) is considering requiring a statewide maintenance program for grease traps and interceptors. However, it is not clear who would enforce those requirements.

Recently a FDEP representative attended the Florida Building Commission Plumbing/Gas TAC meeting. The FDEP representative discussed its current regulation of grease discharges. The FDEP does not have direct authority to regulate the discharge of grease, other than through the prohibited discharge standards in Chapters 62-604 and 62-625, Florida Administrative Code. The prohibitions essentially state that no solid or viscous substances that would cause a blockage in any component of the wastewater system may be discharged. The FDEP's authority is limited to permitting collection systems within the public right-of-way. There appears to be no statutory authority for the FDEP to regulate grease traps on private property.

Other regulatory agencies present at the Florida Building Commission meeting have similar limitations. The Department of Health (DOH) has authority to regulate grease traps and interceptors associated with on-site sewage disposal systems only. The Department of Business and Professional Regulation (DBPR) checks to see if restaurants have grease traps or interceptors, but does not check the condition. If there is an obvious backup into the facility or a complaint, the DBPR can order the facility closed until the problem is corrected, but can't require the trap or interceptor to be pumped out. Health concerns are referred to DOH. The Department of Agriculture and Consumer Services (DACS) has no authority over grease traps or interceptors either. The DACS investigates complaints from consumers about facilities to protect the public. Typically complaints about wastewater discharges or related problems are forwarded to other state agencies for follow-up.

An ad hoc committee of the Plumbing/Gas TAC has been formed consisting of the above state agencies and chaired by a member of the TAC. The purpose of the committee is to further evaluate the various agency legal authorities and to develop optional grease control strategies. There are no final recommendations from this committee yet.

SUMMARY

Clearly, the discharge of O&G to a public utility collection system is a problem in some service areas. Many agencies are concerned about the problem and are evaluating options to deal with the problem. Some immediate issues that have already been discussed include

incorporation of uniform sizing criteria for grease traps and interceptors as part of the Florida Building Code to ensure proper design, and development of model grease trap ordinance language to ensure proper operation and maintenance. The Federal government is proposing regulations to protect certain types of collection systems from excess flows and to ensure proper maintenance.

However, several issues have not been fully evaluated and will need to be addressed. One major concern is whether the legal authority to require proper maintenance of grease traps should reside at the state or the local level. Another issue, yet to be adequately addressed, is the final disposal of the grease trap waste. Currently, few public utilities allow disposal of grease trap waste into components of its wastewater treatment plants. There are even fewer private/commercial grease treatment facilities in Florida. Land disposal is prohibited, unless the grease is mixed and treated in adequate proportions with domestic septage. Again, there are not enough septage treatment facilities to handle the volume of grease as more traps are being mandated to be properly maintained. These issues will also have to be considered before any final decisions are made on how to prevent the grease from slipping through the cracks. Q

Coordinator ... (continued from page 1)

deal with the Sanitary Sewer Overflow (SSO) and Total Maximum Daily Load (TMDL) issues. Don't look for any relief from the existing pretreatment requirements soon. The soonest the regulation may be proposed final will be September 2001. It also doesn't appear that the final regulation will be any different than what was last published. Finally on this topic, the Florida Department of Environmental Protection will not modify Chapter 62-625, F.A.C., until the federal regulations are promulgated.

As you have probably already read elsewhere in this newsletter, the issue of oil & grease is a prominent topic at several levels of government. Results of the Department's grease survey have been tabulated and are available upon request. It appears there is little uniformity among the approved pretreatment programs when it comes to grease control. This is not too surprising, since there are currently no statewide standards to regulate the sizing or maintenance of traps and interceptors. I am in favor of establishing statewide design criteria for grease appurtenances in the Florida Building Code. I also feel that most of the programs that realize they have a grease problem are reacting to the issue by either implementing a formal control program or by dealing with the problems as they occur. I think the regulation of O&G should be left up to the municipality to handle the problem the way they see fit. If there are continuing problems with SSOs, and nothing is done by the utility to prevent them, then I feel the FDEP or FDOH should step in and through an enforcement action, require a proactive approach by the public utility.

I'd like to hear your thoughts on this issue, Email would be fine. As stated in the grease article in this newsletter, I will be representing the Department on an ad hoc committee dealing with the O&G issue as part of the Florida Building Code. Any information on the best regulation of O&G would be appreciated. I look forward to hearing from you.

Please plan to attend the next Florida Coordinator's Workshop in St. Petersburg on June 9. The topic will be on criminal enforcement of violators, particularly waste haulers. Two of the speakers will be from the EPA Criminal Investigation Division in Miami. I've heard one of these gentlemen speak before and if you come to the meeting you won't be disappointed.

On a final note, I must again stress the importance of the formal organization of the Florida Pretreatment Coordinators. Without a formal board or cadre of officers who can organize, plan, and fund future meetings, interest and attendance at meetings are dropping. To effectively organize good quality training, we need a contact person(s) to handle some of the details necessary for either major or minor conferences/workshops. This organization is important for disseminating information and providing training. If you are interested in being a contact person, please let John Parnell know. Thanks to all who have graciously volunteered in the past to plan and organize workshops and training. I look forward to continuing to work with you.

Robert E. Heilman

Quick Quiz ...

1. What are the four general criteria for identifying a significant industrial user?
   A.
   B.
   C.
   D.

2. A POTW that receives hazardous waste can be considered a hazardous waste generator under RCRA.
   A. True
   B. False

3. Once adopted in a sewer use ordinance, local effluent limits become federal pretreatment standards that may be enforced by EPA and any interested citizen(s).
   A. True
   B. False

4. The general and specific discharge prohibitions apply only to categorical industries.
   A. True
   B. False

5. The total toxic organics (TTO) regulated by the categorical pretreatment standards are the same set of compounds for all categories that have a TTO standard.
   A. True
   B. False

6. A categorical industry discharging all its regulated wastes to a tank that is not connected to the sanitary sewer and is routinely pumped out and hauled away by a hazardous waste hauler is still required to conduct monitoring to determine compliance with pretreatment standards.
   A. True
   B. False

7. What is the minimum reporting frequency required for categorical industrial users?
   A. 2/year
   B. 1/year
   C. 4/year
   D. whatever the control authority imposes

8. Any industrial user must be notified at least 3 days prior to any inspection.
   A. True
   B. False

9. Best Management Practices (BMP) consisting of special permit conditions requiring good housekeeping and preventive maintenance measures may be imposed on IUs in lieu of numeric effluent limits.
   A. True
   B. False

10. An industry that exceeds its categorical limits for a specific metal and does so due to high concentration of the metal in the IU's intake water is still in violation of the categorical standard.
    A. True
    B. False

Answers: 1) 5% of the POTW flow or 25,000 gpd; causes interference with the POTW treatment system; causes pass through of pollutant; categorical industry; 2) A; 3) A; 4) B; 5) B; 6) B; 7) A; 8) B; 9) B; 10) A.

How many questions did you answer correctly?

Technical Tips

Influent and Effluent Sampling at Wastewater Facilities

Provided by Kalina Warren, FDEP Orlando District
Written by Orlando District
Problem Solving Team "Lab ART"

Note: These sampling procedures are provided assuming that extractable organics, and/or volatile organic compound samples will not be collected. See DEP - QA-001/92 Chapter 4.0 for specific requirements for organic samples.

GRAB SAMPLES

- Obtain the sampling kit containing the bottles, chain of custody forms and additional preservatives from the laboratory.
- Gather sampling equipment. The equipment can be made of plastic, glass, teflon, or stainless steel.
- Before sample collection clean all sampling equipment with a brush using hot water and Liquinox soap. Rinse thoroughly with tap water three to four times. Rinse with a 10-15% reagent grade hydrochloric acid. Do not use a nitric acid rinse if analyzing for nitrate or nitrogen compounds. Stainless steel equipment should not be rinsed in acid. Use analyte free water for the final rinse [most commonly used is de-ionized (DI) water]. An alcohol rinse is not necessary.
  DO NOT USE BLEACH FOR CLEANING PURPOSES.

- Disposable gloves are recommended for sample collection to protect personnel who collect the samples and to assure the integrity of the samples. Disposable gloves should be changed at each sampling location.
- Determine the correct location for sample collection. This is usually described in the permit for the facility. If there are questions about a representative sampling location, contact the wastewater compliance section at the local Department of Environmental Protection office, if applicable.
- Grab samples should be collected directly into the sample bottles whenever possible, particularly for fecal coliform.
  NOTE: Bottles with preservatives are the exception (see below). Rinse the sampling container with effluent except for fecal coliform samples. Pour the contents of the container downstream of the sampling locations. Collect the sample directly into the unpreserved container by submerging the container, top first, into the effluent. Point top of the bottle into the flow. After filling, pour out a few milliliters of sample to allow for air space for expansion, sample preservation, and mixing.
- If access to the sampling location is restricted, secure the bottle to a pole using a clip or other device and collect the sample directly into the bottle.
- Fecal coliform sample collection requires extra care. Make sure that sodium thiosulfate pill is not lost during sample collection.
- If collection directly into the bottle is not possible, an intermediate container may be used. The container must be thoroughly cleaned using the same procedures as for other sampling equipment. The container must be rinsed several times in the sample water. If the container is used for more than one sampling location and no metals and/or organics are being sampled, the container should be rinsed with tap water between sampling points. At the next sampling location rinse the container several times in the sample water.

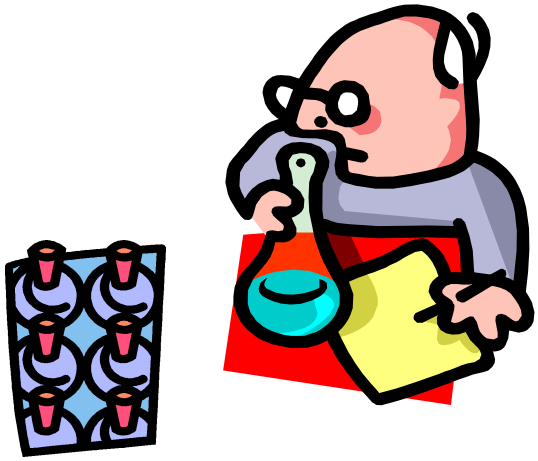
- Bottles with preservatives should be filled from an intermediate container so none of the preservative will be lost.
- Preservatives should be checked with narrow range pH paper to confirm that the samples are correctly preserved. Shake bottle thoroughly before performing the pH check. Do not dip the pH paper directly into the sampling container. Sample water may be poured directly onto the pH paper or a small amount of the sample can be poured into another container to check the pH. The small amount of the sample should be discarded after checking the pH.
- Keep the samples packed on ice for delivery to the laboratory.

AUTOMATIC SAMPLERS

- Obtain the sampling kit containing the bottles, chain of custody forms and additional preservatives from the laboratory.
- The exterior and accessible interior portions of the automatic sampler should be washed with Liquinox soap and rinsed with tap water.
- All tubing should be visually checked. Tubing that has become discolored or has lost its elasticity should be changed. New pump tubing should be installed.
- If existing tubing is used, clean by flushing with hot water and Liquinox soap. Rinse with hot tap water. Then rinse with analyte free water. Re-install the tubing and cap both ends with aluminum foil.
- Disposable gloves are recommended for assembly of the unit at the sampling location and for dis-assembly to protect personnel who collect the samples and to assure the integrity of the samples. Disposable gloves should be changed at each sampling location.
- Check the permit for the facility to determine if samples are to be collected according to time or flow proportioned composite samples.
- A minimum of 100 milliliters should be collected each time the unit activates.
- Pack ice inside and around the sampler or set refrigerated units to 4 degrees Celsius.
- Collection line tubing should not be resting on the bottom or against the walls of the tank. Place the tubing in the turbulent zone. For influent samples, return sludge or other influences should not affect the sample.
- Check the timing and delivery of the automatic sampler by setting the unit for start up a few minutes later and use a graduated cylinder to measure the amount collected.
- For both influent and effluent samples, the automatic sampler purges the line each time samples are collected. Make sure the line does not contain any low areas where residuals would be retained in the line between sample collections.

For additional information please see DEP – QA-001/92 Standard Operating Procedures for Laboratory Operations and Sample Collection Activities or visit web site:

www.dep.state.fl.us/labs/libintro.htm G



Announcements and Rer

Industrial Wastewater Treatment and Pretreatment Seminar

The Industrial Waste Committee of the Kentucky-Tennessee Water Environment Association is proud to sponsor this seminar on industrial wastewater treatment/pretreatment at the Maxwell House Hotel in Nashville, Tennessee. The agenda is as follows:

August 16, 2000

Session Leader: Chuck Durham, Tennessee Department of Environment and Conservation

10:00 Seminar Overview
10:15 Municipal Issues
11:00 Pretreatment Requirements
11:45 Break for Lunch

Session Leader: Dr. Larry Moore, University of Memphis

1:00 Pretreatment for Metal Finishing/ Metal Products and Machinery
1:40 Sources and Behavior of Heavy Metals in Industrial Wastewater
2:30 Break
2:50 Treatment of Metals by Hydroxide Precipitation
3:20 Overcoming Effects of Chelating/ Complexing Agents
4:00 Solids Removal - Sedimentation and Filtration
4:30 Ion Exchange and Membrane Processes

August 17, 2000

Session Leader: Dr. Wesley Eckenfelder, Brown and Caldwell

8:00 Overview of Biological Treatment of Industrial Wastes
8:30 Principals of Biological Oxidation
9:00 Aerated Lagoons
9:40 Break
10:00 Activated Sludge Processes
12:00 Adjourn

Contact Person: Chuck Durham, (615) 532-0638

Local Limits Guidance Manual Update

An EPA workgroup is in the editing stages of the final draft of the guidance manual for developing and implementing technically-based local sewer discharge limits. The anticipated distribution date for limited stakeholder peer review and comment is September 2000. Due to logistical and practical concerns, the distribution will be restricted to only those entities that have expressed a strong interest and a commitment to provide an in-depth and timely review of the manual. The anticipated publishing date of the guidance manual is Spring/Summer 2001.

Florida Society of Environmental Analysts Upcoming Events

May 24-25 Spring Meeting, St. Petersburg Beach

June 19-23 FSEA Short School, University of South Florida

June 17-21 FSEA Accreditation, University of South Florida

August 7-11 Florida Water & Pollution Control Operators Association Short School, Brevard Community College

Contact Person: Paul Salerno, (904) 756-5416

Pretreatment Coordinators Meeting

The City of St. Petersburg and Pinellas County are hosting the next Florida Pretreatment Coordinators Meeting on June 9, 2000, in St. Petersburg. Agenda items include presentations on criminal enforcement actions, private sewer systems, and metal finishing. The meeting will take place following the P2 conference in Clearwater, so please plan to stay an extra day in the beautiful suncoast area if you attend that conference.

Contact Person: Phillip Bramlage, (727) 582-2282

Regulatory Upc

Metal Products and Machinery (MP&M) Categorical Pretreatment Standards - EPA is developing effluent limitation guidelines for facilities that generate wastewater while processing metal parts, metal products, and machinery, including manufacture, assembly, rebuilding, repair, and maintenance. Seven groups were covered in the May 30, 1995, Phase I proposal (60 FR 28209-28278): aircraft, aerospace, hardware, ordnance, stationary industrial equipment, mobile industrial equipment, and electronic equipment. EPA is currently developing a new proposed rule to cover Phase I and Phase II facilities in the category. Additional industrial groups to be included are: bus and truck, household equipment, instruments, motor vehicles, office machines, precious metals and jewelry, railroads, job shops, printed circuit boards, and ships and boats. This new proposal is scheduled for signature in October 2000.

Copies of the Phase I Proposed Rule (60 FR 28209-28278) and ordering information for supporting documents can be found at the following website:

http://www.epa.gov/OST/guide/related/metalprod.html

Pretreatment Communicator
Newsletter Survey

We want to know what you think of this newsletter! Please fill out this survey and fax or mail it to us. The editor would very much appreciate your input. Our fax number is (850) 921-6385 and our address is on the back. Thanks!

1) What articles in past newsletters have been helpful, useful, or most interesting?

2) What topics would you like to see in future newsletters?

3) Do you have any articles or information you would like to contribute to the newsletter? (I hope your answer is YES - we need some writers.)

4) What sections of the newsletter do you like the most/least, i.e., coordinator's desk, main feature articles, quick quiz, technical tips, regulatory update, pretreatment program activities, etc. ?

5) What do you think of the format and appearance of the newsletter, i.e., arrangement, organization, font size - easy/hard on the eyes, color, needs more/less pictures, etc. ?

6) Please comment on the overall content of the newsletter.

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The **Pretreatment Communicator** encourages participation from its readers and any other individuals interested in pretreatment in the State of Florida. Please submit your letters, information, or articles to Pretreatment Communicator, Domestic Wastewater Section, Florida Department of Environmental Protection, 2600 Blair Stone Road MS 3540, Tallahassee, Florida 32399-2400. The **Pretreatment Communicator** reserves full editorial rights to all submissions.

Anyone with questions or comments about this newsletter or wanting to be included on the mailing list should contact the pretreatment program staff at the above address or at (850) 488-4524. The Department of Environmental Protection 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 the Department.

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